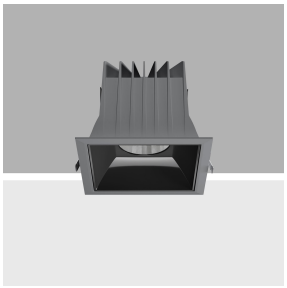
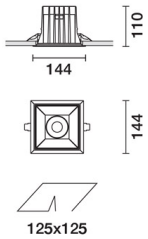
Laser Blade XL

Design iGuzzini **iGuzzini**

Last information update: December 2024

Product configuration: P776.74
P776.74: Fixed recessed luminaire - Neutral LED - DALI dimmable control gear - Wide Flood - Grey / Black





Product code
P776.74: Fixed recessed luminaire - Neutral LED - DALI dimmable control gear - Wide Flood - Grey / Black

Technical description
Recessed luminaire with fixed optic for Neutral White LED lamp. Passive heat dissipation system. Lamp body with die-cast aluminium radiant surface, version with perimeter surface frame. Metallised, thermoplastic, high definition Opti Beam optic, integrated in a set-back position in the anti-glare screen. Glass cover for LED lamp. The structure of the optic system produces light emission with controlled luminance (UGR < 19) to guarantee high visual comfort. Supplied with a dimmable DALI ballast connected to the luminaire.

Installation
Recessed with steel wire springs for false ceilings from 1 to 25 mm thick - preparation hole 125 x 125. Installation possible in a horizontal position.

Colour	**Weight (Kg)**
Grey / Black (74)*	0.86

* Colours on request

Mounting
ceiling recessed

Wiring
Quick-coupling connections on the ballast unit terminal block - Digital electronic cabling that allows dimming to be performed with DALI protocol or pushbutton systems (TOUCH DIM)

Notes
The product has a white finish (01) that maintains its UGR < 19 performance unaltered even when luminance values vary slightly.

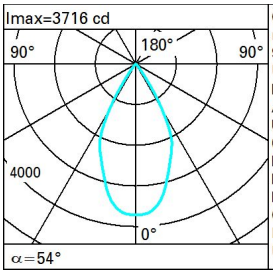
Complies with EN60598-1 and pertinent regulations

IP20 IP44 On the visible part of the product once installed

Technical data

lm system:	2430	CRI (minimum):	80
W system:	23.3	Colour temperature [K]:	4000
lm source:	3200	MacAdam Step:	2
W source:	21	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	104.3	Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	76	Number of optical assemblies:	1
Beam angle [°]:	54°	Control:	DALI-2

Polar



CIE
nL 0.76
99-100-100-100-76
UGR 13.6-13.6
DIN
A.61
UTE
0.76A+0.00T
F"1=992
F"1+F"2=1000
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<16 | L<1500 cd/mq @65°

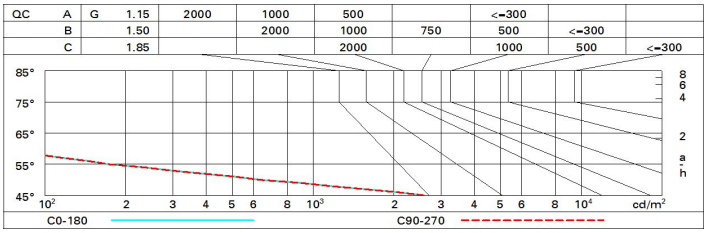
Lux

h	d	Em	Emax
2	2	682	929
4	4	171	232
6	6.1	76	103
8	8.1	43	58

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	68	65	62	60	64	62	62	59	78
1.0	71	68	66	64	67	65	65	63	82
1.5	75	73	71	69	72	70	69	67	88
2.0	77	76	74	73	75	73	72	70	93
2.5	79	77	76	76	76	75	75	73	96
3.0	80	79	78	77	78	77	76	74	98
4.0	81	80	80	79	79	78	77	75	99
5.0	81	81	80	80	79	79	78	76	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 3200 lm bare lamp luminous flux)

Riflect.: ceil/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	14.2	14.8	14.5	15.0	15.3	14.2	14.8	14.5	15.0	15.3
	3H	14.1	14.6	14.4	14.9	15.2	14.1	14.6	14.4	14.9	15.2
	4H	14.0	14.5	14.3	14.8	15.1	14.0	14.5	14.3	14.8	15.1
	6H	13.9	14.4	14.3	14.7	15.0	13.9	14.4	14.3	14.7	15.0
	8H	13.9	14.3	14.3	14.7	15.0	13.9	14.3	14.3	14.7	15.0
	12H	13.9	14.3	14.2	14.6	15.0	13.9	14.3	14.2	14.6	15.0
4H	2H	14.0	14.5	14.3	14.8	15.1	14.0	14.5	14.3	14.8	15.1
	3H	13.9	14.3	14.2	14.6	15.0	13.9	14.3	14.2	14.6	15.0
	4H	13.8	14.1	14.2	14.5	14.9	13.8	14.1	14.2	14.5	14.9
	6H	13.7	14.0	14.1	14.4	14.8	13.7	14.0	14.1	14.4	14.8
	8H	13.6	13.9	14.1	14.3	14.8	13.6	13.9	14.1	14.3	14.8
	12H	13.6	13.9	14.0	14.3	14.7	13.6	13.9	14.0	14.3	14.7
8H	4H	13.6	13.9	14.1	14.3	14.8	13.6	13.9	14.1	14.3	14.8
	6H	13.5	13.8	14.0	14.2	14.7	13.5	13.8	14.0	14.2	14.7
	8H	13.5	13.7	14.0	14.2	14.7	13.5	13.7	14.0	14.2	14.7
	12H	13.4	13.6	13.9	14.1	14.6	13.4	13.6	13.9	14.1	14.6
12H	4H	13.6	13.9	14.0	14.3	14.7	13.6	13.9	14.0	14.3	14.7
	6H	13.5	13.7	14.0	14.2	14.7	13.5	13.7	14.0	14.2	14.7
	8H	13.4	13.6	13.9	14.1	14.6	13.4	13.6	13.9	14.1	14.6

Variations with the observer position at spacing:

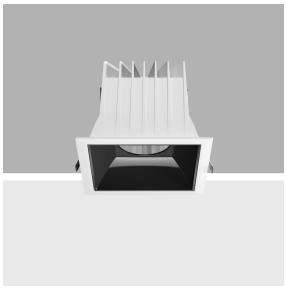
S =			
	1.0H	6.4 / -27.7	6.4 / -27.7
	1.5H	9.2 / -31.6	9.2 / -31.6
	2.0H	11.2 / -32.7	11.2 / -32.7

Laser Blade XL

Design iGuzzini **iGuzzini**

Last information update: December 2024

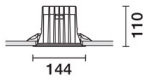
Product configuration: P777.47
P777.47: Fixed recessed luminaire - Warm LED - DALI dimmable control gear - Medium - Black / White



Product code
P777.47: Fixed recessed luminaire - Warm LED - DALI dimmable control gear - Medium - Black / White

Technical description
Fixed optic, recessed luminaire for a Warm White LED lamp with a high color rendering index. Passive heat dissipation system. Lamp body with die-cast aluminium radiant surface, version with perimeter surface frame. Metallised, thermoplastic, high definition Opti Beam optic, integrated in a set-back position in the anti-glare screen. Glass cover for LED lamp. The structure of the optic system produces light emission with controlled luminance (UGR < 19) to guarantee high visual comfort. Supplied with a dimmable DALI ballast connected to the luminaire.

Installation
Recessed with steel wire springs for false ceilings from 1 to 25 mm thick - preparation hole 125 x 125. Installation possible in a horizontal position.



Colour	Weight (Kg)
Black / White (47)	0.86

Mounting
ceiling recessed

Wiring
Quick-coupling connections on the ballast unit terminal block - Digital electronic cabling that allows dimming to be performed with DALI protocol or pushbutton systems (TOUCH DIM)

Notes
The product has a white finish (01) that maintains its UGR < 19 performance unaltered even when luminance values vary slightly.

Complies with EN60598-1 and pertinent regulations

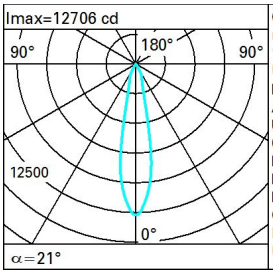
IP20 IP44 On the visible part of the product once installed

pending

Technical data

lm system:	2381	CRI (minimum):	90
W system:	32.1	Colour temperature [K]:	3000
lm source:	3450	MacAdam Step:	2
W source:	28	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	74.2	Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	69	Number of optical assemblies:	1
Beam angle [°]:	22°	Control:	DALI-2

Polar



CIE
nL 0.69
100-100-100-100-69
UGR <10-<10
DIN
A.61
UTE
0.69A+0.00T
F"1=999
F"1+F"2=1000
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<10 I L<1500 cd/mq @65°

Lux

h	d	Em	Emax
2	0.7	2502	3176
4	1.5	626	794
6	2.2	278	353
8	3	156	199

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	62	59	57	55	59	57	56	54	78
1.0	65	62	60	59	62	60	59	57	83
1.5	68	66	64	63	65	64	63	61	89
2.0	70	69	68	66	68	67	66	64	93
2.5	72	70	70	69	70	69	68	66	96
3.0	73	72	71	70	71	70	69	67	98
4.0	73	73	72	72	72	71	70	69	99
5.0	74	73	73	73	72	72	71	69	100

UGR diagram

Corrected UGR values (at 3450 lm bare lamp luminous flux)

Riflect.: ceil/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	6.4	8.5	6.8	8.8	9.1	6.4	8.5	6.8	8.8	9.1
	3H	6.3	7.8	6.7	8.1	8.5	6.3	7.8	6.7	8.1	8.5
	4H	6.2	7.5	6.6	7.8	8.2	6.2	7.5	6.6	7.8	8.2
	6H	6.2	7.2	6.6	7.5	7.9	6.2	7.2	6.6	7.5	7.9
	8H	6.1	7.2	6.5	7.5	7.9	6.1	7.2	6.5	7.5	7.9
	12H	6.1	7.1	6.5	7.5	7.9	6.1	7.1	6.5	7.5	7.9
4H	2H	6.2	7.5	6.6	7.8	8.2	6.2	7.5	6.6	7.8	8.2
	3H	6.1	7.1	6.5	7.5	7.9	6.1	7.1	6.5	7.5	7.9
	4H	5.9	7.0	6.3	7.4	7.8	5.9	7.0	6.3	7.4	7.8
	6H	5.6	7.3	6.1	7.7	8.2	5.6	7.3	6.1	7.7	8.2
	8H	5.5	7.3	6.0	7.8	8.3	5.5	7.3	6.0	7.8	8.3
	12H	5.4	7.3	5.9	7.8	8.3	5.4	7.3	5.9	7.8	8.3
8H	4H	5.5	7.3	6.0	7.8	8.3	5.5	7.3	6.0	7.8	8.3
	6H	5.4	7.1	5.9	7.6	8.1	5.4	7.1	5.9	7.6	8.1
	8H	5.3	6.8	5.9	7.3	7.9	5.3	6.8	5.9	7.3	7.9
	12H	5.5	6.4	6.0	6.9	7.4	5.5	6.4	6.0	6.9	7.4
12H	4H	5.4	7.3	5.9	7.8	8.3	5.4	7.3	5.9	7.8	8.3
	6H	5.3	6.8	5.9	7.3	7.9	5.3	6.8	5.9	7.3	7.9
	8H	5.5	6.4	6.0	6.9	7.4	5.5	6.4	6.0	6.9	7.4

Variations with the observer position at spacing:

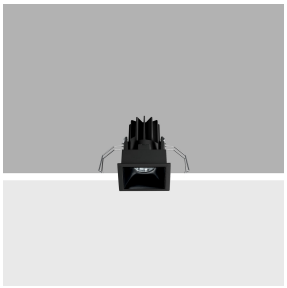
S =			
	1.0H	7.0 / -23.7	7.0 / -23.7
	1.5H	9.8 / -24.0	9.8 / -24.0
	2.0H	11.8 / -24.3	11.8 / -24.3

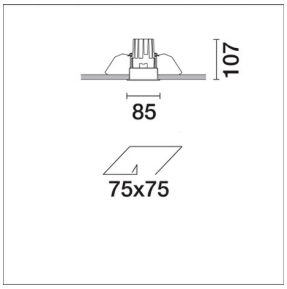
Laser Blade L

Design iGuzzini **iGuzzini**

Last information update: October 2024

Product configuration: P950.43
P950.43: Fixed, Recessed luminaire - Warm LED - Incorporated DALI dimmable power supply - Medium optic Beam - Black/Black





Product code
P950.43: Fixed, Recessed luminaire - Warm LED - Incorporated DALI dimmable power supply - Medium optic Beam - Black/Black

Technical description
Fixed optic, recessed luminaire for a warm white LED lamp with a high color rendering index. Passive heat dissipation system. Lamp body with die-cast aluminium radiant surface, version with perimeter surface frame. Metallised, thermoplastic, high definition optic, integrated in a rear position in the anti-glare screen. Glass cover for LED lamp. The structure of the optical system produces light emission with controlled luminance (UGR < 19). Equipped with a dimmable DALI ballast connected to the luminaire.

Installation
recessed with steel wire springs for false ceilings from 1 to 30 mm thick - preparation hole 75 x 75. Installation permitted in either a horizontal or vertical position.

Colour	**Weight (Kg)**
Black / Black (43)	0.5

Mounting
wall recessed|ceiling recessed

Wiring
on the control gears box with quick-coupling connections. Digital electronic cabling that allows dimming to be performed with DALI protocol or a pushbutton switch (DIM SWITCH).

Notes
The product with its white finish (01) includes an optic ring for limiting luminance; a feature that renders a performance of UGR < 19 and determines slight variations in the opening of the optic (32°) and yield (0.73).

Complies with EN60598-1 and pertinent regulations

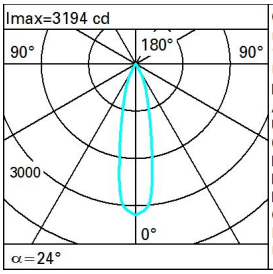
IP20 IP44 On the visible part of the product once installed

Technical data

lm system:	816
W system:	10.6
lm source:	1150
W source:	8.3
Luminous efficiency (lm/W, real value):	77
lm in emergency mode:	-
Total light flux at or above an angle of 90° [Lm]:	0
Light Output Ratio (L.O.R.) [%]:	71
Beam angle [°]:	24°
CRI (minimum):	90
Colour temperature [K]:	3000
MacAdam Step:	2

Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Voltage [Vin]:	230
Lamp code:	LED
Number of lamps for optical assembly:	1
ZVEI Code:	LED
Number of optical assemblies:	1
Power factor:	See installation instructions
Inrush current:	16 A / 220 µs
Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 15 luminaires B16A: 24 luminaires C10A: 24 luminaires C16A: 40 luminaires
Overvoltage protection:	2kV Common mode & 1kV Differential mode
Control:	DALI-2

Polar



CIE
nL 0.71
100-100-100-100-71
UGR <10-<10
DIN
A.61
UTE
0.71A+0.00T
F"1=999
F"1+F"2=1000
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<10 I L<1500 cd/mq @65°

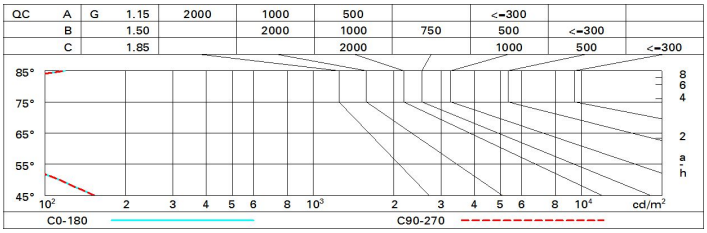
Lux

h	d	Em	Emax
2	0.9	643	799
4	1.7	161	200
6	2.6	71	89
8	3.4	40	50

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	64	61	59	57	60	58	58	56	78
1.0	67	64	62	60	63	61	61	59	83
1.5	70	68	66	65	67	66	65	63	89
2.0	72	71	69	68	70	69	68	66	93
2.5	74	73	72	71	71	71	70	68	96
3.0	75	74	73	72	73	72	71	69	98
4.0	75	75	74	74	74	73	72	71	99
5.0	76	76	75	75	74	74	73	71	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 1100 lm bare lamp luminous flux)

Riflect.: ceil/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	5.4	7.5	5.8	7.8	8.2	5.4	7.5	5.8	7.8	8.2
	3H	5.3	6.9	5.6	7.2	7.6	5.3	6.9	5.6	7.2	7.6
	4H	5.2	6.6	5.6	6.9	7.3	5.2	6.6	5.6	6.9	7.3
	6H	5.1	6.3	5.5	6.6	7.0	5.1	6.3	5.5	6.6	7.0
	8H	5.1	6.2	5.5	6.6	6.9	5.1	6.2	5.5	6.6	6.9
	12H	5.1	6.1	5.5	6.5	6.9	5.1	6.1	5.5	6.5	6.9
4H	2H	5.2	6.6	5.6	6.9	7.3	5.2	6.6	5.6	6.9	7.3
	3H	5.1	6.1	5.5	6.5	6.9	5.1	6.1	5.5	6.5	6.9
	4H	4.9	6.0	5.4	6.4	6.8	4.9	6.0	5.4	6.4	6.8
	6H	4.6	6.3	5.1	6.7	7.2	4.6	6.3	5.1	6.7	7.2
	8H	4.5	6.3	5.0	6.8	7.3	4.5	6.3	5.0	6.8	7.3
	12H	4.4	6.3	4.9	6.8	7.3	4.4	6.3	4.9	6.8	7.3
8H	4H	4.5	6.3	5.0	6.8	7.3	4.5	6.3	5.0	6.8	7.3
	6H	4.3	6.1	4.9	6.6	7.1	4.3	6.1	4.9	6.6	7.1
	8H	4.3	5.9	4.8	6.4	6.9	4.3	5.9	4.8	6.4	6.9
	12H	4.5	5.5	5.0	6.0	6.5	4.5	5.5	5.0	6.0	6.5
12H	4H	4.4	6.3	4.9	6.8	7.3	4.4	6.3	4.9	6.8	7.3
	6H	4.3	5.9	4.8	6.4	6.9	4.3	5.9	4.8	6.4	6.9
	8H	4.5	5.5	5.0	6.0	6.5	4.5	5.5	5.0	6.0	6.5

Variations with the observer position at spacing:

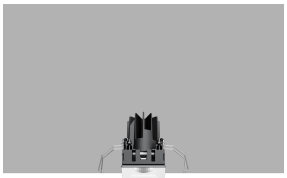
S =			
	1.0H	6.8 / -19.1	6.8 / -19.1
	1.5H	9.6 / -19.6	9.6 / -19.6
	2.0H	11.6 / -19.9	11.6 / -19.9

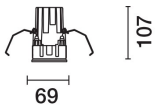
Laser Blade L

Design iGuzzini **iGuzzini**

Last information update: October 2024

Product configuration: QK03.01
QK03.01: Minimal 1 cell - Flood beam - LED - White





Product code
QK03.01: Minimal 1 cell - Flood beam - LED - White

Technical description
Fixed optic, recessed luminaire for high efficiency, LED lamp. Passive heat dissipation system. Lamp body with die-cast aluminium radiant surface, flush with ceiling version (frameless). For recessed installation in a false ceiling a specific adapter is required that is available with a separate item code. Metallised, thermoplastic, high definition optic, integrated in a rear position in the anti-glare screen. Glass cover for LED lamp. The structure of the optic system produces controlled luminance emission to guarantee high visual comfort. Supplied with a dimmable DALI electronic ballast connected to the luminaire.

Installation
The luminaire is recessed in the specific adapter (QK49) by means of a steel wire spring, previously installed on the ceiling that can be between 12.5 and 25 mm thick. Installation possible in a horizontal or vertical position.

Colour	**Weight (Kg)**
White (01)	0.48

Mounting
wall recessed|ceiling recessed

Wiring
Quick-coupling connections on the ballast unit. Digital electronic cabling that allows dimming to be performed with DALI protocol or a pushbutton switch (read the indications on the instruction sheet carefully).

Notes
The product with its white finish (01) includes an optic ring for limiting luminance; a feature that renders optimal performance and determines slight variations in the opening of the optic and yield.

Complies with EN60598-1 and pertinent regulations

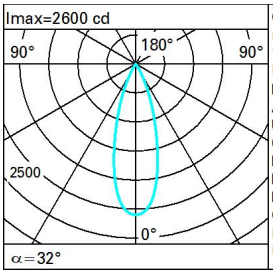
IP20 IP44 On the visible part of the product once installed

Technical data

lm system:	850
W system:	10.6
lm source:	1150
W source:	8.3
Luminous efficiency (lm/W, real value):	80.2
lm in emergency mode:	-
Total light flux at or above an angle of 90° [Lm]:	0
Light Output Ratio (L.O.R.) [%]:	74
Beam angle [°]:	32°
CRI (minimum):	90
Colour temperature [K]:	3000
MacAdam Step:	2

Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Voltage [Vin]:	230
Lamp code:	LED
Number of lamps for optical assembly:	1
ZVEI Code:	LED
Number of optical assemblies:	1
Power factor:	See installation instructions
Inrush current:	16 A / 220 µs
Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 15 luminaires B16A: 24 luminaires C10A: 24 luminaires C16A: 40 luminaires
Overvoltage protection:	2kV Common mode & 1kV Differential mode
Control:	DALI-2

Polar



CIE
nL 0.74
100-100-100-100-74
UGR <10-<10
DIN
A.61
UTE
0.74A+0.00T
F"1=997
F"1+F"2=999
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<10 | L<1500 cd/mq @65°

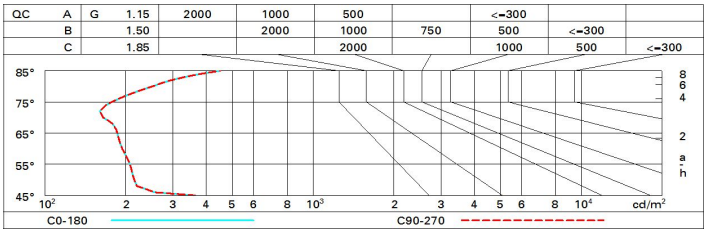
Lux

h	d	Em	Emax
2	1.1	511	650
4	2.3	128	162
6	3.4	57	72
8	4.6	32	41

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	67	63	61	59	63	61	60	58	78
1.0	70	67	64	63	66	64	64	61	83
1.5	73	71	69	67	70	68	68	65	89
2.0	75	74	72	71	73	71	71	69	93
2.5	77	76	75	74	74	74	73	71	96
3.0	78	77	76	75	76	75	74	72	98
4.0	79	78	78	77	77	76	75	73	99
5.0	79	79	78	78	77	77	76	74	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 1150 lm bare lamp luminous flux)

Riflect.: ceil/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	5.5	6.0	5.7	6.2	6.5	5.5	6.0	5.7	6.2	6.5
	3H	5.3	5.8	5.6	6.1	6.4	5.3	5.8	5.6	6.1	6.4
	4H	5.3	5.7	5.6	6.0	6.3	5.3	5.7	5.6	6.0	6.3
	6H	5.2	5.6	5.6	5.9	6.3	5.2	5.6	5.5	5.9	6.2
	8H	5.2	5.6	5.5	5.9	6.2	5.1	5.5	5.5	5.9	6.2
	12H	5.2	5.5	5.5	5.9	6.2	5.1	5.5	5.5	5.8	6.2
4H	2H	5.3	5.7	5.6	6.0	6.3	5.3	5.7	5.6	6.0	6.3
	3H	5.1	5.5	5.5	5.8	6.2	5.1	5.5	5.5	5.8	6.2
	4H	5.0	5.4	5.4	5.7	6.1	5.0	5.4	5.4	5.7	6.1
	6H	5.0	5.3	5.4	5.7	6.1	5.0	5.3	5.4	5.7	6.1
	8H	4.9	5.2	5.4	5.6	6.1	4.9	5.2	5.4	5.6	6.0
	12H	4.9	5.2	5.4	5.6	6.1	4.9	5.1	5.3	5.5	6.0
8H	4H	4.9	5.2	5.4	5.6	6.0	4.9	5.2	5.4	5.6	6.1
	6H	4.9	5.1	5.3	5.5	6.0	4.9	5.1	5.3	5.5	6.0
	8H	4.8	5.0	5.3	5.5	6.0	4.8	5.0	5.3	5.5	6.0
	12H	4.8	5.0	5.3	5.5	6.0	4.8	5.0	5.3	5.4	6.0
12H	4H	4.9	5.1	5.3	5.5	6.0	4.9	5.2	5.4	5.6	6.1
	6H	4.8	5.0	5.3	5.5	6.0	4.9	5.1	5.3	5.5	6.0
	8H	4.8	5.0	5.3	5.4	6.0	4.8	5.0	5.3	5.5	6.0

Variations with the observer position at spacing:

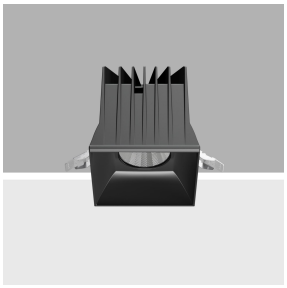
S =			
	1.0H	6.4 / -9.8	6.4 / -9.8
	1.5H	9.2 / -10.0	9.2 / -10.0
	2.0H	11.1 / -10.2	11.1 / -10.2

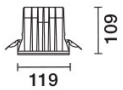
Laser Blade XL

Design iGuzzini **iGuzzini**

Last information update: October 2024

Product configuration: QK56.04+QK71.01
QK56.04: Minimal - Medium beam - LED - Black
QK71.01: Minimal flange - for false ceilings between 12 mm and 25 mm thick - White





Product code
QK56.04: Minimal - Medium beam - LED - Black

Technical description
Recessed luminaire with fixed optic for an LED lamp. Passive heat dissipation system. Lamp body with die-cast aluminium radiant surface, flush with ceiling version (frameless). For recessed installation in a false ceiling a specific adapter is required that is available with a separate item code. Metallised, thermoplastic, high definition Opti Beam optic, integrated in a set-back position in the anti-glare screen. Glass cover for LED lamp. The structure of the optic system produces light emission with controlled luminance (UGR < 19) to guarantee high visual comfort. Supplied with a dimmable DALI ballast unit connected to the luminaire.

Installation
The luminaire is recessed in the specific adapter (QK71) by means of a steel wire spring, previously installed on the ceiling that can be between 12.5 and 25 mm thick. Installation possible in a horizontal position.

Weight (Kg)
0.7

Mounting
ceiling recessed

Wiring
Quick-coupling connections on the ballast unit. Digital electronic cabling that allows dimming to be performed with DALI protocol or a pushbutton switch (read the indications on the instruction sheet carefully).

Notes
The product has a white finish (01) that maintains its UGR < 19 performance unaltered even when luminance values vary slightly.

Complies with EN60598-1 and pertinent regulations

IP20 IP44 On the visible part of the product once installed

Accessory code
QK71.01: Minimal flange - for false ceilings between 12 mm and 25 mm thick - White

Technical description
Adapter for a compatible false ceiling between 12 mm and 25 mm thick. White painted metal frame for flush with ceiling installation - zinc-plated metal plates for fixing to false ceilings. Fixing screws included in package.

Installation
Preparation hole 125 x 125 mm. The flush with ceiling frame is fixed by positioning the plates according to the thickness of the false ceiling; use the template provided to avoid buckling the frame during installation - then perform the filling and finishing operations and, lastly, insert the recess case (separate item code) in the adapter.

Colour	**Weight (Kg)**
White (01)	0.15

Mounting
wall recessed|ceiling recessed

Complies with EN60598-1 and pertinent regulations

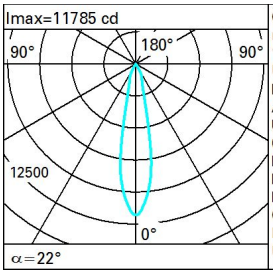
Technical data

lm system:	2208
W system:	32
lm source:	3200
W source:	28
Luminous efficiency (lm/W, real value):	69
lm in emergency mode:	-
Total light flux at or above an angle of 90° [Lm]:	0
Light Output Ratio (L.O.R.) [%]:	69
Beam angle [°]:	22°
CRI (minimum):	90
Colour temperature [K]:	2700
MacAdam Step:	2

Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Lamp code:	LED
Number of lamps for optical assembly:	1
ZVEI Code:	LED
Number of optical assemblies:	1
Power factor:	See installation instructions
Inrush current:	18 A / 250 µs
Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 21 luminaires B16A: 34 luminaires C10A: 35 luminaires C16A: 57 luminaires
Minimum dimming %:	1
Overvoltage protection:	2kV Common mode & 1kV Differential mode
Dimming mode:	CCR
Control:	DALI

Polar

Imax=11785 cd



CIE
nL 0.69
100-100-100-100-69
UGR <10-<10
DIN
A.61
UTE
0.69A+0.00T
F"1=999
F"1+F"2=1000
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<10 I L<1500 cd/mq @65°

Lux

h	d	Em	Emax
2	0.8	2321	2946
4	1.6	580	737
6	2.3	258	327
8	3.1	145	184

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	62	59	57	55	59	57	56	54	78
1.0	65	62	60	59	62	60	59	57	83
1.5	68	66	64	63	65	64	63	61	89
2.0	70	69	68	66	68	67	66	64	93
2.5	72	70	70	69	70	69	68	66	96
3.0	73	72	71	70	71	70	69	67	98
4.0	73	73	72	72	72	71	70	69	99
5.0	74	73	73	73	72	72	71	69	100

UGR diagram

Corrected UGR values (at 3200 lm bare lamp luminous flux)

Riflect.:											
ceil/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					viewed		
x	y			crosswise					endwise		
2H	2H	6.2	8.2	6.5	8.5	8.9	6.2	8.2	6.5	8.5	8.9
	3H	6.0	7.5	6.4	7.9	8.2	6.0	7.5	6.4	7.9	8.2
	4H	6.0	7.2	6.3	7.6	7.9	6.0	7.2	6.3	7.6	7.9
	6H	5.9	6.9	6.3	7.3	7.6	5.9	6.9	6.3	7.3	7.6
	8H	5.9	6.9	6.3	7.3	7.6	5.9	6.9	6.3	7.3	7.6
	12H	5.8	6.9	6.2	7.2	7.6	5.8	6.9	6.2	7.2	7.6
4H	2H	6.0	7.2	6.3	7.6	7.9	6.0	7.2	6.3	7.6	7.9
	3H	5.8	6.9	6.2	7.2	7.6	5.8	6.9	6.2	7.2	7.6
	4H	5.7	6.8	6.1	7.1	7.6	5.7	6.8	6.1	7.1	7.6
	6H	5.3	7.0	5.8	7.4	7.9	5.3	7.0	5.8	7.4	7.9
	8H	5.2	7.0	5.7	7.5	8.0	5.2	7.0	5.7	7.5	8.0
	12H	5.1	7.0	5.6	7.5	8.0	5.1	7.0	5.6	7.5	8.0
8H	4H	5.2	7.0	5.7	7.5	8.0	5.2	7.0	5.7	7.5	8.0
	6H	5.1	6.8	5.6	7.3	7.8	5.1	6.8	5.6	7.3	7.8
	8H	5.1	6.6	5.6	7.1	7.6	5.1	6.6	5.6	7.1	7.6
	12H	5.3	6.2	5.8	6.7	7.2	5.3	6.2	5.8	6.6	7.2
12H	4H	5.1	7.0	5.6	7.5	8.0	5.1	7.0	5.6	7.5	8.0
	6H	5.1	6.6	5.6	7.1	7.6	5.1	6.6	5.6	7.1	7.6
	8H	5.3	6.2	5.8	6.6	7.2	5.3	6.2	5.8	6.7	7.2

Variations with the observer position at spacing:

S =	1.0H	7.0 / -23.7	7.0 / -23.7
	1.5H	9.8 / -24.0	9.8 / -24.0
	2.0H	11.8 / -24.3	11.8 / -24.3