

## Photometric test report

Family  
**Monsun® 12**

Order number: **51FP10FP460H**  
EAN: **4058352389270**

LP number  
**58939\_18**



**Version** prismatic diffuser, opal, PMMA, wide distribution  
**Lamps** LED 4000 K | CRI ≥ 80  
**Controlgear** ECG-DALI CLO  
**Rated values** Net luminous flux = 6050 lm  
Power consumption = 34.6 W  
Luminous efficacy = 174.9 lm/W

serial  
documentation  
**08.04.2020**

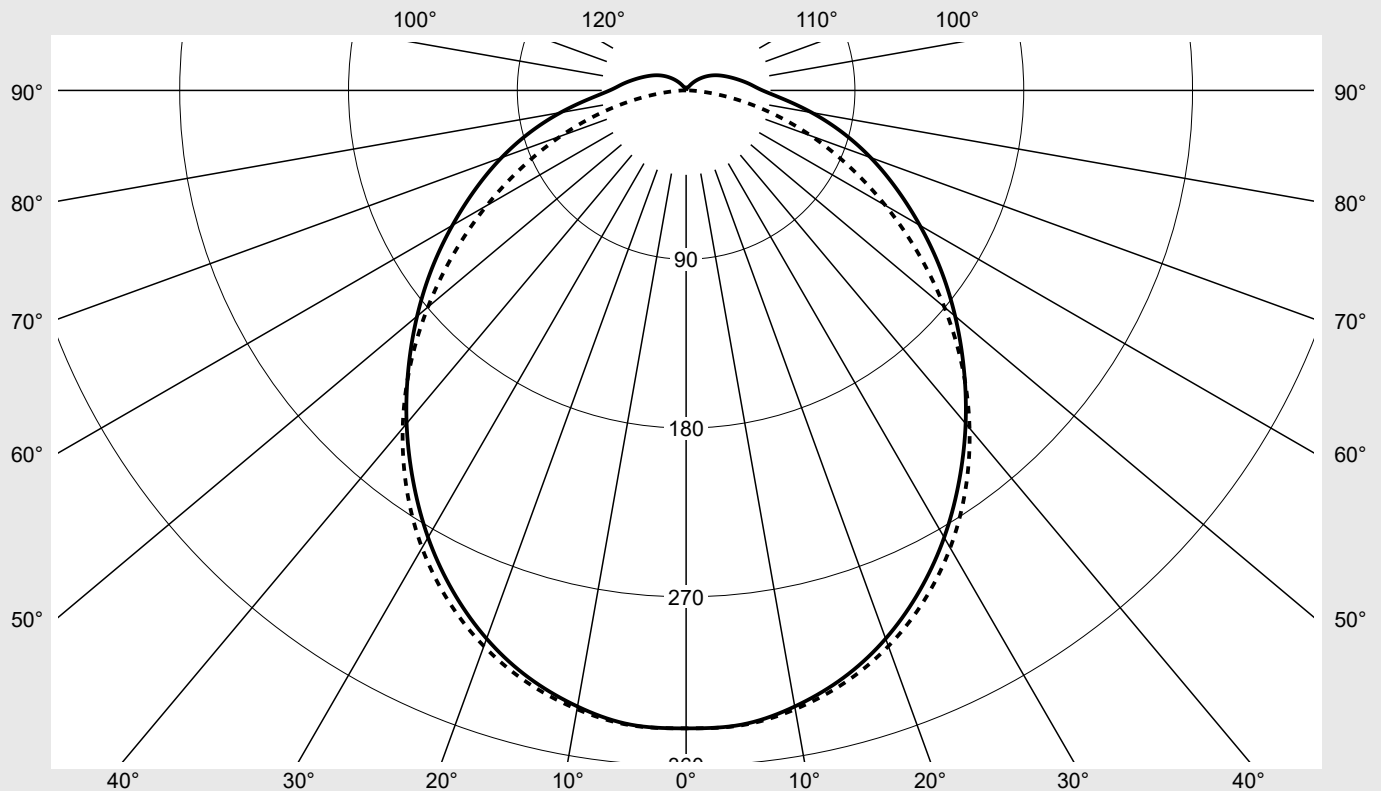
**sitEco**

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	20.1	21.8	20.4	22.1	22.4	20.1	21.8	20.4	22.1	22.4
	3H	21.8	23.4	22.2	23.7	24.0	21.4	23.0	21.8	23.3	23.7
	4H	22.6	24.1	23.0	24.4	24.8	22.0	23.4	22.4	23.8	24.1
	6H	23.4	24.7	23.8	25.1	25.5	22.3	23.7	22.7	24.0	24.4
	8H	23.8	25.0	24.2	25.4	25.8	22.5	23.7	22.9	24.1	24.5
	12H	24.1	25.3	24.5	25.6	26.1	22.5	23.7	22.9	24.1	24.5
4H	2H	20.8	22.2	21.2	22.6	22.9	20.8	22.2	21.2	22.6	22.9
	3H	22.7	24.0	23.1	24.3	24.7	22.3	23.6	22.7	24.0	24.4
	4H	23.7	24.8	24.1	25.2	25.6	23.0	24.1	23.4	24.5	24.9
	6H	24.6	25.6	25.0	26.0	26.5	23.4	24.4	23.9	24.9	25.3
	8H	25.0	25.9	25.5	26.4	26.8	23.6	24.5	24.1	25.0	25.4
	12H	25.4	26.2	25.9	26.7	27.2	23.7	24.5	24.2	25.0	25.5
8H	4H	24.0	24.9	24.5	25.4	25.8	23.4	24.3	23.9	24.7	25.2
	6H	25.1	25.8	25.6	26.3	26.8	24.0	24.8	24.5	25.2	25.7
	8H	25.6	26.3	26.1	26.8	27.3	24.2	24.9	24.7	25.4	25.9
	12H	26.2	26.7	26.7	27.2	27.8	24.4	25.0	24.9	25.5	26.0
12H	4H	24.0	24.9	24.5	25.3	25.8	23.5	24.3	24.0	24.7	25.2
	6H	25.2	25.8	25.7	26.3	26.8	24.2	24.8	24.7	25.3	25.8
	8H	25.8	26.3	26.3	26.8	27.4	24.4	25.0	24.9	25.5	26.0

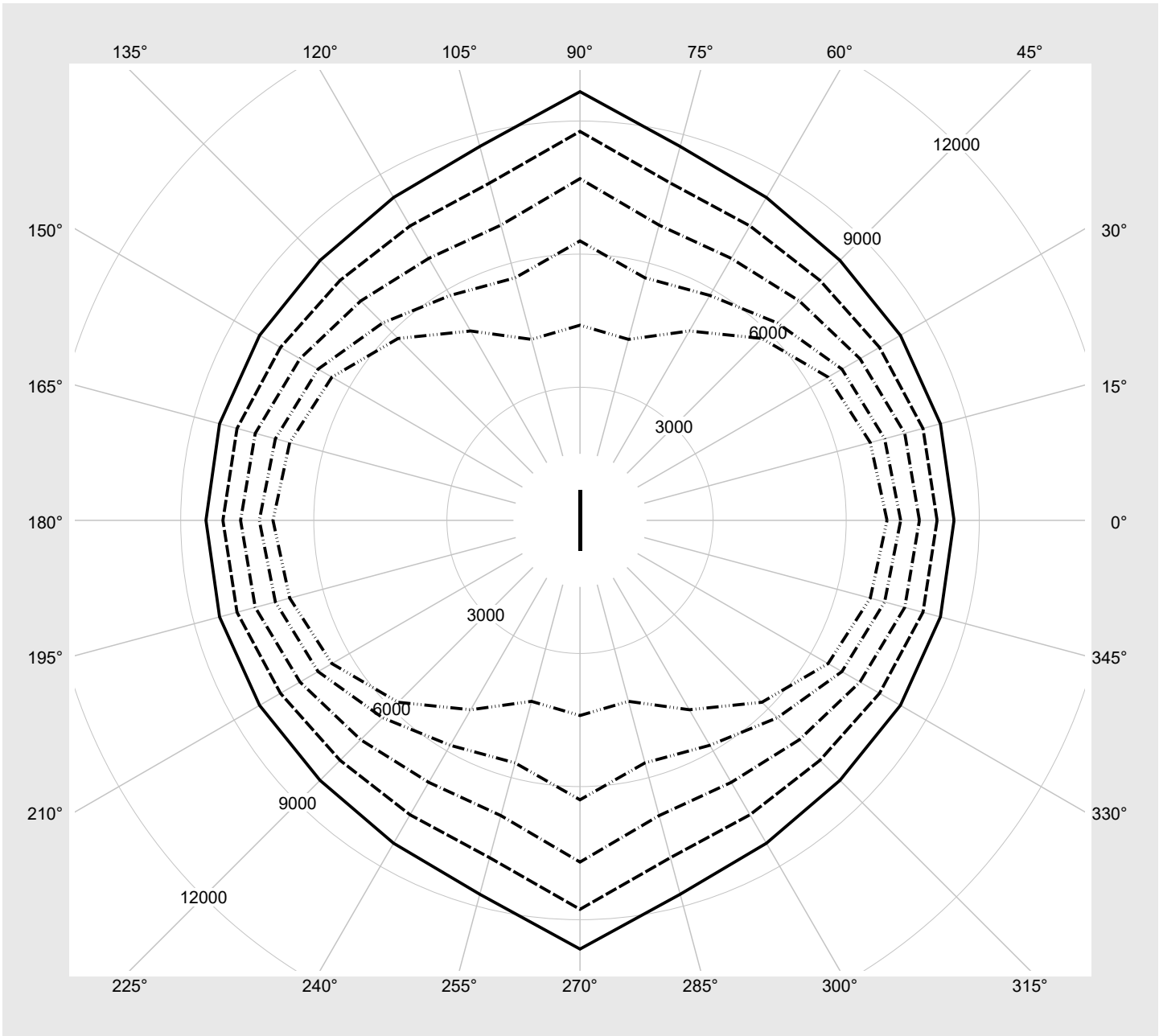
<b>Luminance table</b>	<b>Max. for <math>\gamma \geq 65^\circ</math></b>	<b>Photometric dimensions in mm:</b>	<b>L = 1590</b>	<b>H(C0) = 21</b>	<b>H(C180) = 21</b>
			<b>B = 87</b>	<b>H(C90) = 21</b>	<b>H(C270) = 21</b>

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°		10432.0	10496.6	10573.4	10794.5	11260.4	11884.0	12708.4	
50°		9894.0	9930.7	10004.9	10157.5	10541.7	11133.9	12037.3	
55°		9381.9	9392.8	9450.4	9524.8	9821.7	10339.3	11291.2	
60°		8875.8	8868.3	8883.8	8911.9	9107.6	9535.1	10495.3	
65°		8430.8	8410.6	8339.4	8286.5	8402.8	8724.5	9661.6	
70°		8048.8	8003.3	7795.7	7648.4	7662.0	7870.8	8766.0	
75°		7650.5	7578.2	7287.5	6991.9	6818.5	6888.8	7701.3	
80°		7228.3	7108.3	6817.0	6291.5	5853.3	5658.5	6297.9	
85°		6920.2	6773.7	6457.0	5798.1	4928.5	4223.0	4398.3	

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**Luminance values in cd/m<sup>2</sup>**     γ 65°   γ 70°   γ 75°   γ 80°   γ 85°     **siteco**



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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]	Power consumption [W]	Power consumption [W]
				start of lifetime	end of lifetime	average
100	254	254	6050	34.6	38.9	36.8
95	241	252	5756	33.0	37.0	35.0
90	227	250	5434	31.1	34.8	33.0
85	214	248	5133	29.4	33.0	31.2
80	201	245	4831	27.7	31.0	29.4
75	188	243	4526	26.0	29.1	27.6
70	176	241	4243	24.5	27.4	26.0
65	163	238	3935	22.8	25.4	24.1
60	150	235	3626	21.2	23.5	22.4
55	138	232	3338	19.6	21.8	20.7
50	125	228	3025	18.0	20.0	19.0
45	113	224	2734	16.4	18.2	17.3
40	100	220	2417	14.8	16.3	15.6
35	88	215	2123	13.1	14.7	13.9
30	75	209	1806	11.5	12.8	12.2
25	63	203	1510	10.0	11.0	10.5
20	51	195	1211	8.4	9.3	8.9
15	39	185	911	7.0	7.6	7.3
10	27	172	609	5.5	5.8	5.6
5	15	150	306	4.1	4.3	4.2
2	8	127	129	3.2	3.3	3.2