

## Photometric test report

Family  
**Monsun® 21**

Order number: **51FB10DP440B**  
EAN: **4058352519950**

LP number  
**58939\_40**



**Version** prismatic diffuser, opal, PMMA, wide distribution  
**Lamps** LED 4000 K | CRI ≥ 80  
**Controlgear** ECG-DALI  
**Rated values** Net luminous flux = 4360 lm  
Power consumption = 27.9 W  
Luminous efficacy = 156.3 lm/W

serial  
documentation  
**17.06.2021**

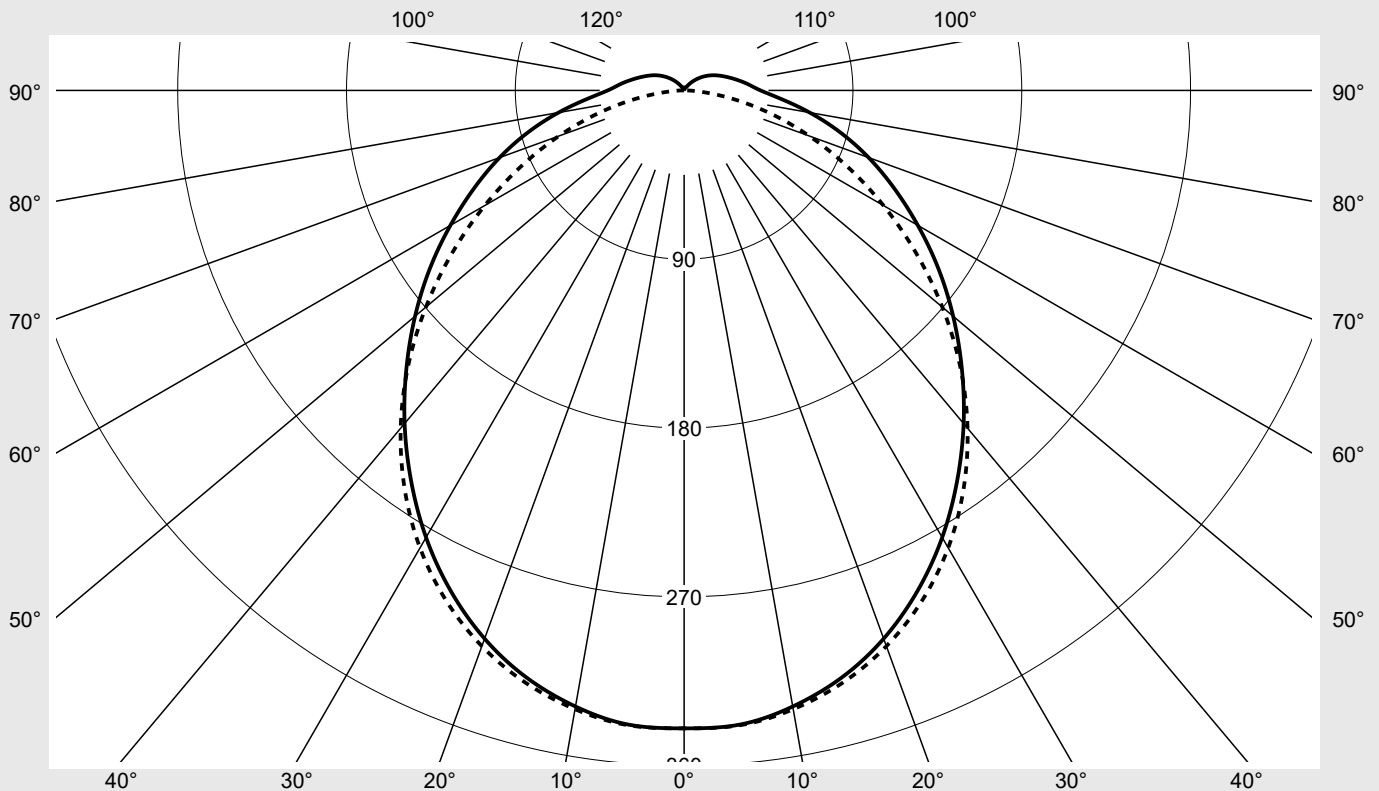
sitEco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 340 cd/klm



### Classifications

DIN 5040 A 4 1  
CIE N1=47 N2=77 N3=93  
N4=94 N5=100

### Luminaire light output ratios

$\eta_{LB}$  100.0%  
 $\phi_u$  94.2%  
 $\phi_o$  5.8%

### Measurement conditions

DIN EN 13032 and DIN 5032

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<b>Table of values for luminous intensities</b>		<b>Maximum luminous intensity</b>
		<b>siteco</b>

C-planes γ	0° 180°	15°	30°	45°	60°	75°	90° 270°	Phi-zone	Total Phi-zone
		165° 195° 345°	150° 210° 330°	135° 225° 315°	120° 240° 300°	105° 255° 285°			
Luminous intensity in cd/klm							Luminous flux in lm/klm		
0°	340.1	340.1	340.1	340.1	340.1	340.1	340.1	2.0	2.0
5°	339.4	338.3	336.5	337.9	339.5	339.4	339.8	16.2	18.2
10°	333.5	333.0	331.2	332.8	334.6	334.7	335.0	31.7	49.9
15°	324.2	324.2	322.5	324.2	326.1	326.4	326.9	46.1	96.0
20°	311.0	311.6	310.1	311.9	314.1	314.7	315.3	58.6	154.6
25°	294.4	295.4	294.1	296.0	298.4	299.4	300.2	68.7	223.4
30°	275.2	276.6	275.1	276.8	279.4	280.7	281.6	76.1	299.5
35°	253.9	255.2	253.8	254.9	257.1	258.4	259.7	80.5	380.0
40°	231.8	232.9	231.3	231.1	232.5	233.8	235.1	81.9	461.9
45°	209.4	209.9	207.8	205.9	206.1	206.6	208.2	80.4	542.4
50°	187.2	187.1	184.8	181.3	179.3	178.3	179.7	76.6	619.0
55°	165.5	164.8	162.1	157.0	153.1	150.2	150.9	70.7	689.7
60°	143.9	142.9	139.5	133.7	127.9	123.2	122.7	63.3	753.0
65°	123.6	122.5	117.8	111.0	104.2	97.9	96.0	54.9	808.0
70°	104.7	103.3	97.1	89.4	81.7	74.3	71.0	45.8	853.8
75°	86.1	84.4	77.8	69.2	60.2	52.2	47.8	36.3	890.0
80°	68.0	66.1	60.2	50.5	40.7	32.1	26.9	26.7	916.7
85°	51.8	50.0	44.6	35.3	24.7	15.7	10.1	18.3	935.0
90°	40.8	39.2	34.4	26.0	15.9	6.9	1.8	13.1	948.2
95°	34.8	33.5	29.7	22.7	13.6	5.1	1.6	11.2	959.3
100°	29.9	28.8	25.4	19.2	11.3	3.7	1.4	9.4	968.7
105°	25.7	24.7	21.4	16.1	8.8	2.4	1.2	7.7	976.4
110°	22.1	20.9	18.0	13.0	6.6	1.4	1.1	6.1	982.5
115°	19.0	17.8	15.0	10.4	4.7	1.2	1.1	4.9	987.4
120°	16.0	14.8	12.2	7.9	3.1	1.2	1.0	3.8	991.2
125°	13.0	11.9	9.4	5.6	1.7	1.1	0.9	2.7	993.9
130°	10.1	9.1	6.9	3.7	1.4	1.1	1.0	1.9	995.9
135°	7.3	6.5	4.6	2.1	1.4	1.1	1.1	1.3	997.1
140°	4.8	4.1	2.7	1.7	1.4	1.1	1.1	0.8	998.0
145°	2.6	2.3	1.9	1.7	1.4	1.2	1.2	0.5	998.5
150°	2.0	2.0	1.9	1.6	1.3	1.3	1.3	0.4	998.9
155°	1.9	1.9	1.7	1.6	1.4	1.4	1.4	0.4	999.3
160°	1.7	1.7	1.6	1.4	1.4	1.4	1.4	0.3	999.6
165°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.2	999.8
170°	1.3	1.4	1.4	1.4	1.4	1.4	1.4	0.1	999.9
175°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.1	1000.0
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0	1000.0

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<b>UGR-Table</b>	<b>Standard room</b>	<b>siteco</b>
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Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Reflection factor of floor	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Room dimensions	View crosswise (C0)					View endwise (C90)					
x	y										
2H	2H	18.9	20.6	19.3	20.9	21.3	18.9	20.6	19.3	20.9	21.3
	3H	20.7	22.2	21.1	22.6	22.9	20.3	21.8	20.7	22.2	22.5
	4H	21.5	22.9	21.9	23.3	23.7	20.8	22.3	21.2	22.6	23.0
	6H	22.2	23.6	22.7	24.0	24.3	21.2	22.5	21.6	22.9	23.3
	8H	22.6	23.9	23.0	24.3	24.7	21.3	22.6	21.7	23.0	23.4
	12H	22.9	24.1	23.4	24.5	24.9	21.4	22.6	21.8	23.0	23.4
4H	2H	19.6	21.1	20.0	21.4	21.8	19.6	21.1	20.0	21.4	21.8
	3H	21.6	22.8	22.0	23.2	23.6	21.2	22.4	21.6	22.8	23.2
	4H	22.5	23.7	23.0	24.1	24.5	21.8	23.0	22.3	23.4	23.8
	6H	23.4	24.4	23.9	24.9	25.3	22.3	23.3	22.8	23.7	24.2
	8H	23.9	24.8	24.3	25.2	25.7	22.5	23.4	22.9	23.8	24.3
	12H	24.3	25.1	24.8	25.5	26.0	22.6	23.4	23.0	23.8	24.3
8H	4H	22.8	23.8	23.3	24.2	24.7	22.2	23.2	22.7	23.6	24.1
	6H	23.9	24.7	24.4	25.2	25.7	22.9	23.6	23.3	24.1	24.6
	8H	24.5	25.2	25.0	25.6	26.2	23.1	23.8	23.6	24.2	24.8
	12H	25.0	25.6	25.5	26.1	26.6	23.2	23.8	23.7	24.3	24.9
12H	4H	22.9	23.7	23.4	24.2	24.7	22.3	23.2	22.8	23.6	24.1
	6H	24.0	24.7	24.5	25.2	25.7	23.0	23.7	23.5	24.2	24.7
	8H	24.6	25.2	25.1	25.7	26.2	23.3	23.9	23.8	24.4	24.9

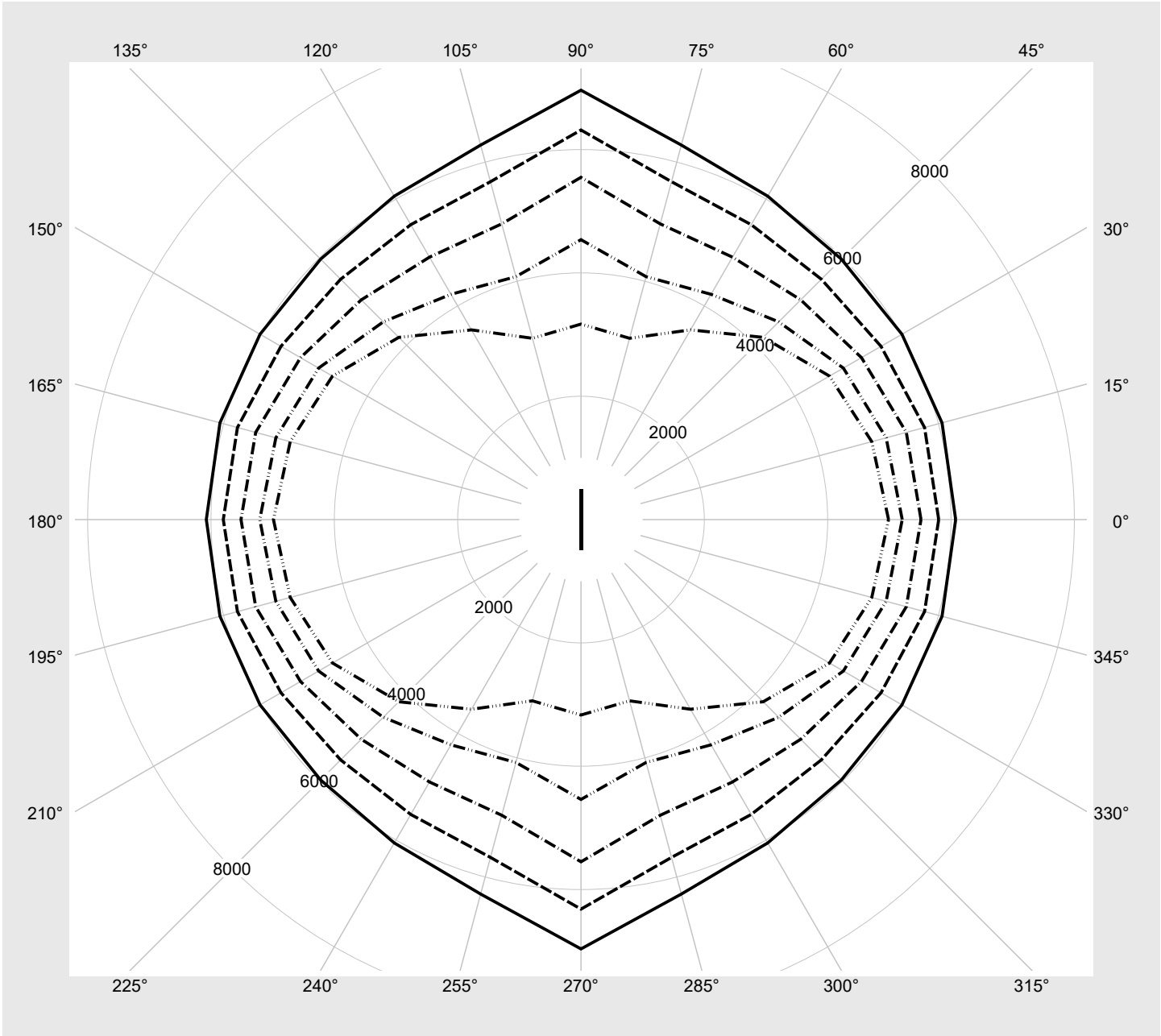
<b>Luminance table</b>	<b>Max. for <math>\gamma \geq 65^\circ</math></b>	<b>Photometric dimensions in mm:</b>	<b>L = 1590</b>	<b>H(C0) = 21</b>	<b>H(C180) = 21</b>
			<b>B = 87</b>	<b>H(C90) = 21</b>	<b>H(C270) = 21</b>

C-planes	$\gamma$	Luminance in cd/m <sup>2</sup>							
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	
45°		7517.9	7564.5	7619.8	7779.2	8114.9	8564.4	9158.5	
50°		7130.2	7156.7	7210.1	7320.1	7597.0	8023.8	8674.8	
55°		6761.2	6769.0	6810.5	6864.2	7078.1	7451.1	8137.1	
60°		6396.4	6391.1	6402.2	6422.5	6563.5	6871.5	7563.5	
65°		6075.8	6061.2	6009.9	5971.8	6055.6	6287.4	6962.8	
70°		5800.5	5767.7	5618.0	5511.9	5521.7	5672.2	6317.4	
75°		5513.4	5461.3	5251.8	5038.8	4913.8	4964.5	5550.0	
80°		5209.2	5122.7	4912.7	4534.0	4218.2	4077.9	4538.7	
85°		4987.2	4881.6	4653.3	4178.5	3551.8	3043.4	3169.7	

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**Luminance values in cd/m<sup>2</sup>**       $\gamma$  65°      $\gamma$  70°      $\gamma$  75°      $\gamma$  80°      $\gamma$  85°



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<b>Dimming levels table</b>	environmental temperature: 25°C	<b>sITeco</b>
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	4360	27.9
95	241	252	4146	26.5
90	228	250	3932	25.1
85	214	248	3698	23.7
80	201	245	3481	22.2
75	188	243	3262	21.0
70	176	241	3059	19.7
65	163	238	2838	18.4
60	150	235	2616	17.0
55	137	231	2393	15.8
50	125	228	2185	14.5
45	112	224	1960	13.2
40	99	219	1736	11.8
35	87	215	1526	10.6
30	75	209	1315	9.4
25	62	202	1086	8.1
20	50	194	872	7.0
15	38	184	659	5.8
10	26	171	444	4.7
5	13	145	210	3.4
3	9	132	138	3.1