

# LIGHT INFORMATION 2016

NEW PRODUCTS LIGHT+BUILDING 2016

## light+building 2016: Record visitor numbers for RZB

A phenomenal 10% increase in visitor numbers to the main RZB stand compared with 2014 was a further boost to the popularity of the Bamberg-based RZB Group at the trade fair. This meant that RZB surpassed by far the overall increase in visitor numbers recorded by the light+building trade fair in Frankfurt, which drew to a close on 18 March with an increase of 2.3% in the total number of visitors. Over the course of the six-day trade fair, around 216,000 professional visitors from 160 countries saw innovations from a total of 2,589 exhibitors from 55 countries at the world's leading lighting trade fair.

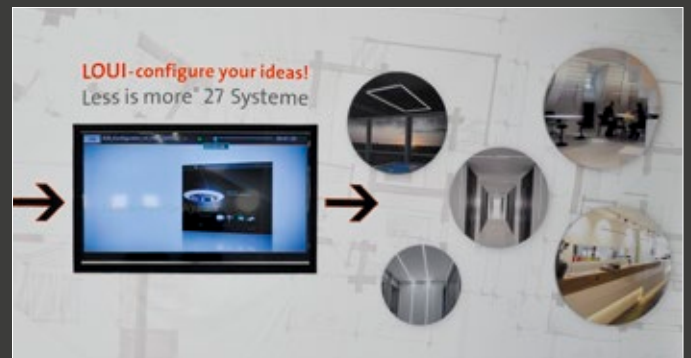
The RZB motto SMART TECHNOLOGY in combination with EXCELLENT DESIGN was perfectly suited to this year's mission statement for light + building: Smart lighting solutions and modern design are the foundation for enhancing quality of life. The guiding principle behind light + building 2016 was therefore "digital – individual– networked".



Have you had a chance to find out about LOUI?

Our easy-to-use configurator LOUI will make your future creative planning of the linear LESS IS MORE® 27 system easy, quick and cost-efficient - with immediate price information, material composition and DXF format drawing included!

We would like to thank our customers and business partners for their interest in visiting us at the trade fair and for plenty of inspiring discussions. We look forward to working on your new projects and will be happy to support you with advice, easy to install products and innovative lighting solutions!



## HIGHLIGHTS 2016

### Indoor lighting



Industrial

Ralite® Highbay II HT | Page 54



Living

Flat Polymero® Kreis Superslim | Page 24

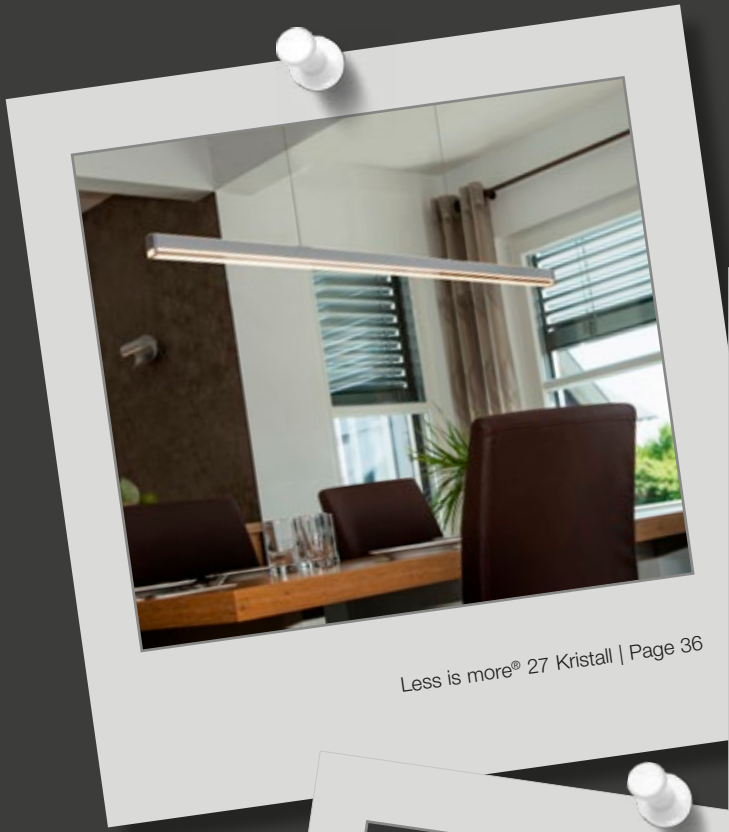


Office

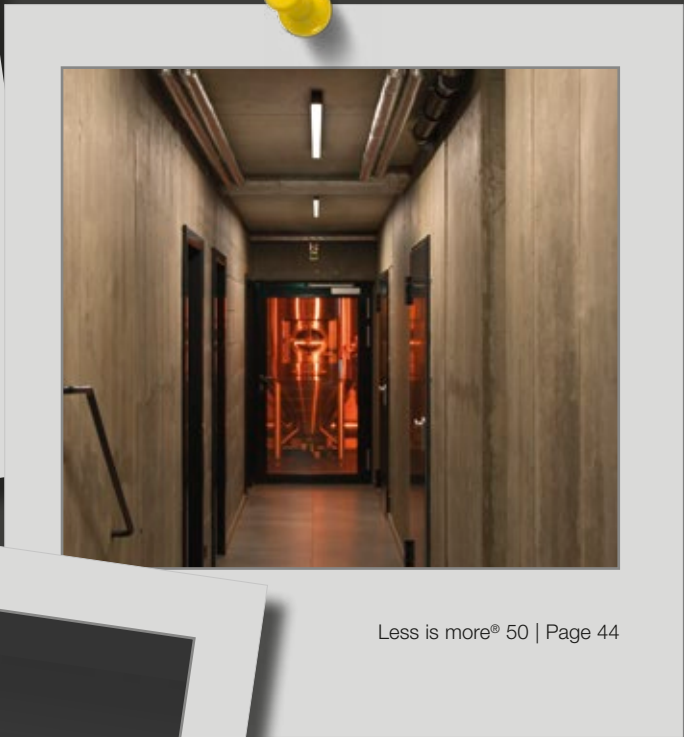
Sidelite® ECO | Page 34

HIGHLIGHTS 2016

Indoor lighting



Less is more® 27 Kristall | Page 36



Less is more® 50 | Page 44



Less is more® 27 Systems | Page 38-43

## HIGHLIGHTS 2016

### Outdoor lighting



Gonia and Laruta | Page 100, 102



**HIGHLIGHTS 2016**

Emergency lighting



GSUN® S | Page 106



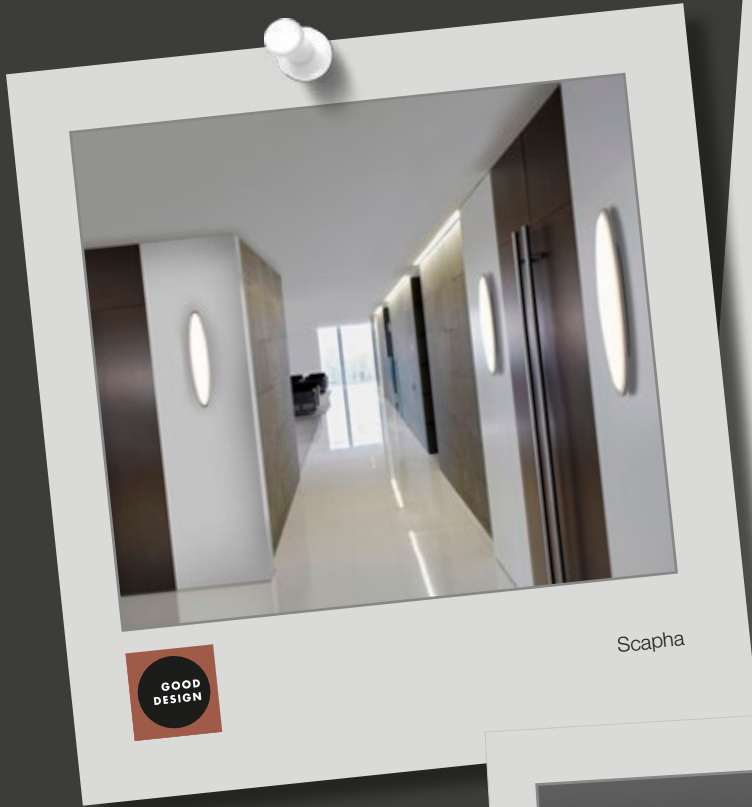
Lucio HP | Page 108



Edo | Page 110

COMING SOON

September 2016



Scapha



Toledo Flat 500



Toledo Flat lay in

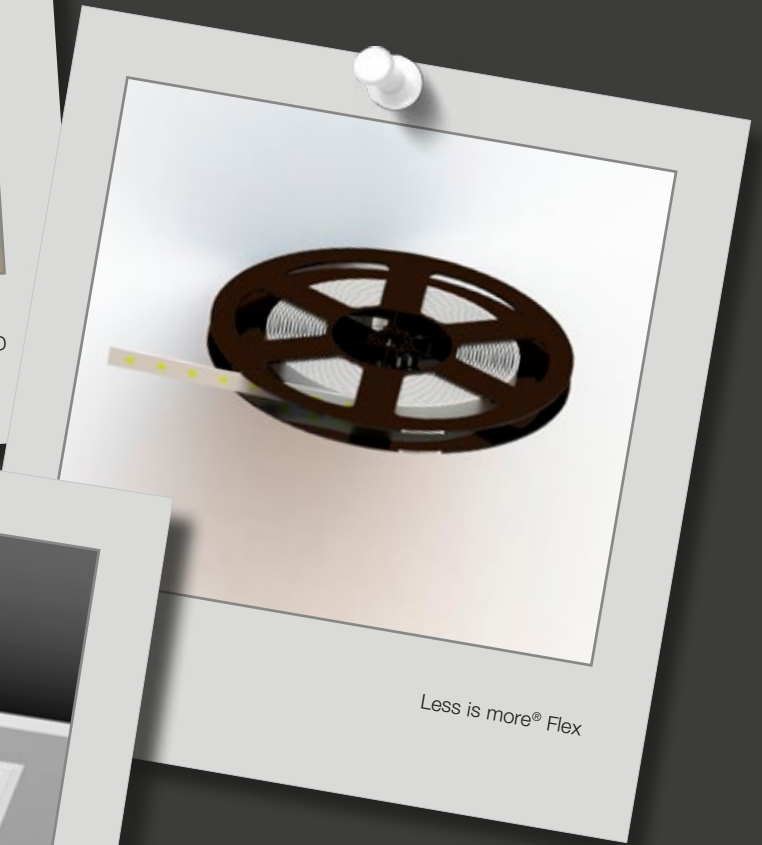


COMING SOON

September 2016



Basic Ball LED



Less is more® Flex



Sidelite® ECO + Emergency lighting

## Digital Media



Thanks to the linkage of QR codes with our new online catalogue, you can now obtain complete information on any given series of luminaires using your smartphone, which allows you to access our digital online database.

Social Media ▼



You can also visit us on:  
Facebook, Twitter, LinkedIn, Youtube, Xing,  
Google+ and Pinterest

### ▼ RZB Newsletter

You can obtain the latest information about our products by e-mail.

**Guten Tag,**

gäbe es ein Newsletter-Tool mit Trommelwirbel-Funktion... wir hätten es eigens für diese Ausgabe gekauft. Mit **PLANOX ECO** stellen wir Ihnen heute nämlich eine kleine Revolution vor: Die innovativste LED-Fauchtraumleuchte Ihrer Art.

**PLANOX ECO** ist der hocheffiziente 1:1 Ersatz für konventionell bestückte Leuchten bis 2 x 58 Wtt. So klappt der Austausch „Alt gegen Neu“ und der Umstieg auf LED-Technologie mit geringstmöglichem Aufwand.

Unten stehend finden Sie die wichtigsten Merkmale der Leuchte auf einen Blick. Mit jeweils nur einem Mausklick gelangen Sie anschließend zum Produktvideo, zur Broschüre oder zu den technischen Details.

Wir sind wie immer sehr gespannt auf Ihr Feedback zum Produkt und gerne für Ihre Fragen da!

Ihr RZB-Team

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» **PLANOX ECO**

**Ja. Sie ist anders als die anderen.**  
**PLANOX ECO. Die innovativste LED-Fauchtraumleuchte Ihrer Art:**

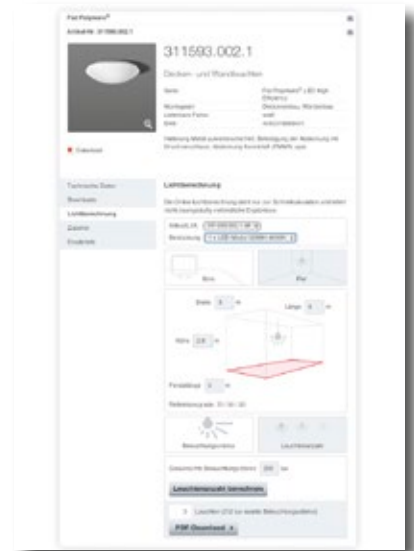
- » Schlanker und flacher als vergleichbare Leuchten
- » Beliebig platzierbar dank Profinnut mit frei beweglichen Montageclips über die gesamte Leuchtlänge
- » Serienmäßige Durchgangsverdrahtung für weitere Leuchten
- » Beidseitige Kabelinstallation durch Drehverschluss
- » Diffusor aus stoß- und bruchstärkerem Polycarbonat
- » Sehr attraktives Preis-Leistungs-Verhältnis

Erfahren Sie mehr

- » [Broschüre](#)
- » [Video](#)
- » [zum Produkt](#)

**PLANOX ECO**  
Die innovativste LED-Fauchtraumleuchte Ihrer Art.

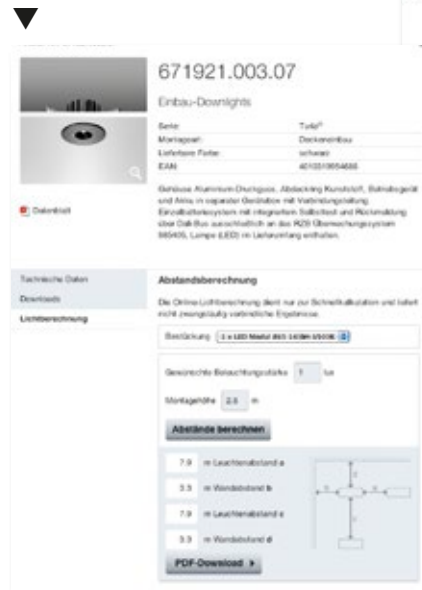
Lighting analysis for general lighting



Lighting designs

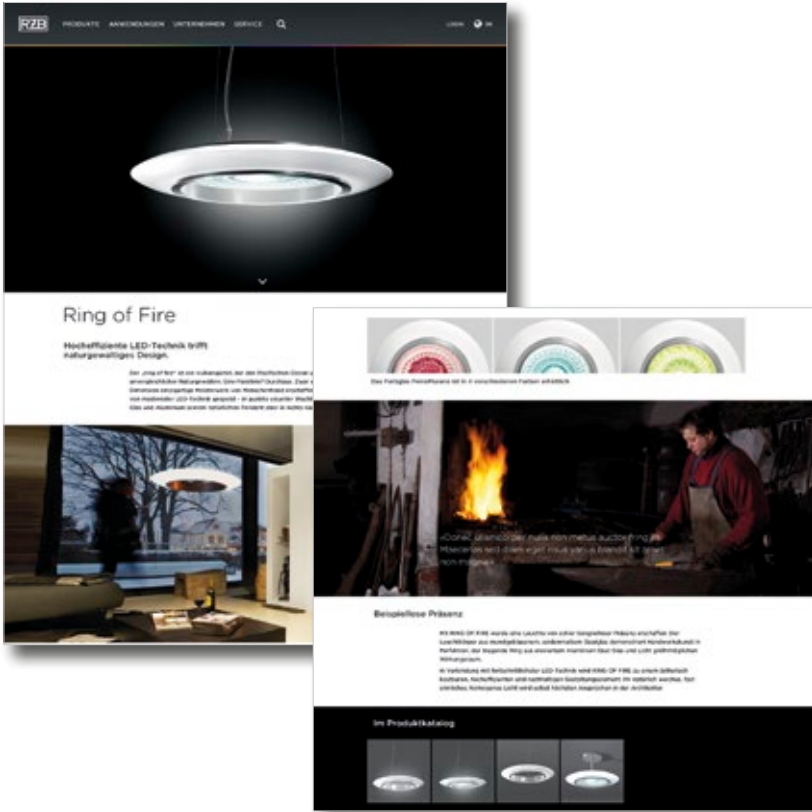
A quick calculation for different luminaire types is possible in our online catalogue

Lighting analysis for safety luminaires



Lighting analysis for projectors





## OUR NEW WEBSITE



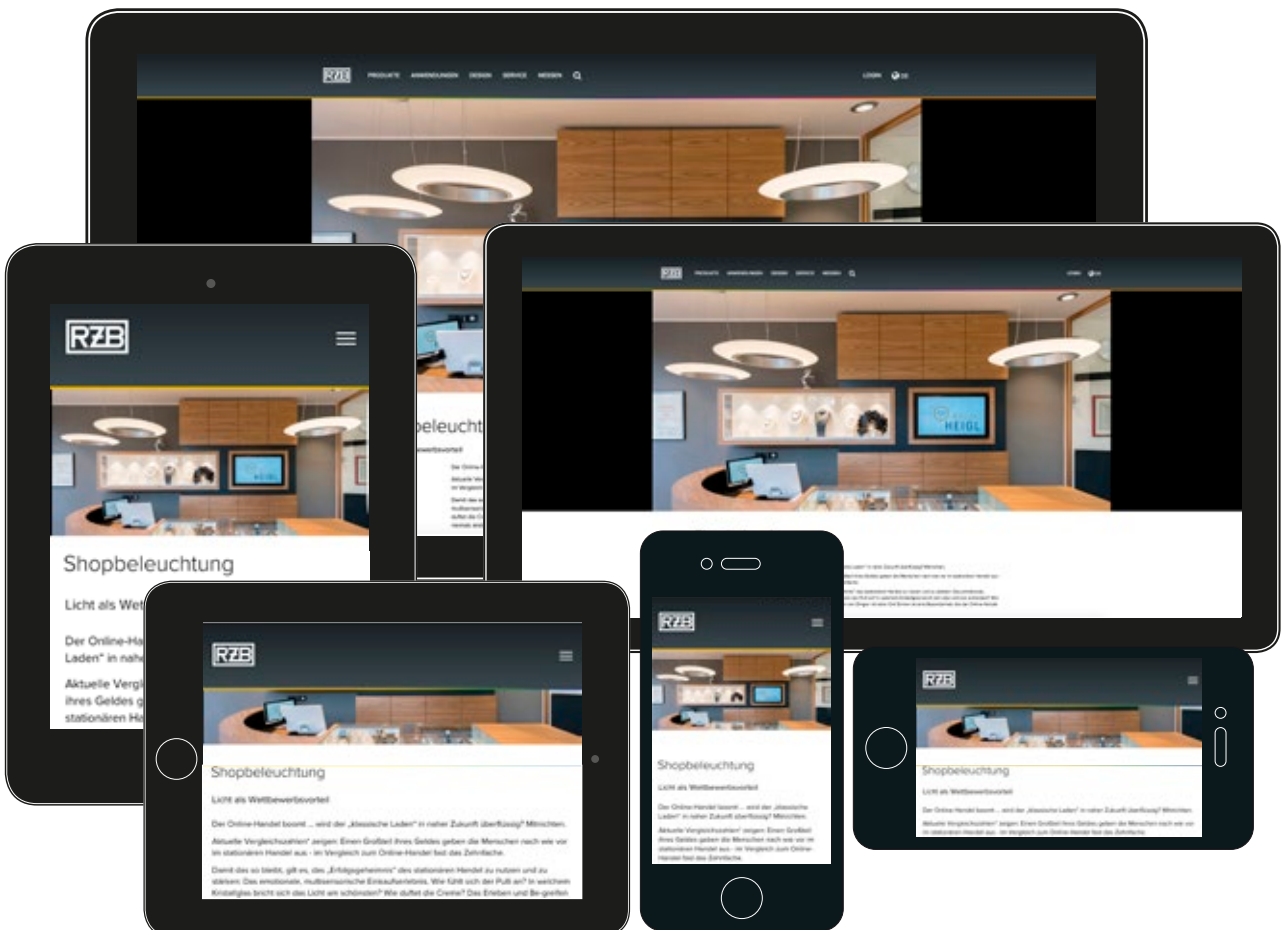
Our new website provides ready access to all of these communication options. In addition to what you'll find in our product catalogue, our website contains a wealth of information about projects we have carried out; plus there are many useful planning tools and documents available for downloading.

Please visit our website at

[www.rzb-lighting.com](http://www.rzb-lighting.com)

## COMPLETELY RESPONSIVE

Adapted to your mobile device



Cylio  
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Douala® Slimline  
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Douala® Kristall  
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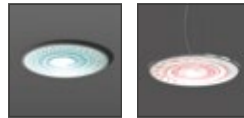
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Sidelite® Round  
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Sidelite® Round  
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Flat Polymero® Kreis  
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Egeo  
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Sonis A  
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Slidelite® ECO  
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Less is more® 27 Kristall  
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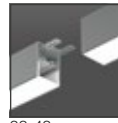
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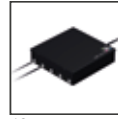
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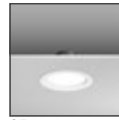
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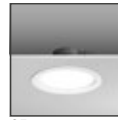
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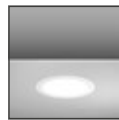
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Less is more® 27 Systems

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Less is more® 50

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light control +<sup>3</sup>

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Planox ECO

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Planox Tube

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Ralite® Highbay II

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Industrial Hall

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Sonis B

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Energo® Darklight

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Toledo

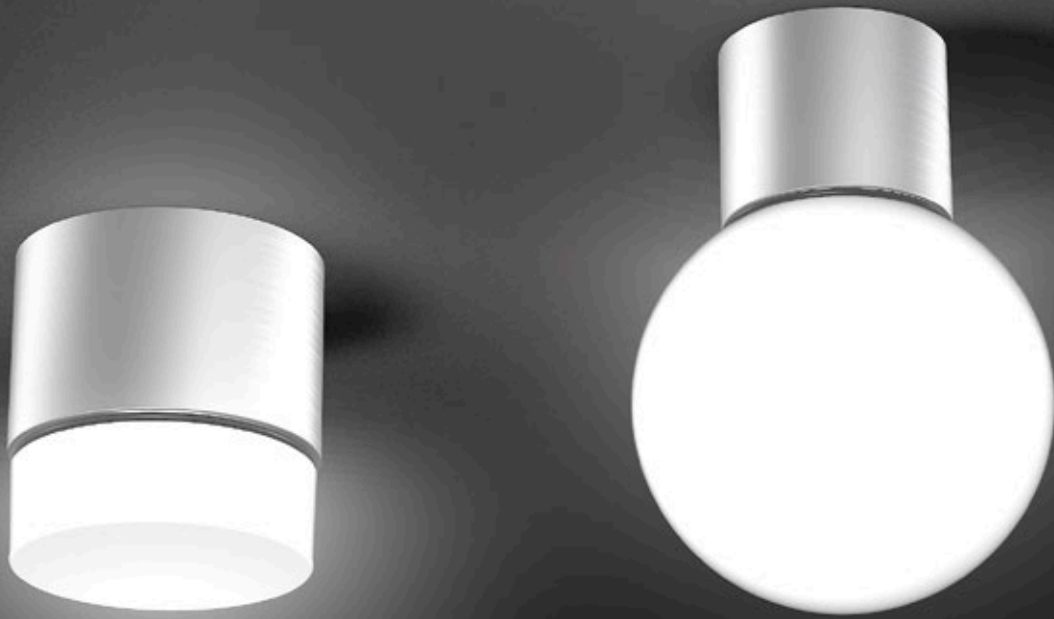
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Toledo Flat

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Triade LED

72-73



## CYLIO

Ceiling and pendant luminaires



- Comprehensive range featuring a number of glass designs, consisting of:
  - Surface mounted ceiling luminaires
  - Pendant luminaires
- A sleekly designed surface or pendant mount ceiling luminaire for interiors
- Made of top-notch components:
  - Base and canopy made of aluminium with brushed stainless steel finish
  - Hand-made glass elements
- Each glass fixture is a unique element. The following versions are available:
  - Transparent crystal glass, partially frosted
  - White opal glass
  - White opal glass with transparent glass bottom
  - Two-tone opal glass “white in white”
  - Black glass with cobalt-blue haloes with transparent glass bottom

**Ceiling luminaires | Series: Cylio**

Type of Protection: IP 20  
 Protection Class: I  
 Impact Protection: IK03

Base: aluminium with brushed stainless steel finish. Glass fastening: bayonet fixing.

LED included.

Available colour: stainless steel, brushed



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Ceiling luminaires</b>						
<b>Base: D 100</b>						
<b>Short white opal glass</b>						
311963.002	D 100, H 127	LED <sup>(1)</sup>	830	700 lm	14 W	A   A
311963.002.1	D 100, H 127	LED <sup>(1)</sup>	840	750 lm	14 W	A   A
<b>Opal glass sphere</b>						
311965.002	D 180, H 252	LED <sup>(1)</sup>	830	900 lm	14 W	A   A
311965.002.1	D 180, H 252	LED <sup>(1)</sup>	840	900 lm	14 W	A   A
<b>Base: D 150</b>						
<b>Short white opal glass</b>						
311969.002	D 150, H 155	LED <sup>(1)</sup>	830	1050 lm	18 W	A   A
311969.002.1	D 150, H 155	LED <sup>(1)</sup>	840	1150 lm	18 W	A   A

Price Category 21

**Comparison  
 LED vs. conventional lamps**

**LED 14 W ≈**  
 1 x 50 W QT12 (60 W EB)

**LED 18 W ≈**  
 1 x 50 W QT12 (60 W EB)

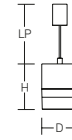
**Pendant luminaires | Series: Cylio**

Type of Protection: IP 20  
 Protection Class: I  
 Impact Protection: IK06  
 Suspension Length: 800 mm

Base: aluminium with brushed stainless steel finish. Glass fastening: bayonet fixing.  
 Suspension cord with integrated steel cable. Canopy aluminium anodised.

LED included.

Available colour: stainless steel, brushed



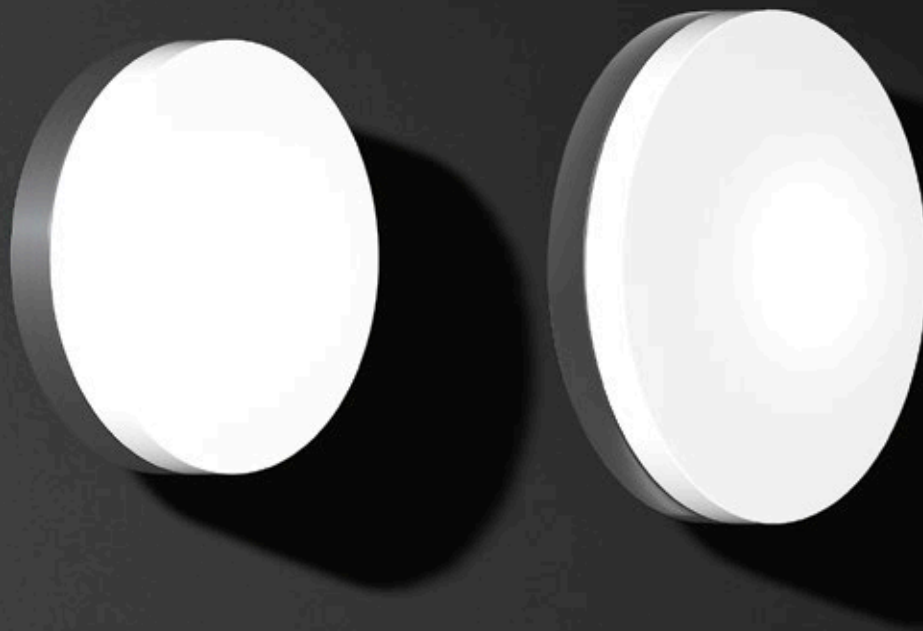
Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Pendant luminaires</b>						
<b>with canopy</b>						
<b>Base: D 100, canopy: D 60, H 88 mm</b>						
<b>Opal glass, short, white</b>						
311964.002	D 100, H 127	LED <sup>(1)</sup>	830	700 lm	14 W	A   A
311964.002.1	D 100, H 127	LED <sup>(1)</sup>	840	750 lm	14 W	A   A
<b>Opal glass sphere, white</b>						
311966.002	D 180, H 252	LED <sup>(1)</sup>	830	900 lm	14 W	A   A
311966.002.1	D 180, H 252	LED <sup>(1)</sup>	840	900 lm	14 W	A   A
<b>Base: D 150, canopy: D 60, H 88 mm</b>						
<b>Short white opal glass</b>						
311970.002	D 150, H 155	LED <sup>(1)</sup>	830	1050 lm	18 W	A   A
311970.002.1	D 150, H 155	LED <sup>(1)</sup>	840	1150 lm	18 W	A   A

Price Category 21

**Comparison  
 LED vs. conventional lamps**

**LED 14 W ≈**  
 1 x 50 W QT12 (60 W EB)

**LED 18 W ≈**  
 1 x 50 W QT12 (60 W EB)



## DOUALA® SLIMLINE

Ceiling, wall and pendant luminaires



- A multi-faceted range for interiors, consisting of:
  - Pendant luminaires
  - Ceiling and wall luminaires
  - Ceiling and recessed wall luminaires
- The luminaire is timelessly elegant and fully integrates architectural surrounding
- The stainless steel base and the glass create an impression of unity
- The cover made of mouth-blown, satin-finished three-layer opal glass is available in two different sizes



**Ceiling and wall luminaires | Series: Douala® Slimline**

 Type of Protection: **IP 40**

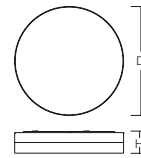
Protection Class: I

Impact Protection: IK02

Base: brushed stainless steel. Mouth-blown, 3-layer opal glass, satin finish. Patented spring fastening system.

LED included.

Available colour: 0 = stainless steel, brushed



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Ceiling and wall luminaires</b>						
<b>Price Category 21</b>						
<b>Glass D 300 mm</b>						
311993.000	D 300, H 75	LED	830	2000 lm	24 W	A+   A+
311993.000.76	D 300, H 75	LED	830	2000 lm	24 W	A+   A+
311993.000.1	D 300, H 75	LED	840	2150 lm	24 W	A+   A+
311993.000.1.76	D 300, H 75	LED	840	2150 lm	24 W	A+   A+
<b>Glass D 400 mm</b>						
311995.000	D 400, H 75	LED	830	2400 lm	30 W	A+   A+
311995.000.76	D 400, H 75	LED	830	2400 lm	30 W	A+   A+
311995.000.1	D 400, H 75	LED	840	2650 lm	30 W	A+   A+
311995.000.1.76	D 400, H 75	LED	840	2650 lm	30 W	A+   A+


**Comparison  
LED vs. conventional lamps**
**LED 24 W ≈**

 2 x 26 W TC-D (68 W CB)  
 1 x 40 W T16-R (43 W EB)

**LED 30 W ≈**

 4 x 18 W TC-D (104 W CB)  
 1 x 55 W T16-R (60 W EB)

**Pendant luminaires | Series: Douala® Slimline**

 Type of Protection: **IP 40**

Protection Class: I

Impact Protection: IK02

Suspension Length: 500-1200 mm

Base: brushed stainless steel. Mouth-blown, 3-layer opal glass, satin finish. Patented spring fastening system. 3-point steel cable suspension, steplessly adjustable. Special lengths available on request.

LED included.

Available colour: 0 = stainless steel, brushed



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Pendant luminaires</b>						
<b>Price Category 21</b>						
<b>Diameter D 300 mm</b>						
311994.000	D 300, H 75	LED	830	2000 lm	24 W	A+   A+
311994.000.76	D 300, H 75	LED	830	2000 lm	24 W	A+   A+
311994.000.1	D 300, H 75	LED	840	2150 lm	24 W	A+   A+
311994.000.1.76	D 300, H 75	LED	840	2150 lm	24 W	A+   A+
<b>Diameter D 400 mm</b>						
311996.000	D 400, H 75	LED	830	2400 lm	30 W	A+   A+
311996.000.76	D 400, H 75	LED	830	2400 lm	30 W	A+   A+
311996.000.1	D 400, H 75	LED	840	2650 lm	30 W	A+   A+
311996.000.1.76	D 400, H 75	LED	840	2650 lm	30 W	A+   A+



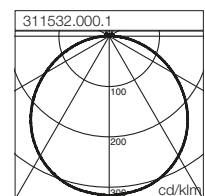
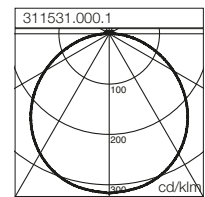


# DOUALA® KRISTALL

Ceiling, wall and pendant luminaires



- Series of pendant luminaires, ceiling and wall luminaires
- The mouth blown opal glass with the transparent, icy edge of 20 mm gives the luminaire a brilliant look
- The stainless steel base and the stainless steel ring attached to the glass form an optical unit
- The luminaire is timelessly elegant and fully integrates architectural surrounding



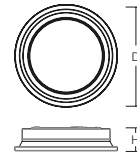
**Ceiling and wall luminaires | Series: Douala® Kristall**

Type of Protection: **IP 40**  
 Protection Class: I  
 Impact Protection: IK02

Base: brushed stainless steel. Mouth-blown, 3-layer opal glass with a 20 mm clear glass edge. Patented spring fastening system.

LED included.

Available colour: 0 = stainless steel, brushed



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Ceiling and wall luminaires</b>						
<b>Glass D 340 mm</b>						
311531.000	D 340, H 86	LED	830	1250 lm	24 W	A+   A+
311531.000.76	D 340, H 86	LED	830	1250 lm	24 W	A+   A+
311531.000.1	D 340, H 86	LED	840	1350 lm	24 W	A+   A+
311531.000.1.76	D 340, H 86	LED	840	1350 lm	24 W	A+   A+

Price Category 21


**Comparison LED vs. conventional lamps**

LED 24 W ≈  
 2 x 18 W TC-D (40 W CB)

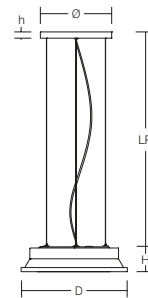
**Pendant luminaires | Series: Douala® Kristall**

Type of Protection: **IP 40**  
 Protection Class: I  
 Impact Protection: IK02  
 Suspension Length: 500-1200 mm

Base: brushed stainless steel. Mouth-blown, 3-layer opal glass with a 20 mm clear glass edge. Patented spring fastening system. 3-point steel cable suspension, steplessly adjustable. Special lengths available on request.

LED included.

Available colour: 0 = stainless steel, brushed

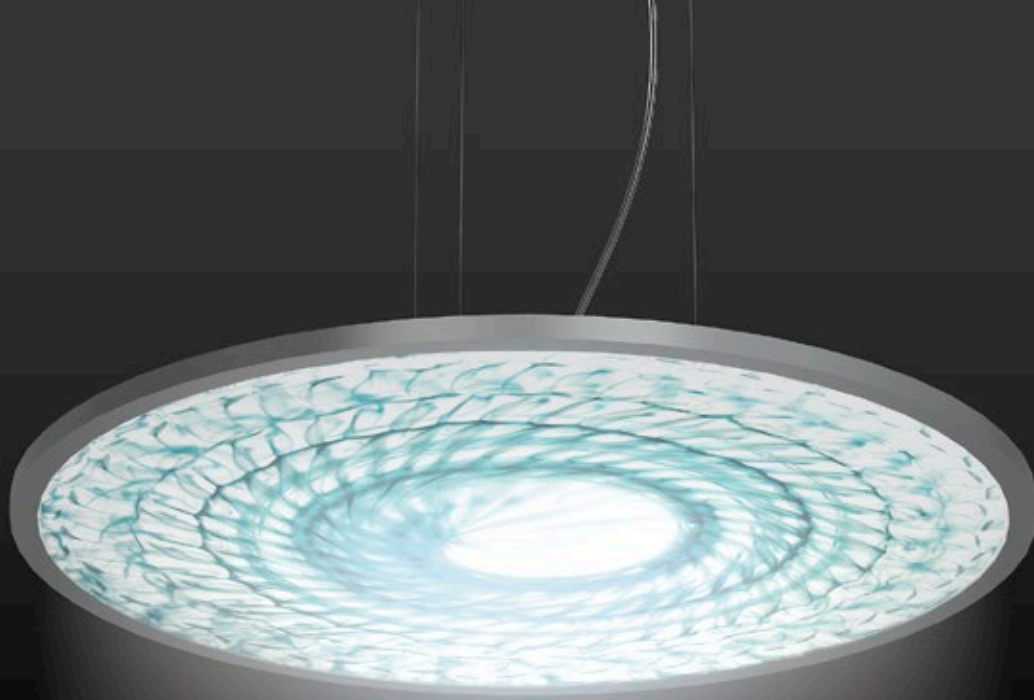


Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Pendant luminaires</b>						
<b>Diameter D 340 mm</b>						
311532.000	D 340, H 86	LED	830	1250 lm	24 W	A+   A+
311532.000.76	D 340, H 86	LED	830	1250 lm	24 W	A+   A+
311532.000.1	D 340, H 86	LED	840	1350 lm	24 W	A+   A+
311532.000.1.76	D 340, H 86	LED	840	1350 lm	24 W	A+   A+

Price Category 21


**Comparison LED vs. conventional lamps**

LED 24 W ≈  
 2 x 18 W TC-D (40 W CB)



# SIDELITE® ROUND

Ceiling, wall and pendant luminaires



- Comprehensive range consisting of:

- Pendant luminaires
- Ceiling luminaires
- Wall luminaires

- Lateral light emission with LED

- Application of latest LED technology in minimalistic design

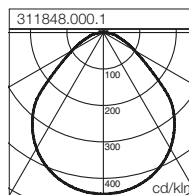
- This lighting fixture's prismatic plastic diffuser is incorporated into a merely 15 mm thick extruded aluminium profile

- Design of the distinctive surface luminaire with an opal/prismatic plastic diffuser or with handmade FerroMurano glass diffuser in 4 colour variants

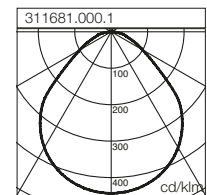
- UGR ≤ 19 suitable for computer workstations with microprismatic/opal diffuser

- Lightguide and plastic cover made from non-yellowing PMMA

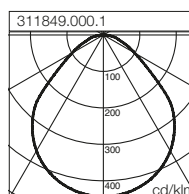
311848.000.1		
Floor 12 x 2,5 x 3 m (0,2 m)		
100 lx	150 lx	200 lx
3	3	4
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
3	4	-



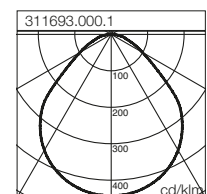
311681.000.1		
Floor 12 x 2,5 x 3 m (0,2 m)		
100 lx	150 lx	200 lx
-	2	3
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
-	2	3



311849.000.1		
Floor 12 x 2,5 x 3 m (0,2 m)		
100 lx	150 lx	200 lx
-	2	3
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
-	2	-



311693.000.1		
Floor 12 x 2,5 x 3 m (0,2 m)		
100 lx	150 lx	200 lx
2	3	4
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
-	4	6



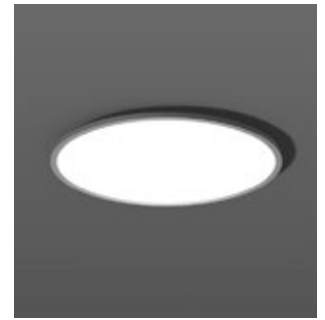
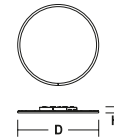
**Ceiling and wall luminaires | Series: Sidelite® Round**

Type of Protection: **IP 40**  
 Protection Class: I  
 Impact Protection: IK03

Cover: sheet steel, powder-coated. Anodised aluminium frame. Diffuser: PMMA plastic, opal/microprismatic (Suitable for use in environments with computer screens in accordance with EN 12464-1). Integral driver. Lateral light emission thanks to LED.

LED included.

Available colour: anodised aluminium



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Ceiling and wall luminaires</b>							
<b>Price Category 21</b>							
<b>Diffuser: plastic (PMMA) opal/microprismatic</b>							
<b>Diameter D 348 mm</b>							
311997.000	D 348, H 50	LED	830	1800 lm	20 W	20,7	A+   A+
311997.000.76	D 348, H 50	LED	830	1800 lm	20 W	20,7	A+   A+
311997.000.1	D 348, H 50	LED	840	1950 lm	20 W	21,0	A+   A+
311997.000.1.76	D 348, H 50	LED	840	1950 lm	20 W	21,0	A+   A+
<b>Diameter D 457 mm</b>							
311916.004	D 457, H 50	LED	830	2850 lm	38 W	18,8	A+   A+
311916.004.76	D 457, H 50	LED	830	2850 lm	38 W	18,8	A+   A+
311916.004.1	D 457, H 50	LED	840	3050 lm	38 W	18,8	A+   A+
311916.004.1.76	D 457, H 50	LED	840	3050 lm	38 W	18,8	A+   A+
<b>Diameter D 675 mm</b>							
311849.000	D 675, H 50	LED	830	4000 lm	54 W	18,8	A+   A+
311849.000.76	D 675, H 50	LED	830	4000 lm	54 W	18,8	A+   A+
311849.000.1	D 675, H 50	LED	840	4500 lm	54 W	18,8	A+   A+
311849.000.1.76	D 675, H 50	LED	840	4500 lm	54 W	18,8	A+   A+

**Comparison LED vs. conventional lamps**
**LED 20 W ≈**

1 x 40 W T16-R (43 W EB)  
 3 x 14 W T16 (46 W EB)  
 3 x 18 W T26 (78 W CB)

**LED 38 W ≈**

1 x 55 W T16-R (60 W EB)  
 4 x 14 W T16 (68 W EB)  
 4 x 18 W T26 (92 W CB)

**LED 54 W ≈**

4 x 24 W T16 (98 W EB)

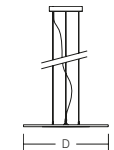
**Pendant luminaires | Series: Sidelite® Round**

Type of Protection: **IP 40**  
 Protection Class: I  
 Impact Protection: IK03  
 Suspension Length: 500-1200 mm

Cover: aluminium, lacquered. Anodised aluminium frame. Diffuser: PMMA plastic, opal/microprismatic (Suitable for use in environments with computer screens in accordance with EN 12464-1). Canopy aluminium anodised. 3-point steel cable suspension, steplessly adjustable. Special lengths available on request. Integral driver. Lateral light emission thanks to LED.

LED included.

Available colour: anodised aluminium



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Pendant luminaires</b>							
<b>Price Category 21</b>							
<b>Diffuser: plastic (PMMA) opal/microprismatic</b>							
<b>Diameter D 348 mm, canopy Ø 221 mm, h 36 mm</b>							
311998.000	D 348, H 15	LED	830	1800 lm	20 W	20,7	A+   A+
311998.000.76	D 348, H 15	LED	830	1800 lm	20 W	20,7	A+   A+
311998.000.1	D 348, H 15	LED	840	1950 lm	20 W	21,0	A+   A+
311998.000.1.76	D 348, H 15	LED	840	1950 lm	20 W	21,0	A+   A+
<b>Diameter D 457 mm, canopy Ø 221 mm, h 36 mm</b>							
311911.004	D 457, H 15	LED	830	2850 lm	38 W	20,7	A+   A+
311911.004.76	D 457, H 15	LED	830	2850 lm	38 W	20,7	A+   A+
311911.004.1	D 457, H 15	LED	840	3050 lm	38 W	20,9	A+   A+
311911.004.1.76	D 457, H 15	LED	840	3050 lm	38 W	20,9	A+   A+
<b>Diameter D 675 mm, canopy Ø 263 mm, h 40 mm</b>							
311681.000	D 675, H 15	LED	830	4000 lm	54 W	18,8	A+   A+
311681.000.76	D 675, H 15	LED	830	4000 lm	54 W	18,8	A+   A+
311681.000.1	D 675, H 15	LED	840	4500 lm	54 W	19,0	A+   A+
311681.000.1.76	D 675, H 15	LED	840	4500 lm	54 W	19,0	A+   A+

**Comparison LED vs. conventional lamps**
**LED 20 W ≈**

1 x 40 W T16-R (43 W EB)  
 3 x 14 W T16 (46 W EB)  
 3 x 18 W T26 (78 W CB)

**LED 38 W ≈**

1 x 55 W T16-R (60 W EB)  
 4 x 14 W T16 (68 W EB)  
 4 x 18 W T26 (92 W CB)

**LED 54 W ≈**

4 x 24 W T16 (98 W EB)



**Comparison  
LED vs. conventional lamps**

**LED 38 W ≈**

1 x 40 W T16-R (43 W EB)  
3 x 14 W T16 (52 W EB)

**LED 54 W ≈**

1 x 55 W T16-R (60 W EB)  
4 x 14 W T16 (68 W EB)  
4 x 18 W T26 (92 W CB)

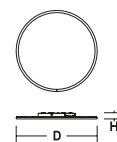
**Ceiling and wall luminaires | Series: Sidelite® Round FerroMurano**

Type of Protection: **IP 40**  
Protection Class: I  
Impact Protection: IK03

Cover: sheet steel, powder-coated. Anodised aluminium frame. Diffuser: handcrafted, coloured glass FerroMurano. Integral driver. Lateral light emission thanks to LED.

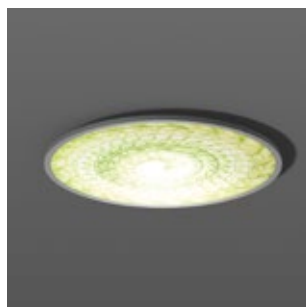
LED included.

Available colour: anodised aluminium



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Ceiling and wall luminaires</b>						
<b>Glass FerroMurano red</b>						
<b>Diameter D 457 mm</b>						
311912.004	D 457, H 50	LED	830	1550 lm	38 W	A+   A+
311912.004.76	D 457, H 50	LED	830	1550 lm	38 W	A+   A+
311912.004.1	D 457, H 50	LED	840	1750 lm	38 W	A+   A+
311912.004.1.76	D 457, H 50	LED	840	1750 lm	38 W	A+   A+
<b>Diameter D 675 mm</b>						
311845.000	D 675, H 50	LED	830	2450 lm	54 W	A+   A+
311845.000.76	D 675, H 50	LED	830	2450 lm	54 W	A+   A+
311845.000.1	D 675, H 50	LED	840	2750 lm	54 W	A+   A+
311845.000.1.76	D 675, H 50	LED	840	2750 lm	54 W	A+   A+
<b>Glass FerroMurano blue</b>						
<b>Diameter D 457 mm</b>						
311913.004	D 457, H 50	LED	830	1900 lm	38 W	A+   A+
311913.004.76	D 457, H 50	LED	830	1900 lm	38 W	A+   A+
311913.004.1	D 457, H 50	LED	840	2100 lm	38 W	A+   A+
311913.004.1.76	D 457, H 50	LED	840	2100 lm	38 W	A+   A+
<b>Diameter D 675 mm</b>						
311846.000	D 675, H 50	LED	830	2800 lm	54 W	A+   A+
311846.000.76	D 675, H 50	LED	830	2800 lm	54 W	A+   A+
311846.000.1	D 675, H 50	LED	840	3100 lm	54 W	A+   A+
311846.000.1.76	D 675, H 50	LED	840	3100 lm	54 W	A+   A+
<b>Glass FerroMurano green</b>						
<b>Diameter D 457 mm</b>						
311914.004	D 457, H 50	LED	830	2300 lm	38 W	A+   A+
311914.004.76	D 457, H 50	LED	830	2300 lm	38 W	A+   A+
311914.004.1	D 457, H 50	LED	840	2500 lm	38 W	A+   A+
311914.004.1.76	D 457, H 50	LED	840	2500 lm	38 W	A+   A+
<b>Diameter D 675 mm</b>						
311847.000	D 675, H 50	LED	830	2900 lm	54 W	A+   A+
311847.000.76	D 675, H 50	LED	830	2900 lm	54 W	A+   A+
311847.000.1	D 675, H 50	LED	840	3200 lm	54 W	A+   A+
311847.000.1.76	D 675, H 50	LED	840	3200 lm	54 W	A+   A+
<b>Glass FerroMurano white</b>						
<b>Diameter D 457 mm</b>						
311915.004	D 457, H 50	LED	830	2600 lm	38 W	A+   A+
311915.004.76	D 457, H 50	LED	830	2600 lm	38 W	A+   A+
311915.004.1	D 457, H 50	LED	840	2850 lm	38 W	A+   A+
311915.004.1.76	D 457, H 50	LED	840	2850 lm	38 W	A+   A+
<b>Diameter D 675 mm</b>						
311848.000	D 675, H 50	LED	830	3400 lm	54 W	A+   A+
311848.000.76	D 675, H 50	LED	830	3400 lm	54 W	A+   A+
311848.000.1	D 675, H 50	LED	840	3700 lm	54 W	A+   A+
311848.000.1.76	D 675, H 50	LED	840	3700 lm	54 W	A+   A+

The luminaire flux and UGR of each luminaire varies due to the difference in colour intensity and structure of the glasses.



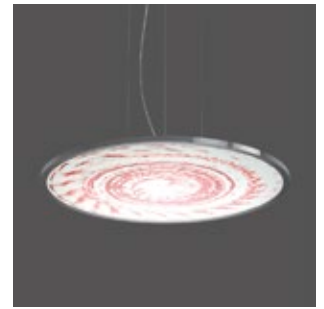
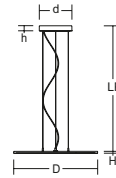
**Pendant luminaires | Series: Sidelite® Round FerroMurano**

Type of Protection: **IP 40**  
 Protection Class: I  
 Impact Protection: IK02  
 Suspension Length: 500-1200 mm

Cover: aluminium, lacquered. Anodised aluminium frame. Diffuser: handcrafted, coloured glass FerroMurano. Canopy aluminium anodised. 3-point steel cable suspension, steplessly adjustable. Special lengths available on request. Integral driver. Lateral light emission thanks to LED.

LED included.

Available colour: anodised aluminium



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Pendant luminaires</b>						
<b>Glass FerroMurano red</b>						
<b>Diameter D 457 mm, canopy Ø 221 mm, h 36 mm</b>						
311907.004	D 457, H 15	LED	830	1550 lm	38 W	A+   A+
311907.004.76	D 457, H 15	LED	830	1550 lm	38 W	A+   A+
311907.004.1	D 457, H 15	LED	840	1750 lm	38 W	A+   A+
311907.004.1.76	D 457, H 15	LED	840	1750 lm	38 W	A+   A+
<b>Diameter D 675 mm, canopy Ø 263 mm, h 40 mm</b>						
311677.000	D 675, H 15	LED	830	2450 lm	54 W	A+   A+
311677.000.76	D 675, H 15	LED	830	2450 lm	54 W	A+   A+
311677.000.1	D 675, H 15	LED	840	2750 lm	54 W	A+   A+
311677.000.1.76	D 675, H 15	LED	840	2750 lm	54 W	A+   A+
<b>Glass FerroMurano blue</b>						
<b>Diameter D 457 mm, canopy Ø 221 mm, h 36 mm</b>						
311908.004	D 457, H 15	LED	830	1900 lm	38 W	A+   A+
311908.004.76	D 457, H 15	LED	830	1900 lm	38 W	A+   A+
311908.004.1	D 457, H 15	LED	840	2100 lm	38 W	A+   A+
311908.004.1.76	D 457, H 15	LED	840	2100 lm	38 W	A+   A+
<b>Diameter D 675 mm, canopy Ø 263 mm, h 40 mm</b>						
311678.000	D 675, H 15	LED	830	2800 lm	54 W	A+   A+
311678.000.76	D 675, H 15	LED	830	2800 lm	54 W	A+   A+
311678.000.1	D 675, H 15	LED	840	3100 lm	54 W	A+   A+
311678.000.1.76	D 675, H 15	LED	840	3100 lm	54 W	A+   A+
<b>Glass FerroMurano green</b>						
<b>Diameter D 457 mm, canopy Ø 221 mm, h 36 mm</b>						
311909.004	D 457, H 15	LED	830	2300 lm	38 W	A+   A+
311909.004.76	D 457, H 15	LED	830	2300 lm	38 W	A+   A+
311909.004.1	D 457, H 15	LED	840	2500 lm	38 W	A+   A+
311909.004.1.76	D 457, H 15	LED	840	2500 lm	38 W	A+   A+
<b>Diameter D 675 mm, canopy Ø 263 mm, h 40 mm</b>						
311679.000	D 675, H 15	LED	830	2900 lm	54 W	A+   A+
311679.000.76	D 675, H 15	LED	830	2900 lm	54 W	A+   A+
311679.000.1	D 675, H 15	LED	840	3200 lm	54 W	A+   A+
311679.000.1.76	D 675, H 15	LED	840	3200 lm	54 W	A+   A+
<b>Glass FerroMurano white</b>						
<b>Diameter D 457 mm, canopy Ø 221 mm, h 36 mm</b>						
311910.004	D 457, H 15	LED	830	2600 lm	38 W	A+   A+
311910.004.76	D 457, H 15	LED	830	2600 lm	38 W	A+   A+
311910.004.1	D 457, H 15	LED	840	2850 lm	38 W	A+   A+
311910.004.1.76	D 457, H 15	LED	840	2850 lm	38 W	A+   A+
<b>Diameter D 675 mm, canopy Ø 263 mm, h 40 mm</b>						
311693.000	D 675, H 15	LED	830	3400 lm	54 W	A+   A+
311693.000.76	D 675, H 15	LED	830	3400 lm	54 W	A+   A+
311693.000.1	D 675, H 15	LED	840	3700 lm	54 W	A+   A+
311693.000.1.76	D 675, H 15	LED	840	3700 lm	54 W	A+   A+

Price Category 21

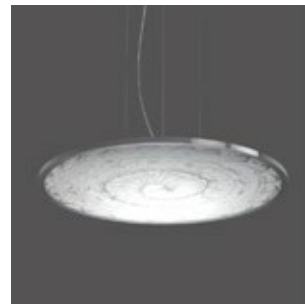
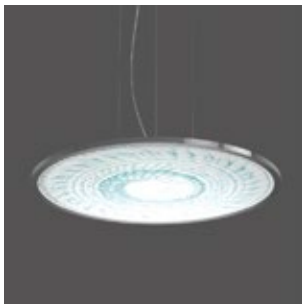
**Comparison  
LED vs. conventional lamps**
**LED 38 W ≈**

1 x 40 W T16-R (43 W EB)  
 3 x 14 W T16 (52 W EB)

**LED 54 W ≈**

1 x 55 W T16-R (60 W EB)  
 4 x 14 W T16 (68 W EB)  
 4 x 18 W T26 (92 W CB)

The luminaire flux and UGR of each luminaire varies due to the difference in colour intensity and structure of the glasses.





The application image shows:  
Sidelite Round® FerroMurano







## FLAT POLYMERO® KREIS SUPERSLIM

Ceiling and wall luminaires, Pendant luminaires



- Featuring the new superflat diffuser versions, this luminaire rounds out our Flat Polymero® Kreis product family
- Use of LED surface modules for uniform illumination
- Comprehensive range consisting of:
  - Pendant luminaires
  - Ceiling luminaires
  - Wall luminaires
- Depending on the version, high-quality polycarbonate or acrylic glass (PMMA) are available for the luminaire body
- Different diameters available
- With patented locking technology
- Luminaire can be opened without tools
- LED exchangeable
- PMMA diffuser:
  - Robust and scratch-resistant substitute for glass
  - UV resistant (colour-true; no yellowing)
  - Completely weathering resistant
- PC diffuser:
  - Hard, stiff, shockproof, extremely high impact strength
  - UV stabilized

**Ceiling and wall luminaires | Series: Flat Polymero® Kreis Superslim**

 Type of Protection: **IP 40**

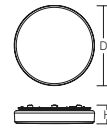
Protection Class: I

Impact Protection: IK03 (PMMA), IK10 (polycarbonate)

Base: metal, powder-coated. Diffuser: plastic (PMMA), opal, or plastic (polycarbonate), opal and shockproof. Diffuser fastening: patented push system.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Ceiling and wall luminaires</b>						
<b>Diffuser: plastic (PMMA)</b>						
<b>Diameter D 300 mm</b>						
312084.002.3	D 300, H 65	LED <sup>(1)</sup>	840	1250 lm	13 W	A+   A+
312084.002.1	D 300, H 65	LED <sup>(1)</sup>	830	1200 lm	15 W	A+   A+
<b>Diameter D 360 mm</b>						
312085.002.1	D 360, H 65	LED <sup>(1)</sup>	830	1800 lm	21 W	A+   A+
312085.002.3	D 360, H 65	LED <sup>(1)</sup>	840	1900 lm	21 W	A+   A+
<b>Diameter D 460 mm</b>						
312086.002.1	D 460, H 70	LED <sup>(1)</sup>	830	1800 lm	21 W	A+   A+
312086.002.3	D 460, H 70	LED <sup>(1)</sup>	840	1900 lm	21 W	A+   A+
<b>Diameter D 515 mm</b>						
312087.002.1	D 515, H 70	LED <sup>(1)</sup>	830	3400 lm	33 W	A+   A+
312087.002.3	D 515, H 70	LED <sup>(1)</sup>	840	3500 lm	33 W	A+   A+
<b>Diffuser: plastic (polycarbonate)</b>						
<b>Diameter D 300 mm</b>						
312084.002.4	D 300, H 65	LED <sup>(1)</sup>	840	1300 lm	13 W	A+   A+
312084.002.2	D 300, H 65	LED <sup>(1)</sup>	830	1300 lm	15 W	A+   A+
<b>Diameter D 360 mm</b>						
312085.002.2	D 360, H 65	LED <sup>(1)</sup>	830	1950 lm	21 W	A+   A+
312085.002.4	D 360, H 65	LED <sup>(1)</sup>	840	2100 lm	21 W	A+   A+
<b>Diameter D 460 mm</b>						
312086.002.2	D 460, H 70	LED <sup>(1)</sup>	830	1950 lm	21 W	A+   A+
312086.002.4	D 460, H 70	LED <sup>(1)</sup>	840	2050 lm	21 W	A+   A+
<b>Diameter D 515 mm</b>						
312087.002.2	D 515, H 70	LED <sup>(1)</sup>	830	3500 lm	33 W	A+   A+
312087.002.4	D 515, H 70	LED <sup>(1)</sup>	840	3600 lm	33 W	A+   A+



Price Category 11

**Comparison LED vs. conventional lamps**
**LED 21 W ≈**

2 x 26 W TC-D (68 W CB)

**LED 33 W ≈**

3 x 26 W TC-D (102 W CB)

**Pendant luminaires | Series: Flat Polymero® Kreis Superslim**

 Type of Protection: **IP 40**

Protection Class: I

Impact Protection: IK03 (PMMA), IK10 (polycarbonate)

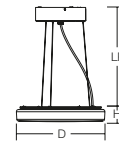
Suspension Length: 200-1300 mm, 350-1300 mm

Base and canopy: metal, powder-coated, white. Canopy Ø 205 mm, h 55 mm. 3-point steel cable suspension, steplessly adjustable. Special lengths available on request.

Diffuser: plastic (PMMA), opal, or plastic (polycarbonate), opal and shockproof. Diffuser fastening: patented push system.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Pendant luminaires</b>						
<b>Diffuser: plastic (PMMA)</b>						
<b>Diameter D 360 mm, LP 200-1300 mm</b>						
312089.002.1	D 360, H 60	LED <sup>(1)</sup>	830	1800 lm	21 W	A+   A+
312089.002.3	D 360, H 60	LED <sup>(1)</sup>	840	1900 lm	21 W	A+   A+
<b>Diameter D 460 mm, LP 200-1300 mm</b>						
312090.002.1	D 460, H 65	LED <sup>(1)</sup>	830	1800 lm	21 W	A+   A+
312090.002.3	D 460, H 65	LED <sup>(1)</sup>	840	1900 lm	21 W	A+   A+
<b>Diameter D 515 mm, LP 350-1300 mm</b>						
312091.002.1	D 515, H 65	LED <sup>(1)</sup>	830	3400 lm	33 W	A+   A+
312091.002.3	D 515, H 65	LED <sup>(1)</sup>	840	3500 lm	33 W	A+   A+
<b>Diffuser: plastic (polycarbonate)</b>						
<b>Diameter D 360 mm, LP 200-1300 mm</b>						
312089.002.2	D 360, H 60	LED <sup>(1)</sup>	830	1950 lm	21 W	A+   A+
312089.002.4	D 360, H 60	LED <sup>(1)</sup>	840	2100 lm	21 W	A+   A+
<b>Diameter D 460 mm, LP 200-1300 mm</b>						
312090.002.2	D 460, H 65	LED <sup>(1)</sup>	830	1950 lm	21 W	A+   A+
312090.002.4	D 460, H 65	LED <sup>(1)</sup>	840	2050 lm	21 W	A+   A+
<b>Diameter D 515 mm, LP 350-1300 mm</b>						
312091.002.2	D 515, H 65	LED <sup>(1)</sup>	830	3500 lm	33 W	A+   A+
312091.002.4	D 515, H 65	LED <sup>(1)</sup>	840	3600 lm	33 W	A+   A+



Price Category 11

**Comparison LED vs. conventional lamps**
**LED 21 W ≈**

2 x 26 W TC-D (68 W CB)

**LED 33 W ≈**

3 x 26 W TC-D (102 W CB)

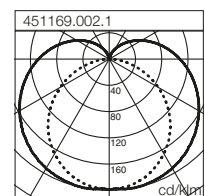
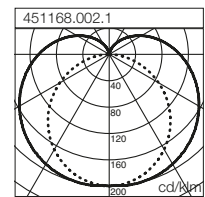


## RT 44

Linear light fittings



- Timeless design
- Easy plug-in installation
- Uses 63% less energy than conventional lamps
- High level of protection: IP44 for use in wet areas
- Basic luminaire measuring 600 mm is the ideal size for mirrors
- Can be installed horizontally and vertically
- LED rated life 50,000 h (L70, B10)



**Linear light fittings | Series: RT 44**

Type of Protection: **IP 44**, IP 21, if European flat plugs are used  
 Protection Class: I  
 Impact Protection: IK03

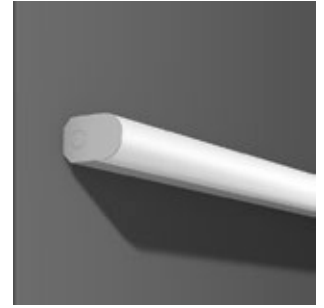
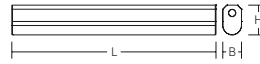
Base: metal, powder-coated. Diffuser: plastic (polycarbonate), opal. End caps: plastic (polycarbonate), shock-resistant. Driver included.

IR movement sensor parameters at a ceiling or wall-mounted height of min. 1,7 m

- Range 1-8 m, adjustable diameter
- Adjustable time control approx. 3 - 30 minutes
- Range: horizontal 360° and vertical approx. 110°
- Switching capacity: 400 VA

**Dampproof according to bathrooms standard DIN VDE 0100-701 (october 2008) .**

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC	
<b>Wall and mirror luminaires</b>							<b>Price Category 11</b>
<b>Length L 600 mm</b>							
451168.002	L 600, B 55, H 87	LED	830	910 lm	10 W	A+   A+	
451168.002.1	L 600, B 55, H 87	LED	840	970 lm	10 W	A+   A+	
<b>Length L 900 mm</b>							
451169.002	L 900, B 55, H 87	LED	830	1400 lm	14 W	A+   A+	
451169.002.1	L 900, B 55, H 87	LED	840	1450 lm	14 W	A+   A+	
<b>with push button switch</b>							
<b>Length L 644 mm</b>							
451170.002	L 644, B 55, H 87	LED	830	910 lm	10 W	A+   A+	
451170.002.1	L 644, B 55, H 87	LED	840	970 lm	10 W	A+   A+	
<b>Length L 944 mm</b>							
451171.002	L 944, B 55, H 87	LED	830	1400 lm	14 W	A+   A+	
451171.002.1	L 944, B 55, H 87	LED	840	1450 lm	14 W	A+   A+	
<b>with push button switch and with socket</b>							
<b>Length L 721 mm</b>							
451174.002	L 721, B 55, H 87	LED	830	910 lm	10 W	A+   A+	
451174.002.1	L 721, B 55, H 87	LED	840	970 lm	10 W	A+   A+	
<b>Length L 1021 mm</b>							
451175.002	L 1021, B 55, H 87	LED	830	1400 lm	14 W	A+   A+	
451175.002.1	L 1021, B 55, H 87	LED	840	1450 lm	14 W	A+   A+	
<b>with socket</b>							
<b>Length L 677 mm</b>							
451172.002	L 677, B 55, H 87	LED	830	910 lm	10 W	A+   A+	
451172.002.1	L 677, B 55, H 87	LED	840	970 lm	10 W	A+   A+	
<b>Length L 977 mm</b>							
451173.002	L 977, B 55, H 87	LED	830	1400 lm	14 W	A+   A+	
451173.002.1	L 977, B 55, H 87	LED	840	1450 lm	14 W	A+   A+	

**Comparison  
LED vs. conventional lamps**

**LED 10 W ≈**  
1 x 24 W T16 (27 W EB)

**LED 14 W ≈**  
1 x 30 W T26 (31 W CB)



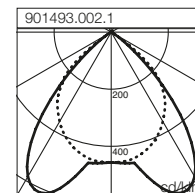
# SONIS E

Recessed ceiling luminaires



- Suitable for laying in grid ceiling module 600/625
- Ideally suited to environments with computer screens (UGR  $\leq$  19)
- Narrow beam, brilliant luminous effect
- Very high efficiency with optimum glare limitation
- LED rated life 50,000 h (L80, B10)
- 1:1 replacement for fluorescent lamps 4 x 18 W T8 and 4 x 14 W T5

901493.002.1		
Floor 12 x 2,5 x 3 m (0,2 m)		
100 lx	150 lx	200 lx
2	3	3
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
3	4	6



**Recessed ceiling luminaires | Series: Sonis E**

Type of Protection: IP 20

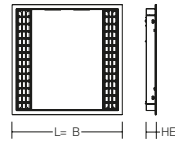
Protection Class: I

Impact Protection: IK03

Housing: powder-coated metal white. Parabolic mirror louvre: high grade aluminium, highly polished. Suitable for use in environments with computer screens in accordance with EN 12464-1.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
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**Rail mounted recessed ceiling luminaires**
**Price Category 21**
**Module 600, HE 58 mm**

901492.002	L 596, B 596	LED	830	3500 lm	37 W	18,2	A+   A+
901492.002.76	L 596, B 596	LED	830	3500 lm	37 W	18,2	A+   A+
901492.002.1	L 596, B 596	LED	840	3700 lm	38 W	18,4	A+   A+
901492.002.1.76	L 596, B 596	LED	840	3700 lm	38 W	18,4	A+   A+

**Module 625, HE 58 mm**

901493.002	L 621, B 621	LED	830	3500 lm	37 W	18,2	A+   A+
901493.002.76	L 621, B 621	LED	830	3500 lm	37 W	18,2	A+   A+
901493.002.1	L 621, B 621	LED	840	3700 lm	38 W	18,4	A+   A+
901493.002.1.76	L 621, B 621	LED	840	3700 lm	38 W	18,4	A+   A+



light control


**Comparison  
LED vs. conventional lamps**
**LED 37/38 W ≈**

4 x 18 W T8 (92 W CB)

4 x 14 W T5 (68 W EB)





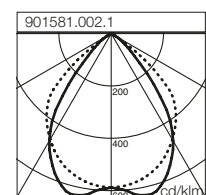
# EGEO

Recessed ceiling luminaires



- Continuous flat visible area
- Suitable for laying in grid ceiling module 600/625
- Ideally suited to environments with computer screens ( $UGR \leq 19$ )
- Narrow beam, brilliant luminous effect
- Very high efficiency with optimum glare limitation
- LED rated life 50,000 h (L80, B10)
- 1:1 replacement for fluorescent lamps 4 x 18 W T8 and 4 x 14 W T5

901581.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	3	3
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
2	3	5





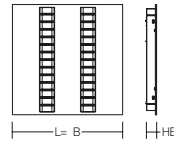
**Recessed ceiling luminaires | Series: Egeo**

Type of Protection: IP 20  
 Protection Class: I

Housing: powder-coated metal white. Parabolic mirror louvre: high grade aluminium, highly polished. Suitable for use in environments with computer screens in accordance with EN 12464-1.

LED included.

Available colour: 2 = white



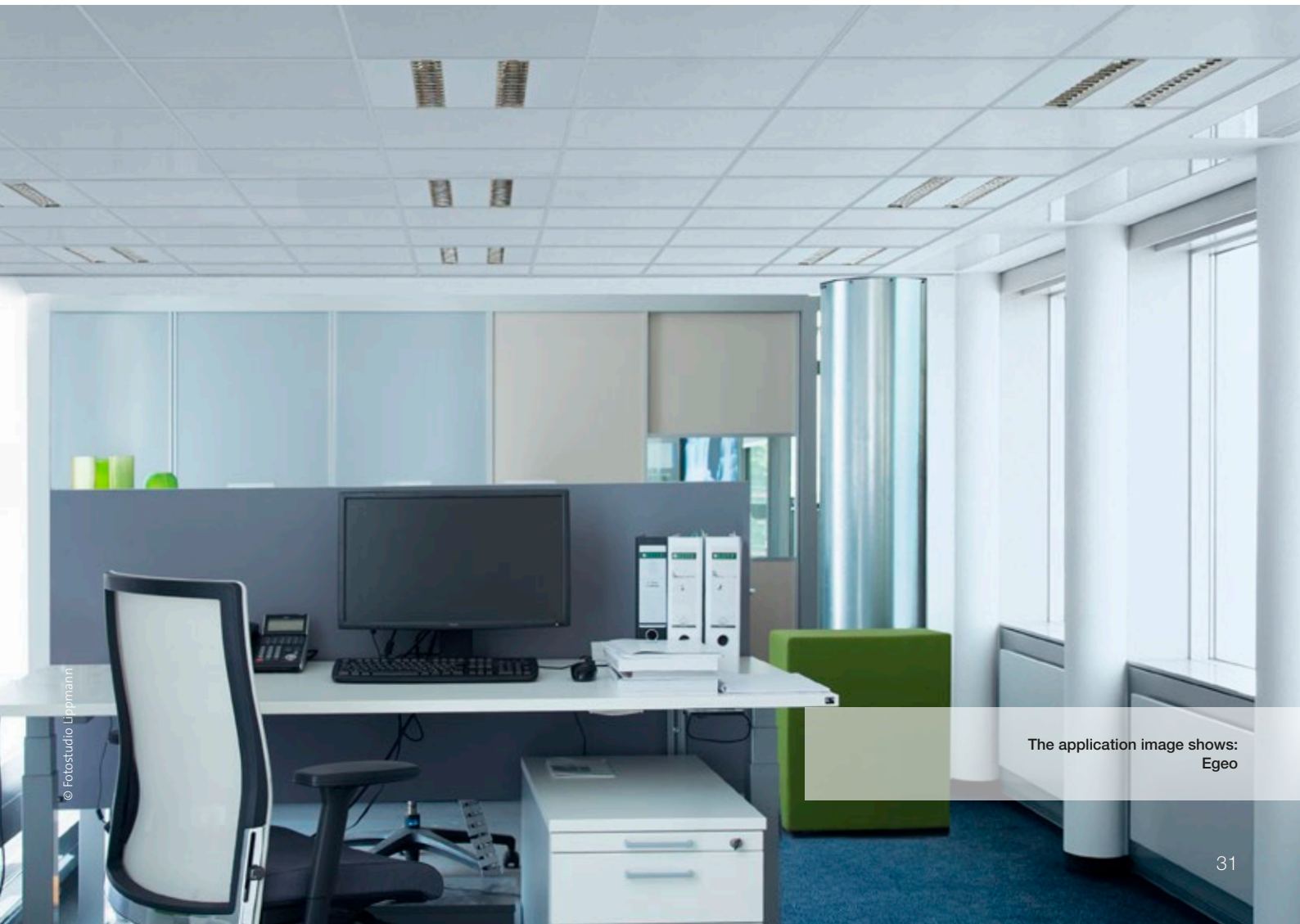
Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Rail mounted recessed ceiling luminaires</b>							
<b>Modul 600, HE 52 mm</b>							
<b>Louvre: parabolic mirror</b>							
901580.002.1	L 594, B 594	LED	840	3800 lm	38 W	18,9	A+   A+
901580.002.1.76	L 594, B 594	LED	840	3800 lm	38 W	18,9	A+   A+
<b>Modul 625, HE 52 mm</b>							
<b>Louvre: parabolic mirror</b>							
901581.002.1	L 619, B 619	LED	840	3800 lm	38 W	18,9	A+   A+
901581.002.1.76	L 619, B 619	LED	840	3800 lm	38 W	18,9	A+   A+

Price Category 21

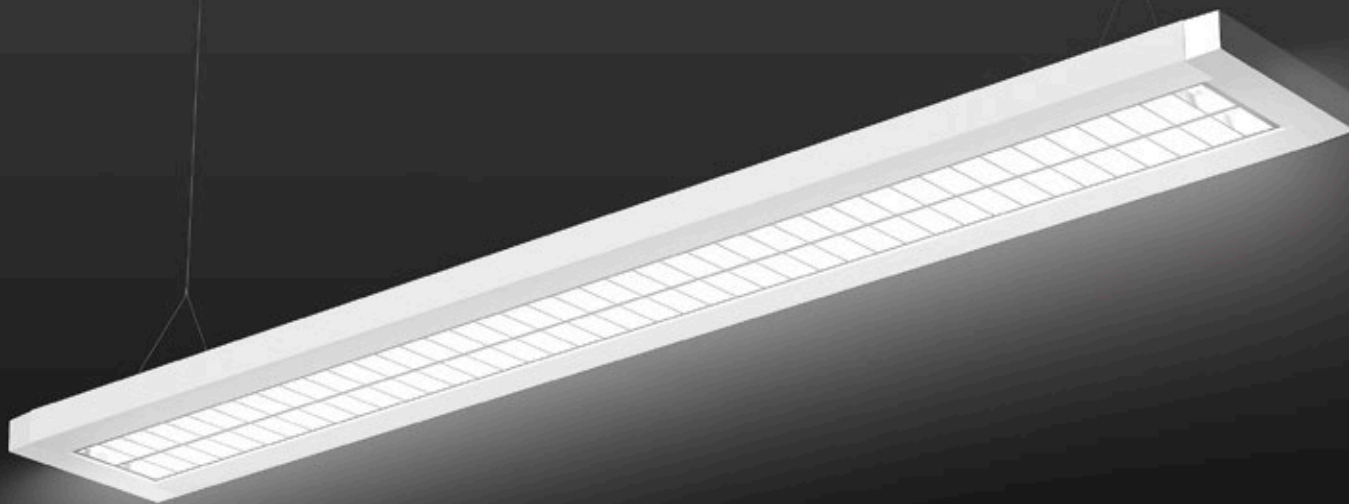


**Comparison**  
**LED vs. conventional lamps**

**LED 38 W ≈**  
 4 x 18 W T8 (92 W CB)  
 4 x 14 W T5 (68 W EB)



The application image shows: Egeo



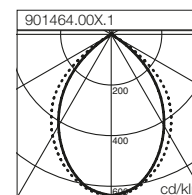
# SONIS A

Ceiling luminaires, Pendant luminaires

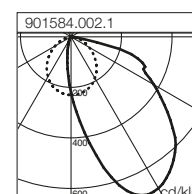
- Ideally suited to environments with computer screens (UGR  $\leq$  19)
- Narrow beam, brilliant luminous effect
- Very high efficiency with optimum glare limitation
- Energy-efficient LED technology
- LED rated life 50,000 h (L80, B10)



901464.00X.1		
Floor 12 x 2,5 x 3 m (0,2m)		
100 lx	150 lx	200 lx
-	2	3
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
-	2	4



901584.002.1		
Floor 12 x 2,5 x 3 m (0,2 m)		
100 lx	150 lx	200 lx
3	4	5
Room 6 x 4 x 3 m (0,75 m)		
200 lx	300 lx	500 lx
4	6	10



**Ceiling luminaires, pendant luminaires | Series: Sonis A Soft LED**

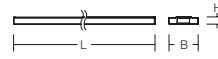
Type of Protection: IP 20  
 Protection Class: I  
 Impact Protection: IK02

Housing: powder-coated metal. Parabolic mirror louvre: high grade aluminium, highly polished. Suitable for use in environments with computer screens in accordance with EN 12464-1.

LED included.

Can be converted into a suspended luminaire, via accessories.

Available colours (X): 2 = white, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Ceiling luminaires, Pendant luminaires with accessories</b>							
<b>Price Category 21</b>							
<b>Light emission: downwards (Suspension must be ordered separately.)</b>							
901464.00X	L 1245, B 175, H 40	LED	830	3900 lm	49 W	17,4	A+   A+
901464.00X.76	L 1245, B 175, H 40	LED	830	3850 lm	49 W	17,4	A+   A+
901464.00X.1	L 1245, B 175, H 40	LED	840	4100 lm	49 W	17,6	A+   A+
901464.00X.1.76	L 1245, B 175, H 40	LED	840	4050 lm	49 W	17,6	A+   A+
901465.00X	L 1545, B 175, H 40	LED	830	4800 lm	62 W	17,4	A+   A+
901465.00X.76	L 1545, B 175, H 40	LED	830	4800 lm	62 W	17,4	A+   A+
901465.00X.1	L 1545, B 175, H 40	LED	840	5100 lm	62 W	17,6	A+   A+
901465.00X.1.76	L 1545, B 175, H 40	LED	840	5050 lm	62 W	17,6	A+   A+
<b>Accessories</b>							
<b>Price Category 21</b>							
982070.000	Suspension cable 2 m with two cylindrical canopies and 3-pole power supply cable for pendant mounting						
982070.000.1	Suspension cable 2 m with two cylindrical canopies and and 5-pole power supply cable (DALI) for pendant mounting						

**Comparison LED vs. conventional lamps**

**LED 49 W ≈**  
 2 x 28 W T16 (61 W EB)

**LED 62 W ≈**  
 2 x 39 W T16 (82 W EB)  
 2 x 36 W T26 (86 W CB)

**Ceiling luminaires | Series: Sonis A Asym**

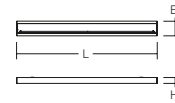
Type of Protection: IP 20  
 Protection Class: I

Housing: powder-coated metal. Parabolic reflector for asymmetrical light distribution. Reflector material: **MIRO**® Highly polished aluminium.

Ideal for school blackboards illumination.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Ceiling luminaires</b>							
<b>Price Category 21</b>							
901584.002	L 1484, B 155, H 62	LED	830	2350 lm	29 W	25,5	A++   A++
901584.002.76	L 1484, B 155, H 62	LED	830	2350 lm	29 W	25,5	A++   A++
901584.002.1	L 1484, B 155, H 62	LED	840	2500 lm	29 W	25,8	A++   A++
901584.002.1.76	L 1484, B 155, H 62	LED	840	2500 lm	29 W	25,8	A++   A++

**Comparison LED vs. conventional lamps**

**LED 29 W ≈**  
 1 x 36 W T26 (43 W CB)



## SIDELITE® ECO

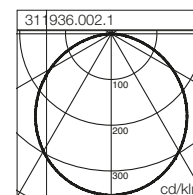
Ceiling luminaires, Pendant luminaires



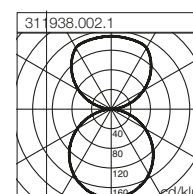
- Transparent and opal versions available
- Extremely cost efficient luminaires with advanced LED technology, available as ceiling, wall and suspended lighting solutions for interiors
- Ideally suited to environments with computer screens (UGR ≤ 19)
- Lightguide and plastic cover made from non-yellowing PMMA

- RZB SIDELITE® technology: lateral light injection for extremely homogeneous light distribution
- LED rated life 50,000 h (L70, B10)
- Extremely shallow installation depth (12 mm)
- External driver with simple plug-in locking system

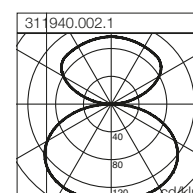
311936.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
3	4	5
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
4	5	8



311938.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
3	4	5
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
4	6	9



311940.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
3	4	5
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
4	5	9



**Ceiling luminaires, Pendant luminaires | Series: Sidelite® ECO**

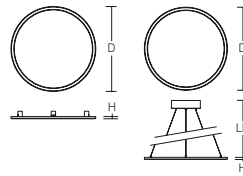
Type of Protection: **IP 40**  
 Protection Class: I, II  
 Impact Protection: IK02  
 Suspension Length: 300-1500 mm

Frame: aluminium, powder-coated. Choice of opal or transparent plastic (PMMA) diffuser.  
 Lightguide and diffuser made from non-yellowing PMMA. Lateral light emission thanks to LED. External driver (Height 32 mm).

LED included.

**Modular design: Mounting set must be ordered separately.**

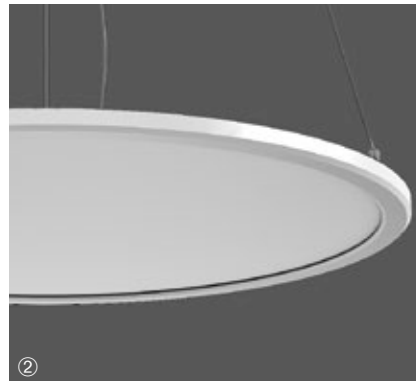
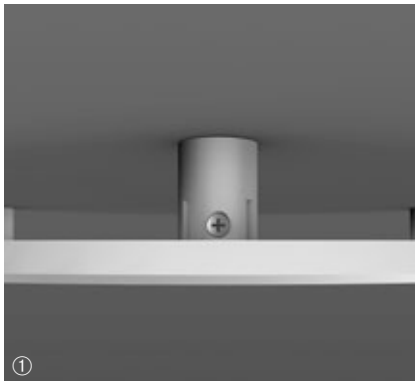
Available colour: 2 = white



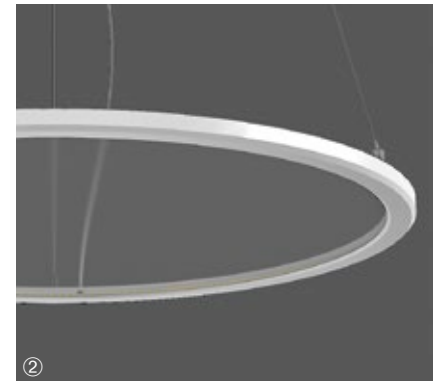
Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Ceiling-mounted and pendant luminaires</b>							
<b>Price Category 21</b>							
<b>Direct illumination</b>							
<b>Diffuser: plastic (PMMA), opal</b>							
311936.002	D 580, H 15	LED	830	3100 lm	39 W	21,5	A+   A+
311936.002.1	D 580, H 15	LED	840	3100 lm	39 W	21,6	A+   A+
<b>Direct 50% - indirect 50% light emission</b>							
<b>Diffuser: plastic (PMMA), opal</b>							
311938.002	D 580, H 15	LED	830	3300 lm	39 W	15,8	A+   A+
311938.002.1	D 580, H 15	LED	840	3300 lm	39 W	15,8	A+   A+
<b>Diffuser: plastic (PMMA), transparent</b>							
311940.002	D 580, H 15	LED	830	3500 lm	39 W	19,5	A+   A+
311940.002.1	D 580, H 15	LED	840	3550 lm	39 W	19,8	A+   A+
<b>Ceiling surface mounting sets ①</b>							
<b>Price Category 21</b>							
981980.012	consisting of 4 cylindrical spacers (Ø 30, H 38)						
<b>Pendant kit ②</b>							
<b>Price Category 21</b>							
982113.002	consisting of 3 steel ropes (L 1500) and canopy (D 202, H 56) with quick adjustment of the ropes						

**Comparison  
LED vs. conventional lamps**

**LED 39 W ≈**  
 1 x 60 W T16-R (65 W EB)  
 2 x 32 W T16-R (69 W EB)



Diffuser: opal



Diffuser: transparent

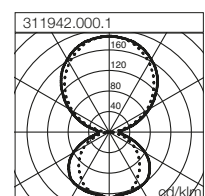
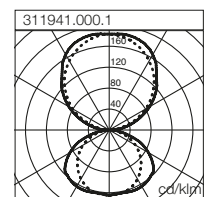


# LESS IS MORE® 27 KRISTALL

Pendant luminaires



- LED luminaire with slim design
- High-quality crystal glass
- Power supply through the suspension cable
- Profile surface made of anodised aluminium
- LED rated life 40,000 h (L80, B10)
- Two different light colours 830 and 840



**Pendant luminaires | Series: Less is more® 27 Kristall**

Type of Protection: IP 20

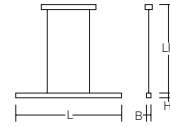
Protection Class: I

Suspension Length: 100-1500 mm

Housing: extruded anodised aluminium profile. End caps: die cast anodised aluminium.  
 Diffuser (direct light emission): made by hand from tempered crystal glass, coated white (opal) on one side. Diffuser (indirect light emission): plastic (PMMA), opal. 2-point steel cable suspension, steplessly adjustable. Special lengths available on request. Control gear included into canopy.

LED included.

Available colour: 0 = anodised aluminium



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Pendant luminaires</b>						
<b>Price Category 21</b>						
<b>Length L 909 mm</b>						
311941.000	L 909, B 30, H 49	2 x LED	830	1000 lm	28 W	A+   A+
311941.000.76	L 909, B 30, H 49	2 x LED	830	1000 lm	28 W	A+   A+
311941.000.1	L 909, B 30, H 49	2 x LED	840	1000 lm	28 W	A+   A+
311941.000.1.76	L 909, B 30, H 49	2 x LED	840	1000 lm	28 W	A+   A+
<b>Length L 1359 mm</b>						
311942.000	L 1359, B 30, H 49	2 x LED	830	1500 lm	40 W	A+   A+
311942.000.76	L 1359, B 30, H 49	2 x LED	830	1500 lm	40 W	A+   A+
311942.000.1	L 1359, B 30, H 49	2 x LED	840	1500 lm	40 W	A+   A+
311942.000.1.76	L 1359, B 30, H 49	2 x LED	840	1500 lm	40 W	A+   A+

**Comparison  
LED vs. conventional lamps**
**LED 28 W ≈**  
 1 x 14 W T16 (16 W EB)

**LED 40 W ≈**  
 1 x 21 W T16 (24 W EB)


Power supply through the suspension cable



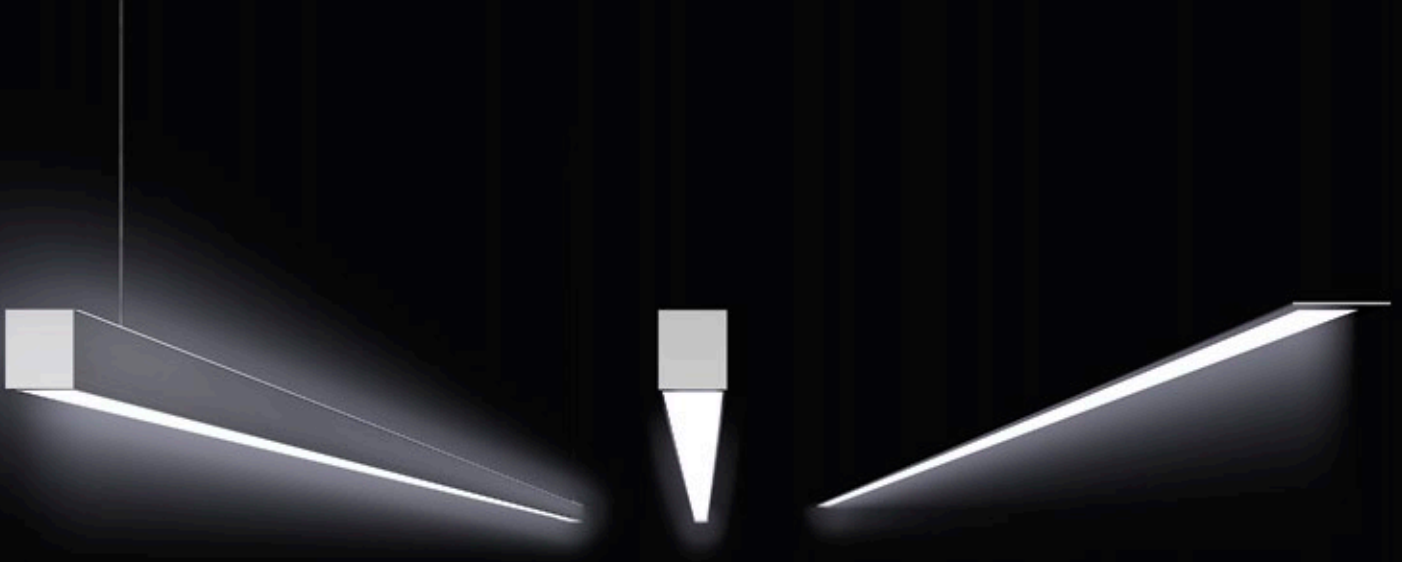
End caps overlap the profile



High-quality crystal glass cover (coated white on the inside)



Indirect illumination with side light effect

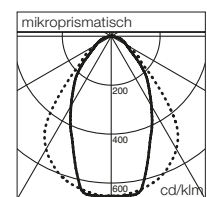
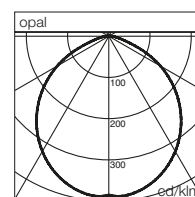


## LESS IS MORE<sup>®</sup> 27 - SYSTEMS

Recessed ceiling and wall luminaires, ceiling and wall luminaires, pendant luminaires



- LED luminaire with slim design
- Configurator for planning linear luminaire systems
- Different forms can be configured
- Thermally decoupled driver compartment
- Opal or micro prismatic diffuser
- As aesthetically sophisticated general lighting (corridors, office and conference rooms, shops) or accentuated lighting
- Available with different outputs
- LED rated life 40,000 h (L80, B10)
- Gapless connections guarantee an uninterrupted light line
- Harmonious corner situation without light leakage thanks to a prefabricated corner element



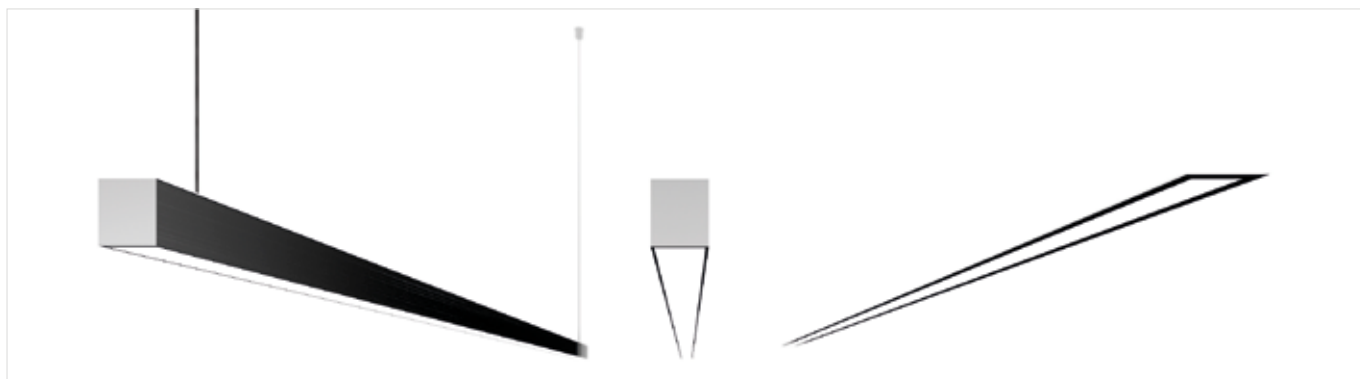




The application image shows:  
Less is more® 27 - Systems

## TYPES OF INSTALLATION

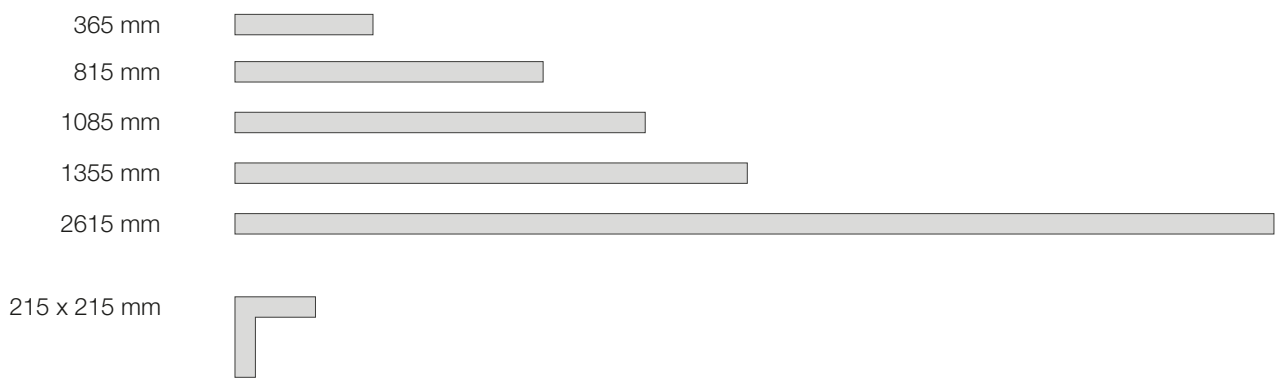
PENDANT | SURFACE | RECESSED



The three types of installation, pendant, surface mounting and recessed mounting, offer very much freedom of design in your planning.

## MODULES

MODULAR SYSTEM CONSISTING OF SIX MODULES



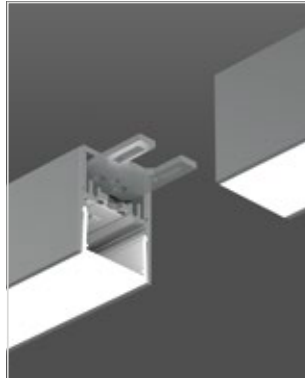
With the help of part-modules available in six different lengths, all system sizes can be assembled with minimal discrepancies.

This means that you always get the length you need for your project.

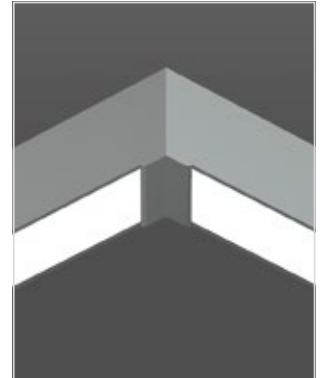
CONNECTION

GAPLESS MECHANICAL AND ELECTRICAL CONNECTION

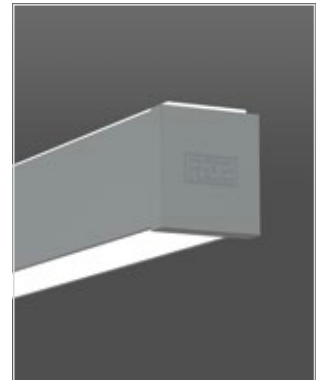
The mechanical connection between the individual profiles guarantees stability and safety. This is invisibly integrated in the profile, so that an uninterrupted light line without light leakage is created.



The prefabricated corner element with an aluminium ridge across all covers prevents light leakage and thus guarantees a harmonious and practically fully illuminated corner situation.

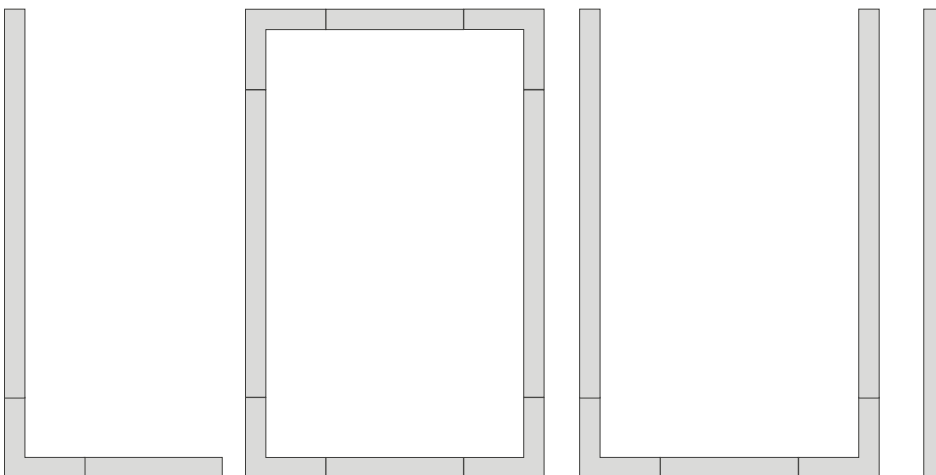


Since the end cap is suitable for all profiles and covers, your system has a finish without any light leakage.



CONFIGURATOR

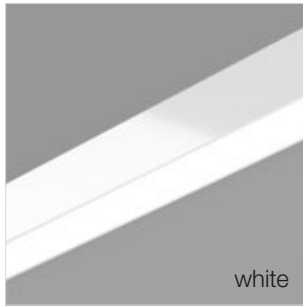
DESIGN EXAMPLES



The configuration of your system is effected for you by our configurator. On the basis of the basic shapes **L**, **O**, **U** and **I**, you can quickly and easily configure your luminaire system to suit your purposes.

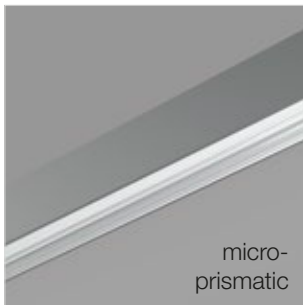
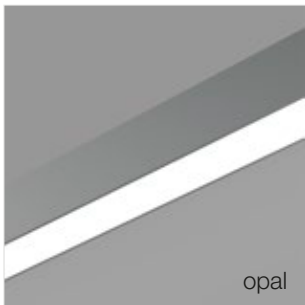
## EQUIPMENT

### COLOURS

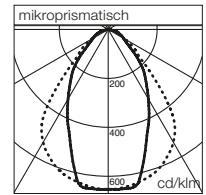
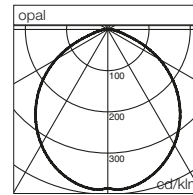


Surface finish in aluminium anodised or white, powder-coated.

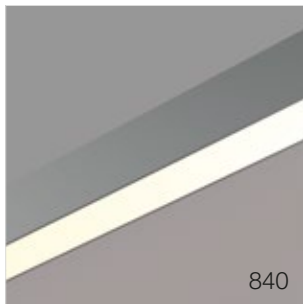
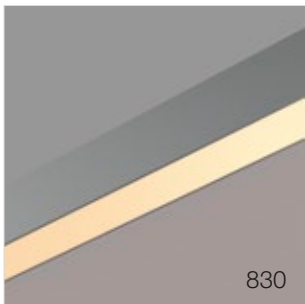
### COVER



The diffuser is made of plastic (non-yellowing PMMA) with an opal or microprismatic finish

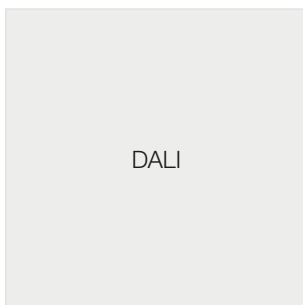


### LIGHT COLOURS



As far as light colours are concerned, there is a choice of 830 and 840

### SWITCHING MODES

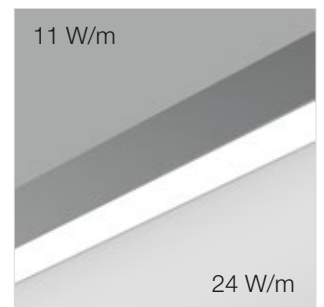
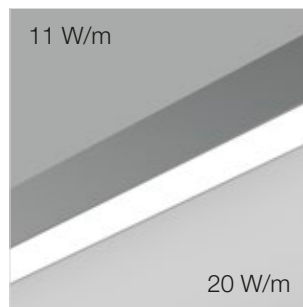
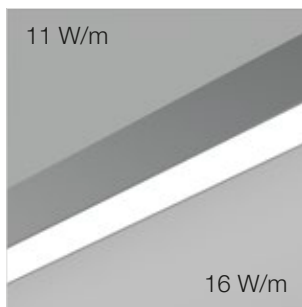
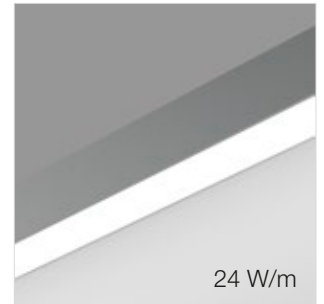
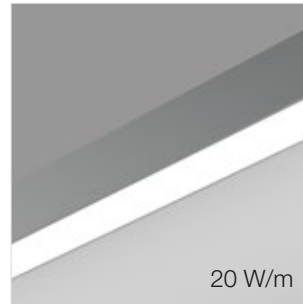
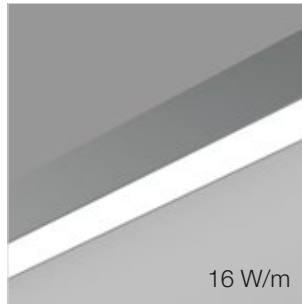


A switch-selectable version (On/Off) as well as a DALI dimmable version are available for your planning

EQUIPMENT

LED WATTAGE | DIRECT

The different wattage levels of 16-35 W/m – direct and direct/indirect light emission – and the luminous flux levels of 800-2400 lm/m give you a variety of options for your light planning.



© Linus Lintner

PLANNING WAS NEVER SO EASY!

With the RZB configurator you can plan your luminaire system quickly, safely and creatively.

- ✓ Free configuration of your luminaire system
- ✓ Direct price information and material configuration
- ✓ Including an installation drawing of your luminaire system in DXF format

Contact us, or go directly to the system configurator at [www.rzb-lighting.com](http://www.rzb-lighting.com)





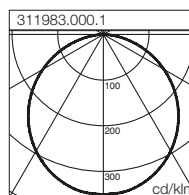
# LESS IS MORE® 50

Ceiling luminaires

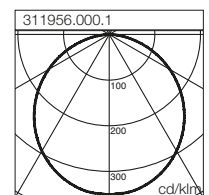


- Thermally optimized LED profile solutions
- Profile surface made of anodised aluminium
- Lightguide and plastic cover made from non-yellowing PMMA
- Can be used in conjunction with RZB's light control +<sup>3</sup> lighting management system
- As aesthetically sophisticated general lighting (corridors, hotel, shops, private areas)
- Colour temperature 3000 K or 4000 K
- LED rated life 50,000 h (L80, B10)

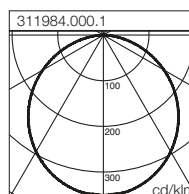
311983.000.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	4	5
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	5	8



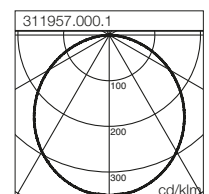
311956.000.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	4	5
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	5	8



311984.000.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	3	4
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	4	6



311957.000.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	3	4
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	4	6



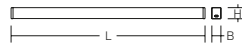
**Ceiling luminaires | Series: Less is more® 50**

Type of Protection: IP 20  
 Protection Class: I  
 Impact Protection: IK06

Housing: extruded anodised aluminium profile. End caps: plastic. Reflector: matt anodised aluminium, symmetrical beam. Diffuser: plastic (PMMA), opal. Integral driver.

LED included.

Available colour: 0 = anodised aluminium



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Ceiling luminaires</b>							
<b>Length L 1140 mm</b>							
311956.000	L 1140, B 53, H 65	LED		830	3200 lm	38 W	26,6 A+   A+
311956.000.76	L 1140, B 53, H 65	LED		830	3200 lm	38 W	26,6 A+   A+
311956.000.1	L 1140, B 53, H 65	LED		840	3200 lm	38 W	26,6 A+   A+
311956.000.1.76	L 1140, B 53, H 65	LED		840	3200 lm	38 W	26,6 A+   A+
<b>Length L 1420 mm</b>							
311957.000	L 1420, B 53, H 65	LED		830	4000 lm	47 W	26,6 A+   A+
311957.000.76	L 1420, B 53, H 65	LED		830	4000 lm	47 W	26,6 A+   A+
311957.000.1	L 1420, B 53, H 65	LED		840	4000 lm	47 W	26,6 A+   A+
311957.000.1.76	L 1420, B 53, H 65	LED		840	4000 lm	47 W	26,6 A+   A+

Price Category 21

**Comparison LED vs. conventional lamps**

**LED 38 W ≈**  
 1 x 54 W T16 (59 W EB)

**LED 47 W ≈**  
 1 x 80 W T16 (86 W EB)

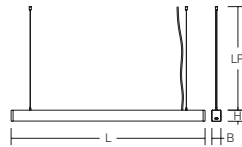
**Pendant luminaires | Series: Less is more® 50**

Type of Protection: IP 20  
 Protection Class: I  
 Suspension Length: 1500-2000 mm

Housing: extruded anodised aluminium profile. End caps: plastic. Reflector: matt anodised aluminium, symmetrical beam. Diffuser: plastic (PMMA), opal. Integral driver. Canopy aluminium anodised. 2-point steel cable suspension, steplessly adjustable. Special lengths available on request.

LED included.

Available colour: 0 = anodised aluminium



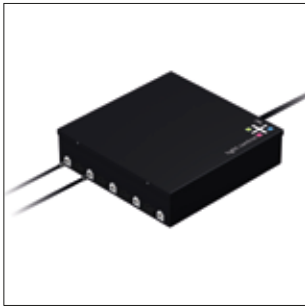
Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Pendant luminaires</b>							
<b>Length L 1140 mm</b>							
311983.000	L 1140, B 53, H 65	LED		830	3200 lm	38 W	26,6 A+   A+
311983.000.76	L 1140, B 53, H 65	LED		830	3200 lm	38 W	26,6 A+   A+
311983.000.1	L 1140, B 53, H 65	LED		840	3200 lm	38 W	26,6 A+   A+
311983.000.1.76	L 1140, B 53, H 65	LED		840	3200 lm	38 W	26,6 A+   A+
<b>Length L 1420 mm</b>							
311984.000	L 1420, B 53, H 65	LED		830	4000 lm	47 W	26,6 A+   A+
311984.000.76	L 1420, B 53, H 65	LED		830	4000 lm	47 W	26,6 A+   A+
311984.000.1	L 1420, B 53, H 65	LED		840	4000 lm	47 W	26,6 A+   A+
311984.000.1.76	L 1420, B 53, H 65	LED		840	4000 lm	47 W	26,6 A+   A+

Price Category 21

**Comparison LED vs. conventional lamps**

**LED 38 W ≈**  
 1 x 54 W T16 (59 W EB)

**LED 47 W ≈**  
 1 x 80 W T16 (86 W EB)



easily operated through App

**light control +<sup>3</sup> | Series: Professional**

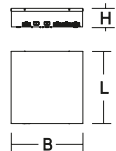
**Light management systems for flexible control of lighting groups and scenes  
Light management systems for circadian daylight simulation**

Type of protection: IP 20  
Protection class: I

Housing: metal, powder-coated; for universal mounting; ready to plug in (GST15 plug included).

Control panel must be ordered separately.

Available colours (X): 2 = white, 3 = black



**Energy savings up to 80%**



**CONTROL**

- Plug & Play
- Daylight-dependent and event-driven control with presence function of all groups
- Control of up to 64 luminaires per DALI® circuit (1 x EB DALI®), 16 groups, 16 light scenarios
- 4 integrated, freely configurable floating relays in the controller
- ON/OFF switching
- Individual light value settings
- Networking of several Professional CONTROL systems possible (network)
- Operation by smart phone and tablet computer possible (Android and IOS)
- Programmable via PC

Reference number	Dimensions	Interface	No. of ballasts (1 EB)	No. of sensors	Functions	Price category 21
<b>light control +<sup>3</sup> Professional CONTROL</b>						
981908.00X	L 313, B 313, H 85	DALI addressable	256	50	Switchable, dimmable, movement / presence sensor, daylight sensor, scenes (individual luminaire/ballast addressing), RGB applications	



### Light and presence sensor

Type of protection: IP 20  
Protection class: II

Housing of non-flammable, halogen-free polycarbonate. Direct connection to DALI bus.  
Presence detection range adjustable via integrated shutters between 40° and 90°. Presence detection with passive IR element. Light sensor range: 20 to 800 lx (measured at the sensor).  
Function display with two-colour LED. Installation height: 2-5 m. Ceiling installation or ceiling mounting with accessories.

Modular design: Please order recessed or surface-mounted housing separately.

Reference number      Dimensions

#### Light and presence sensor for installation heights of 2-5 m

09-6599.009      D 50, H 1, HE 25, DA 42-48

Price category 21

#### Installation housing for light and presence sensor

01-8613.002      D 80, H 37, DA 68

#### Surface mounted housing for light and presence sensor

08-6093.002      L 65, B 65, H 34



### Light sensor

Type of protection: IP 20

Housing: plastic. Direct connection to DALI line. Light control for installation heights of up to 13 m.  
Power supply through DALI line (no separate power supply required). System rating: 0.1 W.

Reference number      Dimensions

#### Light sensor for installation heights of up to 13 m

981952.002      L 139, B 118, H 37

Price category 21



### Motion detector

Type of protection: IP 20

Housing: plastic. Link to the Professional CONTROL system in connection with the light sensor 981952.002 or button coupler 09-6429.000. Power supply (120-277 V) required.  
System rating: 0.6 W. Detection angle 100°. Walking motion detection of persons: 3 to 10 m. Vehicle motion detector (e.g. fork lift): 3 to 13 m.

Reference number      Dimensions

#### Motion detector for installation heights of 3-13 m

09-6422.002      D 116, H 39

Price category 21



### Interface for local switch

Type of protection: IP 20

Housing: plastic. Installation in flush-mounted socket. Direct connection to DALI line.  
Power supply from DALI line (no separate power supply required). 4 potential-free inputs.  
Conventional buttons can be connected.

Reference number      Dimensions

#### Button coupler for connecting 4 buttons provided by customer

09-6429.000      L 43, B 43, H 21

Price category 21



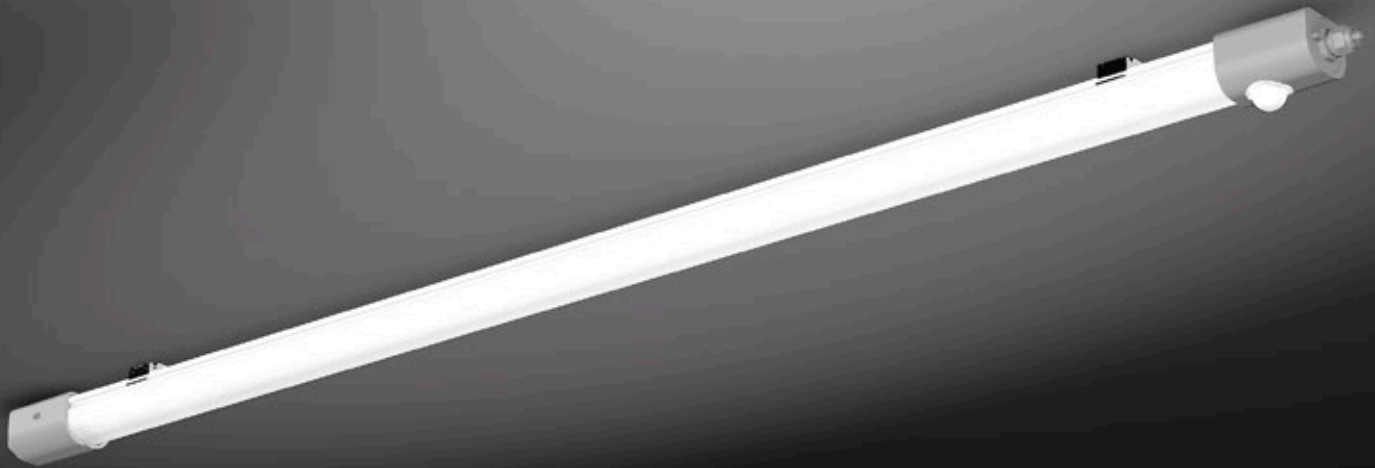
### Commissioning

The RZB light control +<sup>3</sup> light management system must be commissioned on site by an RZB service technician.

Reference number

#### Commissioning

06566



NEW: with movement sensor

## PLANOX ECO

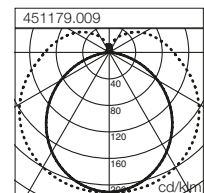
Ceiling and wall luminaires



- Design-oriented moisture-proof luminaire
- Indirect light to illuminate the ceiling
- 1:1 replacement for fluorescent lamps
- Colour rendering index Ra 80
- Impact protection: IK08
- LED rated life 50,000 h (L80, B10)
- ▽ Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk
- Operating range: -30°C to +40°C
- High type of protection IP 66
- Good colour consistency within 3 Mac Adam ellipses (3 SDCM)
- Housing and end caps made of shockproof polycarbonate (PC)

- Mould cast diffusers are realized as inner prisms, UV resistant and provide homogenous light distribution
- Flexible installation through sliding mounting bracket. Ideal for luminaire replacement
- Through-wiring as standard for further luminaires (safety class II)
- Cable installation on both sides through turn lock fastener
- Comfortable cable entry through cable screw fittings at both ends
- Infrared movement sensor, adjustable time delay of 10 s to 20 min and response brightness of 1 to 50 lux

451179.009			
Room 20 x 10 x 3 m (0,75 m)			
100 lx	200 lx	300 lx	500 lx
8	16	26	40
451180.009			
Room 20 x 10 x 3 m (0,75 m)			
100 lx	200 lx	300 lx	500 lx
5	10	15	25



Ceiling and wall luminaires | Series: Planox ECO

Type of Protection: IP 66  
 Protection Class: II  
 Impact Protection: IK08

Side panels: plastic, grey polycarbonate. Diffuser: plastic (polycarbonate), opal.  
 Converter encapsulated, integrated and permanently connected to the diffuser and side panel. Cable screw fittings for convenient wiring. Turn lock fastener on both sides for easy installation. Luminaire with integrated through wiring for lining up further safety class II luminaires. Ceiling mounting brackets made of stainless steel and triangular brackets for pendant mounting included in the scope of delivery. ▽ Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk.

LED included.

Available colour: 9 = grey



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC	Price Category 11
<b>Ceiling and wall luminaires without movement sensor</b>							
<b>Length L 750 mm</b>							
451176.009	L 750, B 67, H 56	LED	840	1900 lm	19 W	A+   A+	
<b>Length L 1350 mm</b>							
451177.009	L 1350, B 67, H 56	LED	840	2800 lm	22 W	A+   A+	
451178.009	L 1350, B 67, H 56	LED	840	4900 lm	41 W	A+   A+	
<b>Length L 1650 mm</b>							
451179.009	L 1650, B 67, H 56	LED	840	3650 lm	35 W	A+   A+	
451180.009	L 1650, B 67, H 56	LED	840	6750 lm	63 W	A+   A+	
<b>with movement sensor</b>							
<b>Length L 750 mm</b>							
451182.009.19	L 750, B 67, H 71	LED	840	1900 lm	20 W	A+   A+	
<b>Length L 1350 mm</b>							
451185.009.19	L 1350, B 67, H 71	LED	840	2800 lm	23 W	A+   A+	
451183.009.19	L 1350, B 67, H 71	LED	840	4900 lm	42 W	A+   A+	
<b>Length L 1650 mm</b>							
451186.009.19	L 1650, B 67, H 71	LED	840	3650 lm	36 W	A+   A+	
451184.009.19	L 1650, B 67, H 71	LED	840	6550 lm	64 W	A+   A+	

**Comparison LED vs. conventional lamps**

**LED 19/20 W ≈**  
 2 x 18 W T8 (52 W CB)

**LED 22/23 W ≈**  
 2 x 18 W T8 (52 W CB)  
 1 x 36 W T8 (43 W CB)  
 2 x 24 W T5 (49 W EB)  
 1 x 35 W T5 (38 W EB)

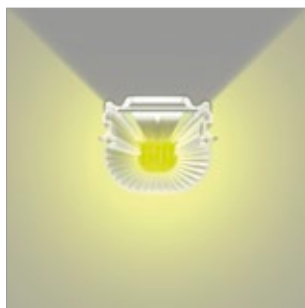
**LED 35/36 W ≈**  
 1 x 58 W T26 (67 W CB)

**LED 41/42 W ≈**  
 2 x 36 W T8 (86 W CB)

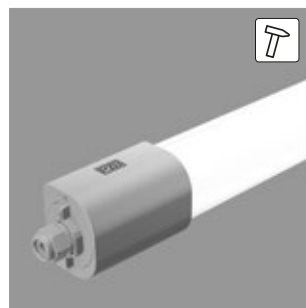
**LED 63/64 W ≈**  
 2 x 58 W T8 (134 W CB)

Through-wiring as standard - maximum number of luminaires per power level

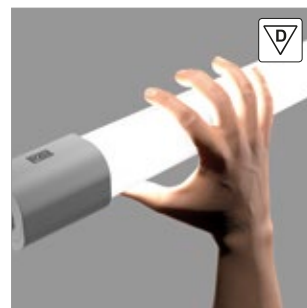
- 451176.009 (19 W) - maximum 63 luminaires
- 451177.009 (22 W) - maximum 55 luminaires
- 451178.009 (41 W) - maximum 30 luminaires
- 451179.009 (35 W) - maximum 35 luminaires
- 451180.009 (63 W) - maximum 19 luminaires
- 451182.009.19 (20 W) - maximum 62 luminaires
- 451185.009.19 (23 W) - maximum 54 luminaires
- 451183.009.19 (42 W) - maximum 29 luminaires
- 451186.009.19 (36 W) - maximum 34 luminaires
- 451184.009.19 (64 W) - maximum 19 luminaires



Indirect light to illuminate the ceiling. Homogeneous illumination through satin finish diffuser.



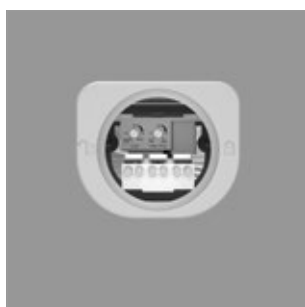
Housing and diffuser made of shock-proof PC.



Low heat generation, suitable for workshops with limited surface temperatures.



Simple connection by means of terminal with push-on connector, on-board through-wiring as standard.



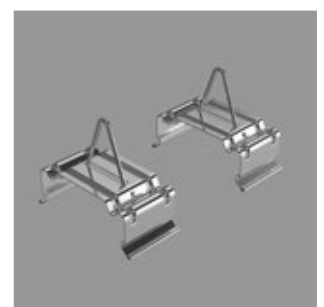
Easy adjustment of sensitivity and duration for version with movement sensor



Can be opened and closed without tools using a turn lock fastener, cable screw fitting as standard.



Flexible installation through sliding mounting bracket. Ideal for luminaire replacement.



Included in scope of delivery: Ceiling mounting bracket and triangular bracket for pendant mounting.



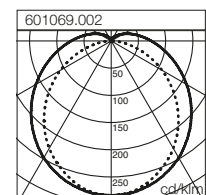
## PLANOX TUBE

Tube luminaire



- Housing made of shockproof polycarbonate (PC)
- ▽ Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk
- With accessories for wall, ceiling or pendant mounting
- Powerful LED panel
- Good colour consistency within 3 Mac Adam ellipses (3 SDCM)
- 1:1 replacement for fluorescent lamps
- LED rated life 50,000 h (L80, B10)
- High protection: IP 67
- Replaceable LED unit
- Operating range: -20°C to +40°C
- Beam angle 260°
- Position of mounting brackets can be adjusted
- Beam angle can be varied by turning the luminaire within the mounting brackets

601068.002			
<b>Room 20 x 10 x 3 m (0,75 m)</b>			
100 lx	200 lx	300 lx	500 lx
6	12	18	30
601069.002			
<b>Room 20 x 10 x 3 m (0,75 m)</b>			
100 lx	200 lx	300 lx	500 lx
6	10	15	25

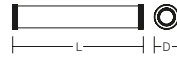


**Tube luminaire | Series: Planox Tube**

Type of Protection: **IP 67**  
 Protection Class: I  
 Impact Protection: IK10

Diffuser: plastic (polycarbonate), opal, shockproof. End caps plastic (polyamide) grey.  
 Integral driver. Cable entry easy-to-handle by cable gland (PG16) and easy installation by plug and play connector at the LED panel. Version for through-wiring has two cable glands.

LED included.  
 Available colour: 2 = white



**Tube luminaires**

Price Category 11

**Without through wiring**

Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
601065.002*	D 78, L 405,	LED	850	1200 lm	12 W	A++   A++
601066.002*	D 78, L 685,	LED	850	2350 lm	23 W	A++   A++
601067.002*	D 78, L 965,	LED	850	3550 lm	33 W	A++   A++
601068.002*	D 78, L 1245,	LED	850	4800 lm	46 W	A++   A++
601069.002*	D 78, L 1530,	LED	850	5950 lm	56 W	A++   A++

**With through wiring**

601066.002.1*	D 78, L 685,	LED	850	2350 lm	23 W	A++   A++
601067.002.1*	D 78, L 965,	LED	850	3550 lm	33 W	A++   A++
601068.002.1*	D 78, L 1245,	LED	850	4800 lm	46 W	A++   A++
601069.002.1*	D 78, L 1530,	LED	850	5950 lm	56 W	A++   A++

\* Mounting kit must be ordered separately.

**Pendant mounting**

Price Category 11

982118.000 with hanger assembly made of stainless steel

**Wall or ceiling installation**

Price Category 11

982117.009 Mounting bracket plastic (set 2 pieces)

**Comparison LED vs. conventional lamps**

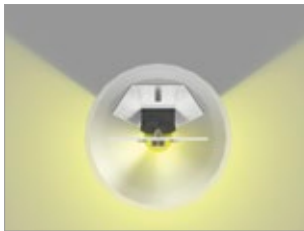
**LED 12 W ≈**  
 1 x 24 W T16 (26 W EB)

**LED 23 W ≈**  
 2 x 21 W T16 (42 W EB)  
 1 x 39 W T16 (42 W EB)

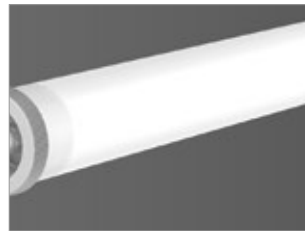
**LED 33 W ≈**  
 2 x 35 W T16 (76 W EB)  
 1 x 54 W T16 (58 W EB)

**LED 46 W ≈**  
 1 x 80 W T16 (86 W EB)

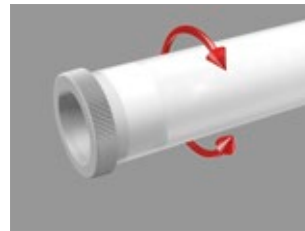
**LED 56 W ≈**  
 2 x 54 W T16 (115 W EB)



Indirect light to illuminate the ceiling.



Homogeneous light distribution thanks to frosted diffuser.



Beam angle can be varied by turning the luminaire within the mounting brackets.



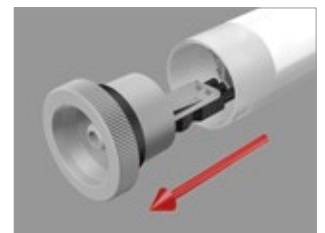
Low heat generation. Suitable for workshops with limited surface temperatures.



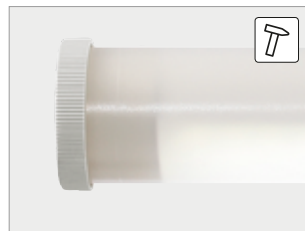
For fixed installation, including connectors for easy installation and maintenance. Version with through-wiring (two-sided cable entry).



Can be **opened** and **closed** without tools using a turn lock fastener, cable screw fitting as standard.



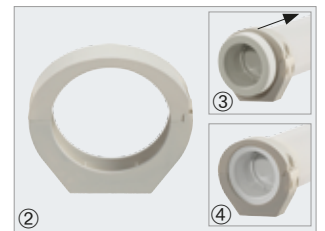
Every single LED module can be exchanged. Complete unit with LED modules and converter can be exchanged.



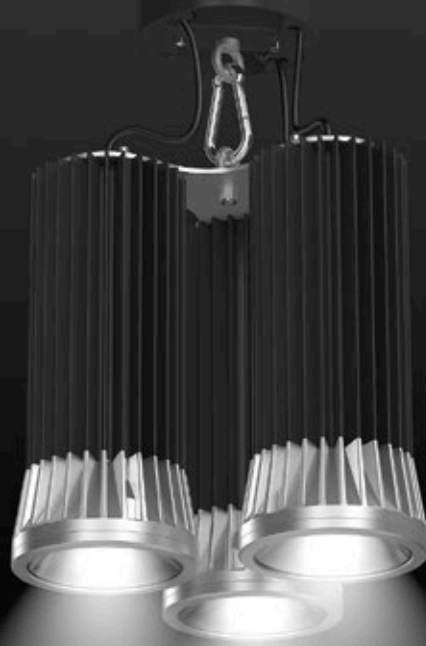
Housing made of shockproof polycarbonate (PC).



**Please order accessories separately**  
 ① Pendant mounting  
 ② Ceiling and wall mounting  
 Flexible installation through sliding mounting bracket.  
**Ideal for luminaire replacement.**



③ Figure Mounting bracket for flexible installation  
 ④ Figure Mounting bracket as theft protection



## RALITE® HIGHBAY II

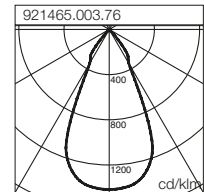
Highbay luminaires



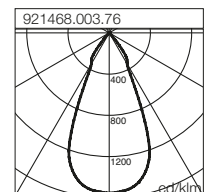
- State of the art pendant spot for highest technical requirements for indoor and outdoor use
- Advanced COB LED technology for maximum performance per luminaire top
- Individual components and LEDs are replaceable
- Luminous efficiency up to 128 lm/W
- 1:1 substitute for HME / HIE and HSE lamps
- Uses up to 72% less energy than conventional light sources
- "Self cleaning" heat sink: Vertical cooling ribs prevent dust deposits and ensure constant heat dissipation
- Non-reflecting, single pane safety glass (toughened glass) with minimal loss of transmission (less than 2%)
- Reflector made of MIRO-SILVER®

- 1 and 3 lamp versions with different power packages - for accurate and safe light planning
- Colour rendering index Ra  $\geq$  80
- High type of protection IP 66
- Ball impact protection in acc. with DIN 18032-03
- ▽ Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk
- Simple to install thanks to 1-point suspension
- Converter in separate box, laterally swivel mounted to reduce total height
- Standard DALI design
- Superior design, for different applications from factory workshop to foyer

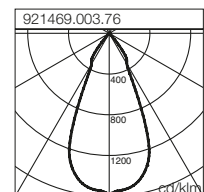
921465.003.76				
Hall 50 x 30 m (0 m)				
Lph	100 lx	300 lx	500 lx	
6 m	11	32	52	
9 m	11	33	54	
12 m	12	34	56	
15 m	12	35	57	



921468.003.76				
Hall 50 x 30 m (0 m)				
Lph	100 lx	300 lx	500 lx	
9 m	12	34	56	
12 m	12	36	60	
15 m	13	38	63	
18 m	14	41	68	



921469.003.76				
Hall 50 x 30 m (0 m)				
Lph	100 lx	300 lx	500 lx	
12 m	4	12	19	
15 m	4	12	19	
18 m	4	12	20	
22 m	5	13	21	



**Highbay luminaires | Series: Ralite® Highbay II**

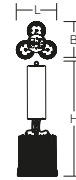
Type of Protection: **IP 66**  
 Protection Class: I  
 Impact Protection: IK07

Aluminium body with M8 eye bolt. Special black anodised aluminium cooling profile with calculated cooling fins for optimum heat dissipation. Passive cooling. Metal M12 cable screw fitting. Glass and reflector fitted in the spotlight top made of die cast aluminium. Reflector made of MIRO-SILVER®. Converter in separate ballast box. Driver housing can be mounted in a horizontally to reduce the pendant length of the system. Including anti-reflective safety glass. Suited for chain or steel cable suspension (provided by the client).

Dimming range 10% to 100%. Optimum control with RZB light control +<sup>3</sup>. ⚡ ball impact proof in accordance with DIN 18032-03. ⚠ For operation in fire hazardous environments.

LED included.

Available colour: 3 = black

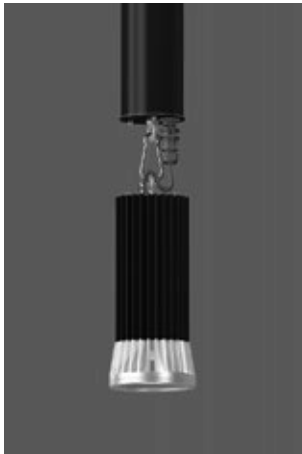


Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Pendant projectors</b>							
<b>one lamp</b>							
921462.003.76	D 150, H 829	LED	840	10000 lm	78 W	50°	21,3 A++   A++
921463.003.76	D 150, H 829	LED	840	12000 lm	97 W	50°	21,9 A++   A++
921464.003.76	D 150, H 829	LED	840	14500 lm	126 W	50°	22,6 A++   A++
921465.003.76	D 150, H 829	LED	840	16500 lm	154 W	50°	23,1 A++   A++
<b>two lamps</b>							
921466.003.76	L 327, B 150, H 939	LED	840	24300 lm	200 W	46°	21,5 A++   A++
921467.003.76	L 327, B 150, H 939	LED	840	28800 lm	253 W	46°	22,1 A++   A++
921468.003.76	L 327, B 150, H 939	LED	840	32700 lm	308 W	46°	22,6 A++   A++
<b>three lamps</b>							
921469.003.76	L 327, B 303, H 939	LED	840	49100 lm	468 W	46°	22,5 A++   A++

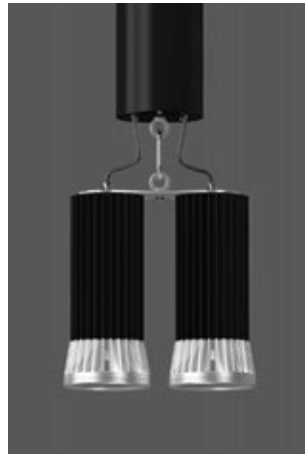
Price Category 21

**Comparison LED vs. conventional lamps**

- LED 78 W ≈**  
1 x 250 W HME (275 W CB)
- LED 97 W ≈**  
1 x 250 W HIE (275 W CB)
- LED 126 W ≈**  
1 x 400 W HME (445 W CB)
- LED 200 W ≈**  
1 x 400 W HIE (440 W CB)



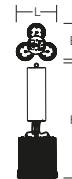
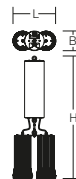
one lamp

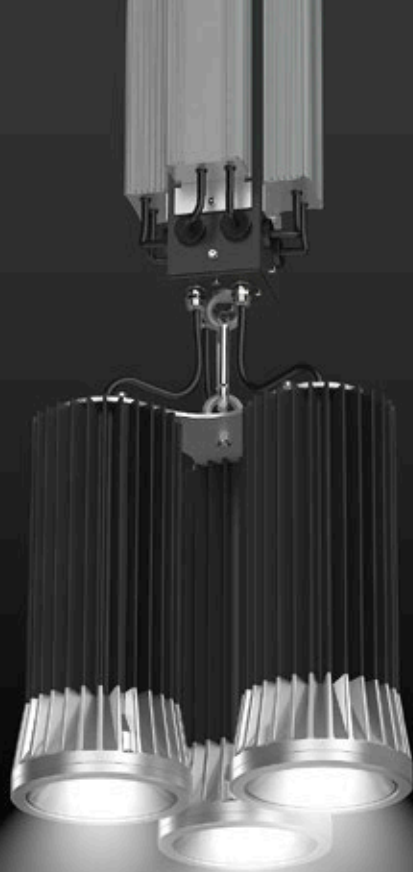


two lamps



three lamps





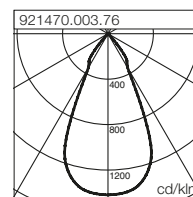
## RALITE® HIGHBAY II HT

Highbay luminaires

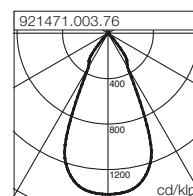


- State of the art pendant spot for highest technical requirements for indoor and outdoor use
- Advanced COB LED technology for maximum performance per luminaire top
- Individual components and LEDs are replaceable
- 1:1 substitute for HME / HIE and HSE lamps
- "Self cleaning" heat sink: Vertical cooling ribs prevent dust deposits and ensure constant heat dissipation
- Non-reflecting, single pane safety glass (toughened glass) with minimal loss of transmission (less than 2%)
- Reflector made of MIRO-SILVER®
- 1 and 3 lamp versions with different power packages - for accurate and safe light planning

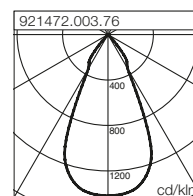
- Colour rendering index Ra  $\geq$  80
- High type of protection IP 66
- Ball impact protection in acc. with DIN 18032-03
- ▽ Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk
- Simple to install thanks to 1-point suspension
- Converter in separate box, laterally swivel mounted to reduce total height
- Standard DALI design
- Superior design, for different applications from factory workshop to foyer
- High quality interchangeable components like standard luminaire but suitable for operation in ambient temperature up to +60°



921470.003.76				
Room: 50 x 30 m				
Reflectance: 70/50/20				
Lph/E	100lx	300lx	500lx	750lx
6 m	21	62	102	153
9 m	22	64	106	158
12 m	22	66	109	164
15 m	23	67	112	168



921471.003.76				
Room: 50 x 30 m				
Reflectance: 70/50/20				
Lph/E	100lx	300lx	500lx	750lx
6 m	11	31	51	77
9 m	11	32	53	79
12 m	11	33	55	82
15 m	12	34	56	84



921472.003.76				
Room: 50 x 30 m				
Reflectance: 70/50/20				
Lph/E	100lx	300lx	500lx	750lx
6 m	8	23	37	56
9 m	8	23	39	58
12 m	8	24	40	60
15 m	9	25	41	61



**Highbay luminaires | Series: Ralite® Highbay II HT**

Type of Protection: **IP 66**  
Protection Class: I

Aluminium body with M8 eye bolt. Special black anodised aluminium cooling profile with calculated cooling fins for optimum heat dissipation. Passive cooling. Metal M12 cable screw fitting. Glass and reflector fitted in the spotlight top made of die cast aluminium. Reflector made of MIRO-SILVER®. Converter in separate ballast box. Driver housing can be mounted in a horizontally to reduce the pendant length of the system. Including anti-reflective safety glass. Suited for chain or steel cable suspension (provided by the client).

Dimming range 10% to 100%. Optimum control with RZB light control +3. ⚡ ball impact proof in accordance with DIN 18032-03. ⚠ For operation in fire hazardous environments. LED included.

Available colour: 3 = black

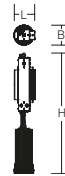


Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	α	UGR	EEC
<b>Pendant projectors</b>								
<b>one lamp</b>								
921470.003.76	D 147, L 152, B 147, H 891	LED	840	8400 lm	72 W	50°	20,7	A++   A++
<b>two lamps</b>								
921471.003.76	L 327, B 147, H 894	LED	840	16800 lm	144 W	50°	20,6	A++   A++
<b>three lamps</b>								
921472.003.76	L 326, B 303, H 893	LED	840	23200 lm	216 W	50°	20,3	A++   A++

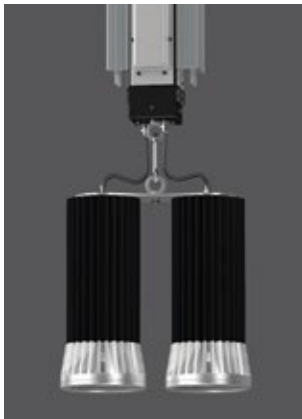
Price Category 21

**Comparison LED vs. conventional lamps**

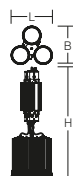
- LED 72 W ≈**  
1 x 250 W HME (275 W CB)
- LED 144 W ≈**  
1 x 400 W HME (445 W CB)
- LED 216 W ≈**  
1 x 400 W HIE (440 W CB)



921470.003.76 (L80, B10)		
Ambient temperature Ta	Service life of the luminaire unit	Luminaire flux
25 °C	100.000 h	9.000 lm
30 °C	100.000 h	8.800 lm
40 °C	100.000 h	8.700 lm
50 °C	75.000 h	8.500 lm
55 °C	50.000 h	8.400 lm
60 °C	35.000 h	8.300 lm



921471.003.76 (L80, B10)		
Ambient temperature Ta	Service life of the luminaire unit	Luminaire flux
25 °C	100.000 h	18.000 lm
30 °C	100.000 h	17.700 lm
40 °C	100.000 h	17.500 lm
50 °C	75.000 h	17.000 lm
55 °C	50.000 h	16.800 lm
60 °C	35.000 h	16.600 lm



921472.003.76 (L80, B10)		
Ambient temperature Ta	Service life of the luminaire unit	Luminaire flux
25 °C	100.000 h	24.800 lm
30 °C	100.000 h	24.400 lm
40 °C	100.000 h	24.000 lm
50 °C	75.000 h	23.500 lm
55 °C	50.000 h	23.200 lm
60 °C	35.000 h	22.900 lm



# INDUSTRIAL HALL

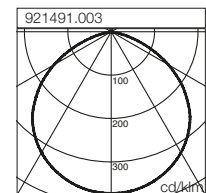
Highbay luminaires



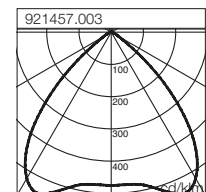
- Compact and flat hall luminaire
- High protection: IP 65
- 1:1 substitute for HME / HIE and HSE lamps
- Luminous efficiency up to 120 lm/W
- LED rated life 50,000 h (L70, B10)
- Glare limitation through accessories with reflectors ( $UGR \leq 22$ ) and refractors ( $UGR \leq 19,8$  up to 14,4)
- Non-reflecting, single pane safety glass (toughened glass)
- Passive cooling system
- Operating range:  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$

- ▽ Luminaires with limited surface temperature, suitable for premises where dust or fibres can create a fire risk
- Energy savings of up to 70%
- Simple to install thanks to 1-point suspension
- Standard is either converter for on/off or DALI dimming
- DALI versions suitable for use with AC/DC central power supply EN 50172

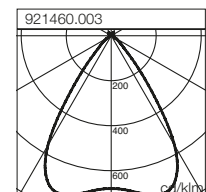
921491.003				
Hall 50 x 30 m (0 m)				
Lph	100 lx	300 lx	500 lx	
6 m	8	24	40	
9 m	9	27	44	
12 m	10	29	48	
15 m	11	32	53	



921457.003				
Hall 50 x 30 m (0 m)				
Lph	100 lx	300 lx	500 lx	
6 m	9	26	42	
9 m	9	27	45	
12 m	10	29	48	
15 m	11	31	51	



921460.003				
Hall 50 x 30 m (0 m)				
Lph	100 lx	300 lx	500 lx	
6 m	9	26	43	
9 m	10	28	46	
12 m	10	29	48	
15 m	11	31	51	



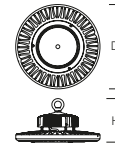
**Highbay luminaires | Series: Industrial Hall**

Type of Protection: **IP 65**  
 Protection Class: I  
 Impact Protection: IK07

LED Highbay luminaire for chain or cable suspension.

Housing: made of die-cast aluminium, powder coated black, with eye ring. Passive cooling. Cover clear single-pane tempered glass. Primary light control with high-performance wide-area LEDs in light colour 840. Standard version On/Off or DALI dimmable. Suited for chain or steel cable suspension (provided by the client). Dimming range 10% to 100%.

Available colour: 3 = black



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
<b>Commercial lighting</b>							
<b>Without lamp cover</b>							
921489.003	D 390, H 199	LED	840	11300 lm	94 W	110° 30,6	A++   A++
921489.003.76	D 390, H 149	LED	840	11300 lm	94 W	110° 30,6	A++   A++
921490.003	D 390, H 199	LED	840	15500 lm	133 W	110° 32,5	A++   A++
921490.003.76	D 390, H 149	LED	840	15500 lm	133 W	110° 32,5	A++   A++
921491.003	D 390, H 199	LED	840	23800 lm	205 W	110° 33,9	A++   A++
921491.003.76	D 390, H 149	LED	840	23800 lm	205 W	110° 33,9	A++   A++
<b>Reflector: aluminium</b>							
921455.003	D 390, H 349	LED	840	10300 lm	94 W	90° 20,4	A++   A++
921455.003.76	D 390, H 299	LED	840	10300 lm	94 W	90° 20,4	A++   A++
921456.003	D 390, H 349	LED	840	14000 lm	133 W	90° 21,7	A++   A++
921456.003.76	D 390, H 299	LED	840	14000 lm	133 W	90° 21,7	A++   A++
921457.003	D 390, H 349	LED	840	21500 lm	205 W	90° 20,4	A++   A++
921457.003.76	D 390, H 299	LED	840	21500 lm	205 W	90° 20,4	A++   A++
<b>Refractor: PMMA, transparent</b>							
921458.003	D 570, H 533	LED	840	10800 lm	94 W	70° 14,4	A++   A++
921458.003.76	D 570, H 483	LED	840	10800 lm	94 W	70° 14,4	A++   A++
921459.003	D 570, H 533	LED	840	14800 lm	133 W	70° 15,9	A++   A++
921459.003.76	D 570, H 483	LED	840	14800 lm	133 W	70° 15,9	A++   A++
921460.003	D 570, H 533	LED	840	21700 lm	205 W	70° 19,8	A++   A++
921460.003.76	D 570, H 483	LED	840	21700 lm	205 W	70° 19,8	A++   A++

**Accessories | Ceiling and wall mounting bracket**

Wall and ceiling mounting bracket made of black metal (wall installation: open beam and with reflector)

Ceiling and wall mounting bracket		Price Category 21
982112.003	L 124, B 394, H 229	
<b>Reflector: aluminium</b>		Price Category 21
982114.004	D 327, H 150	90°
<b>Reflector: plastic</b>		Price Category 21
982115.000	D 570, H 343	70°



Fig. Without lamp cover



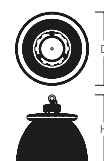
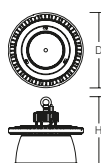
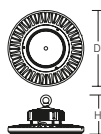
Fig. with reflector



Fig. with refractor



Wall and ceiling mounting bracket





The application image shows:  
Industrial Hall





# SONIS B

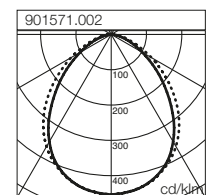
Sports facility luminaires



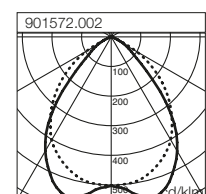
- 1:1 replacement for fluorescent lamps
- Ball impact protection in acc. with DIN 18032-03
- Polycarbonate cover to protect the light emitting surface, with ball impact protection
- High quality surface mounted luminaire, direct beam
- Luminaire with darklight louvre, glare free allround in accordance with EN 12464-1
- Customised solutions available on request (output / type of installation)
- CRI greater than 85
- Standard is either converter for on/off or DALI dimming

Areas of application: Multipurpose, sports and tennis halls

901571.002			
Hall 50 x 30 m (0 m)			
Lph	100 lx	300 lx	500 lx
3 m	17	50	82
5 m	15	45	75
7 m	16	48	79
9 m	17	51	84



901572.002			
Hall 50 x 30 m (0 m)			
Lph	100 lx	300 lx	500 lx
3 m	17	50	82
5 m	16	46	76
7 m	16	47	79
9 m	17	50	83



**Sports facility luminaires | Series: Sonis B**

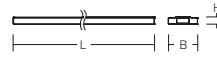
Type of Protection: **IP 40**  
 Protection Class: I

Housing made from a single piece of sheet steel, powder coated. Sheet steel frame, painted, with transparent polycarbonate cover with ball impact protection or polycarbonate prism cover with ball impact protection, fastened to the luminaire with special locking system.

Darklight louvre version: highly polished anodised aluminium with parabolic horizontal lamellas and side reflectors (narrow LDC). Ball impact proof in accordance with DIN 18032-03.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Ceiling and wall luminaires</b>						
<b>Price Category 21</b>						
<b>Cover: plastic, prismatic</b>						
901571.002	L 1548, B 312, H 55	LED	840	12300 lm	138 W	A+   A+
901571.002.76	L 1548, B 312, H 55	LED	840	12300 lm	138 W	A+   A+
<b>Darklight reflector: aluminium, highly polished anodised finish</b>						
901572.002	L 1548, B 312, H 55	LED	840	11900 lm	131 W	A+   A+
901572.002.76	L 1548, B 312, H 55	LED	840	11900 lm	131 W	A+   A+

Pendant luminaire also possible with accessories (on request).

**Comparison  
 LED vs. conventional lamps**

**LED 131 W >**  
 3 x 58 W T26 (201 W CB)

**LED 138 W >**  
 3 x 58 W T26 (201 W CB)



Darklight reflector: aluminium, highly polished anodised finish, Cover: plastic, transparent



Cover: plastic, prismatic



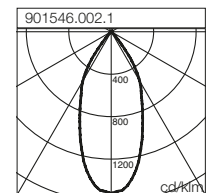
# ENERGO® DARKLIGHT

Recessed downlights

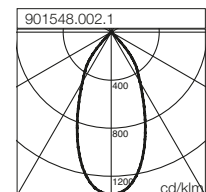


- High quality recessed downlight
- Die cast aluminium ring with trumpet reflector
- Trumpet reflector creates a darklight effect, i.e. when switched on, the luminaire appears dark (when seen from the side), no longer any need for (turbo) louvre to create this effect
- Harmonised lighting
- Very good glare restriction: UGR <17 to <19 - yet high light output ratio
- Uses up to 65% less energy than conventional fluorescent downlights
- Three sizes
- Passive cooling system
- Interchangeable LED
- Four different LED lumen packages
- Colour temperature 3000 K or 4000 K
- Ra 85 as standard, optionally Ra 95 also possible
- LED rated life 50,000 h (L80, B10)
- Good colour consistency within 3 Mac Adam ellipses (3 SDCM)
- The converter is compatible with DC, making it ideal for central emergency power supply purposes
- Easy to install thanks to tool-free spring fastening system

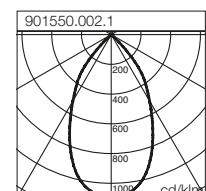
901546.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	3	4
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	5	8



901548.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	3	4
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	4	6



901550.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
2	2	3
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
2	3	5





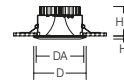
**Recessed downlights | Series: Energo® Darklight**

Type of Protection: IP 20  
 Protection Class: I, II  
 Ceiling Thickness: 3-18 mm

Recessed and bezel ring: die-cast aluminium. Bezel ring with bayonet fixing. Mounting frame: sheet steel, powder-coated. Heat sink made of black anodised extruded aluminium. Trumpet reflector: high purity aluminium, matt. Ceiling installation with spring system. LED converter in separate box. With connecting cable (L 400 mm). Passive cooling. Suitable for through-wiring. Converter connected for standard (on/off) or DALI dimmable. Compatible with DC, ideal for central emergency power supply purposes.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	α	UGR	EEC	Price Category 21
<b>Recessed downlights</b>									
<b>140 Ceiling cut out DA 140 mm, HE 154 mm</b>									
901545.002	D 156, H 9	LED	830	1200 lm	10 W	40°	15,8	A+   A+	
901545.002.76	D 156, H 9	LED	830	1200 lm	10 W	40°	15,8	A+   A+	
901545.002.1	D 156, H 9	LED	840	1200 lm	10 W	40°	15,8	A+   A+	
901545.002.1.76	D 156, H 9	LED	840	1200 lm	10 W	40°	15,8	A+   A+	
901546.002	D 156, H 9	LED	830	2200 lm	19 W	46°	18,0	A+   A+	
901546.002.76	D 156, H 9	LED	830	2200 lm	19 W	46°	18,0	A+   A+	
901546.002.1	D 156, H 9	LED	840	2200 lm	19 W	46°	18,0	A+   A+	
901546.002.1.76	D 156, H 9	LED	840	2200 lm	19 W	46°	18,0	A+   A+	
<b>175 Ceiling cut out DA 175 mm, HE 160 mm</b>									
901547.002	D 195, H 9	LED	830	2150 lm	19 W	48°	17,2	A+   A+	
901547.002.76	D 195, H 9	LED	830	2150 lm	19 W	48°	17,2	A+   A+	
901547.002.1	D 195, H 9	LED	840	2150 lm	19 W	48°	17,2	A+   A+	
901547.002.1.76	D 195, H 9	LED	840	2150 lm	19 W	48°	17,2	A+   A+	
901548.002	D 195, H 9	LED	830	2900 lm	27 W	48°	18,3	A+   A+	
901548.002.76	D 195, H 9	LED	830	2900 lm	27 W	48°	18,3	A+   A+	
901548.002.1	D 195, H 9	LED	840	2900 lm	27 W	48°	18,3	A+   A+	
901548.002.1.76	D 195, H 9	LED	840	2900 lm	27 W	48°	18,3	A+   A+	
<b>210 Ceiling cut out DA 210 mm, HE 175 mm</b>									
901549.002	D 230, H 9	LED	830	3150 lm	26 W	58°	17,9	A+   A+	
901549.002.76	D 230, H 9	LED	830	3150 lm	26 W	58°	17,9	A+   A+	
901549.002.1	D 230, H 9	LED	840	3150 lm	26 W	58°	17,9	A+   A+	
901549.002.1.76	D 230, H 9	LED	840	3150 lm	26 W	58°	17,9	A+   A+	
901550.002	D 230, H 9	LED	830	3750 lm	35 W	58°	18,5	A+   A+	
901550.002.76	D 230, H 9	LED	830	3750 lm	35 W	58°	18,5	A+   A+	
901550.002.1	D 230, H 9	LED	840	3750 lm	35 W	58°	18,5	A+   A+	
901550.002.1.76	D 230, H 9	LED	840	3750 lm	35 W	58°	18,5	A+   A+	

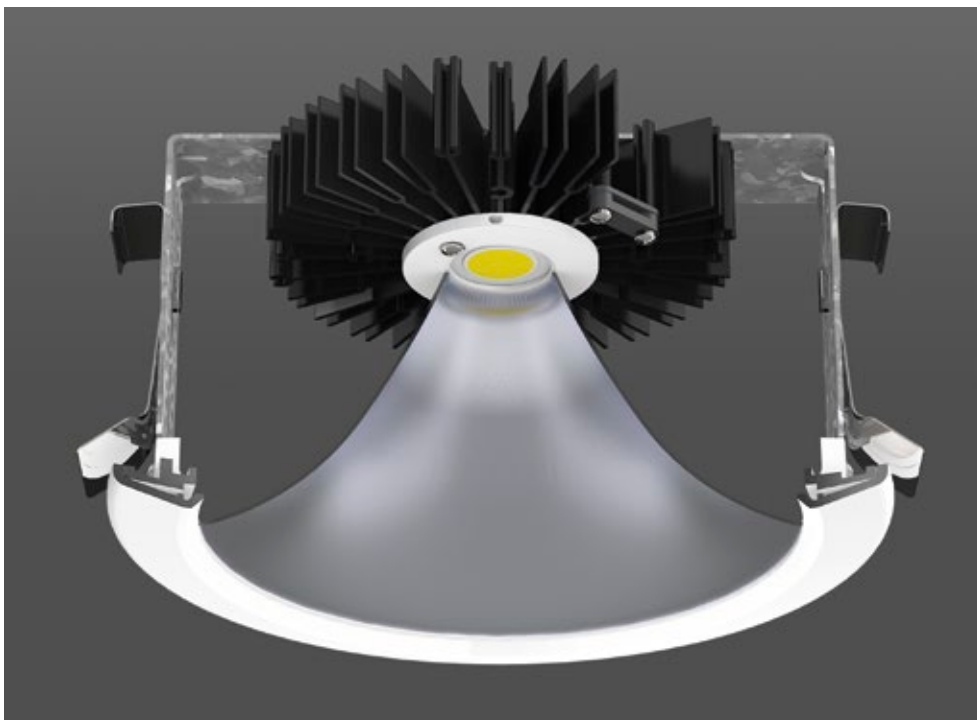
**Comparison LED vs. conventional lamps**

**LED 10 W ≈**  
 1 x 26 W TC-D (34 W CB)

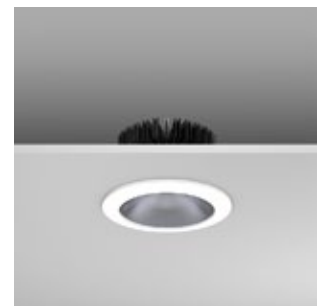
**LED 19 W ≈**  
 1 x 42 W TC-TEL (47 W EB)

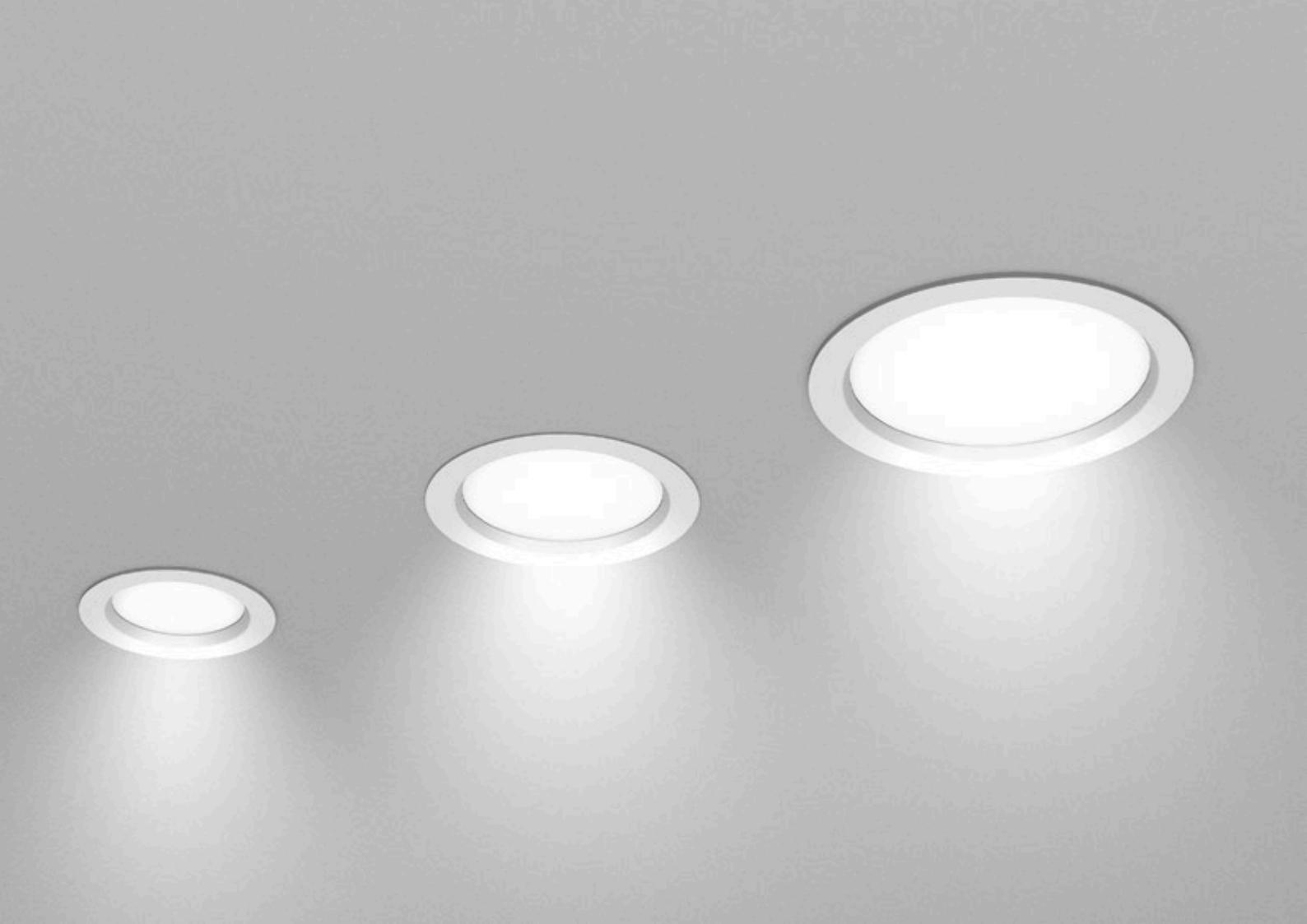
**LED 26/27 W ≈**  
 2 x 32 W TC-TEL (69 W EB)

**LED 35 W ≈**  
 3 x 26 W TC-D (102 W CB)



Trumpet reflector for darklight effect





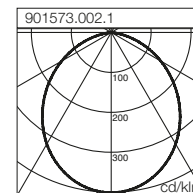
# TOLEDO

Recessed downlights

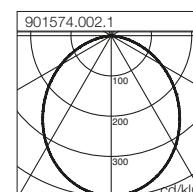


- High efficiency LED recessed downlight in three sizes
- Housing and opal plastic diffuser made of UV-resistant polycarbonate
- Homogeneous and smooth light distribution
- Protection type IP 44
- Luminous efficiency up to 117 lm/W
- LED rated life: 35,000 hours (L70, B10)
- Good colour consistency within 4 Mac Adam ellipses (4 SDCM)
- Suitable for through wiring
- Spring fastening system for installation without tools
- Colour temperature 2700 K or 4000 K
- Colour rendering index Ra > 80

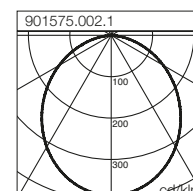
901573.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
8	11	15
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
11	17	27



901574.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
4	5	7
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
5	8	13



901575.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
3	4	5
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
3	5	8



**Recessed downlights | Series: Toledo**

Type of Protection: **IP 44**

Protection Class: II

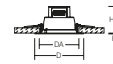
Ceiling Thickness: 1-25 mm

Impact Protection: IK05

Bezel ring: die-cast aluminium, powder-coated. Housing plastic (polycarbonate UV-resistant). Diffusor plastic (polycarbonate UV-resistant) opal, impact resistant. Spring fastening system. Passive cooling. Suitable for through-wiring. Converter included.

LED included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC
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**Recessed downlights**

**Price Category 21**

105	<b>Ceiling cut out DA 105 mm, HE 100 mm</b>						
	901573.002	D 130, H 2	LED	827	770 lm	8 W	102° 26,5
	901573.002.1	D 130, H 2	LED	840	850 lm	8 W	102° 26,9
150	<b>Ceiling cut out DA 150 mm, HE 140 mm</b>						
	901574.002	D 172, H 2	LED	827	1750 lm	17 W	102° 27,1
	901574.002.1	D 172, H 2	LED	840	1900 lm	17 W	102° 27,4
200	<b>Ceiling cut out DA 200 mm, HE 140 mm</b>						
	901575.002	D 225, H 4	LED	827	2600 lm	26 W	104° 26,9
	901575.002.1	D 225, H 4	LED	840	3050 lm	26 W	104° 27,4

**Comparison**

**LED vs. conventional lamps**

**LED 8 W ≈**

1 x 18 W TC-D (26 W CB)

**LED 17 W ≈**

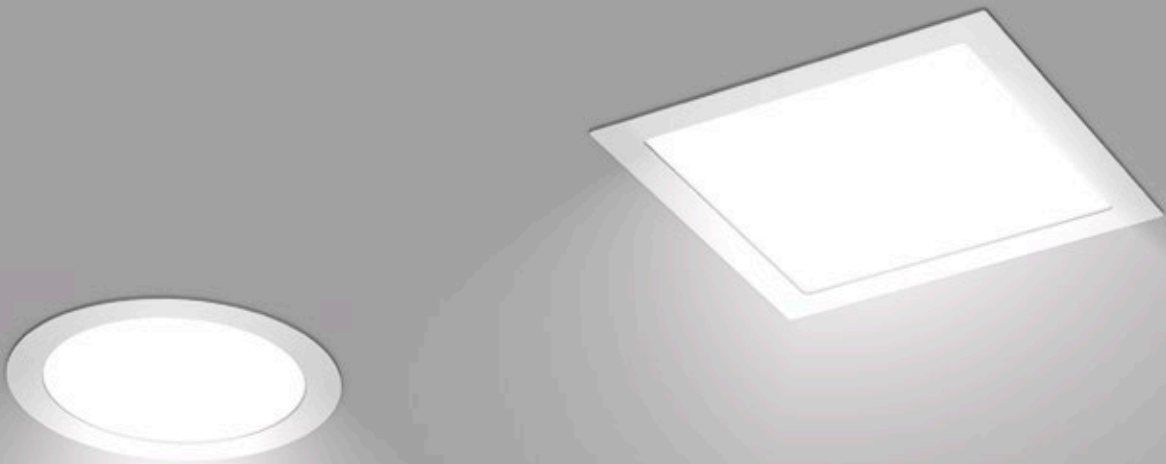
1 x 42 W TC-TEL (47 W EB)

**LED 26 W ≈**

2 x 32 W TC-TEL (69 W EB)



The application image shows: Toledo



# TOLEDO FLAT

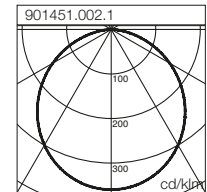
Recessed downlights



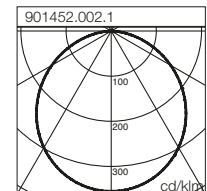
- Ultra thin recessed LED downlight
- Lightguide and diffuser made from non-yellowing PMMA
- Shallow recessed depth
- LED rated life: 35,000 hours (L70, B10)
- Colour rendering index Ra > 80
- Good colour consistency within 4 Mac Adam ellipses (4 SDCM)
- Colour temperature 3,000 K or 4,000 K
- Easy to install thanks to tool-free spring fastening system
- Can be directly covered with thermal insulation material

- Separate converter box with connecting cable
- Converter for standard (on/off) or DALI dimmable
- DALI converter is compatible with DC, making it ideal for central emergency power supply purposes
- Surface mounted housing as accessory for all sizes
- Applications:  
Corridors, side rooms, hotels, restaurants, conference rooms, private rooms

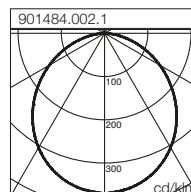
901451.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
18	26	35
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
25	38	63



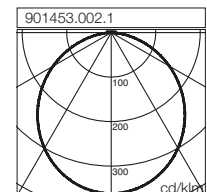
901452.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
9	13	18
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
13	19	32



901484.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
4	5	7
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
5	7	12



901453.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
5	7	10
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
6	9	-



**Recessed downlights | Series: Toledo Flat Round**

 Type of Protection: **IP 40**

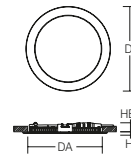
Protection Class: II

Ceiling Thickness: 1-20 mm

Impact Protection: IK06

Housing: die-cast aluminium. Lightguide and diffuser made of non-yellowing PMMA, opal matt. Ceiling installation with spring system. Separate LED converter with connecting cable 250 mm. LED and LED converter included.

Available colour: 2 = white

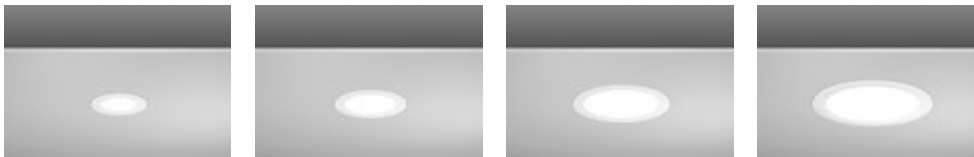


Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	α	UGR	EEC
<b>Recessed downlights</b>								
<b>Price Category 21</b>								
<b>128 Ceiling cut out DA 128 mm, HE 65 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901451.002.76	D 148, H 2	LED	830	360 lm	5 W	110°	26,1	A+   A+
901451.002.1.76	D 148, H 2	LED	840	380 lm	5 W	110°	26,2	A+   A+
<b>170 Ceiling cut out DA 170 mm, HE 21 mm; Dimensions of converter box: L 86 x B 36 x H 25 mm</b>								
901451.002	D 148, H 2	LED	830	360 lm	5 W	110°	26,1	A+   A+
901451.002.1	D 148, H 2	LED	840	380 lm	5 W	110°	26,2	A+   A+
<b>170 Ceiling cut out DA 170 mm, HE 65 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901452.002	D 190, H 3	LED	830	660 lm	9 W	110°	25,8	A   A
901452.002.1	D 190, H 3	LED	840	760 lm	9 W	110°	26,3	A+   A+
<b>234 Ceiling cut out DA 234 mm, HE 65 mm; Dimensions of converter box: L 100 x B 41 x H 28 mm</b>								
901453.002	D 190, H 3	LED	830	660 lm	9 W	112°	25,8	A   A
901452.002.1.76	D 190, H 3	LED	840	760 lm	9 W	112°	26,3	A+   A+
<b>234 Ceiling cut out DA 234 mm, HE 65 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901453.002	D 255, H 3	LED	830	1300 lm	18 W	110°	25,6	A   A
901453.002.1	D 255, H 3	LED	840	1500 lm	18 W	110°	26,2	A   A
<b>289 Ceiling cut out DA 288 mm, HE 65 mm; Dimensions of converter box: L 122 x B 43 x H 30 mm</b>								
901484.002	D 255, H 3	LED	830	1300 lm	18 W	110°	25,6	A   A
901484.002.1	D 255, H 3	LED	840	1500 lm	18 W	110°	26,2	A   A
<b>289 Ceiling cut out DA 288 mm, HE 65 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901484.002.76	D 317, H 3	LED	830	1950 lm	23 W	108°	25,2	A   A
901484.002.1.76	D 317, H 3	LED	840	2100 lm	23 W	108°	25,3	A   A


**Comparison LED vs. conventional lamps**
**LED 5 W ≈**  
 1 x 10 W TC-D (16 W CB)

**LED 9 W ≈**  
 1 x 18 W TC-D (26 W CB)

**LED 18 W ≈**  
 1 x 32 W TC-D (36 W CB)

**LED 23 W ≈**  
 2 x 26 W TC-D (68 W CB)

**Accessories | Surface mounted housing Toledo Flat**

Ceiling frame and mounting plate galvanised metal. Cylinder housing sheet steel powder-coated. Downlight can be locked without tools.

Surface mounted housing			Price Category 21
982072.002*	D 150, H 55 mm	for Toledo Flat Round D 148	
982073.002	D 192, H 55 mm	for Toledo Flat Round D 190	
982074.002	D 257, H 60 mm	for Toledo Flat Round D 255	
982119.002	D 319, H 60 mm	for Toledo Flat Round D 317	

\* Not suitable for DALI version





**Comparison LED vs. conventional lamps**

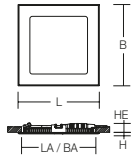
- LED 5 W ≈**  
1 x 10 W TC-D (16 W CB)
- LED 8 W ≈**  
1 x 18 W TC-D (26 W CB)
- LED 18 W ≈**  
1 x 32 W TC-D (36 W CB)
- LED 23 W ≈**  
2 x 26 W TC-D (68 W CB)

**Recessed downlights | Series: Toledo Flat Square**

Type of Protection: **IP 40**  
Protection Class: II  
Impact Protection: IK06

Housing: die-cast aluminium. Lightguide and diffuser made of non-yellowing PMMA, opal matt. Ceiling installation with spring system. Separate LED converter with connecting cable 250 mm.

LED and LED converter included.  
Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	EEC	Price Category 21
<b>Recessed downlights</b>								
<b>Ceiling cut out LA 96 x BA 96 mm, HE 20 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901485.002.76	L 110, B 110, H 3	LED	830	330 lm	5 W	106°	27,5	A+   A+
901485.002.1.76	L 110, B 110, H 3	LED	840	350 lm	5 W	106°	27,9	A+   A+
<b>Ceiling cut out LA 96 x BA 96 mm, HE 20 mm; Dimensions of converter box: L 85 x B 36 x H 25 mm</b>								
901485.002	L 110, B 110, H 3	LED	830	330 lm	5 W	108°	27,5	A+   A+
901485.002.1	L 110, B 110, H 3	LED	840	350 lm	5 W	108°	27,8	A+   A+
<b>Ceiling cut out LA 156 x BA 156 mm, HE 20 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901486.002.76	L 172, B 172, H 3	LED	830	640 lm	8 W	108°	25,3	A+   A+
901486.002.1.76	L 172, B 172, H 3	LED	840	690 lm	8 W	108°	25,5	A+   A+
<b>Ceiling cut out LA 156 x BA 156 mm, HE 20 mm; Dimensions of converter box: L 85 x B 36 x H 25 mm</b>								
901486.002	L 172, B 172, H 3	LED	830	640 lm	8 W	108°	25,3	A+   A+
901486.002.1	L 172, B 172, H 3	LED	840	690 lm	8 W	108°	25,5	A+   A+
<b>Ceiling cut out LA 208 x BA 208 mm, HE 20 mm; Dimensions of converter box: L 100 x B 40 x H 28 mm</b>								
901487.002	L 225, B 225, H 3	LED	830	1450 lm	18 W	108°	25,6	A   A
901487.002.1	L 225, B 225, H 3	LED	840	1550 lm	18 W	108°	25,8	A   A
<b>Ceiling cut out LA 208 x BA 208 mm, HE 20 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901487.002.76	L 225, B 225, H 3	LED	830	1450 lm	18 W	108°	25,6	A   A
901487.002.1.76	L 225, B 225, H 3	LED	840	1550 lm	18 W	108°	25,8	A   A
<b>Ceiling cut out LA 280 x BA 280 mm, HE 20 mm; Dimensions of converter box: L 122 x B 43 x H 30 mm</b>								
901488.002	L 300, B 300, H 3	LED	830	2000 lm	23 W	108°	24,1	A   A
901488.002.1	L 300, B 300, H 3	LED	840	2150 lm	23 W	108°	24,4	A   A
<b>Ceiling cut out LA 280 x BA 280 mm, HE 20 mm; Dimensions of converter box: L 138 x B 67 x H 30 mm</b>								
901488.002.76	L 300, B 300, H 3	LED	830	2000 lm	23 W	108°	24,2	A   A
901488.002.1.76	L 300, B 300, H 3	LED	840	2150 lm	23 W	108°	24,4	A   A



**Accessories | Surface mounted housing Toledo Flat**

Surface mounted housing: sheet steel, powder coated. Downlight can be locked without tools.

Surface mounted housing	Price Category 21
982138.002*	L 111, B 111, H 58 mm for Toledo Flat Square 110 x 110
982139.002	L 173, B 173, H 58 mm for Toledo Flat Square 172 x 172
982140.002	L 226, B 226, H 58 mm for Toledo Flat Square 225 x 225
982141.002	L 301, B 301, H 58 mm for Toledo Flat Square 300 x 300

\* Not suitable for DALI version





The application image shows:  
Toledo Flat



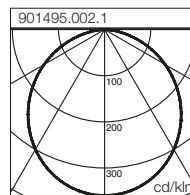
# TOLEDO FLAT

Surface mounted downlights

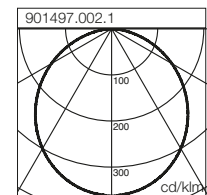


- Ultra thin surface mounted LED downlight in four different diametres
  - Lightguide and diffuser made from non-yellowing PMMA
  - Suitable for ceiling and wall mounting
  - Very low installation height
  - LED rated life: 35,000 hours (L70, B10)
  - Colour rendering index Ra > 80
  - Good colour consistency within 4 Mac Adam ellipses (4 SDCM)
  - Colour temperature 3,000 K or 4,000 K
- Applications:  
Corridors, side rooms, hotels, restaurants, conference rooms, private rooms

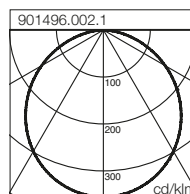
901495.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
18	26	35
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
25	38	63



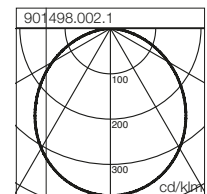
901497.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
5	7	10
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
6	9	-



901496.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
9	13	18
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
13	19	32



901498.002.1		
<b>Floor 12 x 2,5 x 3 m (0,2 m)</b>		
100 lx	150 lx	200 lx
4	5	7
<b>Room 6 x 4 x 3 m (0,75 m)</b>		
200 lx	300 lx	500 lx
5	7	12





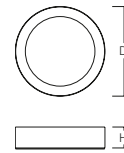
Surface mounted downlights | Series: Toledo Flat Round

Type of Protection: **IP 40**  
 Protection Class: II  
 Impact Protection: IK06

Cylinder housing: sheet steel, powder coated. Bezel ring: die-cast aluminium, powder-coated.  
 Lightguide and diffuser made of non-yellowing PMMA, opal matt.

LED and LED converter included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	$\alpha$	UGR	EEC
<b>Surface mounted downlights</b>								
901495.002	D 150, H 57	LED	830	360 lm	5 W	110°	26,1	A+   A+
901495.002.1	D 150, H 57	LED	840	380 lm	5 W	110°	26,2	A+   A+
901496.002	D 192, H 58	LED	830	660 lm	9 W	110°	25,8	A   A
901496.002.76	D 192, H 58	LED	830	660 lm	9 W	110°	25,8	A   A
901496.002.1	D 192, H 58	LED	840	760 lm	9 W	110°	26,3	A+   A+
901496.002.1.76	D 192, H 58	LED	840	760 lm	9 W	110°	26,3	A+   A+
901497.002	D 257, H 63	LED	830	1300 lm	18 W	110°	25,6	A   A
901497.002.76	D 257, H 63	LED	830	1300 lm	18 W	110°	25,6	A   A
901497.002.1	D 257, H 63	LED	840	1500 lm	18 W	110°	26,2	A   A
901497.002.1.76	D 257, H 63	LED	840	1500 lm	18 W	110°	26,2	A   A
901498.002	D 319, H 63	LED	830	1950 lm	23 W	108°	25,2	A   A
901498.002.76	D 319, H 63	LED	830	1950 lm	23 W	108°	25,2	A   A
901498.002.1	D 319, H 63	LED	840	2100 lm	23 W	108°	25,3	A   A
901498.002.1.76	D 319, H 63	LED	840	2100 lm	23 W	108°	25,3	A   A



**Comparison LED vs. conventional lamps**

**LED 5 W ≈**  
1 x 10 W TC-D (16 W CB)

**LED 9 W ≈**  
1 x 18 W TC-D (26 W CB)

**LED 18 W ≈**  
1 x 32 W TC-D (36 W CB)

**LED 23 W ≈**  
2 x 26 W TC-D (68 W CB)



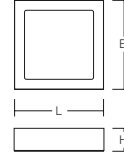
Surface mounted downlights | Series: Toledo Flat Square

Type of Protection: **IP 40**  
 Protection Class: II  
 Impact Protection: IK06

Surface mounted housing: sheet steel, powder coated. Square cover plate: die cast aluminium, powder coated. Lightguide and diffuser made of non-yellowing PMMA, opal matt.

LED and LED converter included.

Available colour: 2 = white



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	$\alpha$	UGR	EEC
<b>Surface mounted downlights</b>								
901551.002	L 111, B 111, H 58	LED	830	330 lm	5 W	106°	27,5	A+   A+
901551.002.1	L 111, B 111, H 58	LED	840	350 lm	5 W	106°	27,9	A+   A+
901552.002	L 173, B 173, H 58	LED	830	640 lm	8 W	108°	25,3	A+   A+
901552.002.76	L 173, B 173, H 58	LED	830	640 lm	8 W	108°	25,3	A+   A+
901552.002.1	L 173, B 173, H 58	LED	840	690 lm	8 W	108°	25,5	A+   A+
901552.002.1.76	L 173, B 173, H 58	LED	840	690 lm	8 W	108°	25,5	A+   A+
901553.002	L 226, B 226, H 58	LED	830	1450 lm	18 W	108°	25,6	A   A
901553.002.76	L 226, B 226, H 58	LED	830	1450 lm	18 W	108°	25,6	A   A
901553.002.1	L 226, B 226, H 58	LED	840	1550 lm	18 W	108°	25,8	A   A
901553.002.1.76	L 226, B 226, H 58	LED	840	1550 lm	18 W	108°	25,8	A   A
901554.002	L 301, B 301, H 58	LED	830	1950 lm	23 W	108°	24,2	A   A
901554.002.76	L 301, B 301, H 58	LED	830	1950 lm	23 W	108°	24,2	A   A
901554.002.1	L 301, B 301, H 58	LED	840	2100 lm	23 W	108°	24,4	A   A
901554.002.1.76	L 301, B 301, H 58	LED	840	2100 lm	23 W	108°	24,4	A   A



**Comparison LED vs. conventional lamps**

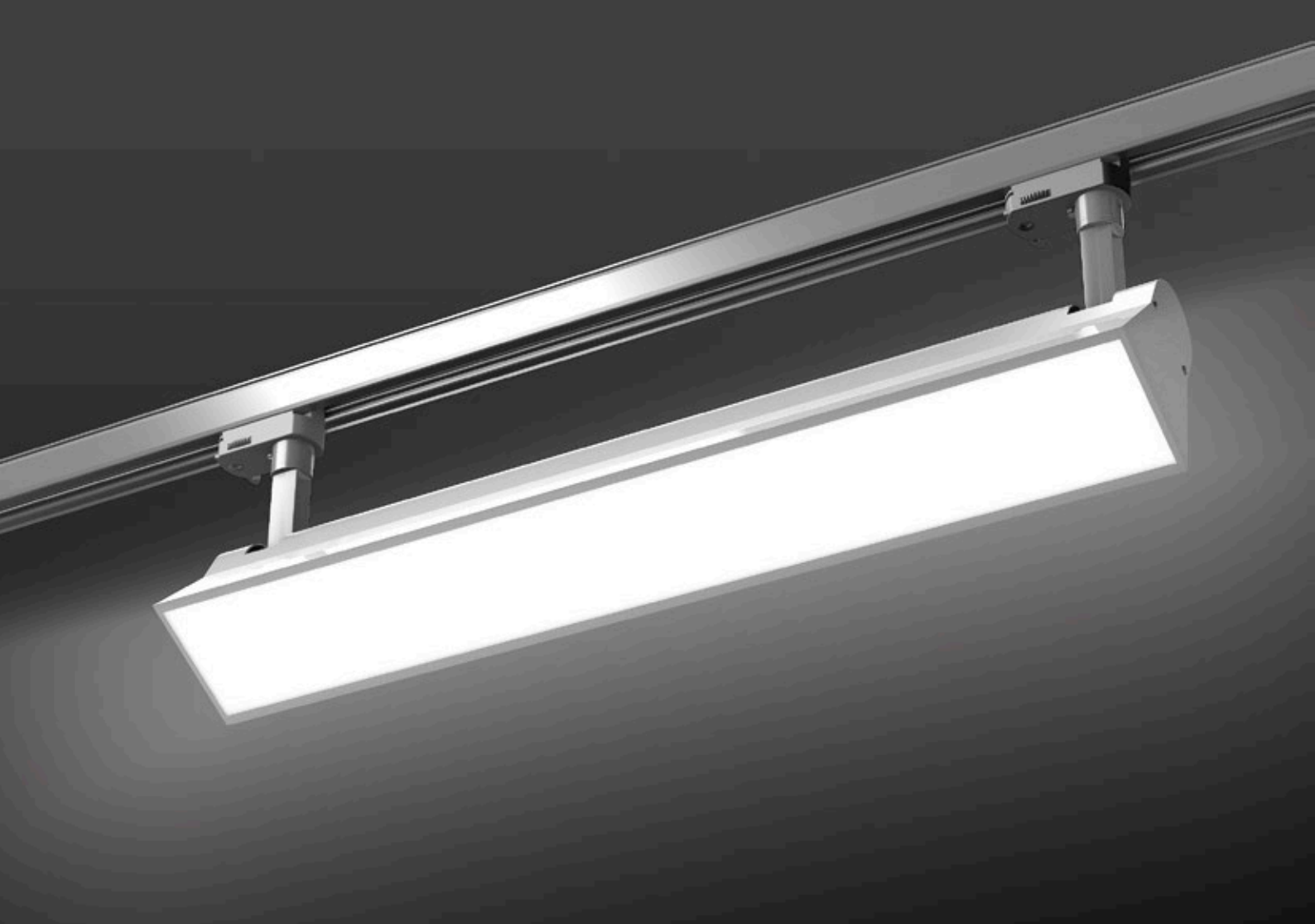
**LED 5 W ≈**  
1 x 10 W TC-D (16 W CB)

**LED 8 W ≈**  
1 x 18 W TC-D (26 W CB)

**LED 18 W ≈**  
1 x 32 W TC-D (36 W CB)

**LED 23 W ≈**  
2 x 26 W TC-D (68 W CB)





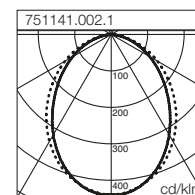
## TRIADE LED

Surface mounted projectors

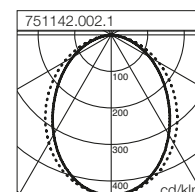


- LED spotlight for surface / track mounting in geometrical design for indoor applications
- For general and wall lighting
- Energy savings up to 58% compared to fluorescent lamps
- Swivel range: 90°
- Diffuser made of opal polycarbonate - for uniform and soft light distribution
- High quality housing made of extruded aluminium profile, powder coated
- Two different light colours 830 and 840
- LED rated life 50,000 h (L70, B10)
- Good colour consistency within 4 Mac Adam ellipses (4 SDCM)
- Track mounting for high flexibility
- Available in two sizes and wattages
- With multi adapter for 3-circuit tracks or with adapter for 3-circuit DALI tracks
- With integrated converter

751141.002.1		
h (m)	ø (m)	E (lx)
0,5	0,96/1,13	4424
1,0	1,92/2,27	1106
1,5	2,88/3,40	492
2,0	3,84/4,54	277
2,5	4,79/5,67	177



751142.002.1		
h (m)	ø (m)	E (lx)
0,5	0,96/1,16	7646
1,0	1,91/2,33	1912
1,5	2,87/3,49	850
2,0	3,82/4,65	478
2,5	4,78/5,81	306

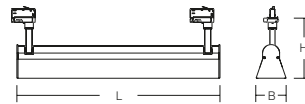


Surface mounted projectors | Series: Triade LED

Type of Protection: IP 20  
 Protection Class: I  
 Impact Protection: IK02

Housing: aluminium extrusion profile, powder-coated. Vertical swivel range: 90°. Diffuser: plastic (polycarbonate), opal. LED and converter are included. Passive cooling. With multi-adapter for 3-phase tracks or with adapter for RZB 3-phase DALI tracks. Ceiling mounting.

Available colours (X): 2 = white, 3 = black, 4 = silver coloured



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	System	EEC
<b>Surface mounted projector</b>							
<b>with multi adaptor for 3-circuit tracks 230 V</b>							
751141.00X	L 600, B 89, H 178	LED	830	3100 lm	36 W	90°/98°	A+   A+
751141.00X.1	L 600, B 89, H 178	LED	840	3150 lm	36 W	88°/98°	A+   A+
751142.00X	L 1160, B 89, H 178	LED	830	5250 lm	60 W	90°/100°	A+   A+
751142.00X.1	L 1160, B 89, H 178	LED	840	5450 lm	60 W	88°/98°	A+   A+
<b>with DALI adapter only for RZB 3-phase DALI track 230 V</b>							
751141.00X.76	L 600, B 89, H 178	LED	830	3100 lm	36 W	90°/98°	A+   A+
751141.00X.1.76	L 600, B 89, H 178	LED	840	3150 lm	36 W	88°/98°	A+   A+
751142.00X.76	L 1160, B 89, H 178	LED	830	5250 lm	60 W	90°/100°	A+   A+
751142.00X.1.76	L 1160, B 89, H 178	LED	840	5450 lm	60 W	88°/98°	A+   A+

Price Category 21



Comparison LED vs. conventional lamps

LED 36 W ≈  
 2 x 36 W TC-L (86 W CB)












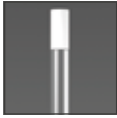
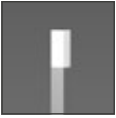
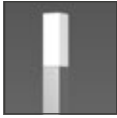








LED 60 W ≈  
 2 x 58 W T26 (134 W CB)



The application image shows: Triade LED



The application image shows:  
Gonia

		Cadero® 76-77
		Rounded® EVO 78-79
		Brick® EVO 80-81
		Tower 82-83
		Alu-Poller Lamelle   Alu-Poller Laterne 84-87
		
		Mega 88-89
		Mega Square 90-93
		Glaspoller opal 94-95
		Bocaro 96-97
		Lightstream® LED Midi 98-99
		Gonia 100-101
		Laruta 102-103

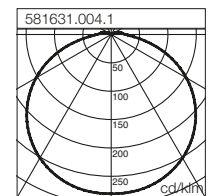
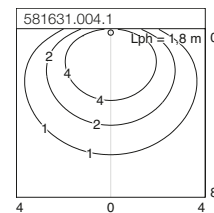
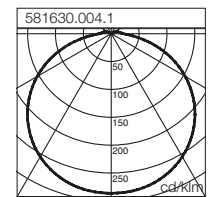
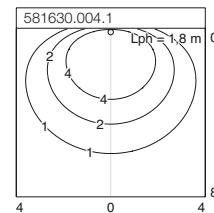


# CADERO®

Wall luminaires



- The flat, square design provides universal applicability with circular or square glass cover option
- Smart, cost-effective 12 W LED modules for mains voltage with high total LED luminous efficiency for energy saving operation
- Durability by using high-quality materials like aluminium, crystal glass and stainless steel as well as long-lasting powder-coating.
- Selection of two light colours 830 or 840 enables harmonising direct surrounding with remote ambient lighting
- The high type of protection IP 65 enables maintenance-free, plain LED operation



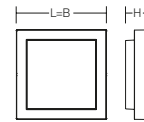
**Wall luminaires | Series: Cadero® Quadra**

Type of Protection: **IP 65**  
 Protection Class: I  
 Impact Protection: IK05

Base: pressure die-cast aluminium, powder-coated. Cover frame pressure die-cast aluminium, powder-coated or stainless steel, mill finish. Transparent crystal glass cover with satin finish on the inside.

LED included.

Available colours: 0 = stainless steel, 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Wall luminaires</b> <span style="float: right;"><b>Price Category 12</b></span>						
<b>Crystal glass, inside matt finish</b>						
581631.000	L 240, B 240, H 63	LED <sup>(1)</sup>	830	590 lm	12 W	A+   A+
581631.0031	L 240, B 240, H 63	LED <sup>(1)</sup>	830	590 lm	12 W	A+   A+
581631.004	L 240, B 240, H 63	LED <sup>(1)</sup>	830	590 lm	12 W	A+   A+
581631.000.1	L 240, B 240, H 63	LED <sup>(1)</sup>	840	620 lm	12 W	A+   A+
581631.0031.1	L 240, B 240, H 63	LED <sup>(1)</sup>	840	620 lm	12 W	A+   A+
581631.004.1	L 240, B 240, H 63	LED <sup>(1)</sup>	840	620 lm	12 W	A+   A+
<b>Replacement glasses</b> <span style="float: right;"><b>Price Category 13</b></span>						
05-581631.000	Replacement glass L 200 x B 200, H 36					

**Comparison  
LED vs. conventional lamps**

**LED 12 W ≈**  
 2 x 60 W AGL (120 W)  
 1 x 26 W TC-D (34 W CB)

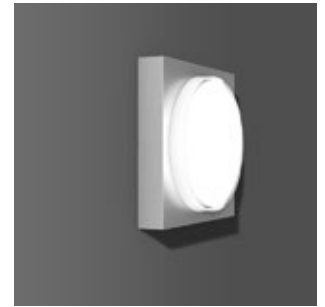
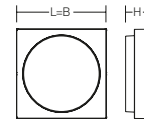
**Wall luminaires | Series: Cadero® Ronda**

Type of Protection: **IP 65**  
 Protection Class: I  
 Impact Protection: IK05

Base: pressure die-cast aluminium, powder-coated. Cover frame pressure die-cast aluminium, powder-coated or stainless steel, mill finish. Transparent crystal glass cover with satin finish on the inside.

LED included.

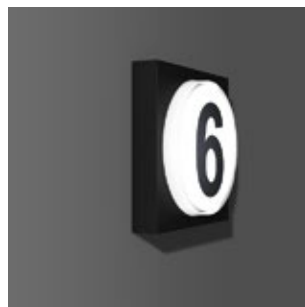
Available colours: 0 = stainless steel, 31 = anthracite metallic, 4 = silver metallic



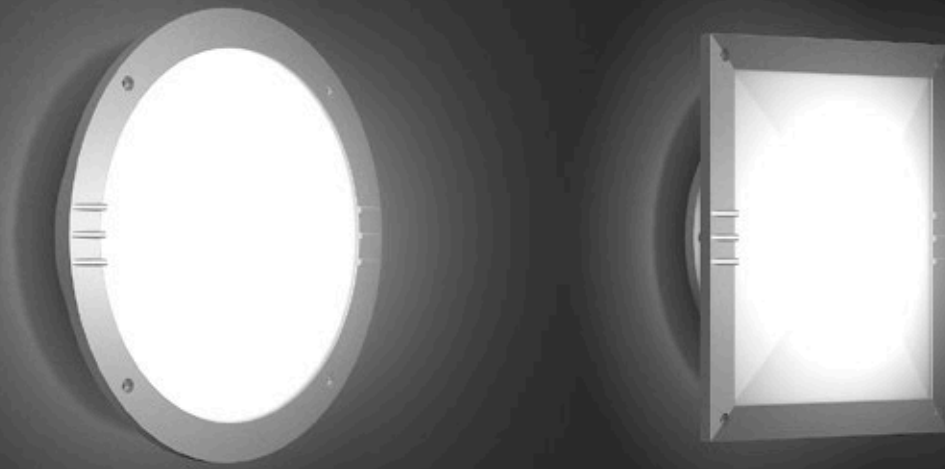
Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Wall luminaires</b> <span style="float: right;"><b>Price Category 12</b></span>						
<b>Crystal glass, inside matt finish</b>						
581630.000	L 240, B 240, H 67	LED <sup>(1)</sup>	830	570 lm	12 W	A+   A+
581630.0031	L 240, B 240, H 67	LED <sup>(1)</sup>	830	570 lm	12 W	A+   A+
581630.004	L 240, B 240, H 67	LED <sup>(1)</sup>	830	570 lm	12 W	A+   A+
581630.000.1	L 240, B 240, H 67	LED <sup>(1)</sup>	840	600 lm	12 W	A+   A+
581630.0031.1	L 240, B 240, H 67	LED <sup>(1)</sup>	840	600 lm	12 W	A+   A+
581630.004.1	L 240, B 240, H 67	LED <sup>(1)</sup>	840	600 lm	12 W	A+   A+
<b>Replacement glasses</b> <span style="float: right;"><b>Price Category 13</b></span>						
05-581630.000	Replacement glass D 220, H 36					

**Comparison  
LED vs. conventional lamps**

**LED 12 W ≈**  
 2 x 60 W AGL (120 W)  
 1 x 26 W TC-D (34 W CB)



Cadero is also suitable as a house number luminaire.  
 Please place a separate order for your lettering!



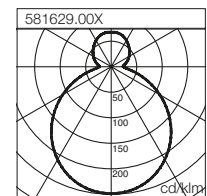
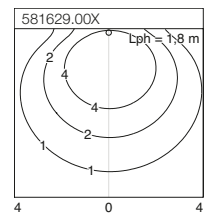
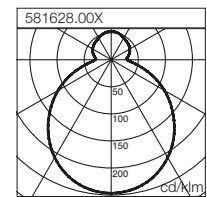
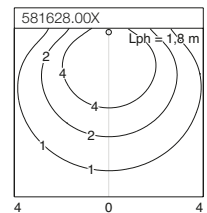
# ROUNDED® EVO

Wall luminaires



- Selection of square or circular front for optimum design flexibility with avant-garde luminaire design
- Rear light effect from the diffuser provides a smooth transition from the front to circular luminaire base and its background by dissolving hard shadows
- Smart, cost-effective 15 W LED modules for mains voltage with high total LED luminous efficiency for energy-saving operation

- Durability by using high-quality materials like aluminium, PC and stainless steel as well as long-lasting powder-coating.
- Selection of two light colours 830 or 840 enables harmonising direct surrounding with remote ambient lighting
- The high type of protection IP 65 enables maintenance-free, plain LED operation





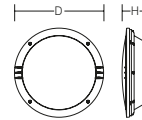
**Wall luminaires | Series: Rounded Evo Circle**

Type of Protection: **IP 65**  
 Protection Class: I  
 Impact Protection: IK06

Base and cover frame made of pressure die-cast aluminium, powder-coated. Stainless steel screws. Diffuser: plastic (polycarbonate), opal. Direct/indirect light distribution.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC	Price Category 12
<b>Wall luminaires</b>							
581628.00X	D 270, H 67	LED	830	700 lm	15 W	A+   A+	
581628.00X.1	D 270, H 67	LED	840	750 lm	15 W	A+   A+	
<b>Replacement diffusers</b>							
08-581628.002	Replacement diffuser PC D 233						Price Category 13

**Comparison LED vs. conventional lamps**

**LED 15 W ≈**  
 2 x 60 W AGL (120 W)  
 1 x 32 W TC-TEL (35 W CB)

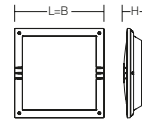
**Wall luminaires | Series: Rounded Evo Square**

Type of Protection: **IP 65**  
 Protection Class: I  
 Impact Protection: IK06

Base and cover frame made of pressure die-cast aluminium, powder-coated. Stainless steel screws. Diffuser: plastic (polycarbonate), opal. Direct/indirect light distribution.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC	Price Category 12
<b>Wall luminaires</b>							
581629.00X	L 270, B 270, H 64	LED	830	700 lm	15 W	A+   A+	
581629.00X.1	L 270, B 270, H 64	LED	840	750 lm	15 W	A+   A+	
<b>Replacement diffusers</b>							
08-581629.002	Replacement diffuser PC 266 x 266						Price Category 13

**Comparison LED vs. conventional lamps**

**LED 15 W ≈**  
 2 x 60 W AGL (120 W)  
 1 x 32 W TC-TEL (35 W CB)

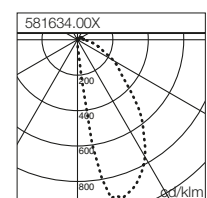
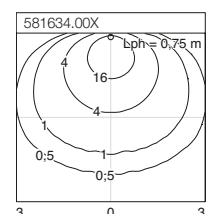
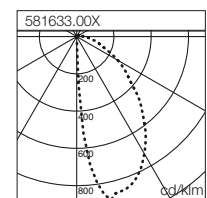
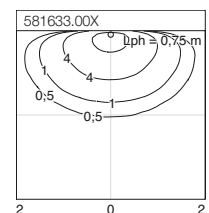
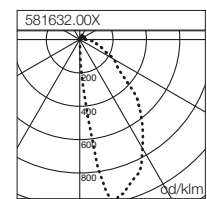
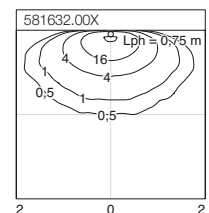


## BRICK® EVO

Wall luminaires



- Flat surface mounted LED fitting for illumination of areas adjacent to the mounting surface like stairs or walking zones
- Only 24 mm depth, can be mounted directly over the cable outlet
- Choice of three models for best match with the environmental structure
- Sturdy housing of non corrosive pressure die-cast Aluminium for outdoor application, powder coated with stainless steel screws
- Drill hole deviations can be compensated to achieve precise positioning

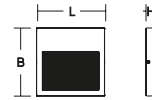


**Wall luminaires | Series: Brick® EVO**

Type of Protection: **IP 65**  
Protection Class: I

Housing of non-corrosive die-cast aluminium for outdoor use, powder-coated.  
With compensation for drill hole deviations. Integral driver. Toughened glass cover.  
With connecting terminal up to 1 x 3 x 1.5 mm<sup>2</sup>, for max. 13 mm diameter mains cable.  
LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Wall luminaires</b>						
<b>Brick Evo Mini, asymmetrical light distribution</b>						
581632.00X	L 120, B 120, H 24	LED	830	60 lm	4 W	A++   A++
581632.00X.1	L 120, B 120, H 24	LED	840	60 lm	4 W	A++   A++

**Comparison  
LED vs. conventional lamps**

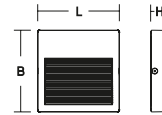
**LED 4 W ≈**  
1 x 20 W QT12 (22 W)

**Wall luminaires | Series: Brick® EVO**

Type of Protection: **IP 65**  
Protection Class: I

Housing of non-corrosive die-cast aluminium for outdoor use, powder-coated.  
With compensation for drill hole deviations. Integral driver. Toughened glass cover.  
With connecting terminal up to 1 x 3 x 1.5 mm<sup>2</sup>, for max. 13 mm diameter mains cable.  
LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Wall luminaires</b>						
<b>Brick Evo Midi, asymmetrical light distribution</b>						
581633.00X	L 200, B 200, H 24	LED	830	190 lm	10 W	A++   A++
581633.00X.1	L 200, B 200, H 24	LED	840	190 lm	10 W	A++   A++

**Comparison  
LED vs. conventional lamps**

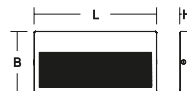
**LED 10 W ≈**  
1 x 8 W T16 (11 W EB)  
1 x 50 W QT12 (65 W)

**Wall luminaires | Series: Brick® EVO**

Type of Protection: **IP 65**  
Protection Class: I

Housing of non-corrosive die-cast aluminium for outdoor use, powder-coated.  
With compensation for drill hole deviations. Integral driver. Toughened glass cover.  
With connecting terminal up to 1 x 3 x 1.5 mm<sup>2</sup>, for max. 13 mm diameter mains cable.  
LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Wall luminaires</b>						
<b>Brick Evo Duo, asymmetrical light distribution</b>						
581634.00X	L 240, B 120, H 24	LED	830	180 lm	10 W	A++   A++
581634.00X.1	L 240, B 120, H 24	LED	840	180 lm	10 W	A++   A++

**Comparison  
LED vs. conventional lamps**

**LED 10 W ≈**  
1 x 8 W T16 (11 W EB)  
1 x 50 W QT12 (65 W)



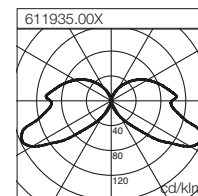
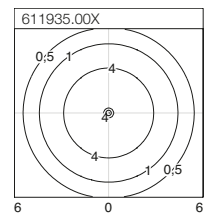
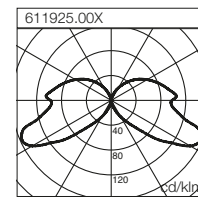
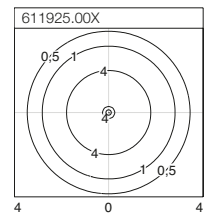
# TOWER

Bollards



- The column is made of powder coated, corrosion-resistant Aluminum profile and is fixed to the ground via stable stainless steel bracket. This innovative fixing concept warrants long life time.
- The innovative housing concept protects light source and driver reliably against all weather conditons
- Flush cylindrical cover of impact resistant PMMA and and corrosion resistant pressure die-cast cap meets high esthetical and functional requirements

- A sophisticated vent system avoids successfully any condensed water
- High-class LED optics provides balanced illuminance at minimised Energy consumption



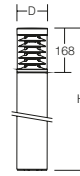
**Bollards | Series: Tower 115**

Type of Protection: **IP 66**  
Protection Class: I

Bollard tube Ø 115 mm made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Cover made of corrosion-resistant pressure die cast aluminium, powder coated, with transparent cylinder (PMMA) and translucent anti-glare louvres. With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	EEC	
<b>Bollards</b>							<b>Price Category 12</b>
<b>Height H 500 mm</b>							
611924.00X	D 115, H 500	LED	830	470 lm	10 W	A+   A+	
611924.00X.1	D 115, H 500	LED	840	470 lm	10 W	A+   A+	
<b>Height H 1000 mm</b>							
611925.00X	D 115, H 1000	LED	830	470 lm	10 W	A+   A+	
611925.00X.1	D 115, H 1000	LED	840	470 lm	10 W	A+   A+	
<b>Spare diffuser with integral louvres</b>							<b>Price Category 13</b>
982146.00X	D 115, H 190						
<b>Accessory for ground installation</b>							<b>Price Category 12</b>
<b>Buried base</b>							
982103.000	D 115, H 401						

**Comparison LED vs. conventional lamps**

LED 10 W ≈

1 x 75 W AGL (75 W)

1 x 13 W TC-D (19 W CB)

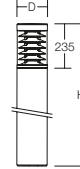
**Bollards | Series: Tower 156**

Type of Protection: **IP 66**  
Protection Class: I

Bollard tube Ø 156 mm made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Cover made of corrosion-resistant pressure die cast aluminium, powder coated, with transparent cylinder (PMMA) and translucent anti-glare louvres. With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	EEC	
<b>Bollards</b>							<b>Price Category 12</b>
<b>Height H 550 mm</b>							
611934.00X	D 156, H 550	LED	830	840 lm	20 W	A+   A+	
611934.00X.1	D 156, H 550	LED	840	830 lm	20 W	A+   A+	
<b>Height H 1200 mm</b>							
611935.00X	D 156, H 1200	LED	830	840 lm	20 W	A+   A+	
611935.00X.1	D 156, H 1200	LED	840	830 lm	20 W	A+   A+	
<b>Spare diffuser with integral louvres</b>							<b>Price Category 13</b>
982149.00X	D 156, H 256						
<b>Accessory for ground installation</b>							<b>Price Category 12</b>
<b>Buried base</b>							
982155.000	D 156, H 400						

**Comparison LED vs. conventional lamps**

LED 20 W ≈

1 x 100 W AGL (100 W)

1 x 18 W TC-D (26 W CB)



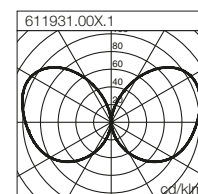
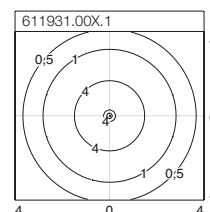
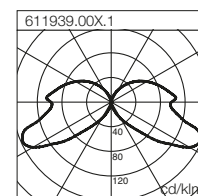
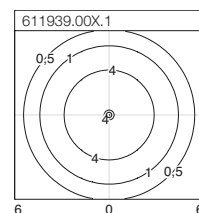
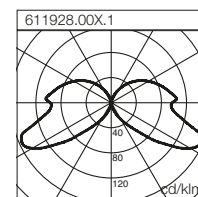
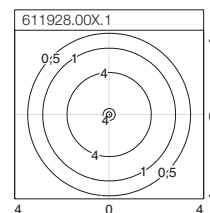
## ALU-POLLER LAMELLE | ALU-POLLER LATERNE

Bollards



- The column is made of powder coated, corrosion-resistant Aluminum profile and is fixed to the ground via stable stainless steel bracket. This innovative fixing concept warrants long life time.
- The innovative housing concept protects light source and driver reliably against all weather conditons
- Flush cylindrical cover of impact resistant PMMA and and corrosion resistant pressure die-cast cap meets high esthetical and functional requirements

- A sophisticated vent system avoids successfully any condensed water
- High-class LED optics provides balanced illuminance at minimised Energy consumption



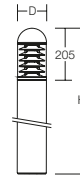
**Bollards | Series: Alu-Poller Lamelle**

Type of Protection: **IP 66**  
Protection Class: I

Bollard tube Ø 115 mm made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Cover made of corrosion-resistant pressure die cast aluminium, powder coated, with transparent cylinder (PMMA) and translucent anti-glare louvres. With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	EEC	
<b>Bollards</b>							<b>Price Category 12</b>
<b>Height H 550 mm</b>							
611927.00X	D 115, H 550	LED	830	470 lm	10 W	A+   A+	
611927.00X.1	D 115, H 550	LED	840	470 lm	10 W	A+   A+	
<b>Height H 1050 mm</b>							
611928.00X	D 115, H 1050	LED	830	470 lm	10 W	A+   A+	
611928.00X.1	D 115, H 1050	LED	840	470 lm	10 W	A+   A+	
<b>Spare clear diffuser with integral louvres</b>							<b>Price Category 13</b>
982147.00X	D 115, H 228						
<b>Accessory for ground installation</b>							<b>Price Category 12</b>
<b>Buried base</b>							
982103.000	D 115, H 401						

**Comparison LED vs. conventional lamps**

**LED 10 W ≈**

1 x 75 W AGL (75 W)  
1 x 13 W TC-D (19 W CB)

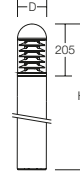
**Bollards | Series: Alu-Poller Lamelle**

Type of Protection: **IP 66**  
Protection Class: I

Bollard tube Ø 156 mm made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Cover made of corrosion-resistant pressure die cast aluminium, powder coated, with transparent cylinder (PMMA) and translucent anti-glare louvres. With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	EEC	
<b>Bollards</b>							<b>Price Category 12</b>
<b>Height H 600 mm</b>							
611938.00X	D 156, H 600	LED	830	840 lm	20 W	A+   A+	
611938.00X.1	D 156, H 600	LED	840	830 lm	20 W	A+   A+	
<b>Height H 1250 mm</b>							
611939.00X	D 156, H 1250	LED	830	840 lm	20 W	A+   A+	
611939.00X.1	D 156, H 1250	LED	840	830 lm	20 W	A+   A+	
<b>Spare clear diffuser with integral louvres</b>							<b>Price Category 13</b>
982150.00X	D 156, H 316						
<b>Accessory for ground installation</b>							<b>Price Category 12</b>
<b>Buried base</b>							
982155.000	D 156, H 400						

**Comparison LED vs. conventional lamps**

**LED 20 W ≈**

1 x 100 W AGL (100 W)  
1 x 18 W TC-D (26 W CB)



The application image shows:  
Alu-Poller Laterne



**Bollards | Series: Alu-Poller Laterne**

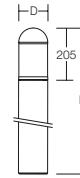
 Type of Protection: **IP 66**

Protection Class: I

Bollard tube Ø 115 mm made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Cover made of corrosion-resistant pressure die cast aluminium, powder coated, with opal cylinder (PMMA). With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminous flux	System power	Socket	EEC
<b>Bollards</b>							<b>Price Category 12</b>
<b>Height H 550 mm</b>							
611930.00X	D 115, H 550	LED		830 360 lm	10 W		A+   A+
611930.00X.1	D 115, H 550	LED		840 390 lm	10 W		A+   A+
611965.00X	D 115, H 550	1 x QA60 (clear)	20 W			E27	A,C   A+
<b>Height H 1050 mm</b>							
611931.00X	D 115, H 1050	LED		830 360 lm	10 W		A+   A+
611931.00X.1	D 115, H 1050	LED		840 390 lm	10 W		A+   A+
<b>Height H 1100 mm</b>							
611929.00X	D 115, H 1100	1 x QA60 (clear)	20 W			E27	A,C   A+
<b>Spare opal diffuser</b>							<b>Price Category 13</b>
982148.0031	D 115						
<b>Accessory for ground installation</b>							<b>Price Category 12</b>
<b>Buried base</b>							
982103.000	D 115, H 401						

**Comparison  
LED vs. conventional lamps**
**LED 10 W ≈**

1 x 75 W AGL (75 W)

1 x 13 W TC-D (19 W CB)

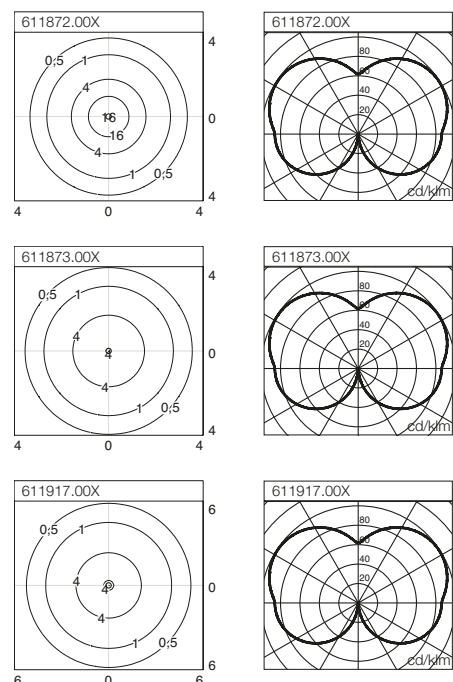


# MEGA

Bollards



- The inconspicuous, slim and well-proportioned design fits easily into any environment
- The innovative housing concept protects light source and driver reliably against all weather conditions
- A sophisticated vent system avoids successfully any condensed water
- The highly efficient LED solution effectively saves energy over a long period of time, providing balanced brightness
- Additional choice of robust plastic diffusers of LPE allow for use at environment with increased mechanical stress



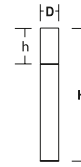
**Bollards | Series: Mega**

Type of Protection: **IP 66**  
 Protection Class: I  
 Impact Protection: IK05

Bollard tube Ø 115 mm made of corrosion-resistant Aluminium profile, powder coated.  
 Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Diffuser: Opal glass, mouth-blown, satin finish, or opal plastic (polyethylene), satin finish. With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Bollards</b>						
<b>Diffuser: opal glass, satin finish</b>						<b>Price Category 12</b>
<b>Height H 600 mm, h 210 mm</b>						
611872.00X	D 115, H 600	LED	830	660 lm	10 W	A+   A+
611872.00X.1	D 115, H 600	LED	840	710 lm	10 W	A+   A+
<b>Height H 1100 mm, h 310 mm</b>						
611873.00X	D 115, H 1100	LED	830	660 lm	10 W	A+   A+
611873.00X.1	D 115, H 1100	LED	840	710 lm	10 W	A+   A+
<b>Height H 1400 mm, h 310 mm</b>						
611874.00X	D 115, H 1400	LED	830	660 lm	10 W	A+   A+
611874.00X.1	D 115, H 1400	LED	840	710 lm	10 W	A+   A+
611874.98X.79	D 115, H 1400	1 x TC-L 24 W				A,B
<b>Opal plastic (polyethylene) diffuser, satin finish</b>						
<b>Height H 600 mm, h 210 mm</b>						
611913.00X	D 115, H 600	LED	830	900 lm	10 W	A+   A+
611913.00X.1	D 115, H 600	LED	840	960 lm	10 W	A+   A+
<b>Height H 1100 mm, h 310 mm</b>						
611914.00X	D 115, H 1100	LED	830	900 lm	10 W	A+   A+
611914.00X.1	D 115, H 1100	LED	840	960 lm	10 W	A+   A+
<b>Height H 1400 mm, h 310 mm</b>						
611915.00X	D 115, H 1400	LED	830	900 lm	10 W	A+   A+
611915.00X.1	D 115, H 1400	LED	840	960 lm	10 W	A+   A+
<b>Accessory for ground installation   Buried base</b>						<b>Price Category 12</b>
982103.000	D 115, H 401					

**Comparison  
 LED vs. conventional lamps**
**LED 10 W ≈**

Glass  
 1 x 75 W AGL (75 W)  
 1 x 18 W TC-D (26 W CB)  
 Plastic  
 > 1 x 100 W AGL (100 W)  
 > 1 x 26 W TC-D (34 W CB)

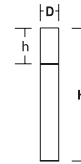
**Bollards | Series: Mega**

Type of Protection: **IP 66**  
 Protection Class: I

Bollard tube Ø 156 mm made of corrosion-resistant Aluminium profile, powder coated.  
 Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Diffuser: Opal glass, mouth-blown, satin finish, or opal plastic (polyethylene), satin finish. With membrane valve to minimise condensation. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

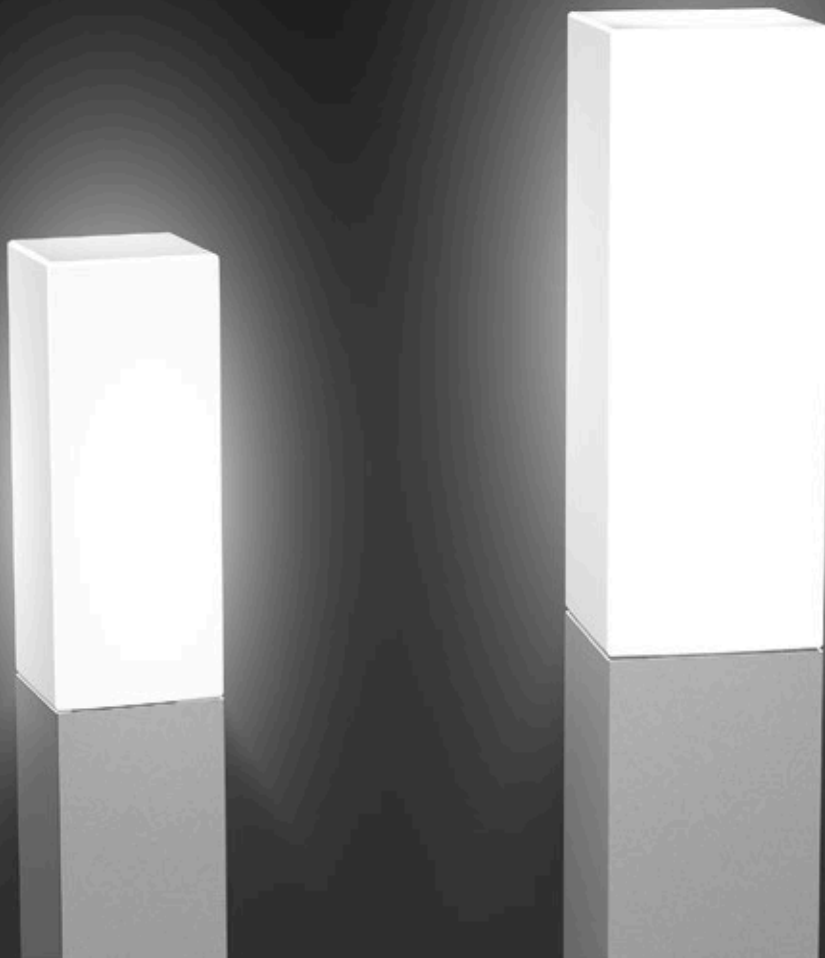
Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Bollards</b>						
<b>Opal glass, satin finish</b>						<b>Price Category 12</b>
<b>Height H 1400 mm, h 440 mm</b>						
611916.00X	D 156, H 1400	LED	830	1200 lm	20 W	A+   A+
611916.00X.1	D 156, H 1400	LED	840	1300 lm	20 W	A+   A+
<b>Height H 1800 mm, h 440 mm</b>						
611917.00X	D 156, H 1800	LED	830	1200 lm	20 W	A+   A+
611917.00X.1	D 156, H 1800	LED	840	1300 lm	20 W	A+   A+
<b>Height H 2400 mm, h 440 mm</b>						
611918.00X	D 156, H 2400	LED	830	1200 lm	20 W	A+   A+
611918.00X.1	D 156, H 2400	LED	840	1300 lm	20 W	A+   A+
<b>Opal plastic (polyethylene) diffuser, satin finish</b>						
<b>Height H 1400 mm, h 440 mm</b>						
611919.00X	D 156, H 1400	LED	830	1650 lm	20 W	A+   A+
611919.00X.1	D 156, H 1400	LED	840	1750 lm	20 W	A+   A+
<b>Height H 1800 mm, h 440 mm</b>						
611920.00X	D 156, H 1800	LED	830	1650 lm	20 W	A+   A+
611920.00X.1	D 156, H 1800	LED	840	1750 lm	20 W	A+   A+
<b>Height H 2400 mm, h 440 mm</b>						
611921.00X	D 156, H 2400	LED	830	1650 lm	20 W	A+   A+
611921.00X.1	D 156, H 2400	LED	840	1750 lm	20 W	A+   A+
<b>Accessory for ground installation   Buried base</b>						<b>Price Category 12</b>
982155.000	D 153, H 400			for luminaires H 1400 mm		
982156.000	D 153, H 600			for luminaires H 1800-2400 mm		

**Comparison  
 LED vs. conventional lamps**
**LED 20 W ≈**

Glass  
 1 x 150 W AGL (150 W)  
 1 x 26 W TC-D (34 W CB)  
 Plastic  
 1 x 200 W AGL (200 W)  
 1 x 32 W TC-T (36 W EB)

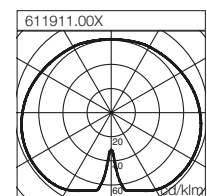
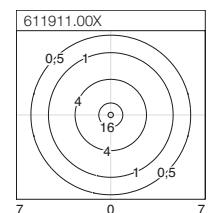
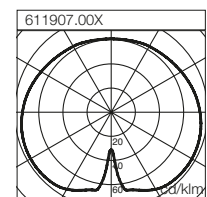
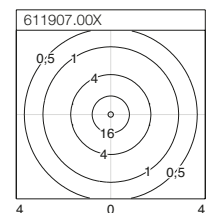


# MEGA SQUARE

Bollards



- Light and shade in cubic design approach
- The innovative housing concept protects light source and driver reliably against all weather conditons
- A sophisticated vent system avoids successfully any condensed water
- The highly efficient LED solution effectively saves energy over a long period of time, providing balanced brightness



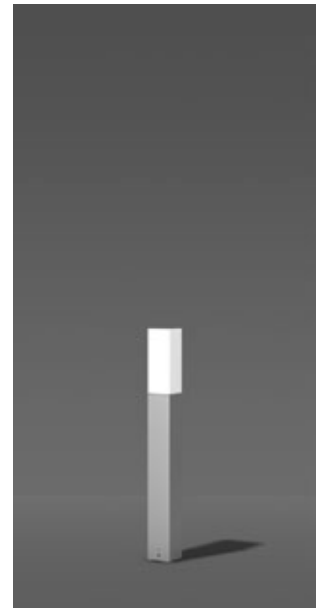
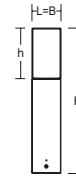
**Bollards | Series: Mega Square**

Type of Protection: **IP 66**  
Protection Class: I

Bollard tube made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Diffuser: mouth-blown opal glass, satin finish. With membrane valve as a standard to avoid condensed water. Connection box on base, max. 2 x 3 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Bollards</b>						
<b>Price Category 12</b>						
<b>Height H 600 mm</b>						
611905.00X	L 120, B 120, H 600	LED	830	650 lm	10 W	A+   A+
611905.00X.1	L 120, B 120, H 600	LED	840	720 lm	10 W	A+   A+
<b>Height H 1100 mm</b>						
611907.00X	L 120, B 120, H 1100	LED	830	650 lm	10 W	A+   A+
611907.00X.1	L 120, B 120, H 1100	LED	840	720 lm	10 W	A+   A+
<b>Height H 1400 mm</b>						
611908.00X	L 120, B 120, H 1400	LED	830	650 lm	10 W	A+   A+
611908.00X.1	L 120, B 120, H 1400	LED	840	720 lm	10 W	A+   A+
<b>Accessory for ground installation</b>						
<b>Price Category 12</b>						
<b>Buried base</b>						
982103.010	L 120, B 120, H 401					

**Comparison  
LED vs. conventional lamps**

**LED 10 W ≈**

1 x 75 W AGL (75 W)  
1 x 18 W TC-D (26 W CB)

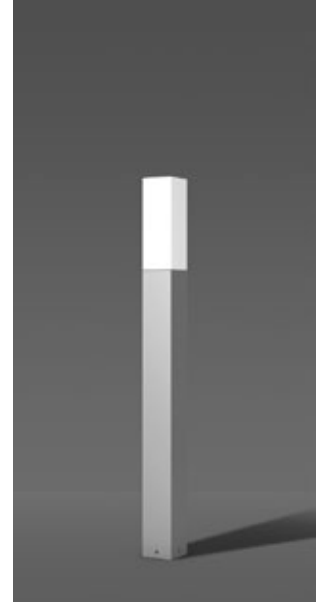
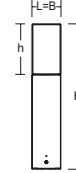
**Bollards | Series: Mega Square**

Type of Protection: **IP 66**  
Protection Class: I

Bollard tube made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Diffuser: mouth-blown opal glass, satin finish. With membrane valve as a standard to avoid condensed water. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Bollards</b>						
<b>Price Category 12</b>						
<b>Height H 1400 mm</b>						
611910.00X	L 156, B 156, H 1400	LED	830	1200 lm	20 W	A+   A+
611910.00X.1	L 156, B 156, H 1400	LED	840	1300 lm	20 W	A+   A+
<b>Height H 1800 mm</b>						
611911.00X	L 156, B 156, H 1800	LED	830	1200 lm	20 W	A+   A+
611911.00X.1	L 156, B 156, H 1800	LED	840	1300 lm	20 W	A+   A+
<b>Height H 2400 mm</b>						
611912.00X	L 156, B 156, H 2400	LED	830	1200 lm	20 W	A+   A+
611912.00X.1	L 156, B 156, H 2400	LED	840	1300 lm	20 W	A+   A+
<b>Accessory for ground installation</b>						
<b>Price Category 12</b>						
<b>Buried base</b>						
982155.010	L 156, B 156, H 401			for luminaires H 1400 mm		
982157.000	L 156, B 156, H 601			for luminaires H 1800-2400 mm		

**Comparison  
LED vs. conventional lamps**

**LED 20 W ≈**

1 x 150 W AGL (150 W)  
1 x 26 W TC-D (34 W CB)



The application image shows:  
Mega Square



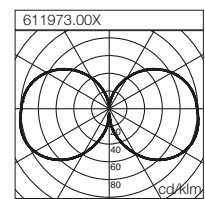
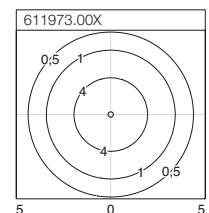


## GLASPOLLER OPAL

Bollards



- A different take on lamellas - the mouth blown opal glass is tiered and plays with light and shadow both day and night.
- The high protection rating ensures absolutely trouble-free operation
- An ingenious ventilation system successfully prevents the formation of condensation
- Simple and sturdy design allows cost-effective installation





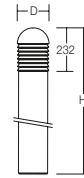
**Bollards | Series: Glaspoller opal**

Type of Protection: **IP 66**  
 Protection Class: I

Bollard tube Ø 156 mm made of corrosion-resistant Aluminium profile, powder coated. Recessed stainless steel fixing plate. Non-corrosive gear compartment made of mould-cast dual compound thermoplastic with integral TP gasket. Opal glass cover with satin finish, powder coated metal cap. With membrane valve as a standard to avoid condensed water. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	Socket	EEC	
<b>Bollards</b>								<b>Price Category 12</b>
<b>Height H 550 mm</b>								
611972.00X	D 179, H 550	LED		830 650 lm	20 W		A+   A+	
611972.00X.1	D 179, H 550	LED		840 710 lm	20 W		A+   A+	
611970.00X	D 179, H 550	1 x QA60 (clear)	77 W			E27	A,C,E   A+	
<b>Height H 1200 mm</b>								
611973.00X	D 179, H 1200	LED		830 650 lm	20 W		A+   A+	
611973.00X.1	D 179, H 1200	LED		840 710 lm	20 W		A+   A+	
611971.00X	D 179, H 1200	1 x QA60 (clear)	77 W			E27	A,C,E   A+	
<b>Replacement glasses</b>								<b>Price Category 13</b>
981143.01X	Replacement glass	D 169, H 248						
<b>Accessory for ground installation</b>								<b>Price Category 12</b>
<b>Buried base</b>								
982155.000	D 156, H 400							

**Comparison  
 LED vs. conventional lamps**

**LED 20 W ≈**

1 x 100 W AGL (100 W)

1 x 26 W TC-D (34 W CB)



# BOCARO

Bollards



- Minimised cubic style elements
- Open frame structure without visible glazing
- Stable construction made of Aluminium profile with stainless steel fixing plate
- High efficient LED with integral driver

**Bollards | Series: Bocaro**

Type of Protection: IP 65

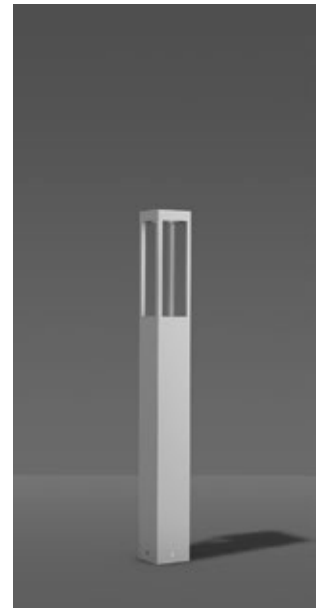
Protection Class: I

Impact Protection: IK10

Decorative bollard with square cross section made of corrosion resistant Aluminium, powder coated with recessed stainless steel fixing bracket. Clear PMMA diffuser. LED with integral driver. Connection box on base, max. 2 x 5 x 2.5 mm<sup>2</sup> for loop-through.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
<b>Bollards</b>						
						<b>Price Category 12</b>
<b>Tube Length L 120 mm x Width B 120 mm</b>						
<b>Height H 500 mm</b>						
611986.00X	L 120, B 120, H 500	LED	830	1600 lm	20 W	A+
611986.00X.1	L 120, B 120, H 500	LED	840	1650 lm	20 W	A+
<b>Height H 800 mm</b>						
611987.00X	L 120, B 120, H 800	LED	830	1600 lm	20 W	A+
611987.00X.1	L 120, B 120, H 800	LED	840	1650 lm	20 W	A+
<b>Height H 1100 mm</b>						
611988.00X	L 120, B 120, H 1100	LED	830	1600 lm	20 W	A+
611988.00X.1	L 120, B 120, H 1100	LED	840	1650 lm	20 W	A+
<b>Tube Length L 156 mm x Width B 156 mm</b>						
<b>Height H 500 mm</b>						
611989.00X	L 156, B 156, H 500	LED	830	1600 lm	20 W	A+
611989.00X.1	L 156, B 156, H 500	LED	840	1650 lm	20 W	A+
<b>Height H 800 mm</b>						
611990.00X	L 156, B 156, H 800	LED	830	1600 lm	20 W	A+
611990.00X.1	L 156, B 156, H 800	LED	840	1650 lm	20 W	A+
<b>Height H 1100 mm</b>						
611991.00X	L 156, B 156, H 1100	LED	830	1600 lm	20 W	A+
611991.00X.1	L 156, B 156, H 1100	LED	840	1650 lm	20 W	A+
<b>Accessory for ground installation</b>						<b>Price Category 12</b>
<b>Buried base</b>						
982103.010	L 120, B 120, H 401					
982155.010	L 156, B 156, H 401					

**Comparison**  
**LED vs. conventional lamps**

**LED 20 W ≈**  
 1 x 150 W AGL (150 W)  
 1 x 42 W TC-TEL (45 W EB)



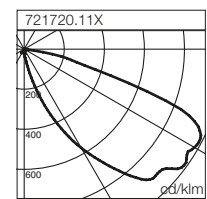
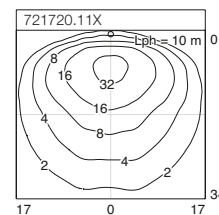
## LIGHTSTREAM® LED MIDI

Floodlights



- Quick electrical connection is performed outside housing by screw-less plug connector on bayonet locked slide
- Heat sink optimised for long term LED operation
- Asymmetrical reflector of **MIRO-SILVER®** with reflex-boosted coating
- No backwards light trespass
- Housing made of corrosion-resistant Aluminium pressure die-cast for outdoor application, stainless steel bracket, powder coated

- COB-LEDs with socket for change on site, selection of two light colours 830 or 840
- Versions in DALI dimmable
- Wide range of pole mounting accessories available
- Marine grade quality available as an option
- Emergency lighting version for central battery feed available



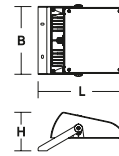
**Floodlights | Series: Lightstream® LED Midi**

Type of Protection: **IP 65**  
Protection Class: I

Housing of corrosion-resistant pressure die-cast aluminium for outdoor use, bracket stainless steel, powder-coated. Tilt angle can be adjusted with angular scale. Toughened glass cover. COB-LEDs with socket, selection of light colour 830 or 840. Asymmetrical area flood reflector of **MIRO-SILVER®** with reflex-boosted coating. Standard Gore™ Protective Vents diaphragm valve for reduction of condensation. Quick electrical connection is performed outside housing by screw-less plug connector on bayonet locked slide. Up to 5 x 2,5 mm<sup>2</sup>, max cable Ø 13 mm.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC
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**Area floodlight for fixed installation**
**Price Category 12**
**Standard switchable**

721720.11X	L 343, B 335, H 145	1 x LED	830	12100 lm	115 W	A+   A+
721720.11X.1	L 343, B 335, H 145	1 x LED	840	12400 lm	114 W	A+   A+

**DALI Dimmable**

721720.11X.76	L 343, B 335, H 145	1 x LED	830	12100 lm	115 W	A+   A+
721720.11X.1.76	L 343, B 335, H 145	1 x LED	840	12400 lm	114 W	A+   A+

**Spare glass**
**Price Category 12**

981934.0131	L 255, B 240, H 13
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**Accessories | Pole-top bracket for Lightstream LED Mini, Midi**

Pole-top bracket for Lightstream® LED Mini, Midi. Steel, hot-dip galvanised, unpainted or powder-coated. Complete with stainless steel fixing screw set. Cable ducting in the pole as strain relief and protection from rainwater.

**Pole-top bracket**
**Price Category 12**
**Pole top fixings, single**

982047.000	Pole top bracket, single, for spigot 60 mm	for Lightstream LED Mini, Midi
982047.0031	Pole top bracket, single, for spigot 60 mm	for Lightstream LED Mini, Midi
982047.004	Pole top bracket, single, for spigot 60 mm	for Lightstream LED Mini, Midi
982048.000	Pole top bracket, single, for spigot 76 mm	for Lightstream LED Mini, Midi
982048.0031	Pole top bracket, single, for spigot 76 mm	for Lightstream LED Mini, Midi
982048.004	Pole top bracket, single, for spigot 76 mm	for Lightstream LED Mini, Midi

**Pole top fixings opposite mounting**

982049.000	Pole top bracket, double, for spigot 60 mm	for Lightstream LED Mini, Midi
982049.0031	Pole top bracket, double, for spigot 60 mm	for Lightstream LED Mini, Midi
982049.004	Pole top bracket, double, for spigot 60 mm	for Lightstream LED Mini, Midi
982050.000	Pole top bracket, double, for spigot 76 mm	for Lightstream LED Mini, Midi
982050.0031	Pole top bracket, double, for spigot 76 mm	for Lightstream LED Mini, Midi
982050.004	Pole top bracket, double, for spigot 76 mm	for Lightstream LED Mini, Midi



**Comparison LED vs. conventional lamps**

**LED 114 / 115 W ≈**  
 1 x 150 W HIT-CE (170 W CB)  
 1 x 750 W QT-DE (750 W)



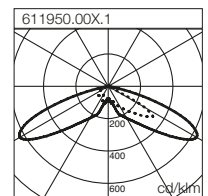
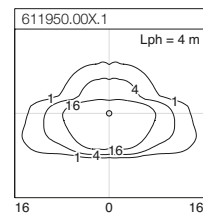
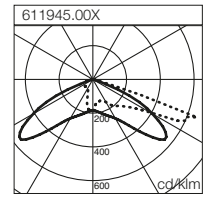
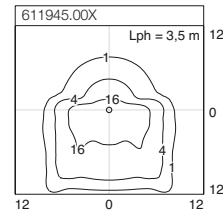
# GONIA

Pole top luminaires



- The classically linear design supports applications in small scale surroundings.
- In addition to the standard switch version, diverse customer-specific light management requirements can be satisfied.
- Comprehensive selection of light distributions and luminous power enables universal application range beginning at private pathways up to main roads with public lighting

- Plug and play design with pre-assembled connecting cable for easy installation and small transport volume.
- Standard lighting inserts with plug-in connections for fast maintenance.



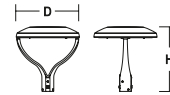
**Pole top luminaires | Series: Gonia**

Type of Protection: **IP 65**  
Protection Class: I

Aluminium luminaire body, die-cast aluminium arm with integrated cabling, powder coated. Pole-fitter for 76 mm diameter spigot with stainless steel screws. Aluminium light engine with toughened glazing, powder coated. Twist lock and plug connector for quick replacement. Refractor optics with multichip LED. Light distribution optimised for either ME classes, S classes or area lighting. Ready-to-connect including 2 x 1,0 mm<sup>2</sup> mains cable.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC	Price Category 12
<b>Luminaires for spigot Ø 76 mm</b>							
<b>Asymmetrical light distribution for ME lighting classes</b>							
611940.00X	D 500, H 525	LED	830	2250 lm	28 W	A+   A+	
611940.00X.1	D 500, H 525	LED	840	2400 lm	28 W	A+   A+	
611943.00X	D 500, H 525	LED	830	4450 lm	52 W	A+   A+	
611943.00X.1	D 500, H 525	LED	840	4550 lm	52 W	A+   A+	
611946.00X	D 500, H 525	LED	830	6300 lm	76 W	A+   A+	
611946.00X.1	D 500, H 525	LED	840	6450 lm	76 W	A+   A+	
611949.00X	D 500, H 525	LED	830	7950 lm	100 W	A+   A+	
611949.00X.1	D 500, H 525	LED	840	8100 lm	100 W	A+   A+	
<b>Asymmetrical light distribution for S lighting classes</b>							
611941.00X	D 500, H 525	LED	830	2250 lm	28 W	A+   A+	
611941.00X.1	D 500, H 525	LED	840	2400 lm	28 W	A+   A+	
611944.00X	D 500, H 525	LED	830	4450 lm	52 W	A+   A+	
611944.00X.1	D 500, H 525	LED	840	4500 lm	52 W	A+   A+	
611947.00X	D 500, H 525	LED	830	6300 lm	76 W	A+   A+	
611947.00X.1	D 500, H 525	LED	840	6400 lm	76 W	A+   A+	
611950.00X	D 500, H 525	LED	830	7950 lm	100 W	A+   A+	
611950.00X.1	D 500, H 525	LED	840	8100 lm	100 W	A+   A+	
<b>Asymmetrical light distribution for area lighting</b>							
611942.00X	D 500, H 525	LED	830	2050 lm	28 W	A+   A+	
611942.00X.1	D 500, H 525	LED	840	2250 lm	28 W	A+   A+	
611945.00X	D 500, H 525	LED	830	4050 lm	52 W	A+   A+	
611945.00X.1	D 500, H 525	LED	840	4450 lm	52 W	A+   A+	
611948.00X	D 500, H 525	LED	830	5800 lm	76 W	A+   A+	
611948.00X.1	D 500, H 525	LED	840	6350 lm	76 W	A+   A+	
611951.00X	D 500, H 525	LED	830	7300 lm	100 W	A+   A+	
611951.00X.1	D 500, H 525	LED	840	8000 lm	100 W	A+   A+	

Availability expected as of August 2016


**Comparison LED vs. conventional lamps**
**LED 28 W ≈**

1 x 35 W HIT (45 W CB)

**LED 52 W ≈**

1 x 70 W HIT (84 W CB)

**LED 76 W ≈**

1 x 100 W HIT (106 W EB)

**LED 100 W ≈**

1 x 150 W HIT (170 W CB)



The application image shows: Gonia



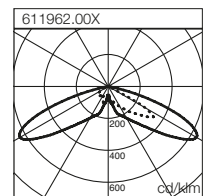
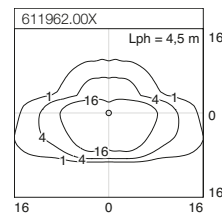
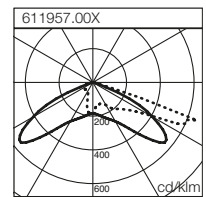
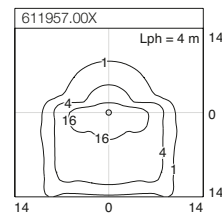
# LARUTA

Pole top luminaires



- The elegant linear shape suits excellent to modern architecture.
- Comprehensive selection of light distributions and luminous power enables universal application range beginning at private pathways up to main roads with public lighting.
- In addition to the standard switch version, diverse customer-specific light management requirements can be satisfied.

- Plug and play design with pre-assembled connecting cable for easy installation and small transport volume.
- Standard lighting inserts with plug-in connections for fast maintenance.





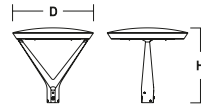
**Pole top luminaires | Series: Laruta**

Type of Protection: **IP 65**  
Protection Class: I

Aluminium luminaire body, die-cast aluminium arm with integrated cabling, powder coated. Pole-fitter for 76 mm diameter spigot with stainless steel screws. Aluminium light engine with toughened glazing, powder coated. Twist lock and plug connector for quick replacement. Refractor optics with multichip LED. Light distribution optimised for either ME classes, S classes or area lighting. Ready-to-connect including 2 x 1,0 mm<sup>2</sup> mains cable.

LED included.

Available colours (X): 31 = anthracite metallic, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	EEC	Price Category 12
<b>Luminaires for spigot Ø 76 mm</b>							
<b>Asymmetrical light distribution for ME lighting classes</b>							
611952.00X	D 650, H 610	LED	830	2200 lm	28 W	A+   A+	
611952.00X.1	D 650, H 610	LED	840	2400 lm	28 W	A+   A+	
611955.00X	D 650, H 610	LED	830	4350 lm	52 W	A+   A+	
611955.00X.1	D 650, H 610	LED	840	4500 lm	52 W	A+   A+	
611958.00X	D 650, H 610	LED	830	6350 lm	76 W	A+   A+	
611958.00X.1	D 650, H 610	LED	840	6400 lm	76 W	A+   A+	
611961.00X	D 650, H 610	LED	830	8150 lm	100 W	A+   A+	
611961.00X.1	D 650, H 610	LED	840	8100 lm	100 W	A+   A+	
<b>Asymmetrical light distribution for S lighting classes</b>							
611953.00X	D 650, H 610	LED	830	2200 lm	28 W	A+   A+	
611953.00X.1	D 650, H 610	LED	840	2350 lm	28 W	A+   A+	
611956.00X	D 650, H 610	LED	830	4350 lm	52 W	A+   A+	
611956.00X.1	D 650, H 610	LED	840	4500 lm	52 W	A+   A+	
611959.00X	D 650, H 610	LED	830	6350 lm	76 W	A+   A+	
611959.00X.1	D 650, H 610	LED	840	6400 lm	76 W	A+   A+	
611962.00X	D 650, H 610	LED	830	8150 lm	100 W	A+   A+	
611962.00X.1	D 650, H 610	LED	840	8100 lm	100 W	A+   A+	
<b>Asymmetrical light distribution for area lighting</b>							
611954.00X	D 650, H 610	LED	830	2050 lm	28 W	A+   A+	
611954.00X.1	D 650, H 610	LED	840	2250 lm	28 W	A+   A+	
611957.00X	D 650, H 610	LED	830	4100 lm	52 W	A+   A+	
611957.00X.1	D 650, H 610	LED	840	4500 lm	52 W	A+   A+	
611960.00X	D 650, H 610	LED	830	5800 lm	76 W	A+   A+	
611960.00X.1	D 650, H 610	LED	840	6350 lm	76 W	A+   A+	
611963.00X	D 650, H 610	LED	830	7300 lm	100 W	A+   A+	
611963.00X.1	D 650, H 610	LED	840	8050 lm	100 W	A+   A+	

Availability expected as of August 2016


**Comparison LED vs. conventional lamps**
**LED 28 W ≈**

1 x 35 W HIT (45 W CB)

**LED 52 W ≈**

1 x 70 W HIT (84 W CB)

**LED 76 W ≈**

1 x 100 W HIT (106 W EB)

**LED 100 W ≈**

1 x 150 W HIT (170 W CB)



The application image shows: Laruta



The application image shows:  
Edo



107



107

GSUN® S | Universal S  
106-107



109

Lucio HP  
108-109



111

Edo 3  
110-111



## GSUN® S | UNIVERSAL S

LED display luminaires



- NEW - now with quick mounting adapter (July 2016)
- Escape sign luminaire with highly efficient LED technology
- Housing made of top quality aluminium
- The very latest LED technology keeps maintenance costs to a minimum
- LED rated life: approx. 50,000 hours
- Standard automatic self-test
- Set of 4 legends included for easy attachment
- Suitable for mounting on ceiling or wall



3003



3004

Legends for escape route identification - ISO 7010  
Background colour: green  
(Special legends on request)



3006



3005

**LED display luminaires | Series: GSUN® S**

Type of Protection: IP 30  
 Protection Class: I  
 Impact Protection: IK03  
 Viewing Distance: 24 m

**For escape route identification**

Housing: aluminium extrusion profile, powder-coated. Universal mounting kit for ceiling and wall surface mounting. 4 legends and 1 white plug-in plastic sheet included.

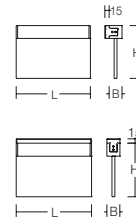
**Automatic self test in all standard versions.**

LED included.

Operating mode: Can either be connected in non-maintained power mode (BS) or in maintained power mode (DS).

Ballast mains/emergency: EB

Available colour: 4 = silver coloured



Reference number	Dimensions	Lamp/Wattage	Rated Operating Time	Monitoring System
<b>Ceiling and wall luminaires</b>				
<b>Viewing distance: 24 m</b>				
671915.004	L 247, B 45, H 195	1 x LED 2,2 W	3 h	
<b>Ceiling and wall luminaires with monitoring system</b>				
<b>Viewing distance: 24 m</b>				
671915.004.04	L 247, B 45, H 195	1 x LED 2,2 W	3 h	Multi-Digit
671915.004.07	L 247, B 45, H 195	1 x LED 2,2 W	3 h	DALI

**LED display luminaires | Series: Universal S**

Type of Protection: IP 30  
 Protection Class: I  
 Voltage: AC / DC  
 Viewing Distance: 24 m

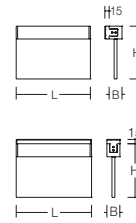
**For escape route identification**

Housing: aluminium extrusion profile, powder-coated. Universal mounting kit for ceiling and wall surface mounting. 4 legends and 1 white plug-in plastic sheet included.

LED included.

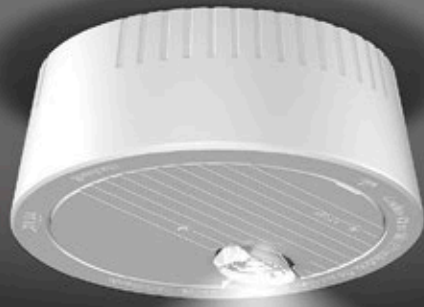
Ballast: EB

Available colour: 4 = silver coloured



Reference number	Dimensions	Lamp/Wattage	Monitoring Module
<b>Ceiling and wall luminaires</b>			
<b>Viewing distance: 24 m</b>			
671983.004	L 247, B 45, H 195	1 x LED 2,2 W	
671983.004.89	L 247, B 45, H 195	1 x LED 2,2 W	AC-Control





## LUCIO HP

Universal downlight for surface or recessed mounting



- Wide luminaire spacing for escape routes thanks to special lenses
- Top quality LED technology
- Specially calculated thermal management
- Very low maintenance costs
- LED rated life: approx. 50,000 hours
- Compact design
- Easy to install
- Can be surface or flush mounted on the ceiling and is therefore suitable for use anywhere

**Universal downlight for surface or recessed mounting | Series: Lucio HP**

Type of Protection: IP 30  
 Protection Class: II  
 Ceiling Thickness: 5-25 mm  
 Impact Protection: IK03

**For escape route illumination**

Housing: plastic. Accessories for recessed and surface mounting on the ceiling are included.

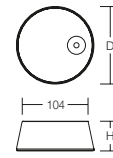
**Automatic self test in all standard versions.**

LED included.

Operating mode: non-maintained power mode (BS)

Ballast mains/emergency: EB

Available colour: 2 = white



Reference number	Dimensions	Lamp/Wattage	Lumen Factor	Rated Operating Time	Monitoring System	Price Category
<b>Ceiling and recessed ceiling luminaires</b>						<b>Price Category 23</b>
<b>Ceiling surface installation: D 120, H 45 mm</b>						
<b>Recessed ceiling installation: D 120, H 3, DA 105, HE 42 mm</b>						
105 672169.002	D 120, H 3	1 x LED 3 W	100 %	3 h		
						<b>Price Category 30</b>
<b>Ceiling surface installation: D 120, H 45 mm</b>						
<b>Recessed ceiling installation: D 120, H 3, DA 105, HE 42 mm</b>						
105 672169.002.07	D 120, H 3	1 x LED 3 W	100 %	3 h	DALI	

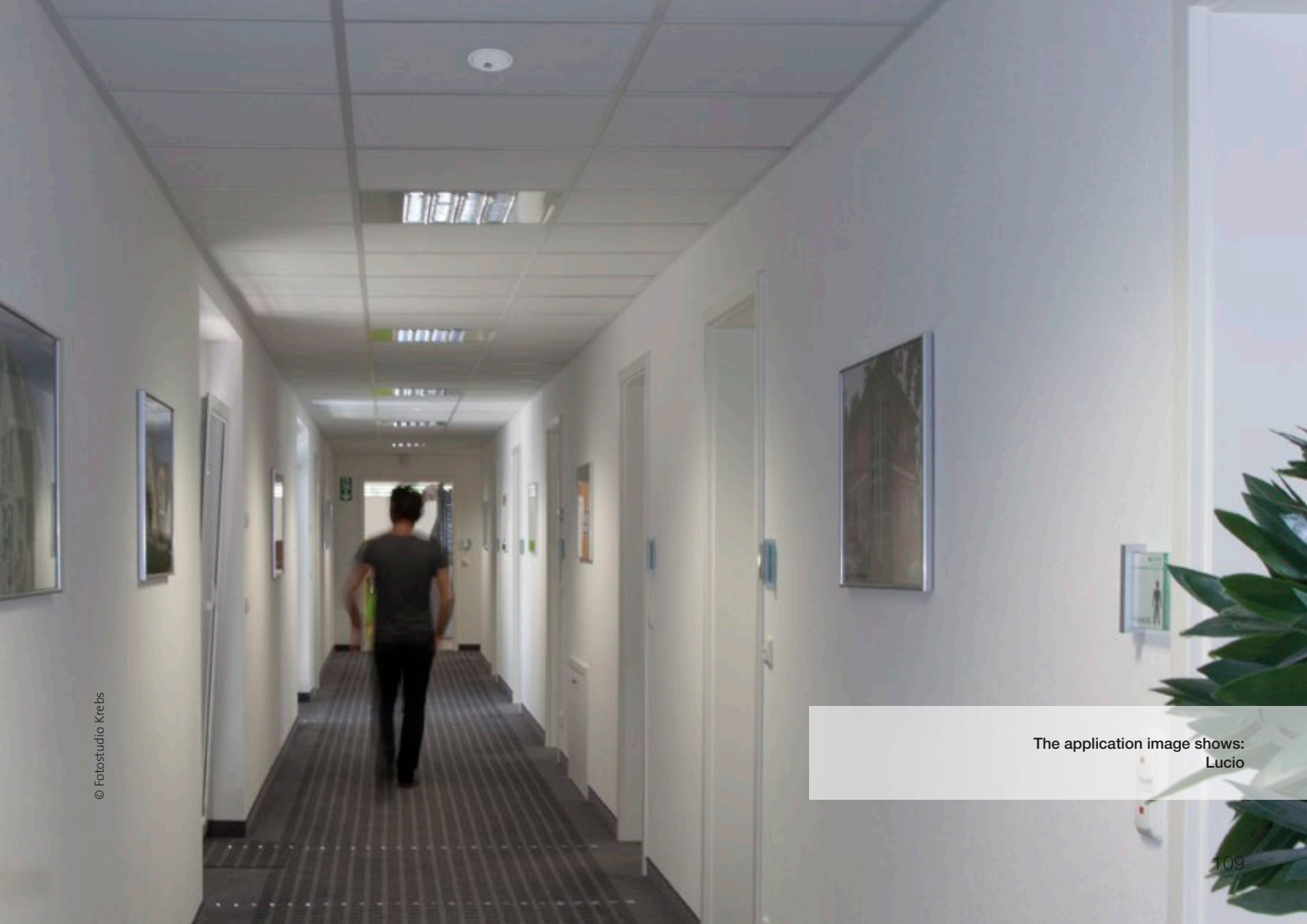
**Planning guide: Escape route illumination in accordance with EN 1838**

E = 1 lx along the centre line

**Spacing table  
672169.002 (Lens for escape route)**

Luminaire flux  
Emergency: 140 lm  
The following values are indicated in m

h	a	b	c	d
2,5	6,1	1,8	15,1	4,4
3,0	5,6	1,5	14,5	3,5
3,5	5,2	1,3	11,9	2,5
4,0	4,7	1,0	10,1	2,4



The application image shows:  
Lucio

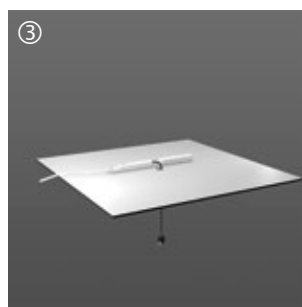


## EDO 3

Recessed downlights



- Top quality LED technology
- Wide luminaire spacing for escape route illumination
- Top quality LED technology
- Specially calculated thermal management
- Very low maintenance costs
- LED rated life: approx. 50,000 hours
- Easy to install
- Compact and inconspicuous design





**Recessed downlights | Series: Lucio HP**

Type of Protection: IP 20  
 Protection Class: II  
 Ceiling Thickness: 1-6 mm

**For escape route illumination**

Housing: plastic, white. PCB and battery in separate gearbox, 400 mm cable.

**Automatic self test in all standard versions, bus connection for RZB DALI monitoring system.**

LED included.

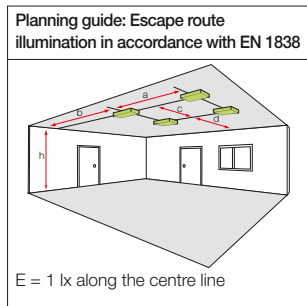
Operating mode: non-maintained power mode (BS)

Ballast mains/emergency: EB

Available colour: 2 = white



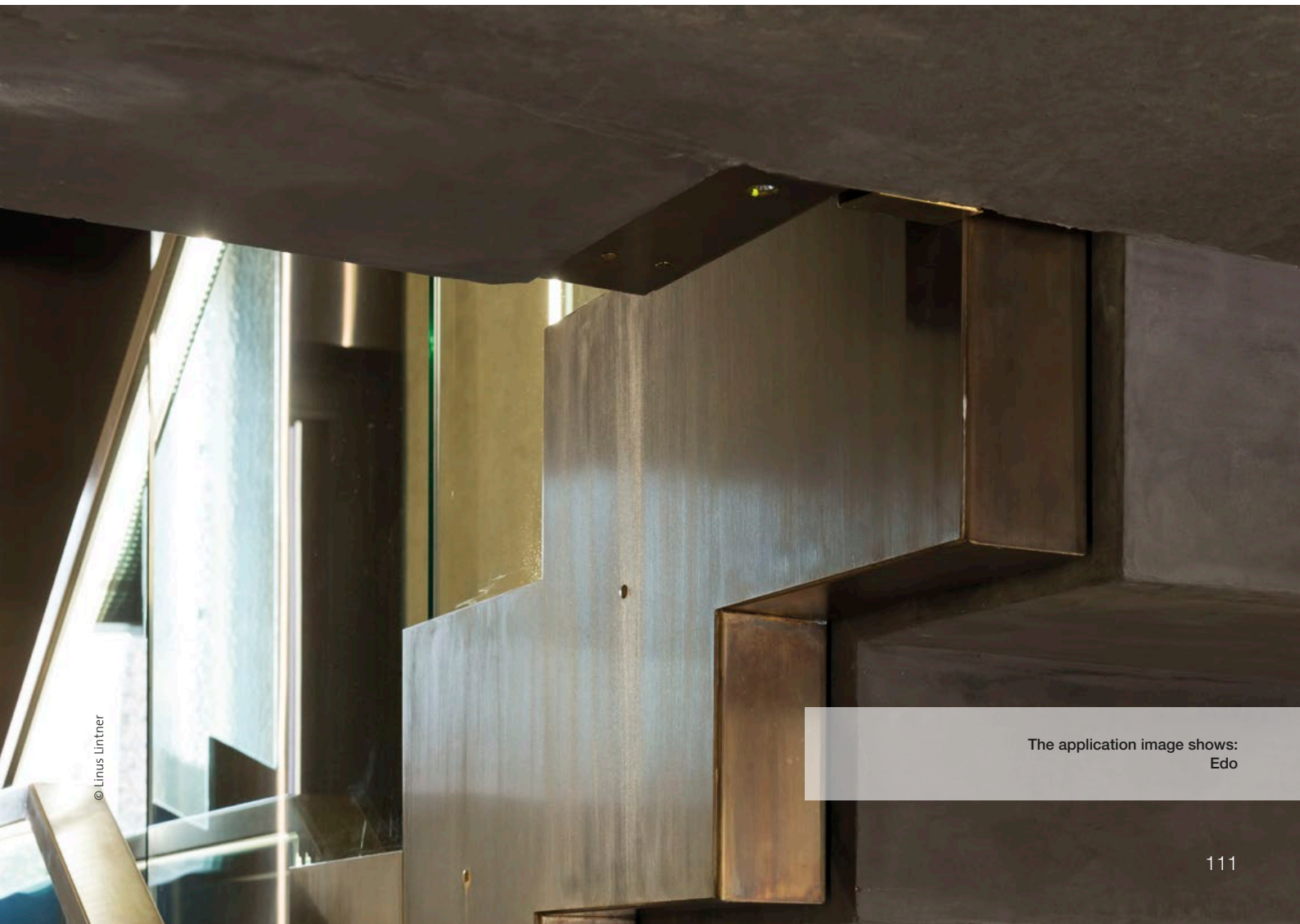
Reference number	Dimensions	Lamp/Wattage	Lumen Factor	Rated Operating Time	Monitoring System	Price Category 23
<b>Recessed luminaires</b>						
672161.002.07	D 12, H 2	1 x LED 0,9 W	100 %	3 h	DALI	



**Spacing table 672161.002.07**

Luminaire flux  
 Emergency: 80 lm  
 The following values are indicated in m

h	a	b	c	d
2,5	6,9	2,6	6,9	2,6
3,0	7,3	2,6	7,3	2,6
3,5	7,5	2,5	7,5	2,5
4,0	7,5	2,3	7,5	2,3



The application image shows:  
 Edo

Explanation of declared values in this catalogue

„Lamp/Wattage“

Number and type of lamp (e. g. 1 x HIT-CE) as well as its maximum wattage [W] (e.g. 70 W), when used in the selected luminaire.

„Light colour“

To indicate the „light colour“ and the colour rendering quality of a light source, the lighting industry uses a three-digit light colour code, where the first digit defines the colour rendering index (CRI) while the second and third denote the correlated colour temperature (CCT) of the light emitted by the light source in Kelvin [K].

Examples:

8 27	9 40
colour temperature 2700 K	colour temperature 4000 K
colour rendering index Ra = 80-89	colour rendering index Ra = 90-100

„Luminaire flux“

Luminaire flux is defined as the total quantity of light emitted by a luminaire and is measured in lumens [lm].

„System power“

Indicates the luminaire 's total power requirements, i.e. the total watts [W] required to power the light source and any ballast or driver needed to operate it.

„ $\alpha$ “ - beam angle

The beam angle, or half-peak angle of a luminaire is defined as that part of the beam where the light level varies between its peak intensity and half the peak level. This angle indicates whether the light distribution of a luminaire is narrow, medium or wide beam.

„UGR“

The UGR (Unified Glare Rating) allows for the rating of direct glare resulting from indoor lighting installations. The higher the UGR, the more intense the glare. Standardized limit values are defined for specific types of activities and spaces, and are not to be exceeded (see e.g. DIN EN 12464-1).

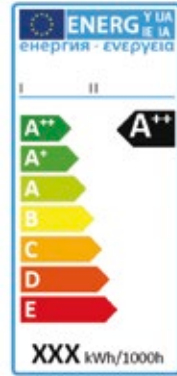
„Socket“

The socket is the lampholder that is integrated into the luminaire.

„EEC“

Light source energy efficiency class in accordance with regulation (EU) no 874/2012. These classes are determined in accordance with the system that is currently in use for other electrical devices:

A++ (highest energy efficiency) to E (lowest energy efficiency)



Regulation (EU) no. 874/2012 stipulates that the energy efficiency class needs to be indicated for the following applications:

**EEC X:** The energy efficiency class for **usable conventional light sources** (incandescent lamps, fluorescent lamps and high pressure lamps). A number of values can come into play here.

**EEC Y:** The energy efficiency class for **usable LED lamps**, for which a number of values can come into play.

**EEC Z:** The energy efficiency class for built-in light sources that are pre-installed in lighting fixtures.

Hence the following designations are used in this catalogue:

EEC X | EEC Y | EEC Z

For reasons of simplicity, these designations are reduced here to their relevant values.

Examples:

1. EEC X | - | -

A lighting fixture with an E27 lampholder can accommodate general-use incandescent bulbs (EEC E), halogen bulbs (EEC C) or energy saving bulbs with E27 sockets (EEC A). In view of the fact that the energy efficiency of these lighting fixtures varies according to the bulbs used, the following energy efficiency classes are indicated for this particular instance:

(A,C,E | - | -) => A,C,E

2. EEC X | EEC Y | -

Lighting fixtures with GU10 lampholder can accommodate conventional QPAR16 bulbs (EEC D), or can be outfitted with an LED retrofit bulb (EEC A or A+).

(D | A,A+ | -) => D | A,A+

3. - | EEC Y | EEC Z

These lighting fixtures are designed for class A and A+ LED bulbs and integrate a class A+ LED circuit board.

(- | A,A+ | A+) => A,A+ | A+



INDOOR LIGHTING | SURFACE MOUNTED DOWNLIGHTS

Surface mounted downlights | Series: Andho® Flat

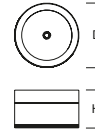
Type of Protection: IP 23, IP 65  
 Protection Class: I  
 Impact Protection: IK03

Housing: aluminium extrusion profile, powder-coated. Bezel ring and ceiling base die-cast aluminium powder-coated with bayonet fixing. Reflector: aluminium, highly polished anodised finish. 5 pole double terminal for through-wiring. For IP 65 with transparent safety glass.

LED: Passive cooling. Converter and LED included.

TC: Electronic ballast included.

Available colours (X): 2 = white, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	Socket	EEC
<b>Surface mounted downlights</b>								
<b>Protection type IP 23</b>								
931168.00X	D 230, H 138	LED	830	1900 lm	21 W	59°		A+   A+
931168.00X.76	D 230, H 138	LED	830	1900 lm	21 W	59°		A+   A+
931168.00X.1	D 230, H 138	LED	840	1950 lm	21 W	59°		A+   A+
931168.00X.1.76	D 230, H 138	LED	840	1950 lm	21 W	59°		A+   A+
931102.84X.76	D 230, H 140	2 x TC-TEL 18 W				96°	GX24q-2	A
931102.84X.79	D 230, H 140	2 x TC-TEL 18 W				96°	GX24q-2	A
931102.83X.76	D 230, H 140	2 x TC-TEL 26 W				96°	GX24q-3	A
931102.83X.79 .Q	D 230, H 140	2 x TC-TEL 26 W				96°	GX24q-3	A
<b>Protection type IP 65 with transparent safety glass</b>								
931169.00X	D 230, H 138	LED	830	1800 lm	21 W	56°		A+   A+
931169.00X.76	D 230, H 138	LED	830	1800 lm	21 W	56°		A+   A+
931169.00X.1	D 230, H 138	LED	840	1900 lm	21 W	56°		A+   A+
931169.00X.1.76	D 230, H 138	LED	840	1900 lm	21 W	56°		A+   A+
931104.84X.76	D 230, H 148	2 x TC-TEL 18 W				97°	GX24q-2	A
931104.84X.79	D 230, H 148	2 x TC-TEL 18 W				97°	GX24q-2	A
931104.83X.76	D 230, H 148	2 x TC-TEL 26 W				97°	GX24q-3	A
931104.83X.79 .Q	D 230, H 148	2 x TC-TEL 26 W				97°	GX24q-3	A

Reference number	Description	Price Category 21
981694.00X	Bezel ring (screwed on the luminaire), with safety glass, matt	for IP 65 versions
981678.00X	Suspension cable (2m) with 5-pole power supply cable (IP 23)	for all versions

Surface mounted downlights | Series: Andho® Midi

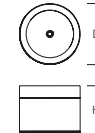
Type of Protection: IP 23, IP 65  
 Protection Class: I  
 Impact Protection: IK03

Housing: aluminium extrusion profile, powder-coated. Bezel ring and ceiling base die-cast aluminium powder-coated with bayonet fixing. Reflector: aluminium, highly polished anodised finish. 5 pole double terminal for through-wiring. For IP 65 with transparent safety glass.

LED: Passive cooling. Converter and LED included.

TC: Electronic ballast included.

Available colours (X): 2 = white, 4 = silver metallic



Reference number	Dimensions	Lamp	Light colour	Luminaire flux	System power	UGR	Socket	EEC
<b>Surface mounted downlights</b>								
<b>Protection type IP 23</b>								
931170.00X	D 230, H 188	LED	830	2850 lm	30 W	59°		A+   A+
931170.00X.76	D 230, H 188	LED	830	2850 lm	30 W	59°		A+   A+
931170.00X.1	D 230, H 188	LED	840	2900 lm	30 W	59°		A+   A+
931170.00X.1.76	D 230, H 188	LED	840	2900 lm	30 W	59°		A+   A+
931105.83X.76	D 230, H 278	1 x TC-TEL 26/32 W				110°	GX24q-3	A
931105.83X.79	D 230, H 278	1 x TC-TEL 26/32 W				110°	GX24q-3	A
931106.83X.76	D 230, H 278	2 x TC-TEL 26/32 W				110°	GX24q-3	A
931106.83X.79 .Q	D 230, H 278	2 x TC-TEL 26/32 W				110°	GX24q-3	A
<b>Protection type IP 65 with transparent safety glass</b>								
931171.00X	D 230, H 188	LED	830	2700 lm	30 W	56°		A+   A+
931171.00X.76	D 230, H 188	LED	830	2700 lm	30 W	56°		A+   A+
931171.00X.1	D 230, H 188	LED	840	2800 lm	30 W	56°		A+   A+
931171.00X.1.76	D 230, H 188	LED	840	2800 lm	30 W	56°		A+   A+
931110.83X.76	D 230, H 292	2 x TC-TEL 26/32 W				109°	GX24q-3	A
931110.83X.79 .Q	D 230, H 292	2 x TC-TEL 26/32 W				109°	GX24q-3	A

Reference number	Description	Price Category 21
981694.00X	Bezel ring (screwed on the luminaire), with safety glass, matt	for IP 65 versions
981678.00X	Suspension cable (2 m) with 5-pole power supply cable (IP 23)	for all versions

**Comparison LED vs. conventional lamps**

**LED 30 W ≈**  
 2 x 32 W TC-D (69 W EB)  
 1 x 35 W HIT-CE (45 W EB)



TC version

Specifications subject to alteration | Further information and additional versions can be found on our website at [www.rzb-lighting.com](http://www.rzb-lighting.com).  
 .76 = Digitally dimmable EB (DALI) | .79 = With EB | .Q = Quick service (stock articles)  
 LED <sup>(1)</sup> = With mains voltage LED | Further information on technical specifications can be found in the appendix

No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
06566	47	311910.004.76	21	311993.000.1.76	15	451179.009	49	611908.0031.1	91
01-8613.002	47	311911.004	19	311993.000.76	15	451180.009	49	611908.004	91
08-6093.002	47	311911.004.1	19	311994.000	15	451182.009.19	49	611908.004.1	91
09-6422.002	47	311911.004.1.76	19	311994.000.1	15	451183.009.19	49	611910.0031	91
09-6429.000	47	311911.004.76	19	311994.000.1.76	15	451184.009.19	49	611910.0031.1	91
09-6599.009	47	311912.004	20	311994.000.76	15	451185.009.19	49	611910.004	91
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311845.000.76	20	311942.000.1.76	37	312087.002.4	25	581634.004	81	611918.004	89
311846.000	20	311942.000.76	37	312089.002.1	25	581634.004.1	81	611918.004.1	89
311846.000.1	20	311956.000	45	312089.002.2	25	601065.002	51	611919.0031	89
311846.000.1.76	20	311956.000.1	45	312089.002.3	25	601066.002	51	611919.0031.1	89
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311907.004.1	21	311969.002	13	451170.002.1	27	611873.004.1	89	611925.0031	83
311907.004.1.76	21	311969.002.1	13	451171.002	27	611874.0031	89	611925.0031.1	83
311907.004.76	21	311970.002	13	451171.002.1	27	611874.0031.1	89	611925.004	83
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311908.004.1	21	311983.000	45	451172.002.1	27	611874.004.1	89	611927.0031	85
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311909.004	21	311983.000.76	45	451174.002	27	611905.004	91	611927.004.1	85
311909.004.1	21	311984.000	45	451174.002.1	27	611905.004.1	91	611928.0031	85
311909.004.1.76	21	311984.000.1	45	451175.002	27	611907.0031	91	611928.0031.1	85
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311910.004	21	311984.000.76	45	451176.009	49	611907.004	91	611928.004.1	85
311910.004.1	21	311993.000	15	451177.009	49	611907.004.1	91	611930.0031	87
311910.004.1.76	21	311993.000.1	15	451178.009	49	611908.0031	91	611930.0031.1	87

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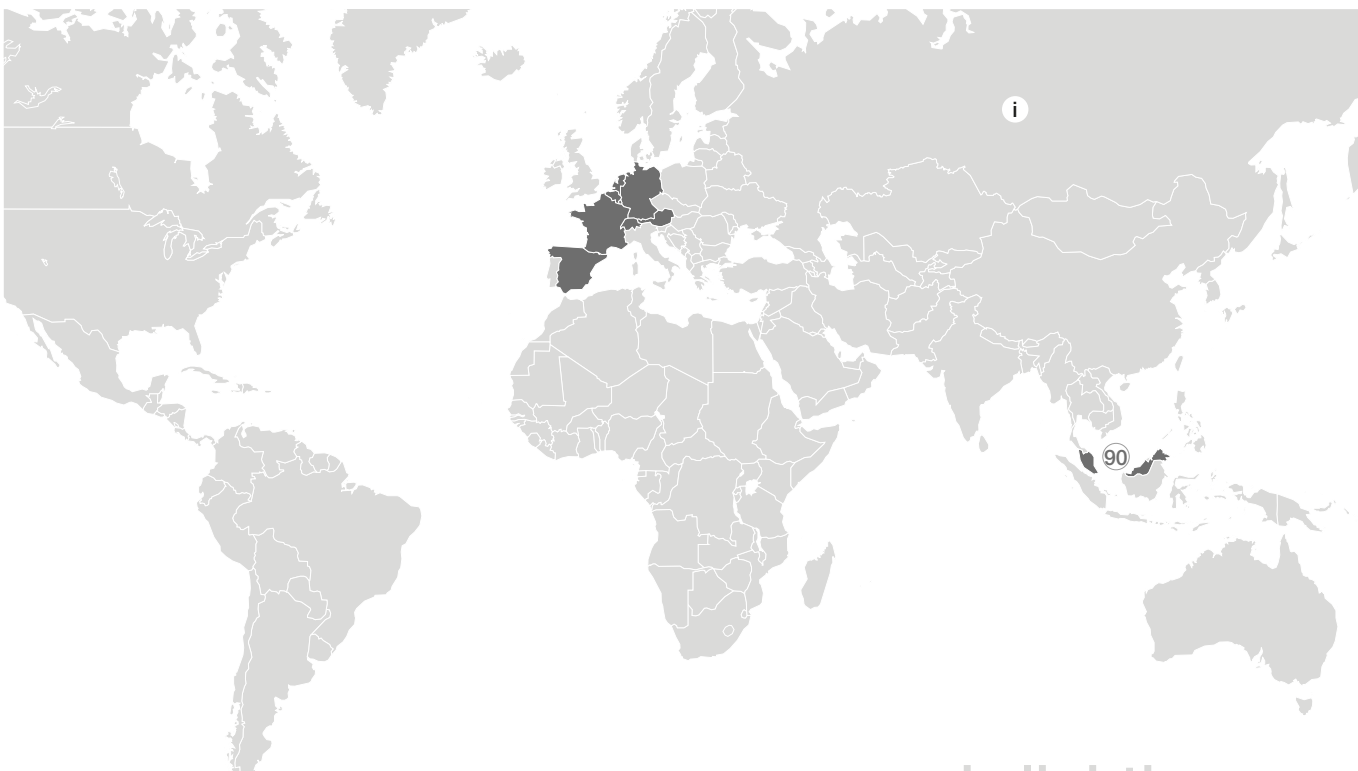
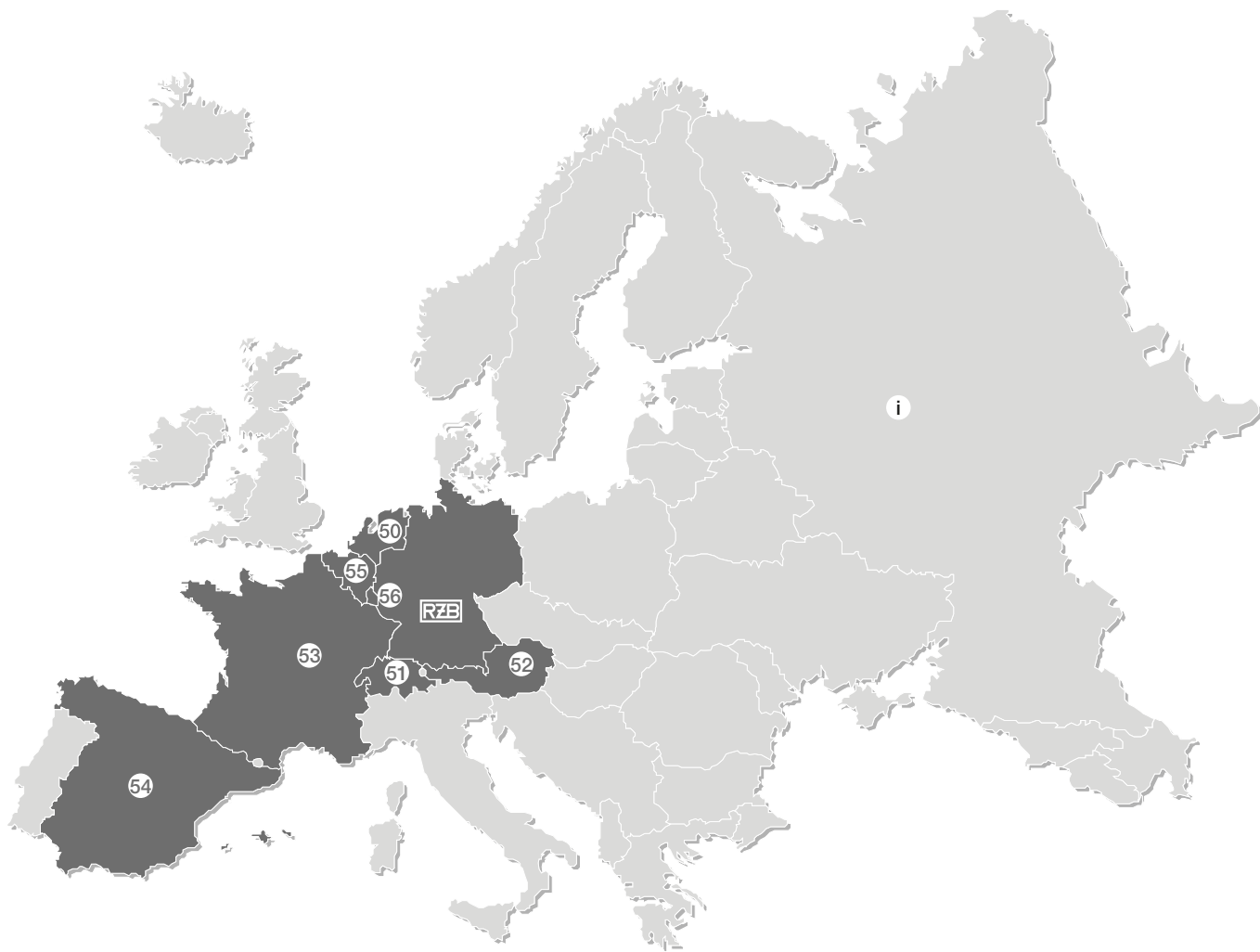
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