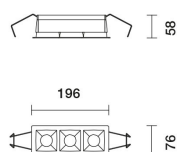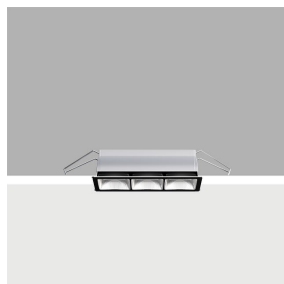# Crystal

Last information update: February 2025

Product configuration: RD07.83
RD07.83: 3-cell recessed luminaire - General Lighting - Transparent/Black

Product code
RD07.83: 3-cell recessed luminaire - General Lighting - Transparent/Black

Technical description
Recessed luminaire consisting of a lamp device and a 3-cell emission raster - model with operating components to be ordered separately. Version for high emission general lighting. Main body made of extruded aluminium - anodised finish - cast zamak end caps - natural finish. Polycarbonate LED lamp support. Steel wire fixing springs. The optical system consists of a translucent textured methacrylate raster, created with a catadioptric system (patented Opti Beam Diamond optic) - with no galvanic treatments - combined with a gloss finish PET cover. The raster includes multiple lens diaphragms for LED lamps. The result generates a high performance light emission combined with a high energy yield. The accessory wiring components also include the use of several recessed luminaires with a single power supply unit.

Installation
recessed with steel wire contrast springs; slot to make in false ceiling: 63 x 183

Colour	Weight (Kg)
Black Transparent (83)	0.4

Mounting
ceiling recessed

Wiring
Drivers and wiring components are available with a separate item code. This system allows several recessed luminaires to be used (2 / 3 max) with a single power supply unit. The product can also be connected to centralised emergency systems in compliance with the EN60598-2-22 standard. For more detailed information, see the instruction sheet.

Notes
Possibility of multiple uses through the use of splitters (mandatory) and connection extensions to be ordered separately.
TPa version available on request, contact iGuzzini for more info

Complies with EN60598-1 and pertinent regulations

IP20 IP43 On the visible part of the product once installed   CE   UKCA   03   S   QCERT   PEP eco PASS PORT

Technical data

lm system:	1355	CRI (minimum):	80
W system:	8.9	Colour temperature [K]:	3000
lm source:	1760	MacAdam Step:	3
W source:	8.9	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	152.3	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]:	16	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	77	Number of optical assemblies:	1

Polar

Imax=1249 cd   C0-180 γ=15°

CIE
nL 0.77
90-98-99-99-77
UGR 17.2-16.5
DIN
A.62
UTE
0.76A+0.01T
F"1=898
F"1+F"2=979
F"1+F"2+F"3=994

α=64°

Lux				
h	d1	d2	Em	Emax
1	1.2	1.2	933	1168
2	2.5	2.5	233	292
3	3.7	3.7	104	130
4	5	5	58	73

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	66	61	58	55	60	57	57	54	71
1.0	69	65	62	60	64	61	61	58	76
1.5	74	71	68	66	69	67	66	64	84
2.0	76	74	72	71	73	71	70	68	89
2.5	78	76	75	74	75	74	73	70	92
3.0	79	78	77	76	76	75	74	72	94
4.0	80	79	78	78	78	77	76	73	96
5.0	81	80	79	79	79	78	77	74	98

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

C0-180 ———   C90-270 - - - - - - -
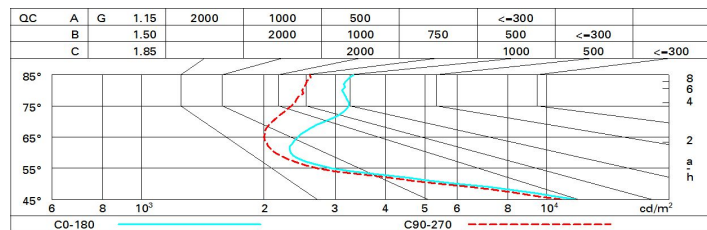
UGR diagram

Corrected UGR values (at 1760 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	16.7	17.3	17.0	17.5	17.8	16.5	17.1	16.8	17.4	17.6
	3H	16.8	17.3	17.1	17.6	17.9	16.4	17.0	16.8	17.2	17.5
	4H	16.9	17.4	17.3	17.7	18.0	16.4	16.9	16.7	17.2	17.5
	6H	17.0	17.5	17.4	17.8	18.2	16.3	16.8	16.7	17.1	17.5
	8H	17.1	17.5	17.5	17.9	18.2	16.3	16.7	16.7	17.1	17.4
	12H	17.1	17.5	17.5	17.9	18.3	16.3	16.7	16.7	17.0	17.4
4H	2H	16.6	17.1	16.9	17.4	17.7	16.6	17.1	16.9	17.4	17.7
	3H	16.7	17.1	17.1	17.5	17.9	16.5	16.9	16.9	17.3	17.7
	4H	16.9	17.3	17.3	17.7	18.1	16.5	16.9	16.9	17.3	17.7
	6H	17.1	17.4	17.6	17.9	18.3	16.5	16.8	16.9	17.2	17.7
	8H	17.2	17.5	17.7	17.9	18.4	16.5	16.8	16.9	17.2	17.7
	12H	17.3	17.6	17.8	18.0	18.5	16.4	16.7	16.9	17.2	17.6
8H	4H	16.9	17.2	17.3	17.6	18.0	16.7	17.0	17.2	17.4	17.9
	6H	17.2	17.4	17.6	17.9	18.4	16.8	17.0	17.3	17.5	18.0
	8H	17.3	17.5	17.8	18.0	18.5	16.8	17.0	17.3	17.5	18.0
	12H	17.5	17.6	18.0	18.1	18.7	16.8	17.0	17.3	17.5	18.0
12H	4H	16.8	17.1	17.3	17.5	18.0	16.8	17.0	17.2	17.5	18.0
	6H	17.1	17.3	17.6	17.8	18.4	16.8	17.1	17.4	17.5	18.1
	8H	17.3	17.5	17.8	18.0	18.5	16.9	17.1	17.4	17.6	18.1

Variations with the observer position at spacing:

S =			
	1.0H	2.8 / -3.0	3.0 / -3.6
	1.5H	5.1 / -3.4	5.4 / -4.0
	2.0H	7.0 / -3.5	7.3 / -4.1