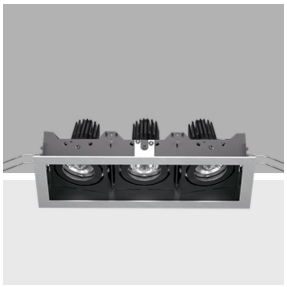
Deep Frame

Design iGuzzini **iGuzzini**

Last information update: April 2018

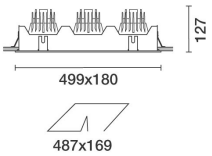


Deep Frame - 3 elements - CoB warm LED - wide flood beam

Product code
P931

Technical description
Three element recessed luminaire for an LED lamp. Version with a perimeter frame. Shaped sheet steel structural frame. Die-cast aluminium, twin swivel universal joints located in a position set back from the installation surface to guarantee a high level of visual comfort. Tilts ± 30° around both the horizontal and vertical axes. Die-cast aluminium lighting bodies designed to optimise heat dispersal. High efficiency aluminium reflectors - wide flood angle. High color rendering index, warm white LED lamps. Each lamp unit has its own glass cover. Mechanical installation system. Control gear units included.

Installation
Recessed in 1 to 30mm thick false ceilings - secured with manually adjustable metal brackets. Preparation hole 169 x 327.



Dimension (mm)
499x180x127

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

Weight (Kg)
4.8

Mounting
ceiling recessed

Wiring
Complete with electronic control gear units connected to the luminaire. Wiring for connecting to mains network on driver terminal board. For the dimensions of the installation compartment see the instructions sheet.

Notes
Accessories available: refractor for elliptical flow distribution - interchangeable reflector.

Complies with EN60598-1 and pertinent regulations

IP20 IP23 On the visible part of the product once installed

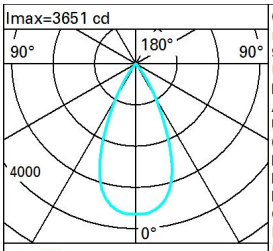
Product configuration: P931

Product characteristics
Total lighting output [Lm]: 6833
Total power [W]: 92.3
Luminous efficacy [Lm/W]: 74
Life Time: > 50,000h - L80 - B10 (Ta 25°C)
Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 3

Optical assembly Characteristics Type 1
Light Output Ratio (L.O.R.) [%]: 76
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 27
Nominal luminous [Lm]: 3000
Lamp maximum intensity [cd]: /
Beam angle [°]: 48°
Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 3.8
Colour temperature [K]: 3000
CRI: 90
Wavelength [Nm]: /
MacAdam Step: 3

Polar

Imax=3651 cd



α = 48°

CIE
nL 0.76
99-100-100-100-76
UGR 11.7-11.7
DIN
A.61
UTE
0.76A+0.00T
F"1=988
F"1+F"2=998
F"1+F"2+F"3=1000
CIBSE
LG3 L<500 cd/m² at 65°
UGR<16 I L<500 cd/mq @65°

Lux

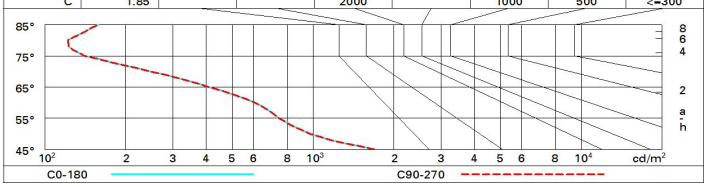
h	d	Em	Emax
2	1.8	727	912
4	3.6	182	228
6	5.3	81	101
8	7.1	45	57

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	68	65	62	60	64	62	61	59	78
1.0	71	68	66	64	67	65	65	62	82
1.5	75	72	71	69	72	70	69	67	88
2.0	77	75	74	73	74	73	72	70	93
2.5	79	77	76	75	76	75	74	72	95
3.0	80	79	78	77	77	77	76	74	97
4.0	81	80	79	79	79	78	77	75	99
5.0	81	81	80	80	79	79	78	76	100

Luminance curve limit

QC		G								
	A		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 3000 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	12.3	12.8	12.5	13.0	13.3	12.3	12.8	12.5	13.0	13.3
	3H	12.1	12.6	12.4	12.9	13.2	12.1	12.6	12.4	12.9	13.2
	4H	12.1	12.5	12.4	12.8	13.1	12.1	12.5	12.4	12.8	13.1
	6H	12.0	12.4	12.3	12.7	13.1	12.0	12.4	12.3	12.7	13.1
	8H	12.0	12.4	12.3	12.7	13.0	11.9	12.4	12.3	12.7	13.0
	12H	11.9	12.3	12.3	12.6	13.0	11.9	12.3	12.3	12.6	13.0
4H	2H	12.1	12.5	12.4	12.8	13.1	12.1	12.5	12.4	12.8	13.1
	3H	11.9	12.3	12.3	12.7	13.0	11.9	12.3	12.3	12.7	13.0
	4H	11.8	12.2	12.2	12.5	12.9	11.8	12.2	12.2	12.5	12.9
	6H	11.7	12.1	12.2	12.4	12.9	11.7	12.1	12.2	12.4	12.9
	8H	11.7	12.0	12.1	12.4	12.8	11.7	12.0	12.1	12.4	12.8
	12H	11.6	11.9	12.1	12.3	12.8	11.6	11.9	12.1	12.3	12.8
8H	4H	11.7	12.0	12.1	12.4	12.8	11.7	12.0	12.1	12.4	12.8
	6H	11.6	11.8	12.1	12.3	12.8	11.6	11.8	12.1	12.3	12.8
	8H	11.6	11.8	12.0	12.2	12.7	11.6	11.8	12.0	12.2	12.7
	12H	11.5	11.7	12.0	12.2	12.7	11.5	11.7	12.0	12.2	12.7
12H	4H	11.6	11.9	12.1	12.3	12.8	11.6	11.9	12.1	12.3	12.8
	6H	11.5	11.7	12.0	12.2	12.7	11.6	11.8	12.0	12.2	12.7
	8H	11.5	11.7	12.0	12.2	12.7	11.5	11.7	12.0	12.2	12.7

Variations with the observer position at spacing:

S =			
	1.0H	6.1 / -13.4	6.1 / -13.4
	1.5H	8.9 / -14.8	8.9 / -14.8
	2.0H	10.9 / -16.5	10.9 / -16.5