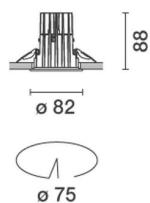
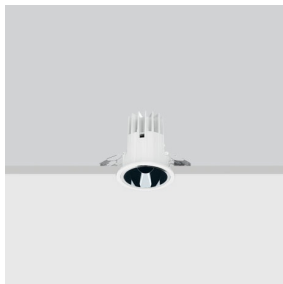


Last information update: November 2024

**Product configuration: MV84**

MV84: Fixed circular recessed luminaire - Ø 75 mm - warm white - flood optic - UGR&lt;19

**Product code**

MV84: Fixed circular recessed luminaire - Ø 75 mm - warm white - flood optic - UGR&lt;19

**Technical description**

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in warm white colour tone CRI90 (2700K). General light emission, with controlled luminance UGR<19 1500 cd/m<sup>2</sup> α>65° flood optic.

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 20 mm.

**Weight (Kg)**

0.41

**Mounting**

ceiling recessed

**Wiring**

product complete with DALI components

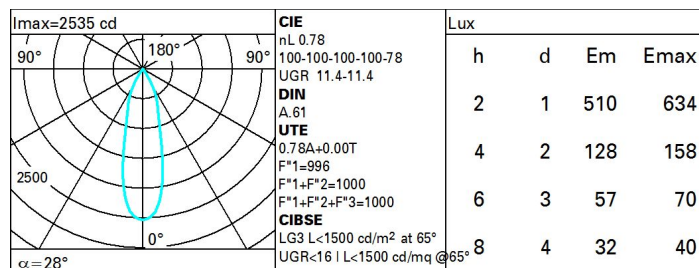
**Notes**

TPb rated

Complies with EN60598-1 and pertinent regulations

**Technical data**

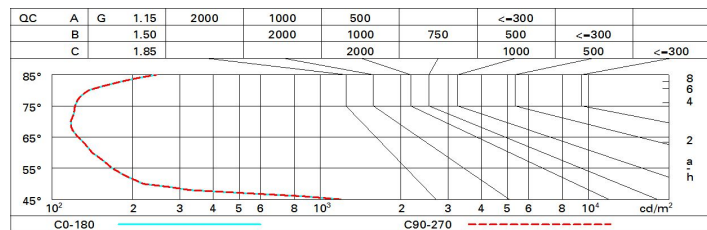
lm system:	856	CRI (minimum):	90
W system:	10.7	Colour temperature [K]:	2700
lm source:	1100	MacAdam Step:	2
W source:	8.4	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	80	Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	78	Number of optical assemblies:	1
Beam angle [°]:	28°	Control:	DALI

**Polar**

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	70	67	64	62	66	64	63	61	78
1.0	73	70	68	66	69	67	67	64	83
1.5	77	75	73	71	74	72	71	69	89
2.0	79	78	76	75	76	75	74	72	93
2.5	81	79	78	78	78	77	77	74	96
3.0	82	81	80	79	80	79	78	76	98
4.0	83	82	82	81	81	80	79	77	99
5.0	83	83	82	82	81	81	80	78	100

# Luminance curve limit



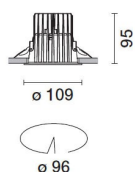
# UGR diagram

Corrected UGR values (at 1100 lm bare lamp luminous flux)											
Reflect.: ceiling/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	12.3	14.3	12.7	14.6	14.9	12.3	14.3	12.7	14.6	14.9
	3H	12.1	13.7	12.5	14.0	14.4	12.1	13.7	12.5	14.0	14.4
	4H	12.1	13.5	12.4	13.8	14.1	12.1	13.5	12.4	13.8	14.1
	6H	12.0	13.2	12.4	13.6	13.9	12.0	13.2	12.4	13.6	13.9
	8H	11.9	13.1	12.3	13.5	13.9	11.9	13.1	12.3	13.5	13.9
	12H	11.9	13.1	12.3	13.4	13.8	11.9	13.1	12.3	13.4	13.8
4H	2H	12.1	13.5	12.4	13.8	14.1	12.1	13.5	12.4	13.8	14.1
	3H	11.9	13.1	12.3	13.4	13.8	11.9	13.1	12.3	13.4	13.8
	4H	11.8	12.9	12.2	13.2	13.7	11.8	12.9	12.2	13.2	13.7
	6H	11.5	13.0	12.0	13.5	13.9	11.5	13.0	12.0	13.5	13.9
	8H	11.4	13.1	11.9	13.5	14.0	11.4	13.1	11.9	13.5	14.0
	12H	11.2	13.1	11.7	13.6	14.1	11.2	13.1	11.7	13.6	14.1
8H	4H	11.4	13.1	11.9	13.5	14.0	11.4	13.1	11.9	13.5	14.0
	6H	11.2	12.9	11.7	13.4	13.9	11.2	12.9	11.7	13.4	13.9
	8H	11.2	12.7	11.7	13.2	13.8	11.2	12.7	11.7	13.2	13.8
	12H	11.4	12.3	11.9	12.8	13.3	11.4	12.3	11.9	12.8	13.3
12H	4H	11.2	13.1	11.7	13.6	14.1	11.2	13.1	11.7	13.6	14.1
	6H	11.2	12.7	11.7	13.2	13.8	11.2	12.7	11.7	13.2	13.8
	8H	11.4	12.3	11.9	12.8	13.3	11.4	12.3	11.9	12.8	13.3
Variations with the observer position at spacing:											
S =	1.0H	6.3 / -21.8					6.3 / -21.8				
	1.5H	9.1 / -22.1					9.1 / -22.1				
	2.0H	11.1 / -22.3					11.1 / -22.3				

Last information update: December 2024

**Product configuration: MV91**

MV91: Fixed circular recessed luminaire - Ø 96 mm - neutral white - wide flood optic - UGR&lt;19

**Product code**

MV91: Fixed circular recessed luminaire - Ø 96 mm - neutral white - wide flood optic - UGR&lt;19

**Technical description**

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in neutral white colour tone (4,000K). General light emission, with controlled luminance UGR<19 1500 cd/m<sup>2</sup> α>65° wide flood optic.

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 20 mm.

**Colour**

White / Aluminium (39)

**Weight (Kg)**

0.65

**Mounting**

ceiling recessed

**Wiring**

product complete with DALI components

**Notes**

TPb rated

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	1147	CRI (minimum):	80
W system:	11.5	Colour temperature [K]:	4000
lm source:	1550	MacAdam Step:	2
W source:	8.9	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	99.7	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.) [%]:	74	Number of optical assemblies:	1
Beam angle [°]:	44°	Control:	DALI-2

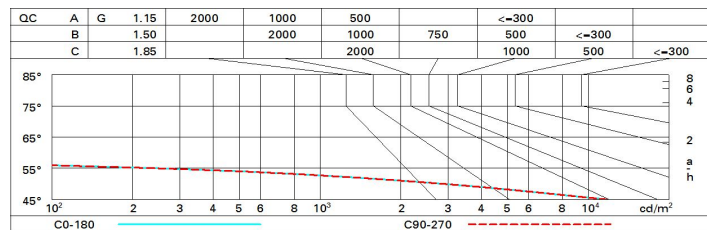
**Polar**

Imax=1819 cd		CIE		Lux			
		nL 0.74 97-100-100-100-74 UGR 17.0-17.0 <b>DIN</b> A.61 <b>UTE</b> 0.74A+0.00T F*1=972 F*1+F*2=1000 F*1+F*2+F*3=1000 <b>CIBSE</b> LG3 L<1500 cd/m <sup>2</sup> at 65° UGR<19   L<1500 cd/mq @ 65°		h	d	Em	E <sub>max</sub>
				2	1.6	368	454
				4	3.2	92	114
				6	4.8	41	50
				8	6.5	23	28

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	66	62	60	58	62	59	59	57	76
1.0	69	66	63	62	65	63	63	60	81
1.5	73	70	68	67	69	68	67	65	87
2.0	75	73	72	71	72	71	70	68	92
2.5	77	75	74	73	74	73	72	70	95
3.0	77	77	76	75	75	75	74	72	97
4.0	78	78	77	77	76	76	75	73	99
5.0	79	78	78	78	77	77	76	74	100

# Luminance curve limit



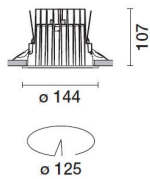
# UGR diagram

Corrected UGR values (at 1550 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
		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
2H	2H	17.5	18.2	17.8	18.5	18.7	17.5	18.2	17.8	18.5	18.7
	3H	17.4	18.0	17.7	18.3	18.6	17.4	18.0	17.7	18.3	18.6
	4H	17.3	17.9	17.7	18.2	18.5	17.3	17.9	17.7	18.2	18.5
	6H	17.3	17.8	17.6	18.1	18.4	17.3	17.8	17.6	18.1	18.4
	8H	17.2	17.7	17.6	18.0	18.4	17.2	17.7	17.6	18.0	18.4
	12H	17.2	17.6	17.6	18.0	18.3	17.2	17.6	17.6	18.0	18.3
4H	2H	17.3	17.9	17.7	18.2	18.5	17.3	17.9	17.7	18.2	18.5
	3H	17.2	17.6	17.6	18.0	18.3	17.2	17.6	17.6	18.0	18.3
	4H	17.1	17.5	17.5	17.9	18.3	17.1	17.5	17.5	17.9	18.3
	6H	17.0	17.4	17.4	17.8	18.2	17.0	17.4	17.4	17.8	18.2
	8H	17.0	17.3	17.4	17.7	18.1	17.0	17.3	17.4	17.7	18.1
	12H	16.9	17.2	17.4	17.6	18.1	16.9	17.2	17.4	17.6	18.1
8H	4H	17.0	17.3	17.4	17.7	18.1	17.0	17.3	17.4	17.7	18.1
	6H	16.9	17.1	17.3	17.6	18.1	16.9	17.1	17.3	17.6	18.1
	8H	16.8	17.0	17.3	17.5	18.0	16.8	17.0	17.3	17.5	18.0
	12H	16.8	17.0	17.3	17.4	18.0	16.8	17.0	17.3	17.4	18.0
12H	4H	16.9	17.2	17.4	17.6	18.1	16.9	17.2	17.4	17.6	18.1
	6H	16.8	17.0	17.3	17.5	18.0	16.8	17.0	17.3	17.5	18.0
	8H	16.8	17.0	17.3	17.4	18.0	16.8	17.0	17.3	17.4	18.0
Variations with the observer position at spacing:											
S =	1.0H	4.4 / -31.1					4.4 / -31.1				
	1.5H	7.2 / -38.8					7.2 / -38.8				
	2.0H	9.2 / -39.6					9.2 / -39.6				

Last information update: December 2024

**Product configuration: N001**

N001: Fixed circular recessed luminaire - Ø125 mm - neutral white - wide flood optic - UGR&lt;19

**Product code**

N001: Fixed circular recessed luminaire - Ø125 mm - neutral white - wide flood optic - UGR&lt;19

**Technical description**

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in neutral white colour tone (4,000K). General light emission, with controlled luminance UGR<19 1500 cd/m<sup>2</sup> α>65° wide flood optic.

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 20 mm.

**Colour**

White / Aluminium (39)

**Weight (Kg)**

1.02

**Mounting**

ceiling recessed

**Wiring**

product complete with DALI components

**Notes**

TPb rated

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	1700	CRI (minimum):	80
W system:	14.9	Colour temperature [K]:	4000
lm source:	2100	MacAdam Step:	2
W source:	13	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	114.1	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.) [%]:	81	Number of optical assemblies:	1
Beam angle [°]:	64°	Control:	DALI-2

**Polar**

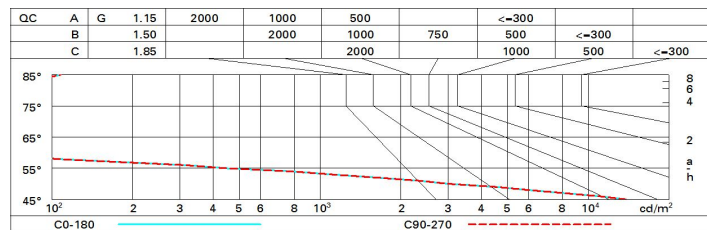
 $\alpha = 64^\circ$	<b>Imax=1686 cd</b>		<b>CIE</b> nL 0.81 96-100-100-100-81 UGR 18.2-18.2 <b>DIN</b> A.61 <b>UTE</b> 0.81A+0.00T F*1=961 F*1+F*2=1000 F*1+F*2+F*3=1000 <b>CIBSE</b> LG3 L<1500 cd/m <sup>2</sup> at 65° UGR<19   L<1500 cd/mq @65°		<b>Lux</b>			
	h	d	Em	Emax				
	2	2.5	322	421				
	4	5	81	105				
	6	7.5	36	47				
	8	10	20	26				



# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	72	68	65	63	67	64	64	61	76
1.0	75	72	69	67	71	68	68	65	81
1.5	79	77	74	73	76	74	73	70	87
2.0	82	80	78	77	79	77	77	74	92
2.5	84	82	81	80	81	80	79	77	95
3.0	85	84	83	82	82	81	80	78	97
4.0	86	85	84	84	83	83	82	80	98
5.0	86	86	85	85	84	84	82	80	99

# Luminance curve limit



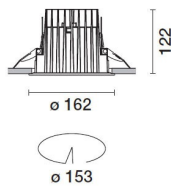
# UGR diagram

Corrected UGR values (at 2100 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
2H	2H	18.8	19.4	19.0	19.6	19.8	18.8	19.4	19.0	19.6	19.8
	3H	18.6	19.2	18.9	19.4	19.7	18.6	19.2	18.9	19.4	19.7
	4H	18.6	19.1	18.9	19.3	19.6	18.6	19.1	18.9	19.3	19.6
	6H	18.5	18.9	18.8	19.2	19.6	18.5	18.9	18.8	19.2	19.6
	8H	18.4	18.9	18.8	19.2	19.5	18.4	18.9	18.8	19.2	19.5
	12H	18.4	18.8	18.8	19.2	19.5	18.4	18.8	18.8	19.2	19.5
4H	2H	18.6	19.1	18.9	19.3	19.6	18.6	19.1	18.9	19.3	19.6
	3H	18.4	18.8	18.8	19.2	19.5	18.4	18.8	18.8	19.2	19.5
	4H	18.3	18.7	18.7	19.0	19.4	18.3	18.7	18.7	19.0	19.4
	6H	18.2	18.5	18.7	18.9	19.4	18.2	18.5	18.7	18.9	19.4
	8H	18.2	18.5	18.6	18.9	19.3	18.2	18.5	18.6	18.9	19.3
	12H	18.1	18.4	18.6	18.8	19.3	18.1	18.4	18.6	18.8	19.3
8H	4H	18.2	18.5	18.6	18.9	19.3	18.2	18.5	18.6	18.9	19.3
	6H	18.1	18.3	18.6	18.8	19.2	18.1	18.3	18.6	18.8	19.2
	8H	18.0	18.2	18.5	18.7	19.2	18.0	18.2	18.5	18.7	19.2
	12H	18.0	18.2	18.5	18.6	19.2	18.0	18.2	18.5	18.6	19.2
12H	4H	18.1	18.4	18.6	18.8	19.3	18.1	18.4	18.6	18.8	19.3
	6H	18.0	18.2	18.5	18.7	19.2	18.0	18.2	18.5	18.7	19.2
	8H	18.0	18.2	18.5	18.6	19.2	18.0	18.2	18.5	18.6	19.2
Variations with the observer position at spacing:											
S =	1.0H	4.7 / -26.2					4.7 / -26.2				
	1.5H	7.5 / -31.2					7.5 / -31.2				
	2.0H	9.5 / -31.4					9.5 / -31.4				

Last information update: December 2024

**Product configuration: N011**

N011: Fixed circular recessed luminaire - Ø153 mm - neutral white - wide flood optic - UGR&lt;19

**Product code**

N011: Fixed circular recessed luminaire - Ø153 mm - neutral white - wide flood optic - UGR&lt;19

**Technical description**

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in neutral white colour tone (4,000K). General light emission, with controlled luminance UGR<19 1500 cd/m<sup>2</sup> α>65° wide flood optic.

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 25mm.

**Colour**

White / Aluminium (39)

**Weight (Kg)**

1.22

**Mounting**

ceiling recessed

**Wiring**

product complete with DALI components

**Notes**

TPb rated

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	2654	CRI (minimum):	80
W system:	23.7	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):	112	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.) [%]:	83	Number of optical assemblies:	1
Beam angle [°]:	52°	Control:	DALI-2

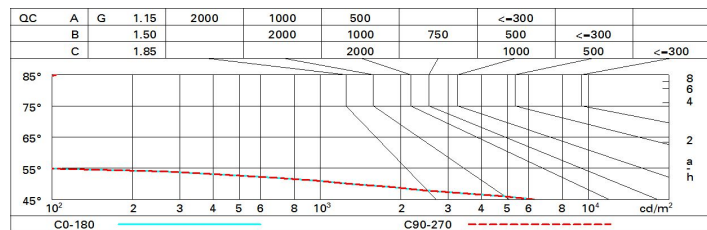
**Polar**

<p>Imax=3727 cd</p> <p>90° 180° 90°</p> <p>4000</p> <p>0°</p> <p>α=52°</p>	<p><b>CIE</b> nL 0.83 98-100-100-100-83 UGR 16.4-16.4 <b>DIN</b> A.61 <b>UTE</b> 0.83A+0.00T F*1=982 F*1+F*2=1000 F*1+F*2+F*3=1000 <b>CIBSE</b> LG3 L&lt;1500 cd/m<sup>2</sup> at 65° UGR&lt;19   L&lt;1500 cd/mq @65°</p>	<p><b>Lux</b></p> <table><tr><th>h</th><th>d</th><th>Em</th><th>E<sub>max</sub></th></tr><tr><td>2</td><td>2</td><td>707</td><td>932</td></tr><tr><td>4</td><td>3.9</td><td>177</td><td>233</td></tr><tr><td>6</td><td>5.9</td><td>79</td><td>104</td></tr><tr><td>8</td><td>7.8</td><td>44</td><td>58</td></tr></table>	h	d	Em	E <sub>max</sub>	2	2	707	932	4	3.9	177	233	6	5.9	79	104	8	7.8	44	58
h	d	Em	E <sub>max</sub>																			
2	2	707	932																			
4	3.9	177	233																			
6	5.9	79	104																			
8	7.8	44	58																			

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	74	70	68	65	70	67	67	64	77
1.0	78	74	72	70	73	71	71	68	82
1.5	82	79	77	75	78	76	75	73	88
2.0	84	82	81	79	81	80	79	77	92
2.5	86	84	83	82	83	82	81	79	95
3.0	87	86	85	84	85	84	83	81	97
4.0	88	87	87	86	86	85	84	82	99
5.0	89	88	87	87	87	86	85	83	100

# Luminance curve limit

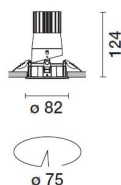
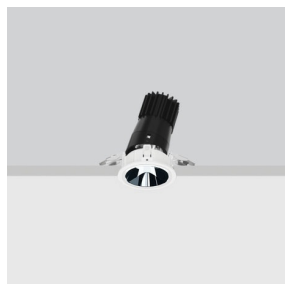


# UGR diagram

Corrected UGR values (at 3200 lm bare lamp luminous flux)											
Reflect.: ceiling/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	17.0	17.6	17.3	17.9	18.1	17.0	17.6	17.3	17.9	18.1
	3H	16.9	17.4	17.2	17.7	18.0	16.9	17.4	17.2	17.7	18.0
	4H	16.8	17.3	17.1	17.6	17.9	16.8	17.3	17.1	17.6	17.9
	6H	16.7	17.2	17.1	17.5	17.8	16.7	17.2	17.1	17.5	17.8
	8H	16.7	17.1	17.1	17.5	17.8	16.7	17.1	17.1	17.5	17.8
	12H	16.7	17.1	17.0	17.4	17.8	16.7	17.1	17.0	17.4	17.8
4H	2H	16.8	17.3	17.1	17.6	17.9	16.8	17.3	17.1	17.6	17.9
	3H	16.7	17.1	17.0	17.4	17.8	16.7	17.1	17.0	17.4	17.8
	4H	16.6	16.9	17.0	17.3	17.7	16.6	16.9	17.0	17.3	17.7
	6H	16.5	16.8	16.9	17.2	17.6	16.5	16.8	16.9	17.2	17.6
	8H	16.4	16.7	16.9	17.1	17.6	16.4	16.7	16.9	17.1	17.6
	12H	16.4	16.7	16.8	17.1	17.5	16.4	16.7	16.8	17.1	17.5
8H	4H	16.4	16.7	16.9	17.1	17.6	16.4	16.7	16.9	17.1	17.6
	6H	16.3	16.6	16.8	17.0	17.5	16.3	16.6	16.8	17.0	17.5
	8H	16.3	16.5	16.8	17.0	17.5	16.3	16.5	16.8	17.0	17.5
	12H	16.2	16.4	16.7	16.9	17.4	16.2	16.4	16.7	16.9	17.4
12H	4H	16.4	16.7	16.8	17.1	17.5	16.4	16.7	16.8	17.1	17.5
	6H	16.3	16.5	16.8	17.0	17.5	16.3	16.5	16.8	17.0	17.5
	8H	16.2	16.4	16.7	16.9	17.4	16.2	16.4	16.7	16.9	17.4
Variations with the observer position at spacing:											
S =	1.0H	5.1 / -29.8					5.1 / -29.8				
	1.5H	7.9 / -30.2					7.9 / -30.2				
	2.0H	9.9 / -30.4					9.9 / -30.4				



**Product configuration: N066**  
N066: adjustable luminaire - Ø 75 mm - neutral white - flood optic - frame



N066: adjustable luminaire - Ø 75 mm - neutral white - flood optic - frame

Round adjustable luminaire designed to use an LED lamp with C.O.B. technology in a neutral white colour tone 4000K. Version with rim for surface-mounting. Painted, die-cast aluminium body. Lower reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Anodised aluminium upper reflector. Black, zinc-plated sheet steel bracket. The luminaire can be rotated 30° relative to the horizontal plane and 358° about the vertical axis. The luminaire is fitted with mechanical locks for light beam aiming. Painted extruded aluminium dissipater.

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 25 mm.

Weight (Kg)  
0.45

## ceiling recessed

Product complete with DALI components

## Tpa rated

Complies with EN60598-1 and pertinent regulations



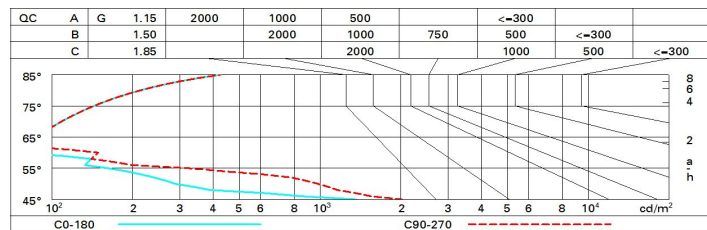
Im system:	252	CRI (minimum):	80
W system:	8.6	Colour temperature [K]:	4000
Im source:	1050	MacAdam Step:	2
W source:	6.2	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	29.3	Lamp code:	LED
Im in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	24	Number of optical assemblies:	1
Beam angle [°]:	30° / 31°	Control:	DALI-2

<p> <math>\alpha = 30^\circ / 31^\circ</math>  <math>\text{Imax} = 779 \text{ cd}</math>  <b>C0-180</b>  <b>CIE</b>  <math>n_L 0.24</math>  <math>99-100-100-100-24</math>  <math>\text{UGR} &lt; 10-10</math>  <b>DIN</b>  <math>A_{61}</math>  <b>UTE</b>  <math>0.24A + 0.00T</math>  <math>F^*1 = 989</math>  <math>F^*1 + F^*2 = 999</math>  <math>F^*1 + F^*2 + F^*3 = 999</math>  <b>CIBSE</b>  <math>\text{LG3 Lc } 1500 \text{ cd/m}^2 \text{ at } 65^\circ</math>  <math>\text{UGR} &lt; 10 \text{   Lc } 1500 \text{ cd/mq at } 65^\circ</math> </p>	Lux				
	h	d1	d2	Em	E <sub>max</sub>
	1	0.5	0.6	584	779
	2	1.1	1.1	146	195
	3	1.6	1.7	65	87
4	2.1	2.2	36	49	

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	22	20	20	19	20	19	19	19	78
1.0	23	22	21	20	21	21	20	20	82
1.5	24	23	22	22	23	22	22	21	88
2.0	24	24	23	23	24	23	23	22	93
2.5	25	24	24	24	24	24	24	23	95
3.0	25	25	25	24	24	24	24	23	97
4.0	25	25	25	25	25	25	24	24	99
5.0	26	25	25	25	25	25	25	24	100

# Luminance curve limit



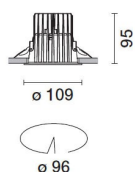
# UGR diagram

Corrected UGR values (at 1050 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
		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
2H	2H	7.4	8.0	7.7	8.2	8.5	8.2	8.7	8.4	9.0	9.2
	3H	7.3	7.8	7.6	8.1	8.3	8.0	8.5	8.3	8.8	9.1
	4H	7.2	7.7	7.6	8.0	8.3	8.0	8.4	8.3	8.7	9.0
	6H	7.2	7.6	7.5	7.9	8.2	7.9	8.3	8.2	8.6	9.0
	8H	7.1	7.6	7.5	7.9	8.2	7.8	8.3	8.2	8.6	8.9
	12H	7.1	7.5	7.5	7.9	8.2	7.8	8.2	8.2	8.5	8.9
4H	2H	7.2	7.7	7.5	8.0	8.3	8.0	8.4	8.3	8.7	9.0
	3H	7.1	7.5	7.4	7.8	8.2	7.8	8.2	8.2	8.6	8.9
	4H	7.0	7.3	7.4	7.7	8.1	7.7	8.1	8.1	8.5	8.8
	6H	6.9	7.2	7.3	7.6	8.1	7.6	8.0	8.1	8.4	8.8
	8H	6.9	7.2	7.3	7.6	8.0	7.6	7.9	8.0	8.3	8.7
	12H	6.9	7.1	7.3	7.6	8.0	7.6	7.8	8.0	8.2	8.7
8H	4H	6.9	7.2	7.3	7.6	8.0	7.6	7.9	8.1	8.3	8.8
	6H	6.8	7.0	7.3	7.5	8.0	7.5	7.8	8.0	8.2	8.7
	8H	6.8	7.0	7.3	7.4	7.9	7.5	7.7	8.0	8.2	8.7
	12H	6.8	7.0	7.3	7.4	8.0	7.5	7.6	8.0	8.1	8.6
12H	4H	6.8	7.1	7.3	7.5	8.0	7.6	7.9	8.1	8.3	8.7
	6H	6.8	7.0	7.2	7.4	7.9	7.5	7.7	8.0	8.2	8.7
	8H	6.7	6.9	7.2	7.4	7.9	7.5	7.7	8.0	8.2	8.7
Variations with the observer position at spacing:											
S =	1.0H	5.3 / -10.2					4.8 / -10.3				
	1.5H	8.1 / -10.5					7.6 / -11.2				
	2.0H	10.1 / -10.7					9.6 / -11.4				

Last information update: November 2024

**Product configuration: N124**

N124: wall-washer luminaire - Ø 96 mm - frame

**Product code**

N124: wall-washer luminaire - Ø 96 mm - frame

**Technical description**

Recessed round wall-washer luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours and finished with a protective anti-scratch layer to create a vertical downward beam of light. Die-cast aluminium body and passive dissipation system. Product complete with C.O.B. LED lamp in warm white colour.

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 25 mm.

**Colour**

White / Aluminium (39)

**Weight (Kg)**

0.65

**Mounting**

ceiling recessed

**Wiring**

product complete with DALI components

**Notes**

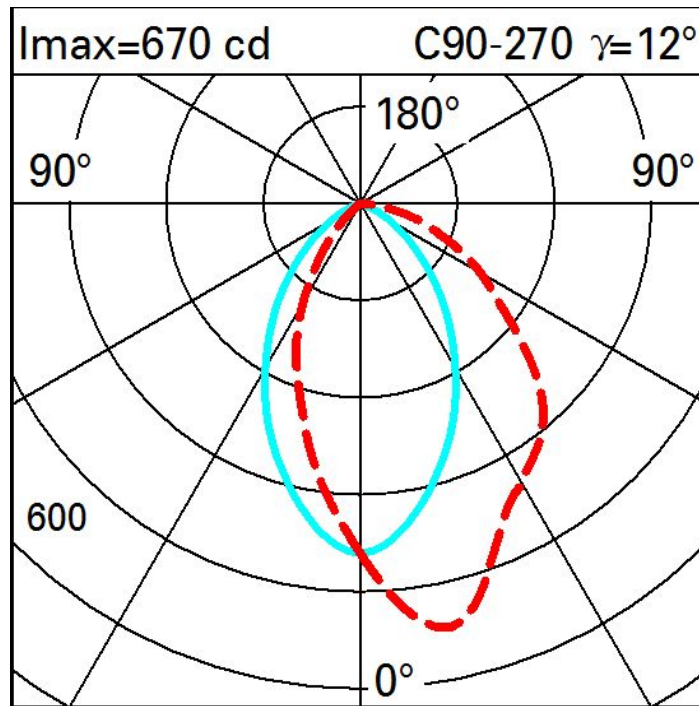
TPb rated

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	821	Colour temperature [K]:	3000
W system:	11.9	MacAdam Step:	2
lm source:	1550	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
W source:	9.3	Lamp code:	LED
Luminous efficiency (lm/W, real value):	69	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.) [%]:	53	Control:	DALI-2
CRI (minimum):	80		

Polar



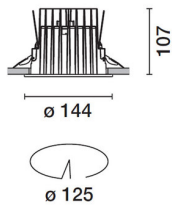
Illuminances

Lux												Wall distance = 1m	
3													
	0.3	0.9	3	16	63	120	63	16	3	0.9	0.3		
2	1	4	12	34	87	138	87	34	12	4	1		
	3	6	15	35	67	86	67	35	15	6	3		
1	4	7	14	27	41	49	41	27	14	7	4		
	4	7	12	19	26	31	26	19	12	7	4		
0													
	m	-2	-1	0	1	2	3						

Last information update: November 2024

**Product configuration: P527**

P527: Fixed circular recessed luminaire - Ø125 mm - warm white - flood optic - UGR&lt;10 - DALI

**Product code**

P527: Fixed circular recessed luminaire - Ø125 mm - warm white - flood optic - UGR&lt;10 - DALI

**Technical description**

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Optic with super comfort reflector vacuum-metallised with aluminium vapours and an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in warm white colour tone CRI90 (3000K). General light emission, with controlled luminance UGR<10 1500 cd/m<sup>2</sup> α>65° flood optic.

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thicknesses ranging from 1 mm to 20 mm.

**Colour**

White / Aluminium (39)

**Weight (Kg)**

1.15

**Mounting**

ceiling recessed

**Wiring**

product complete with DALI components

**Notes**

TPb rated

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	2380	CRI (minimum):	90
W system:	31.2	Colour temperature [K]:	3000
lm source:	3400	MacAdam Step:	2
W source:	28	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	76.3	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.) [%]:	70	Number of optical assemblies:	1
Beam angle [°]:	24°	Control:	DALI-2

**Polar**

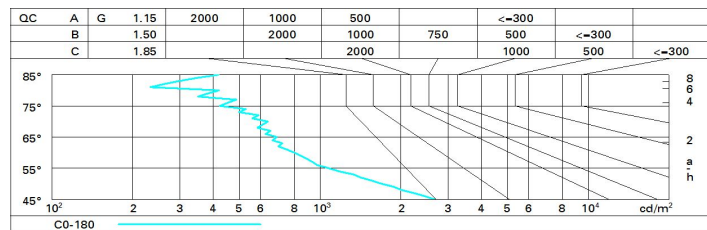
	<b>CIE</b> nL 0.70 99-100-100-100-70 UGR <10-<10 <b>DIN</b> A.61 <b>UTE</b> 0.70A+0.00T F*1=991 F*1+F*2=998 F*1+F*2+F*3=1000 <b>CIBSE</b> LG3 L<1500 cd/m <sup>2</sup> at 65° UGR<10   L<1500 cd/mq @ 65°			
	<b>Lux</b>			
	h	d	Em	E <sub>max</sub>
	2	0.9	1994	2578
	4	1.7	498	644
	6	2.6	222	286
	8	3.4	125	161



# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	63	60	57	56	59	57	57	54	78
1.0	66	63	61	59	62	60	60	58	82
1.5	69	67	65	64	66	65	64	62	88
2.0	71	70	68	67	69	68	67	65	93
2.5	73	71	70	70	70	69	69	67	95
3.0	73	73	72	71	71	71	70	68	98
4.0	74	74	73	73	73	72	71	69	99
5.0	75	74	74	74	73	73	72	70	100

# Luminance curve limit



# UGR diagram

Corrected UGR values (at 3400 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
2H	2H	2.7	4.9	3.1	5.2	5.5	2.7	4.9	3.1	5.2	5.5
	3H	2.8	4.5	3.2	4.8	5.1	2.7	4.4	3.1	4.7	5.0
	4H	2.8	4.2	3.2	4.6	4.9	2.7	4.1	3.0	4.4	4.7
	6H	2.8	3.9	3.2	4.3	4.6	2.6	3.7	3.0	4.1	4.4
	8H	2.8	3.9	3.2	4.2	4.6	2.6	3.7	3.0	4.0	4.4
	12H	2.8	3.8	3.2	4.2	4.6	2.5	3.6	2.9	4.0	4.4
4H	2H	2.7	4.1	3.0	4.4	4.7	2.8	4.2	3.2	4.6	4.9
	3H	2.8	3.9	3.2	4.2	4.6	2.9	3.9	3.3	4.3	4.7
	4H	2.8	3.8	3.2	4.2	4.6	2.8	3.8	3.2	4.2	4.6
	6H	2.6	4.3	3.0	4.7	5.2	2.5	4.2	3.0	4.7	5.1
	8H	2.4	4.3	2.9	4.8	5.3	2.4	4.3	2.9	4.8	5.3
	12H	2.4	4.3	2.9	4.8	5.3	2.3	4.3	2.8	4.7	5.3
8H	4H	2.4	4.3	2.9	4.8	5.3	2.4	4.3	2.9	4.8	5.3
	6H	2.4	4.2	2.9	4.7	5.2	2.4	4.2	2.9	4.7	5.2
	8H	2.4	4.0	2.9	4.5	5.1	2.4	4.0	2.9	4.5	5.1
	12H	2.6	3.6	3.1	4.1	4.7	2.6	3.6	3.1	4.1	4.6
12H	4H	2.3	4.3	2.8	4.7	5.3	2.4	4.3	2.9	4.8	5.3
	6H	2.4	4.0	2.9	4.5	5.1	2.4	4.1	2.9	4.5	5.1
	8H	2.6	3.6	3.1	4.1	4.6	2.6	3.6	3.1	4.1	4.7
Variations with the observer position at spacing:											
S =	1.0H	3.9 / -3.5					3.9 / -3.5				
	1.5H	6.4 / -4.7					6.4 / -4.7				
	2.0H	8.4 / -4.9					8.4 / -4.9				

## Reflex

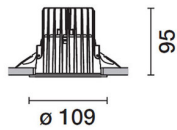
Design iGuzzini

iGuzzini

Last information update: November 2024

### Product configuration: Q961

Q961: Fixed circular recessed luminaire - Ø 96 mm - warm white - white optic - DALI



### Product code

Q961: Fixed circular recessed luminaire - Ø 96 mm - warm white - white optic - DALI

### Technical description

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector painted white with a layer of anti-scratch protection. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in warm white colour tone (2700K). General lighting beam.

### Installation

Recessed using torsion springs which allow easy installation in false ceilings with thicknesses ranging from 1 mm to 20 mm.

### Weight (Kg)

0.65

### Mounting

ceiling recessed

### Wiring

product complete with DALI components

### Notes

TPb rated

Complies with EN60598-1 and pertinent regulations



IP20

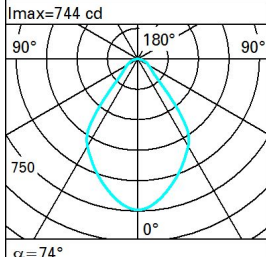
IP54



### Technical data

lm system:	1015	CRI (minimum):	90
W system:	14.1	Colour temperature [K]:	2700
lm source:	1550	MacAdam Step:	2
W source:	12	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	72	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.) [%]:	65	Number of optical assemblies:	1
Beam angle [°]:	74°	Control:	DALI

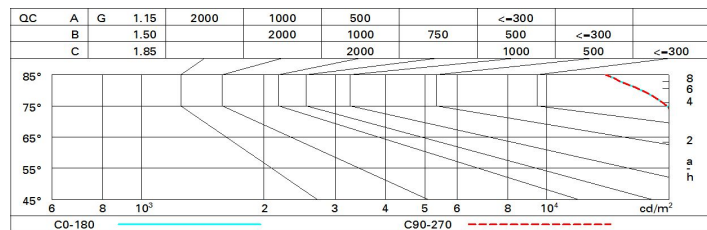
### Polar

	CIE				Lux			
	nL 0.65				h			
	76-92-98-100-65				d			
	UGR 25.1-24.8				Em			
	DIN A.61 UTE 0.65B+0.00T F*1=764 F*1+F*2=918 F*1+F*2+F*3=983				Emax			
					11.5			
					126			
83								
47								

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	52	47	44	41	46	43	43	40	61
1.0	55	51	48	45	50	47	47	44	67
1.5	60	57	54	52	56	53	53	50	76
2.0	63	60	58	56	59	57	57	54	82
2.5	65	63	61	59	61	60	59	57	86
3.0	66	64	63	61	63	62	61	58	89
4.0	67	66	65	64	65	64	63	60	92
5.0	68	67	66	65	66	65	64	62	94

# Luminance curve limit



# UGR diagram

Corrected UGR values (at 1550 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
		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
2H	2H	22.6	23.5	22.9	23.7	24.0	22.6	23.5	22.9	23.7	24.0
	3H	23.5	24.3	23.8	24.6	24.9	22.8	23.6	23.2	23.9	24.2
	4H	23.9	24.6	24.2	24.9	25.2	22.9	23.7	23.3	24.0	24.3
	6H	24.2	24.9	24.6	25.2	25.5	22.9	23.6	23.3	23.9	24.3
	8H	24.3	25.0	24.7	25.3	25.6	22.9	23.6	23.3	23.9	24.3
	12H	24.3	25.0	24.7	25.3	25.7	22.9	23.5	23.3	23.9	24.2
4H	2H	22.9	23.7	23.3	24.0	24.3	23.9	24.6	24.2	24.9	25.2
	3H	24.0	24.7	24.4	25.0	25.4	24.3	25.0	24.7	25.3	25.7
	4H	24.6	25.1	25.0	25.5	25.9	24.6	25.1	25.0	25.5	25.9
	6H	25.0	25.5	25.4	25.9	26.3	24.7	25.2	25.1	25.6	26.0
	8H	25.1	25.6	25.6	26.0	26.4	24.8	25.2	25.2	25.6	26.1
	12H	25.2	25.6	25.7	26.0	26.5	24.7	25.2	25.2	25.6	26.1
8H	4H	24.8	25.2	25.2	25.6	26.1	25.1	25.6	25.6	26.0	26.4
	6H	25.3	25.7	25.8	26.1	26.6	25.4	25.8	25.9	26.2	26.7
	8H	25.5	25.8	26.0	26.3	26.8	25.5	25.8	26.0	26.3	26.8
	12H	25.6	25.9	26.1	26.4	26.9	25.6	25.8	26.1	26.3	26.8
12H	4H	24.7	25.2	25.2	25.6	26.1	25.2	25.6	25.7	26.0	26.5
	6H	25.3	25.7	25.8	26.1	26.6	25.5	25.8	26.0	26.3	26.8
	8H	25.6	25.8	26.1	26.3	26.8	25.6	25.9	26.1	26.4	26.9
Variations with the observer position at spacing:											
S =	1.0H	0.9 / -0.6					0.9 / -0.6				
	1.5H	1.8 / -0.9					1.8 / -0.9				
	2.0H	3.0 / -1.1					3.0 / -1.1				