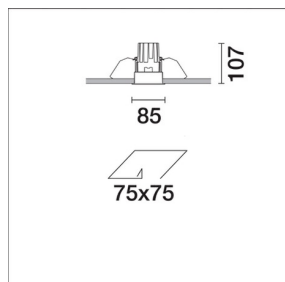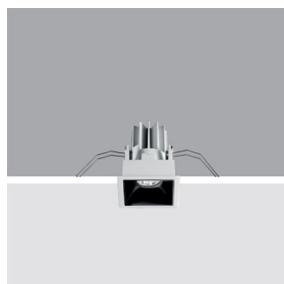# Laser Blade L

Last information update: May 2018

Fixed, Recessed luminaire - Warm LED- Electronic control gear included - Flood optic Beam

Product code
N157

Technical description
Fixed optic, recessed luminaire for a 2700K 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 an electronic ballast connected to the luminaire.

Installation
recessed with steel wire springs for false ceilings from 1 to 25 mm thick - preparation hole 75 x 75. Installation permitted in either a horizontal or vertical position.

Dimension (mm)
85x85x107

Colour
White (01) | Black/Black (43) | Black/White (47) | Grey/Black (74)

Weight (Kg)
0.5

Mounting
wall recessed|ceiling recessed

Wiring
on the control gear box with quick-coupling connections.

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

Product configuration: N157.01

Product characteristics

Total lighting output [Lm]: 765.5	Total luminous flux at or above an angle of 90° [Lm]: 0
Total power [W]: 11.7	Emergency luminous flux [Lm]: /
Luminous efficacy [Lm/W]: 65.4	Voltage [V]: 230
Life Time: 50,000h - L80 - B10 (Ta 25°C)	Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 73	Number of lamps for optical assembly: 1
Lamp code: LED	Socket: /
ZVEI Code: LED	Ballast losses [W]: 2.5
Nominal power [W]: 9.2	Colour temperature [K]: 2700
Nominal luminous [Lm]: 1050	CRI: 90
Lamp maximum intensity [cd]: /	Wavelength [Nm]: /
Beam angle [°]: 32°	MacAdam Step: 3

Polar

Imax=2340 cd	CIE			Lux			
90° / 180° / 90°	nL 0.73			h	d	Em	Emax
	100-100-100-100-73						
	UGR <10-<10			2	1.1	460	585
	DIN A.61						
2500	**UTE** 0.73A+0.00T			4	2.3	115	146
	F"1=997						
	F"1+F"2=999			6	3.4	51	65
	F"1+F"2+F"3=1000						
0°	**CIBSE** LG3 L<500 cd/m² at 65°			8	4.6	29	37
α=32°	BZ1						
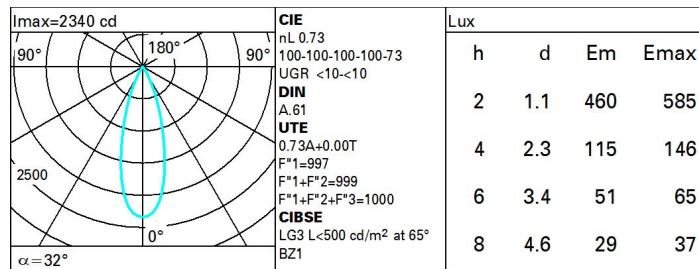
Utilisation factors

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

Luminance curve limit

QC	A	G	1.15	2000	1000	500		<=300		
	B		1.50		2000	1000	750	500	<=300	
	C		1.85			2000		1000	500	<=300

85° / 75° / 65° / 55° / 45°

10² 2 3 4 5 6 8 10³ 2 3 4 5 6 8 10⁴ cd/m²

8 6 4 2 a h

C0-180
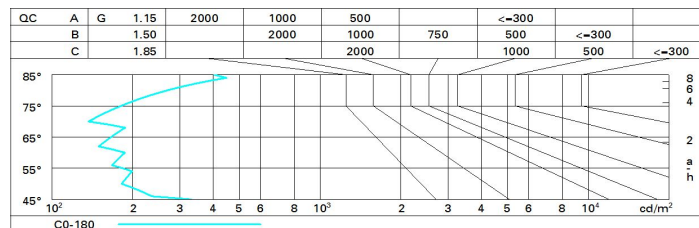
UGR diagram

Corrected UGR values (at 1050 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 x	y			viewed crosswise					viewed endwise		
2H	2H	5.1	5.6	5.4	5.9	6.1	5.1	5.6	5.4	5.9	6.1
	3H	5.0	5.5	5.3	5.7	6.0	5.0	5.4	5.3	5.7	6.0
	4H	4.9	5.4	5.2	5.6	5.9	4.9	5.3	5.2	5.6	5.9
	6H	4.8	5.3	5.2	5.6	5.9	4.8	5.2	5.2	5.5	5.9
	8H	4.8	5.2	5.2	5.5	5.9	4.8	5.2	5.1	5.5	5.8
	12H	4.8	5.2	5.2	5.5	5.9	4.7	5.1	5.1	5.5	5.8
4H	2H	4.9	5.3	5.2	5.6	5.9	4.9	5.4	5.2	5.6	5.9
	3H	4.8	5.1	5.1	5.5	5.8	4.8	5.1	5.1	5.5	5.8
	4H	4.7	5.0	5.1	5.4	5.8	4.7	5.0	5.1	5.4	5.8
	6H	4.6	4.9	5.0	5.3	5.7	4.6	4.9	4.9	5.0	5.3	5.7
	8H	4.6	4.9	5.0	5.3	5.7	4.6	4.8	5.0	5.2	5.7
	12H	4.6	4.8	5.0	5.3	5.7	4.5	4.8	5.0	5.2	5.6
8H	4H	4.6	4.8	5.0	5.2	5.7	4.6	4.9	5.0	5.3	5.7
	6H	4.5	4.7	5.0	5.2	5.7	4.5	4.8	5.0	5.2	5.7
	8H	4.5	4.7	5.0	5.2	5.7	4.5	4.7	5.0	5.2	5.7
	12H	4.5	4.7	5.0	5.2	5.7	4.5	4.6	5.0	5.1	5.6
12H	4H	4.5	4.8	5.0	5.2	5.6	4.6	4.8	5.0	5.3	5.7
	6H	4.5	4.7	4.9	5.1	5.6	4.5	4.7	5.0	5.2	5.7
	8H	4.5	4.6	5.0	5.1	5.6	4.5	4.7	5.0	5.2	5.7

Variations with the observer position at spacing:

S =			
	1.0H	6.3 / -8.8	6.3 / -8.8
	1.5H	9.1 / -9.0	9.1 / -9.0
	2.0H	11.1 / -9.1	11.1 / -9.1