

Last information update: May 2024

**Product configuration: P180**

P180: 625X625 mm - neutral white LED - DALI control gear - controlled luminance optic UGR&lt;19

**Product code**P180: 625X625 mm - neutral white LED - DALI control gear - controlled luminance optic UGR<19 **Attention! Code no longer in production****Technical description**

Recessed direct emission luminaire designed to use Neutral White 4,000K high colour rendering LEDs and be installed in modular false ceilings with a 625 x 625 mm step. The optical assembly consists of a white extruded frame, a satin methacrylate diffuser screen for controlled luminance  $L < 3000 \text{ cd/m}^2$  for  $\alpha \geq 65^\circ$  emission, ideal for environments with video terminals and a sheet metal rear closing base. The LEDs are arranged inside the perimeter and the DALI driver is housed in the upper part of the product.

**Installation**

Recessed in modular false ceilings with a 625x625 mm step

**Colour**

White (01)

**Mounting**

ceiling recessed|wall surface|ceiling surface

**Wiring**

product complete with DALI components

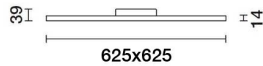
Complies with EN60598-1 and pertinent regulations



IP20

IP43

On the visible part of the product once installed

**Technical data**

lm system:	3404	Colour temperature [K]:	4000
W system:	38	MacAdam Step:	3
lm source:	4600	Life Time LED 1:	50,000h - L70 - B10 (Ta 25°C)
W source:	32	Lamp code:	LED
Luminous efficiency (lm/W, real value):	89.6	Number of lamps for optical assembly:	1
lm 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.) [%]:	74	Control:	DALI
CRI:	80		

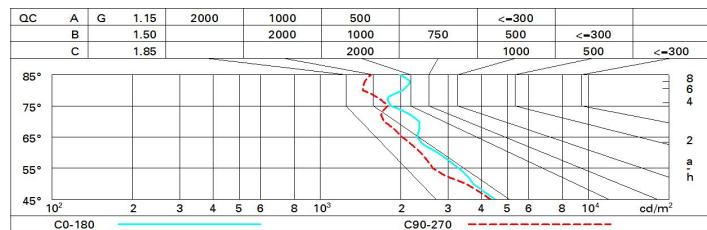
**Polar**

			<b>CIE</b> nL 0.74 56-86-97-100-74 UGR 18.9-18.1 <b>DIN</b> A.41 <b>UTE</b> 0.74D+0.00T F*1=558 F*1+F*2=862 F*1+F*2+F*3=969 <b>CIBSE</b> LG3 L<3000 cd/m² at 65° UGR<19   L<3000 cd/mq @65°					<b>Lux</b>				
90°	180°	90°	h	d1	d2	Em	Emax					
			1	2.6	2.4	851	1317					
			2	5.1	4.8	213	329					
			3	7.7	7.2	95	146					
			4	10.2	9.5	53	82					
$\alpha = 104^\circ / 100^\circ$												

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	51	44	39	35	43	39	38	34	45
1.0	56	50	45	41	49	44	44	39	53
1.5	64	58	54	51	57	53	53	48	65
2.0	68	64	60	57	62	59	58	54	73
2.5	70	67	64	61	65	63	62	58	78
3.0	72	69	66	64	67	65	64	61	82
4.0	74	71	69	67	70	68	67	64	86
5.0	75	73	71	70	71	70	69	65	88

# Luminance curve limit



# UGR diagram

Corrected UGR values (at 4000 lm bare lamp luminous flux)											
Riflect.: ceil/cav walls work pl. Room dim x        y		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
		viewed crosswise					viewed endwise				
2H	2H	16.2	17.3	16.5	17.5	17.8	16.0	17.1	16.3	17.3	17.6
	3H	17.1	18.0	17.4	18.3	18.6	16.3	17.3	16.6	17.6	17.9
	4H	17.5	18.4	17.8	18.7	19.0	16.4	17.3	16.7	17.6	17.9
	6H	17.9	18.7	18.2	19.0	19.4	16.4	17.2	16.7	17.5	17.9
	8H	18.1	18.9	18.4	19.2	19.6	16.4	17.2	16.7	17.5	17.9
	12H	18.2	19.0	18.6	19.3	19.7	16.3	17.1	16.7	17.5	17.8
4H	2H	16.5	17.5	16.9	17.8	18.1	17.1	18.0	17.5	18.3	18.6
	3H	17.6	18.4	18.0	18.7	19.1	17.6	18.4	18.0	18.8	19.1
	4H	18.1	18.8	18.5	19.1	19.5	17.9	18.5	18.3	18.9	19.3
	6H	18.6	19.2	19.1	19.6	20.1	18.0	18.6	18.5	19.0	19.5
	8H	18.9	19.4	19.3	19.9	20.3	18.1	18.6	18.5	19.0	19.5
	12H	19.1	19.6	19.5	20.0	20.5	18.1	18.6	18.5	19.0	19.5
8H	4H	18.3	18.8	18.7	19.3	19.7	18.5	19.1	18.9	19.5	19.9
	6H	19.0	19.4	19.4	19.9	20.4	18.9	19.3	19.3	19.8	20.2
	8H	19.3	19.7	19.8	20.1	20.6	19.0	19.4	19.5	19.9	20.4
	12H	19.5	19.9	20.0	20.4	20.9	19.1	19.5	19.6	20.0	20.5
12H	4H	18.3	18.8	18.8	19.2	19.7	18.6	19.1	19.1	19.6	20.0
	6H	19.0	19.4	19.5	19.9	20.4	19.0	19.4	19.5	19.9	20.4
	8H	19.4	19.7	19.9	20.2	20.7	19.3	19.6	19.8	20.1	20.6
Variations with the observer position at spacing:											
S =	1.0H	0.3 / -0.3					0.3 / -0.3				
	1.5H	0.5 / -0.8					0.6 / -0.7				
	2.0H	1.1 / -1.0					1.1 / -1.1				