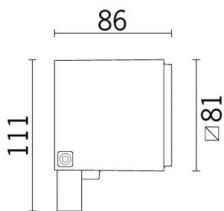


Last information update: March 2022

**Product configuration: BK28**

BK28: Outdoor floodlight LED - CL III separate driver unit - Flood optic

**Product code**

BK28: Outdoor floodlight LED - CL III separate driver unit - Flood optic

**Technical description**

Direct light outdoor floodlight, designed to use Red, Green and Blue (RGB) LED lamps, with flood optic. Ground, wall or ceiling installation using special adjustable bracket. The luminaire consists of an optical assembly, rear cap and adjustable bracket. The optical assembly and rear cap are made of die-cast aluminium alloy coated with liquid acrylic paint (grey finish) or textured liquid (white finish) with a high level of resistance to weather and UV rays. Transparent tempered sodium - calcium safety glass with customised grey serigraphy, 4 mm thick, joined to the optical assembly with silicone. Adjustable fixing bracket made of painted aluminium; with a double nickel-plated brass PG11 cable gland, suitable for power cables  $\varnothing$  6.5-11 mm. For electrical connection the product has a plastic box with three 2-pin quick-coupling terminals for cables with max. cross-section 4 mm<sup>2</sup>. Electronic circuit with red, green and blue (RGB) multichip LEDs, optics with lens made of thermoplastic material (methacrylate) and a black polycarbonate multi-groove ring for visual comfort. Control gear to be ordered separately (driver unit code 9586). All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN60598-1 standards and particular requirements.

**Installation**

Ground, wall or ceiling installation using special bracket. Secure using screw anchors for concrete, cement and solid brick.

**Colour**

White (01) | Grey (15)

**Weight (Kg)**

0.86

**Mounting**

free standing

**Wiring**

Control gear to be ordered separately (Driver Unit code 9586, Vin=220-240V ac 50/60Hz). Polyamide PG11 double cable gland for pass-through wiring, suitable for power cables  $\varnothing$  6.5-11 mm. Available for electrical connection: Sealed connector kit IP68 (9581), IP67 box for Driver Unit (BZ33)

**Notes**

Product complete with LED lamp.

Complies with EN60598-1 and pertinent regulations

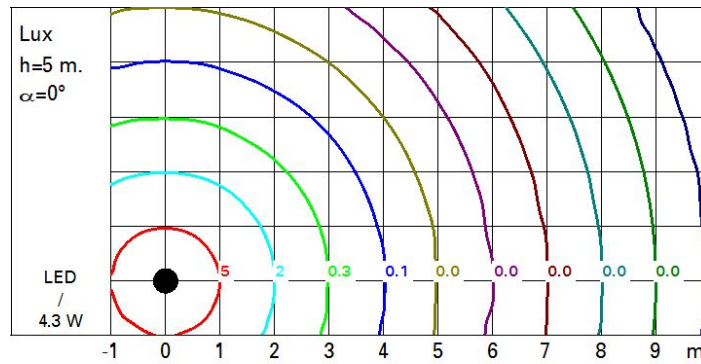
**Technical data**

Im system:	67	Life Time LED 1:	100,000h - L80 - B20 (Ta 25°C)
W system:	4.3	Life Time LED 2:	100,000h - L80 - B20 (Ta 40°C)
Im source:	180	Ballast losses [W]:	0.3
W source:	4	Lamp code:	LED
Luminous efficiency (Im/W, real value):	15.5	Number of lamps for optical assembly:	1
Im in emergency mode:	-	ZVEI Code:	LED
Total light flux at or above an angle of 90° [Lm]:	0	Number of optical assemblies:	1
Light Output Ratio (L.O.R.) [%]:	37	Ambient operating temperature range:	from -20°C to +35°C.
Beam angle [°]:	32°	LED Current [mA]:	87

**Polar**

Imax=189 cd	Lux			
	h	d	Em	Emax
	1	0.6	146	189
	2	1.1	37	47
	3	1.7	16	21
	4	2.3	9	12

### Isolux



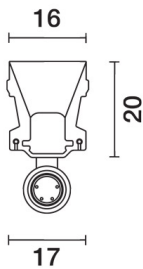
### UGR diagram

Corrected UGR values (at 180 lm bare lamp luminous flux)											
Reflect.:		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
ceiling/cav											
walls											
work pl.											
Room dim		viewed					viewed				
x	y	crosswise					endwise				
2H	2H	3.6	4.2	3.9	4.4	4.6	3.6	4.2	3.9	4.4	4.6
	3H	3.5	4.0	3.8	4.3	4.6	3.5	4.1	3.9	4.3	4.6
	4H	3.5	4.0	3.8	4.3	4.6	3.5	4.0	3.8	4.3	4.6
	6H	3.5	3.9	3.8	4.2	4.6	3.4	3.9	3.8	4.2	4.5
	8H	3.4	3.9	3.8	4.2	4.5	3.4	3.8	3.7	4.1	4.5
12H	3.4	3.8	3.8	4.1	4.5	3.3	3.8	3.7	4.1	4.5	
4H	2H	3.5	4.0	3.8	4.3	4.6	3.5	4.0	3.8	4.3	4.6
	3H	3.4	3.9	3.8	4.2	4.5	3.5	3.9	3.8	4.2	4.6
	4H	3.4	3.8	3.8	4.2	4.5	3.4	3.8	3.8	4.2	4.5
	6H	3.4	3.7	3.8	4.1	4.6	3.4	3.7	3.8	4.1	4.5
	8H	3.4	3.7	3.8	4.1	4.5	3.3	3.6	3.8	4.1	4.5
12H	3.3	3.6	3.8	4.0	4.5	3.3	3.6	3.7	4.0	4.4	
8H	4H	3.3	3.6	3.8	4.1	4.5	3.4	3.7	3.8	4.1	4.5
	6H	3.3	3.6	3.8	4.0	4.5	3.3	3.6	3.8	4.0	4.5
	8H	3.3	3.5	3.8	4.0	4.5	3.3	3.5	3.8	4.0	4.5
	12H	3.2	3.4	3.7	3.9	4.4	3.2	3.4	3.7	3.9	4.4
12H	4H	3.3	3.6	3.7	4.0	4.4	3.3	3.6	3.8	4.0	4.5
	6H	3.3	3.5	3.8	4.0	4.5	3.3	3.5	3.7	3.9	4.4
	8H	3.2	3.4	3.7	3.9	4.4	3.2	3.4	3.7	3.9	4.4
Variations with the observer position at spacing:											
S =	1.0H	3.4 / -4.0				3.4 / -4.0					
	1.5H	5.8 / -5.6				5.8 / -5.6					
	2.0H	7.8 / -8.3				7.8 / -8.3					

Last information update: May 2022

**Product configuration: E487**

E487: Top-Bend 16mm version Led - 24Vdc - L=3004mm



**Product code**

E487: Top-Bend 16mm version Led - 24Vdc - L=3004mm

**Technical description**

Luminaire for indoor and outdoor architectural linear lighting – with RGB Led – on a 24Vdc flexible white circuit, length L=3004mm. The led circuit is completely IP68 encapsulated with a white (outside) and milky finish (over light emission) high performance polymer sheath: this material allows the device to be installed and used even at extreme temperatures: -30°C +45°C. Underscore InOut TOP-BEND can be used to create straight lines on flat and curved surfaces. Even, spotfree lighting is guaranteed along the entire strip profile up to the end parts. On both ends (not the head), the product is supplied with a cable L=80mm with IP68 male and female connectors fitted with an anti-detachment locknut. The product is supplied with stainless steel wires to stop the body from misshaping as this may damage the led circuit. Easy to install and a robust design for difficult environments (for example, it is salt water, UV and solvent resistant). Minimum curving radius 250mm for 16mm TOP-BEND versions. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

**Installation**

Surface-mounted (ceiling and wall) using accessories to be ordered separately. The installation accessories available include end-low aluminium profiles with slots (L=104mm) and intermediate-low aluminium profiles with no slots (L=998-1790mm) that are used to secure the linear Underscore InOut, with its side exit for the cable with connector. Aluminium low clips (L=40mm) and AISI 316 stainless steel low clips (L=40mm) ideal for curved sections are available. High linear aluminium profiles (L=1000-2000mm) are available and high aluminium and AISI 316 stainless steel clips (L=40mm) that hide the cables with the connectors in the bottom part.

**Colour**

White (01)

**Weight (Kg)**

0.9

**Mounting**

wall arm|wall surface|ceiling surface

**Wiring**

24Vdc ±5% LED circuit. Constant voltage ballasts to be ordered separately, both IP20 and IP67 are available and suitable for outdoor installation. DALI/DMX/1-10V 12÷48Vdc 4-channel dimming interface available with 6A per channel, (code no. 9639) suitable for both RGB Led and white Led versions. The ballast and led strip are connected via cables with IP68 female connectors (L=115-1550-3050-5050mm) or IP68 male connectors (L=115-1500mm).

**Notes**

Product complete with LED lamp. Eight standard lengths are available (254-504-1004-2004-3004-4004-5004-7004mm) and thirteen more on request (304-354-404-454-554-604-654-704-754-804-854-904-954mm) make up the Underscore InOut range. Underscore InOut can be connected in sequence up to a maximum length of L=7004mm. Depending on the type of ballast Underscore connections can be made in parallel, each with a max length of L=7004mm, that can also be installed in a continuous line (see instruction sheet). IP68 protection on the product and the continuous line system with IP68 connectors. \*The product is not suitable for use in swimming pools and fountains. Life Time n.1 Color LED on: 46,000h - L70 - B50 (Ta 25°C) Life Time n.3 Color LEDs on: 21,000h - L70 - B50 (Ta 25°C) Life Time n.1 Color LED on: 24,000h - L70 - B50 (Ta 40°C) Life Time n.3 Color LEDs on: 12,000h - L70 - B50 (Ta 40°C)

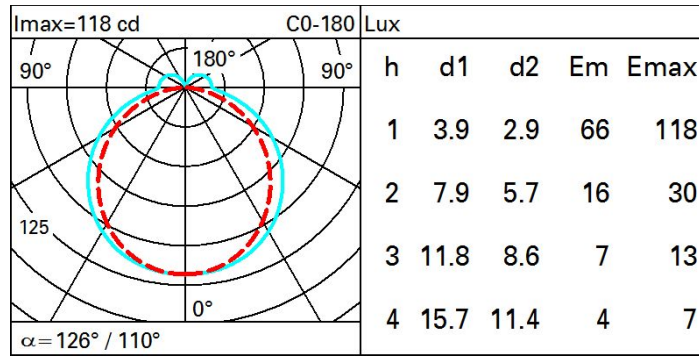
Complies with EN60598-1 and pertinent regulations



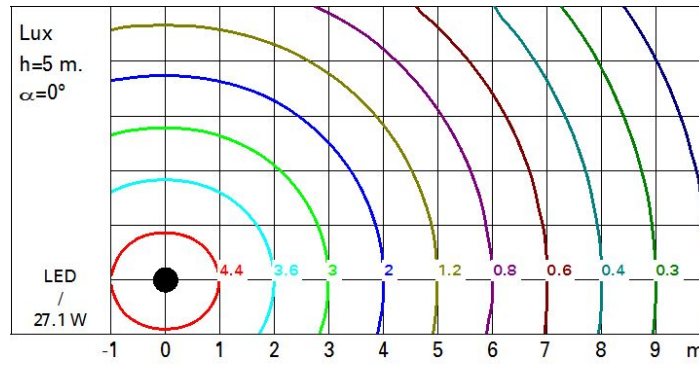
**Technical data**

lm system:	421	Ballast losses [W]:	10.1
W system:	27.1	Voltage [Vin]:	24
lm source:	-	Lamp code:	LED
W source:	-	Number of lamps for optical assembly:	1
Luminous efficiency (lm/W, real value):	15.5	ZVEI Code:	LED
lm in emergency mode:	-	Number of optical assemblies:	1
Total light flux at or above an angle of 90° [Lm]:	48	Ambient operating temperature range:	from -30°C to 45°C.
Light Output Ratio (L.O.R.) [%]:	100	LED Current [mA]:	5
Life Time LED 1:	60,000h - L70 - B20 (Ta 25°C)	Control:	PWM
Life Time LED 2:	40,000h - L70 - B20 (Ta 40°C)		

**Polar**



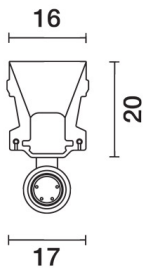
**Isolux**



Last information update: May 2022

**Product configuration: E488**

E488: Top-Bend 16mm version Led - 24Vdc - L=4004mm



**Product code**

E488: Top-Bend 16mm version Led - 24Vdc - L=4004mm

**Technical description**

Luminaire for indoor and outdoor architectural linear lighting – with RGB Led – on a 24Vdc flexible white circuit, length L=4004mm. The led circuit is completely IP68 encapsulated with a white (outside) and milky finish (over light emission) high performance polymer sheath: this material allows the device to be installed and used even at extreme temperatures: -30°C +45°C. Underscore InOut TOP-BEND can be used to create straight lines on flat and curved surfaces. Even, spotfree lighting is guaranteed along the entire strip profile up to the end parts. On both ends (not the head), the product is supplied with a cable L=80mm with IP68 male and female connectors fitted with an anti-detachment locknut. The product is supplied with stainless steel wires to stop the body from misshaping as this may damage the led circuit. Easy to install and a robust design for difficult environments (for example, it is salt water, UV and solvent resistant). Minimum curving radius 250mm for 16mm TOP-BEND versions. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

**Installation**

Surface-mounted (ceiling and wall) using accessories to be ordered separately. The installation accessories available include end-low aluminium profiles with slots (L=104mm) and intermediate-low aluminium profiles with no slots (L=1790-1998mm) that are used to secure the linear Underscore InOut, with its side exit for the cable with connector. Aluminium low clips (L=40mm) and AISI 316 stainless steel low clips (L=40mm) ideal for curved sections are available. High linear aluminium profiles (L=1000-2000mm) are available or high aluminium and AISI 316 stainless steel clips (L=40mm) that hide the cables with the connectors in the bottom part.

**Colour**

White (01)

**Weight (Kg)**

1.2

**Mounting**

wall arm|wall surface|ceiling surface

**Wiring**

24Vdc ±5% LED circuit. Constant voltage ballasts to be ordered separately, both IP20 and IP67 are available and suitable for outdoor installation. DALI/DMX/1-10V 12÷48Vdc 4-channel dimming interface available with 6A per channel, (code no. 9639) suitable for both RGB Led and white Led versions. The ballast and led strip are connected via cables with IP68 female connectors (L=115-1550-3050-5050mm) or IP68 male connectors (L=115-1500mm).

**Notes**

Product complete with LED lamp. Eight standard lengths are available (254-504-1004-2004-3004-4004-5004-7004mm) and thirteen more on request (304-354-404-454-554-604-654-704-754-804-854-904-954mm) make up the Underscore InOut range. Underscore InOut can be connected in sequence up to a maximum length of L=7004mm. Depending on the type of ballast Underscore connections can be made in parallel, each with a max length of L=7004mm, that can also be installed in a continuous line (see instruction sheet). IP68 protection on the product and the continuous line system with IP68 connectors. \*The product is not suitable for use in swimming pools and fountains. Life Time n.1 Color LED on: 46,000h - L70 - B50 (Ta 25°C) Life Time n.3 Color LEDs on: 21,000h - L70 - B50 (Ta 25°C) Life Time n.1 Color LED on: 24,000h - L70 - B50 (Ta 40°C) Life Time n.3 Color LEDs on: 12,000h - L70 - B50 (Ta 40°C)

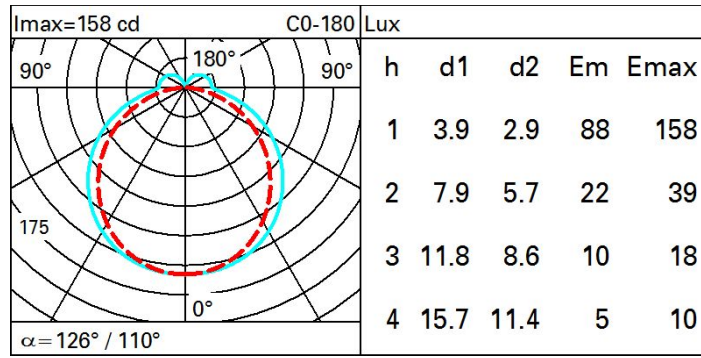
Complies with EN60598-1 and pertinent regulations



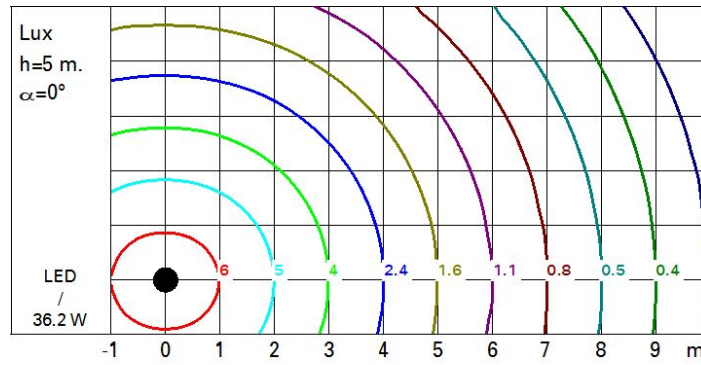
**Technical data**

lm system:	562	Ballast losses [W]:	13.2
W system:	36.2	Voltage [Vin]:	24
lm source:	-	Lamp code:	LED
W source:	-	Number of lamps for optical assembly:	1
Luminous efficiency (lm/W, real value):	15.5	ZVEI Code:	LED
lm in emergency mode:	-	Number of optical assemblies:	1
Total light flux at or above an angle of 90° [Lm]:	64	Ambient operating temperature range:	from -30°C to 45°C.
Light Output Ratio (L.O.R.) [%]:	100	LED Current [mA]:	5
Life Time LED 1:	60,000h - L70 - B20 (Ta 25°C)	Control:	PWM
Life Time LED 2:	40,000h - L70 - B20 (Ta 40°C)		

**Polar**



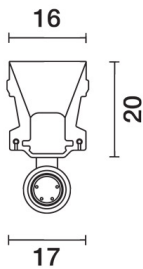
**Isolux**



Last information update: May 2022

**Product configuration: E489**

E489: Top-Bend 16mm version Led - 24Vdc - L=5004mm



**Product code**

E489: Top-Bend 16mm version Led - 24Vdc - L=5004mm

**Technical description**

Luminaire for indoor and outdoor architectural linear lighting – with RGB Led – on a 24Vdc flexible white circuit, length L=5004mm. The led circuit is completely IP68 encapsulated with a white (outside) and milky finish (over light emission) high performance polymer sheath: this material allows the device to be installed and used even at extreme temperatures: -30°C +45°C. Underscore InOut TOP-BEND can be used to create straight lines on flat and curved surfaces. Even, spotfree lighting is guaranteed along the entire strip profile up to the end parts. On both ends (not the head), the product is supplied with a cable L=80mm with IP68 male and female connectors fitted with an anti-detachment locknut. The product is supplied with stainless steel wires to stop the body from misshaping as this may damage the led circuit. Easy to install and a robust design for difficult environments (for example, it is salt water, UV and solvent resistant). Minimum curving radius 250mm for 16mm TOP-BEND versions. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

**Installation**

Surface-mounted (ceiling and wall) using accessories to be ordered separately. The installation accessories available include end-low aluminium profiles with slots (L=104mm) and intermediate-low aluminium profiles with no slots (L=998-1790-1998mm) that are used to secure the linear Underscore InOut, with its side exit for the cable with connector. Aluminium low clips (L=40mm) and AISI 316 stainless steel low clips (L=40mm) ideal for curved sections are available. High linear aluminium profiles (L=1000-2000mm) are available and high aluminium or AISI 316 stainless steel clips (L=40mm) that hide the cables with the connectors in the bottom part.

**Colour**

White (01)

**Weight (Kg)**

1.5

**Mounting**

wall arm|wall surface|ceiling surface

**Wiring**

24Vdc ±5% LED circuit. Constant voltage ballasts to be ordered separately, both IP20 and IP67 are available and suitable for outdoor installation. DALI/DMX/1-10V 12÷48Vdc 4-channel dimming interface available with 6A per channel, (code no. 9639) suitable for both RGB Led and white Led versions. The ballast and led strip are connected via cables with IP68 female connectors (L=115-1550-3050-5050mm) or IP68 male connectors (L=115-1500mm).

**Notes**

Product complete with LED lamp. Eight standard lengths are available (254-504-1004-2004-3004-4004-5004-7004mm) and thirteen more on request (304-354-404-454-554-604-654-704-754-804-854-904-954mm) make up the Underscore InOut range. Underscore InOut can be connected in sequence up to a maximum length of L=7004mm. Depending on the type of ballast Underscore connections can be made in parallel, each with a max length of L=7004mm, that can also be installed in a continuous line (see instruction sheet). IP68 protection on the product and the continuous line system with IP68 connectors. \*The product is not suitable for use in swimming pools and fountains. Life Time n.1 Color LED on: 46,000h - L70 - B50 (Ta 25°C) Life Time n.3 Color LEDs on: 21,000h - L70 - B50 (Ta 25°C) Life Time n.1 Color LED on: 24,000h - L70 - B50 (Ta 40°C) Life Time n.3 Color LEDs on: 12,000h - L70 - B50 (Ta 40°C)

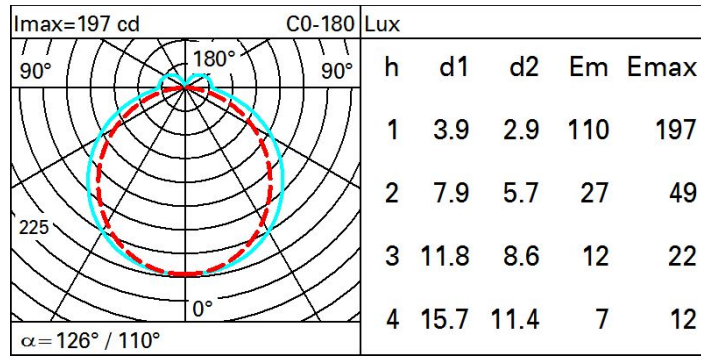
Complies with EN60598-1 and pertinent regulations



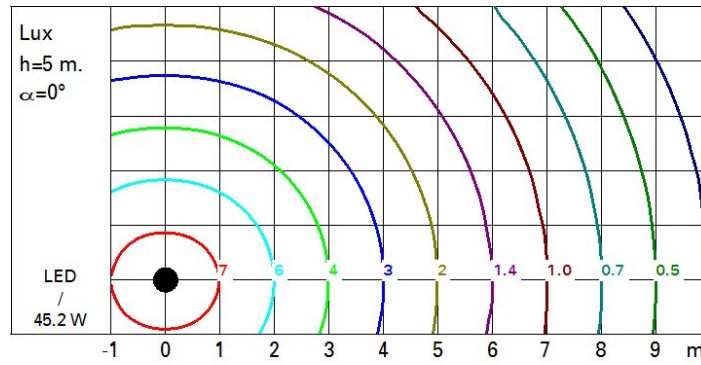
**Technical data**

lm system:	702	Ballast losses [W]:	16.2
W system:	45.2	Voltage [Vin]:	24
lm source:	-	Lamp code:	LED
W source:	-	Number of lamps for optical assembly:	1
Luminous efficiency (lm/W, real value):	15.5	ZVEI Code:	LED
lm in emergency mode:	-	Number of optical assemblies:	1
Total light flux at or above an angle of 90° [Lm]:	80	Ambient operating temperature range:	from -30°C to 45°C.
Light Output Ratio (L.O.R.) [%]:	100	LED Current [mA]:	5
Life Time LED 1:	60,000h - L70 - B20 (Ta 25°C)	Control:	PWM
Life Time LED 2:	40,000h - L70 - B20 (Ta 40°C)		

**Polar**

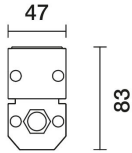


**Isolux**





Last information update: May 2022

**Product configuration: EG36+X391.13**EG36: Mini47 – Wall-/Ceiling-mounted – 48 Vdc DMX512-RDM – L=611mm – Wall Grazing WideFlood optic  
X391.13: Short orientable arms wall/ceiling/support with lateral mechanical block - Steel**Product code**

EG36: Mini47 – Wall-/Ceiling-mounted – 48 Vdc DMX512-RDM – L=611mm – Wall Grazing WideFlood optic

**Technical description**

Direct light luminaire, designed to use RGBW LED lamps, DMX512-RDM 48Vdc dimmable with searching and addressing function. Ceiling-, wall- or surface-mounted. Consists of a body and supports for installation, to be ordered separately. The body is made of extruded aluminium and includes die-cast aluminium end caps with 50/60 Shore A silicone seals. It is subjected to a multi-step, pre-treatment process, in which the main phases are degreasing, fluorozirconation (a protective surface film) and sealing (with a nano-structured silane layer). The following painting stage consists of a primer and a liquid acrylic paint, cured at 150°C, with a high level of weather and UV ray resistance. The top of the optical assembly is closed by a 3 mm thick transparent glass screen, fixed with silicone. Complete with multi-LED plate in RGBW colour and a 48V dc DMX512-RDM electronic driver (ballast to be ordered separately). Supplied with a double PG13.5 and outlet cables for pass-through wiring with IP68 male/female joiners. Fitted with a PMMA diffusing filter and optics with a plastic (methacrylate) lens for Wall Grazing WideFlood lighting. All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

**Installation**

Accessories are available for installation, like adjustable AISI304 stainless steel wall-mounted arms.

**Colour**

Grey (15)

**Weight (Kg)**

1.82

**Mounting**

wall arm|wall surface|ceiling surface

**Wiring**

Complete with DMX-RDM 44-52Vdc control card. The product is supplied with a nickel-plated brass PG13.5 double cable gland with H07RN-F 5x1.5mm<sup>2</sup> rubber outlet cables for pass-through wiring with joiners (illegible part). Available for electrical connection and DMX-RDM control: IP68 5-pin female connector, IP68 5-pin male connector + closing cap (BZ16), and IP68 5-pin male + female connectors.

**Notes**

Product complete with LED lamp. DMX specifications require the insertion of a 120 Ohm terminating resistor to be placed between the DATA+ and DATA- cables of the last product in the line (BZQ7).

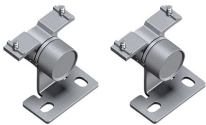
Complies with EN60598-1 and pertinent regulations

**Accessory code**

X391.13: Short orientable arms wall/ceiling/support with lateral mechanical block - Steel

**Technical description**

Short adjustable wall/ceiling/bracket arms with lateral mechanical locking mechanism for precision aiming. Made of AISI 304 stainless steel and a painted aluminium knob.

**Colour**

Steel (13)

**Weight (Kg)**

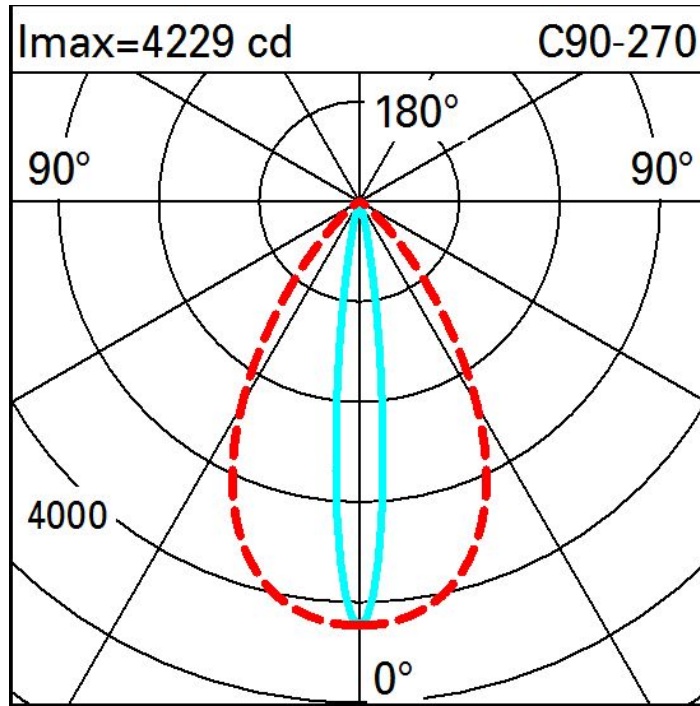
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Complies with EN60598-1 and pertinent regulations

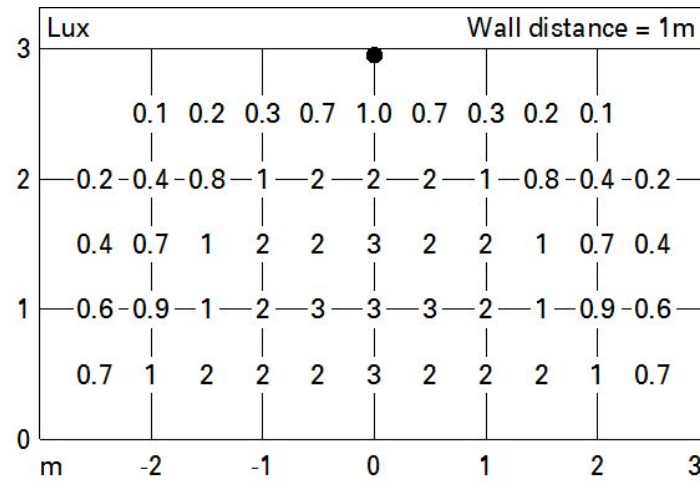
**Technical data**

Im system:	1117	Ballast losses [W]:	3.7
W system:	26.7	Voltage [Vin]:	48
Im source:	1450	Lamp code:	LED
W source:	23	Number of lamps for optical assembly:	1
Luminous efficiency (Im/W, real value):	41.8	ZVEI Code:	LED
Im in emergency mode:	-	Number of optical assemblies:	1
Total light flux at or above an angle of 90° [Lm]:	0	Ambient operating temperature range:	from -30°C to 50°C.
Light Output Ratio (L.O.R.) [%]:	77	LED Current [mA]:	500
Life Time LED 1:	70,000h - L80 - B10 (Ta 25°C)	Control:	DMX-RDM
Life Time LED 2:	59,000h - L80 - B10 (Ta 40°C)		

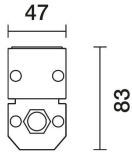
Polar



Illuminances



Last information update: May 2022

**Product configuration: EG38+X391.13**EG38: Mini47 – Wall-/Ceiling-mounted – 48 Vdc DMX512-RDM – L=1205mm – Wall Grazing WideFlood optic  
X391.13: Short orientable arms wall/ceiling/support with lateral mechanical block - Steel**Product code**

EG38: Mini47 – Wall-/Ceiling-mounted – 48 Vdc DMX512-RDM – L=1205mm – Wall Grazing WideFlood optic

**Technical description**

Direct light luminaire, designed to use RGBW LED lamps, DMX512-RDM 48Vdc dimmable with searching and addressing function. Ceiling-, wall- or surface-mounted. Consists of a body and supports for installation, to be ordered separately. The body is made of extruded aluminium and includes die-cast aluminium end caps with 50/60 Shore A silicone seals. It is subjected to a multi-step, pre-treatment process, in which the main phases are degreasing, fluorozirconation (a protective surface film) and sealing (with a nano-structured silane layer). The following painting stage consists of a primer and a liquid acrylic paint, cured at 150°C, with a high level of weather and UV ray resistance. The top of the optical assembly is closed by a 3 mm thick transparent glass screen, fixed with silicone. Complete with multi-LED plate in RGBW colour and a 48V dc DMX512-RDM electronic driver (ballast to be ordered separately). Supplied with a double PG13.5 and outlet cables for pass-through wiring with IP68 male/female joiners. Fitted with a PMMA diffusing filter and optics with a plastic (methacrylate) lens for Wall Grazing WideFlood lighting. All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

**Installation**

Accessories are available for installation, like adjustable AISI304 stainless steel wall-mounted arms.

**Colour**

Grey (15)

**Weight (Kg)**

3

**Mounting**

wall arm|wall surface|ceiling surface

**Wiring**

Complete with DMX-RDM 44-52Vdc control card. The product is supplied with a nickel-plated brass PG13.5 double cable gland with H07RN-F 5x1.5mm<sup>2</sup> rubber outlet cables for pass-through wiring with joiners (illegible part). Available for electrical connection and DMX-RDM control: IP68 5-pin female connector, IP68 5-pin male connector + closing cap (BZ16), and IP68 5-pin male + female connectors.

**Notes**

Product complete with LED lamp. DMX specifications require the insertion of a 120 Ohm terminating resistor to be placed between the DATA+ and DATA- cables of the last product in the line (BZQ7).

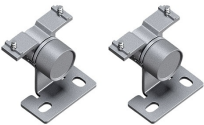
Complies with EN60598-1 and pertinent regulations

**Accessory code**

X391.13: Short orientable arms wall/ceiling/support with lateral mechanical block - Steel

**Technical description**

Short adjustable wall/ceiling/bracket arms with lateral mechanical locking mechanism for precision aiming. Made of AISI 304 stainless steel and a painted aluminium knob.

**Colour**

Steel (13)

**Weight (Kg)**

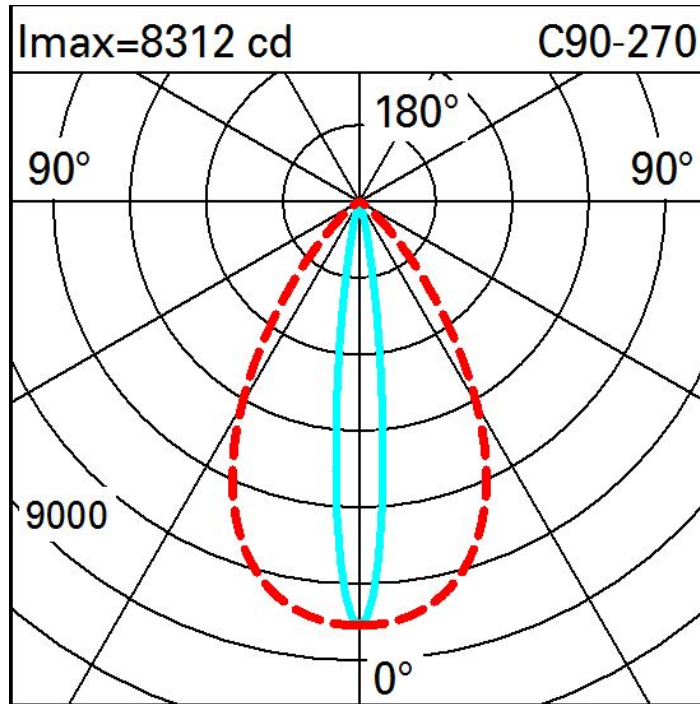
0.24

Complies with EN60598-1 and pertinent regulations

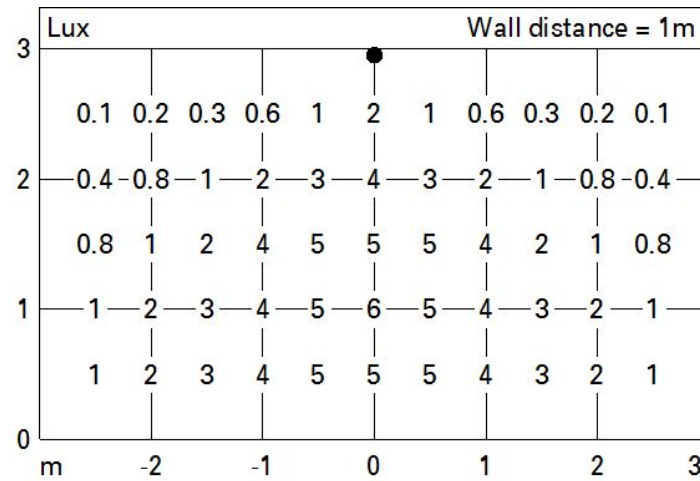
**Technical data**

Im system:	2195	Ballast losses [W]:	4
W system:	50	Voltage [Vin]:	48
Im source:	2850	Lamp code:	LED
W source:	46	Number of lamps for optical assembly:	1
Luminous efficiency (Im/W, real value):	43.9	ZVEI Code:	LED
Im in emergency mode:	-	Number of optical assemblies:	1
Total light flux at or above an angle of 90° [Lm]:	0	Ambient operating temperature range:	from -30°C to 50°C.
Light Output Ratio (L.O.R.) [%]:	77	LED Current [mA]:	500
Life Time LED 1:	70,000h - L80 - B10 (Ta 25°C)	Control:	DMX-RDM
Life Time LED 2:	59,000h - L80 - B10 (Ta 40°C)		

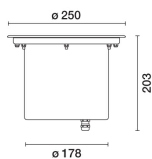
Polar



Illuminances



Last information update: May 2022

**Product configuration: JBM7+X209.04**JBM7: Light Up Earth D=250 mm- 220-240V ac DMX-RD - Diffusing optic - Non-slip glass  
X209.04: Plastic casing for installation on floors + end cap - Black**Product code**

JBM7: Light Up Earth D=250 mm- 220-240V ac DMX-RD - Diffusing optic - Non-slip glass

**Technical description**

Floor or ground-recessed luminaire designed to use RGBW LED lamps with a dimmable DMX512-RDM, a search and addressing function for lighting, a fixed and a built-in electronic ballast. The non-slip surface (class R13 compliant in accordance with DIN 51130) is 15mm thick and has an inner screen made of opal methacrylate. The stainless steel body is painted black. The luminaire is fixed to the outer casing using two Torx type screws that hold it in place. The unit comes complete with LED circuit. An external black plastic box (PPS) contains the control gear. The product's wiring system features an A2 stainless steel cable gland with a 500 mm long A07RNF type 5x1 mm<sup>2</sup> output power cable. The cable is equipped with an anti-transpiration device (IP68) that consists of a silicone-coated joint located on the power cable and positioned in the control gear box. An outer casing is available for installation and can be ordered separately from the plastic optic assembly. The glass unit, optical assembly, frame and outer casing together guarantee a maximum static load resistance of 5000 kg. The maximum surface temperature of the glass is less than 40°C.

**Installation**

The product is fixed to the outer casing using two Torx type securing screws. The unit can be floor-recessed using the outer casing for installation or ground-recessed without the outer casing.

**Colour**  
Steel (13)

**Weight (Kg)**  
4.5

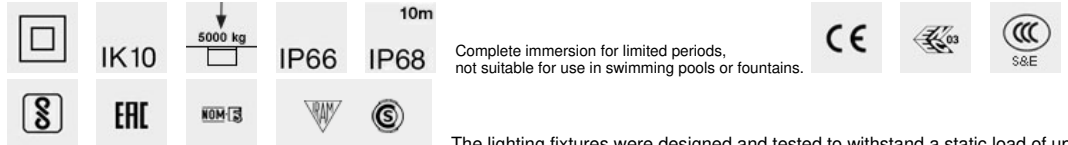
**Wiring**

Product complete with dimmable DMX512-RDM driver located inside the device and 220÷240V ac electronic control gear positioned in a box separate from the optical assembly, with an output cable.

**Notes**

IP68 rating on both the product and the cable using IP68 connectors. The product is not suitable for installation in swimming pools and fountains. DMX specifications require the insertion of a 120 Ohm terminating resistor to be placed between the DATA+ and DATA- cables of the last product in the line (code BZQ7) Overvoltage protection: 4kV Common Mode, 3.5kV Differential Mode

Complies with EN60598-1 and pertinent regulations

**Accessory code**

X209.04: Plastic casing for installation on floors + end cap - Black

**Technical description**

Made of plastic (polypropylene). Inclusive of front cap with system for extracting the cables and double cable entry.

**Installation**

Floor-standing (concrete)

**Colour**  
Black (04)

**Weight (Kg)**  
1.9

**Mounting**

ground surface|Floor recessed|ground recessed

Complies with EN60598-1 and pertinent regulations









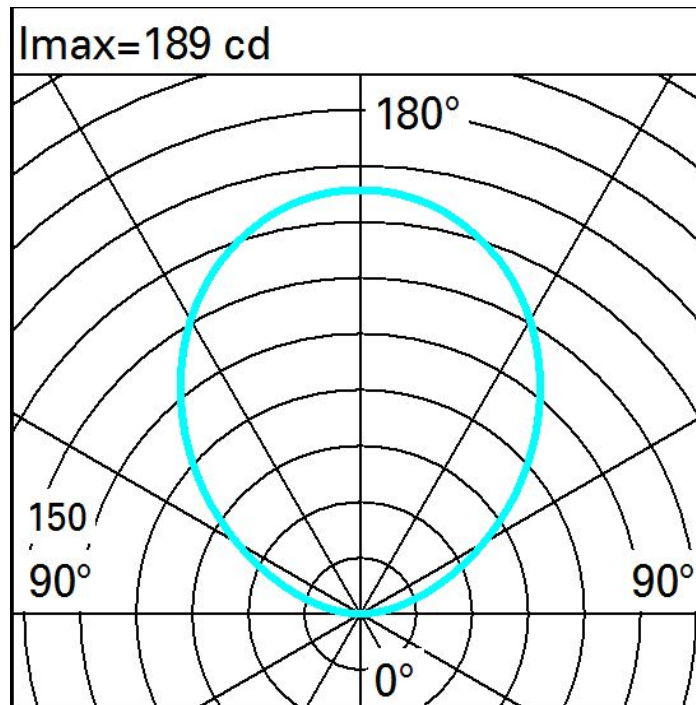

Complete immersion for limited periods, not suitable for use in swimming pools or fountains.

The lighting fixtures were designed and tested to withstand a static load of up to 50000 N and to resist drive-over stress by vehicles with tires. The fixtures cannot be used in lanes subjected to horizontal stresses due to acceleration, braking and / or changes of direction.

**Technical data**

lm system:	468	Number of lamps for optical assembly:	1
W system:	26.2	ZVEI Code:	LED
lm source:	1950	Number of optical assemblies:	1
W source:	24	Ambient operating temperature range:	from -20°C to +35°C. (*)
Luminous efficiency (lm/W, real value):	17.9	Power factor:	See installation instructions
lm in emergency mode:	-	Inrush current:	10 A / 200 µs
Total light flux at or above an angle of 90° [Lm]:	468	Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 18 luminaires B16A: 30 luminaires C10A: 31 luminaires C16A: 51 luminaires
Light Output Ratio (L.O.R.) [%]:	24	Minimum dimming %:	1
Life Time LED 1:	70,000h - L80 - B10 (Ta 25°C)	Overvoltage protection:	4kV Common mode & 4kV Differential mode
Ballast losses [W]:	2.2	Dimming mode:	CCR
Lamp code:	LED	Control:	DMX-RDM

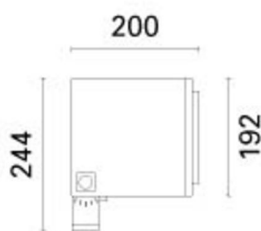
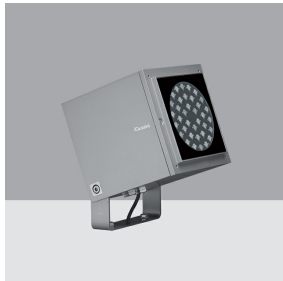
\* Preliminary data

**Polar**

Last information update: May 2022

**Product configuration: JNN1**

JNN1: Spotlight with bracket - Leds - 220÷240V ac electronic - DMX512-RDM - Spot optic

**Product code**

JNN1: Spotlight with bracket - Leds - 220÷240V ac electronic - DMX512-RDM - Spot optic

**Technical description**

Spotlight designed to use RGBW LED lamps (nr.9 red LEDs, nr.9 green LEDs, nr.9 blue LEDs and nr.9 white LEDs 4000K), a spot optic and a DMX512-RDM control with search and addressing function. The luminaire consists of an optical assembly/component-holding box and hidden fixing bracket. The optical assembly and front frame are made of die-cast aluminium alloy painted with a smooth finish (grey RAL 9007) or a textured finish (white RAL 9016). The painting process includes a multi-step, pre-treatment process, in which the main phases are degreasing, fluorozirconation (a protective surface film) and sealing (with a nano-structured silane layer). The next painting stage consists of a primer and a liquid acrylic paint, cured at 150°C, with a high level of weather and UV ray resistance. The tempered sodium-calcium glass cover has customised serigraphy, is 4mm thick, and joined to the frame with silicone. The frame is fastened to the optical assembly by two M5 AISI 304 stainless steel captive screws and a galvanised steel safety cable. Complete with multi-LED plate with individual red, green and blue (RGB) LEDs, a built-in electronic ballast and a DMX512-RDM control card. Fitted with optics with a plastic (methacrylate) lens for Spot lighting. The component-holding box, in the rear of the luminaire, is set up to hold the control gear, which is fixed with captive screws on a galvanised steel pull-out plate. The control gear can be accessed through the rear door made of painted aluminium alloy, fixed to the product body with four M5 AISI 304 stainless steel captive screws and a safety cable. iPro can be adjusted +95°/ -5° relative to the horizontal line using a bracket made of extruded aluminium, on which a graduated scale (with 15° steps) is marked using serigraphy. The internal silicone seals guarantee watertightness IP66h Set up for pass-through wiring using a double M24x1.5 nickel-plated brass cable gland (suitable for cables with 7-16mm diameter). Each cable can carry both the DMX signal and the mains power supply. All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN60598-1 standards and particular requirements.

**Installation**

Ground, wall or ceiling installation using special bracket. Secure using screw anchors for concrete, cement and solid brick. It can also be installed on a MultiPro pole system using suitable accessories.

**Colour**

White (01) | Grey (15)

**Weight (Kg)**

6

**Mounting**

wall arm|pole arm|ground surface|wall surface|ground anchored|ceiling surface|u-bracket|free standing

**Wiring**

Control gear complete with electronic ballast (220÷240Vac 50/60Hz) with a self-addressing DMX-RDM control. For the connection between the DMX signal cable and the power supply cable a Y IP68 connector is available code no. BZN7.

**Notes**

Product complete with LED lamp. IK09 with protective grille. DMX specifications require the insertion of a 120 Ohm resistor to be placed between the DATA+ and DATA- terminals of the last product in the line (BZQ7). If there is no DMX signal the product runs the dynamic colour sequence by default. DALI versions and DMX512 versions with self-addressing are available on request.

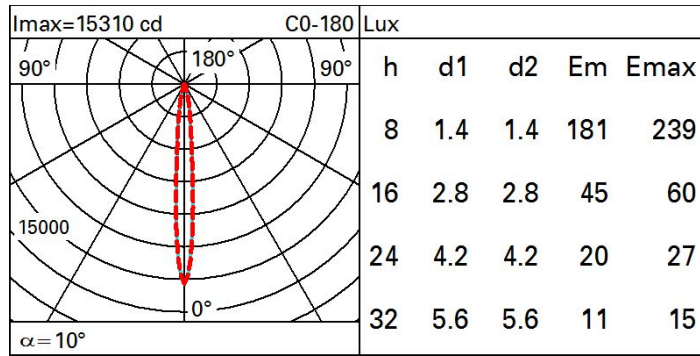
Complies with EN60598-1 and pertinent regulations

**Technical data**

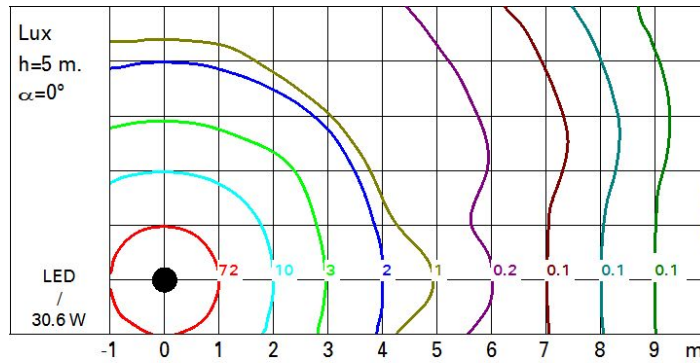
lm system:	1080	Number of lamps for optical assembly:	1
W system:	30.6	ZVEI Code:	LED
lm source:	2000	Number of optical assemblies:	1
W source:	24	Ambient operating temperature range:	from -20°C to +35°C. (*)
Luminous efficiency (lm/W, real value):	35.3	Power factor:	See installation instructions
lm in emergency mode:	-	Inrush current:	10 A / 200 µs
Total light flux at or above an angle of 90° [Lm]:	0	Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 18 luminaires B16A: 30 luminaires C10A: 31 luminaires C16A: 51 luminaires
Light Output Ratio (L.O.R.) [%]:	54	Minimum dimming %:	1
Beam angle [°]:	10°	Overvoltage protection:	4kV Common mode & 4kV Differential mode
Life Time LED 1:	80,000h - L80 - B10 (Ta 25°C)	Dimming mode:	CCR
Ballast losses [W]:	6.6	Control:	DMX-RDM
Lamp code:	LED		

\* Preliminary data

**Polar**



**Isolux**



**UGR diagram**

Corrected UGR values (at 2000 lm bare lamp luminous flux)											
Reflect.:		viewed crosswise					viewed endwise				
ceiling	cav	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
walls		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
work pl.		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Room dim		viewed crosswise					viewed endwise				
x	y										
2H	2H	8.5	10.4	8.9	10.7	11.0	8.6	10.5	9.0	10.8	11.1
	3H	9.0	10.3	9.4	10.6	10.9	8.9	10.1	9.2	10.4	10.7
	4H	9.2	10.2	9.6	10.5	10.8	8.9	9.9	9.3	10.2	10.6
	6H	9.2	10.0	9.6	10.3	10.7	9.0	9.7	9.3	10.1	10.4
	8H	9.2	10.0	9.6	10.4	10.7	8.9	9.7	9.3	10.1	10.4
	12H	9.1	10.0	9.5	10.4	10.8	8.8	9.8	9.2	10.1	10.5
4H	2H	8.9	9.8	9.2	10.2	10.5	9.5	10.5	9.9	10.8	11.1
	3H	9.5	10.5	9.9	10.8	11.2	9.8	10.7	10.2	11.0	11.4
	4H	9.7	10.8	10.1	11.2	11.6	9.8	10.9	10.2	11.3	11.7
	6H	9.6	11.2	10.0	11.6	12.1	9.6	11.2	10.1	11.7	12.1
	8H	9.5	11.2	10.0	11.7	12.2	9.5	11.3	10.0	11.8	12.3
	12H	9.4	11.2	9.9	11.7	12.2	9.5	11.3	10.0	11.7	12.2
8H	4H	9.5	11.2	10.0	11.7	12.2	9.6	11.4	10.1	11.8	12.3
	6H	9.6	11.2	10.1	11.7	12.2	9.7	11.2	10.2	11.7	12.2
	8H	9.7	10.9	10.2	11.4	12.0	9.8	11.0	10.3	11.5	12.0
	12H	9.8	10.6	10.3	11.1	11.7	9.9	10.7	10.4	11.2	11.7
12H	4H	9.4	11.2	9.9	11.7	12.2	9.5	11.3	10.0	11.8	12.3
	6H	9.7	10.9	10.2	11.4	11.9	9.7	11.0	10.2	11.5	12.0
	8H	9.8	10.6	10.3	11.1	11.7	9.9	10.7	10.4	11.2	11.7
Variations with the observer position at spacing:											
S =	1.0H	1.5 / -1.3					1.3 / -0.9				
	1.5H	3.1 / -2.2					2.6 / -1.6				
	2.0H	4.6 / -2.8					4.0 / -2.4				



Last information update: March 2022

**Product configuration: EJ35+X457.00+GOBO40A**

EJ35: Spotlight with Profiler – Neutral White LED – Ta 40

X457.00: Adjustable support for gobos - Indeterminate

GOBO40A: Gobo ø40mm - max focusing



**Product code**

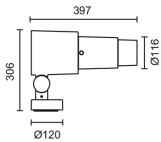
EJ35: Spotlight with Profiler – Neutral White LED – Ta 40

**Technical description**

Spotlight for outdoor use with profiler designed to use LED lamps. Consists of an optical assembly and a base. The optical assembly, arm and base and frame holder are made of aluminium alloy and subjected to a multi-step, pre-treatment process, in which the main phases are degreasing, fluorozirconation (a protective surface film) and sealing (with a nano-structured silane layer). The painting stage consists of a primer and a liquid acrylic paint, cured at 150 °C, with a high level of weather resistance. 5 mm thick extra-clear tempered sodium-calcium closing glass. Secured using a 360° adjustable base. Adjustable horizontally. Includes a graduated scale with a position lock. Complete with LED circuit and Opti Beam optic system. The product is supplied with Ø40mm and Ø30mm gobos that allow 25° and 20° light cones and blades to define specific magnetically mountable forms. The chance to use dichroic glass gobos (via assembly with a gobo holder and an image rotation system) or in sheet metal (via a magnetic assembly). The product includes a PG9 cable gland. Electronic DALI ballast integrated in product. Option of installing a SPD to increase voltage spike protection. All external screws used are made of A2 stainless steel.

**Installation**

Floor, wall, ceiling or ground-installed via a stake.



**Colour**

White (01) | Grey (15)

**Weight (Kg)**

7.35

**Wiring**

Double PG.

Complies with EN60598-1 and pertinent regulations



**Accessory code**

X457.00: Adjustable support for gobos - Indeterminate

**Colour**

Indeterminate (00)

**Weight (Kg)**

0.06

Complies with EN60598-1 and pertinent regulations

**Technical data**

Im system:	1536	Life Time LED 2:	50,000h - L80 - B10 (Ta 40°C)
W system:	44.2	Ballast losses [W]:	5.2
Im source:	6400	Lamp code:	LED
W source:	39	Number of lamps for optical assembly:	1
Luminous efficiency (Im/W, real value):	34.8	ZVEI Code:	LED
Im in emergency mode:	-	Number of optical assemblies:	1
Total light flux at or above an angle of 90° [Lm]:	0	Ambient operating temperature range:	from -30°C to 50°C.
Light Output Ratio (L.O.R.) [%]:	24	Lifetime of product at ambient operating temperature:	≥ 50.000h Ta=40°C
CRI:	80	Power factor:	See installation instructions
Colour temperature [K]:	4000	Overvoltage protection:	10kV Common mode & 6kV Differential mode
MacAdam Step:	3	Dimming mode:	CCR
Life Time LED 1:	60,000h - L80 - B10 (Ta 25°C)	Control:	DALI

Polar

