

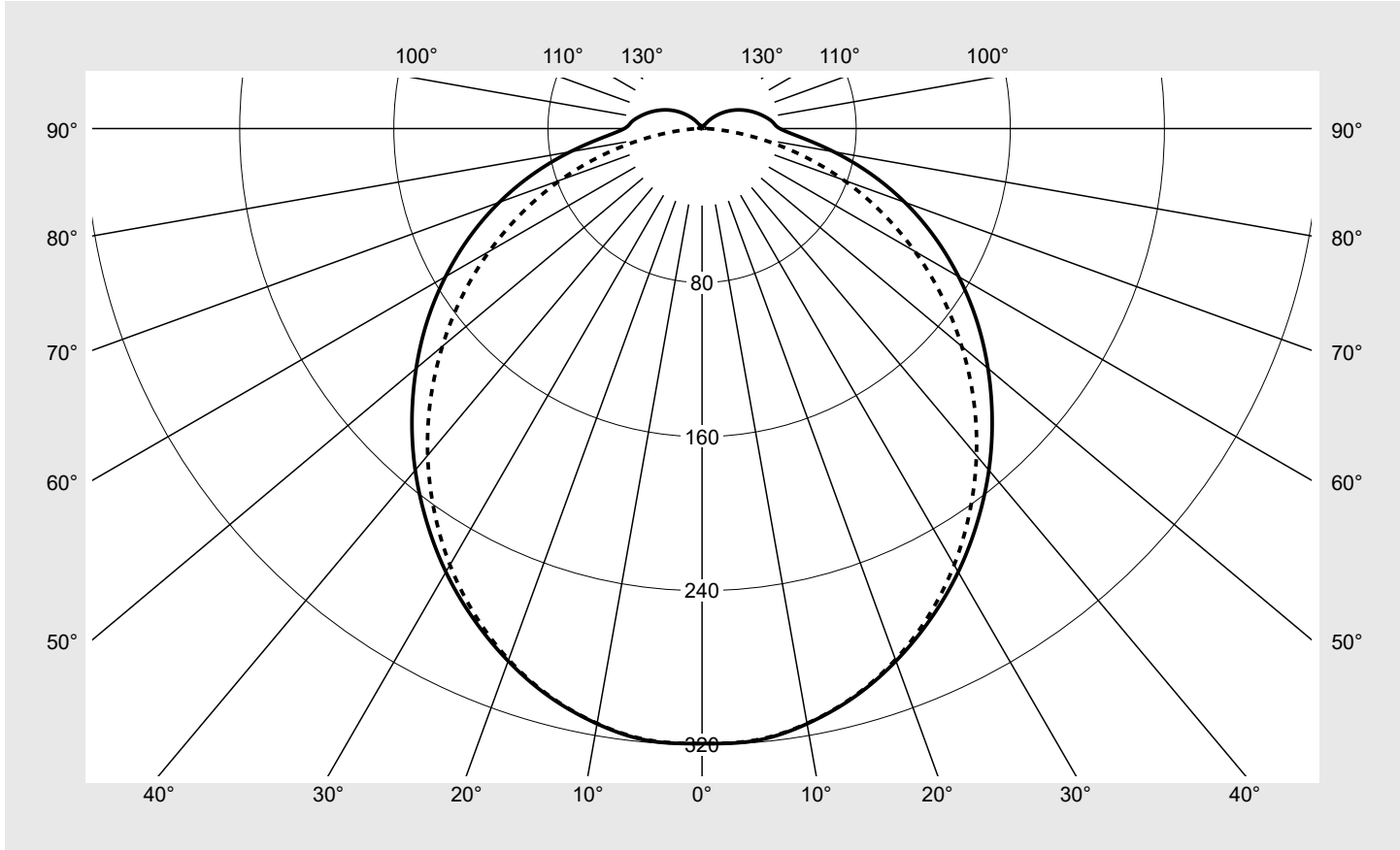


# Photometric test report

<b>Family</b> <b>Monsun® 12</b>	<b>Order number: 51FG20DP440HHQ</b> <b>EAN: 4058352568927</b>	<b>LP number</b> <b>59060_99</b>
	<b>Version</b> prismatic diffuser, opal, polycarbonate, wide distribution <b>Lamps</b> LED 4000 K   CRI ≥ 80 <b>Controlgear</b> ECG-DALI <b>Rated values</b> Net luminous flux = 4840 lm Power consumption = 31.3 W Luminous efficacy = 154.6 lm/W	<b>serial documentation</b> <b>02.03.2023</b>
		

Luminous intensity in cd/klm C180-0 C270-90 **Imax: 319 cd/klm**



Classifications	
DIN 5040	A 4 1
CIE	N1=45 N2=75 N3=93 N4=94 N5=100

Luminaire light output ratios	
$\eta_{LB}$	100.0%
$\phi_u$	93.7%
$\phi_o$	6.3%

**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°	319.4	319.4	319.4	319.4	319.4	319.4	319.4	1.9	1.9
5°	319.1	317.8	316.0	317.2	318.6	318.6	318.8	15.2	17.1
10°	313.9	312.8	311.0	312.1	313.5	313.5	313.7	29.8	46.9
15°	305.6	304.7	302.7	303.7	305.0	304.9	305.2	43.2	90.1
20°	294.3	293.5	291.4	292.2	293.3	293.1	293.5	54.9	145.0
25°	280.9	280.2	277.7	277.9	278.8	278.5	278.8	64.6	209.6
30°	265.9	265.3	262.4	261.6	261.9	261.4	261.7	72.0	281.6
35°	249.2	248.5	245.6	243.7	242.9	242.2	242.4	77.0	358.5
40°	231.6	230.8	227.5	224.6	222.7	221.4	221.6	79.5	438.0
45°	212.9	211.8	208.5	204.2	201.3	199.0	199.4	79.5	517.5
50°	193.7	192.3	188.8	183.7	179.4	175.9	176.0	77.3	594.9
55°	174.1	172.4	168.8	162.7	157.2	152.3	152.1	73.1	667.9
60°	153.8	152.1	148.1	141.4	134.9	128.8	127.5	66.9	734.9
65°	133.1	131.4	127.0	119.9	112.8	105.5	102.8	59.2	794.0
70°	112.0	110.4	105.0	98.0	90.2	82.2	78.2	49.9	843.9
75°	90.5	88.8	83.0	75.7	67.3	58.8	53.6	39.3	883.2
80°	69.4	67.4	62.0	54.0	45.3	36.4	30.4	28.3	911.6
85°	51.2	49.1	43.8	35.9	26.7	17.7	11.3	18.6	930.2
90°	40.3	38.3	33.0	25.3	16.4	7.5	1.9	12.9	943.1
95°	36.9	35.1	30.2	22.8	14.1	5.6	1.6	11.6	954.7
100°	33.7	31.9	27.1	20.1	11.9	4.0	1.5	10.1	964.8
105°	30.1	28.5	23.8	17.3	9.5	2.6	1.3	8.6	973.4
110°	26.5	24.6	20.5	14.4	7.3	1.5	1.2	7.1	980.4
115°	22.8	21.1	17.3	11.6	5.2	1.3	1.2	5.7	986.1
120°	19.1	17.5	14.1	8.9	3.4	1.3	1.1	4.4	990.5
125°	15.4	13.9	10.8	6.2	1.7	1.2	1.0	3.2	993.6
130°	11.8	10.5	7.7	3.9	1.4	1.2	1.0	2.2	995.8
135°	8.3	7.2	5.0	2.0	1.4	1.2	1.1	1.4	997.2
140°	5.1	4.3	2.5	1.6	1.3	1.1	1.0	0.8	998.0
145°	2.4	2.0	1.8	1.6	1.4	1.2	1.2	0.5	998.5
150°	1.9	1.9	1.8	1.5	1.4	1.3	1.2	0.4	999.0
155°	1.8	1.8	1.6	1.5	1.4	1.3	1.3	0.4	999.3
160°	1.6	1.6	1.5	1.5	1.4	1.4	1.3	0.3	999.6
165°	1.5	1.5	1.4	1.4	1.4	1.4	1.3	0.2	999.8
170°	1.4	1.4	1.4	1.4	1.4	1.4	1.3	0.1	999.9
175°	1.3	1.3	1.3	1.4	1.4	1.4	1.3	0.1	1000.0
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	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	19.6	21.3	19.9	21.6	21.9	19.4	21.1	19.7	21.4	21.7
	3H	21.4	23.0	21.8	23.3	23.6	20.9	22.5	21.3	22.9	23.2
	4H	22.2	23.7	22.6	24.0	24.4	21.6	23.0	21.9	23.4	23.8
	6H	22.9	24.3	23.3	24.7	25.1	22.0	23.4	22.4	23.7	24.1
	8H	23.3	24.6	23.7	24.9	25.3	22.1	23.4	22.5	23.8	24.2
	12H	23.6	24.8	24.0	25.2	25.6	22.2	23.4	22.6	23.8	24.2
4H	2H	20.3	21.8	20.7	22.1	22.5	20.2	21.7	20.6	22.0	22.4
	3H	22.3	23.6	22.7	24.0	24.4	21.9	23.2	22.3	23.6	24.0
	4H	23.3	24.4	23.7	24.8	25.3	22.7	23.8	23.1	24.2	24.6
	6H	24.2	25.2	24.6	25.6	26.0	23.2	24.2	23.6	24.6	25.1
	8H	24.5	25.5	25.0	25.9	26.4	23.4	24.3	23.8	24.7	25.2
	12H	24.9	25.7	25.4	26.2	26.7	23.5	24.3	23.9	24.8	25.3
8H	4H	23.6	24.6	24.1	25.0	25.5	23.1	24.0	23.6	24.5	24.9
	6H	24.7	25.4	25.1	25.9	26.4	23.8	24.6	24.3	25.0	25.5
	8H	25.2	25.9	25.6	26.3	26.8	24.0	24.7	24.5	25.2	25.7
	12H	25.7	26.3	26.2	26.7	27.3	24.2	24.8	24.7	25.3	25.8
12H	4H	23.7	24.5	24.2	25.0	25.5	23.2	24.0	23.7	24.5	25.0
	6H	24.8	25.4	25.2	25.9	26.4	23.9	24.6	24.4	25.1	25.6
	8H	25.3	25.9	25.8	26.4	26.9	24.2	24.8	24.7	25.3	25.8

<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°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	
45°	45°	8488.2	8476.5	8486.0	8564.0	8796.1	9157.3	9736.1	
50°	50°	8188.8	8164.8	8177.7	8234.1	8437.3	8785.7	9430.0	
55°	55°	7898.1	7859.3	7871.1	7894.6	8067.0	8389.0	9105.3	
60°	60°	7587.3	7549.0	7545.8	7544.9	7683.3	7972.9	8723.2	
65°	65°	7260.5	7219.9	7186.7	7164.1	7275.1	7517.4	8272.5	
70°	70°	6888.8	6843.9	6748.2	6706.8	6768.7	6964.9	7717.2	
75°	75°	6434.7	6377.4	6218.8	6122.3	6093.6	6207.7	6910.8	
80°	80°	5905.0	5800.8	5622.1	5379.6	5214.3	5141.9	5707.3	
85°	85°	5472.9	5326.4	5075.6	4709.1	4263.5	3810.3	3947.7	

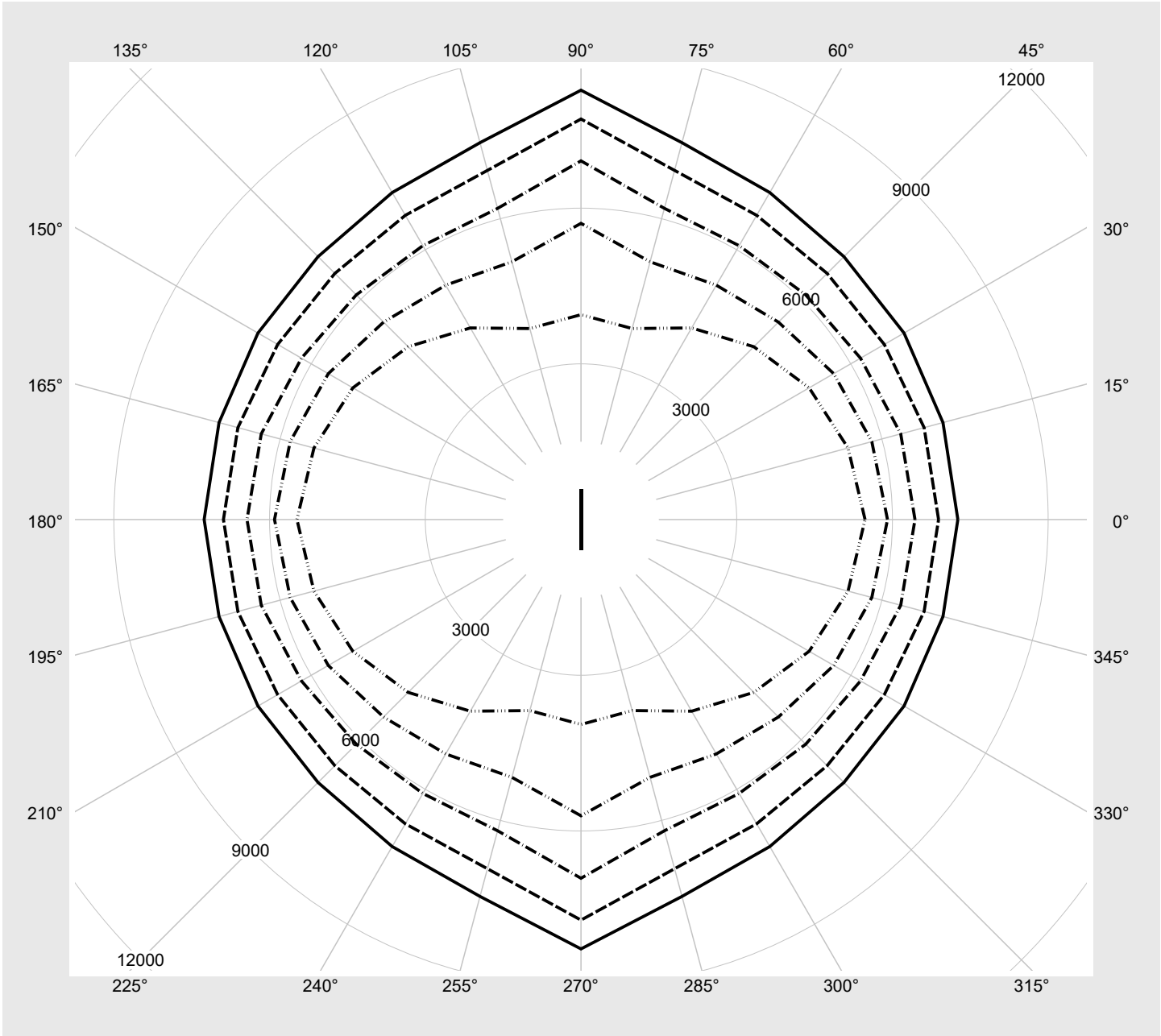
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**Luminance values in cd/m<sup>2</sup>**

$\gamma$  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	4840	31.3
95	241	252	4600	29.8
90	228	250	4359	28.3
85	215	248	4117	26.8
80	202	246	3873	25.3
75	189	243	3629	23.8
70	176	241	3383	22.3
65	164	238	3155	21.0
60	151	235	2907	19.5
55	138	232	2657	18.1
50	126	228	2425	16.7
45	113	224	2173	15.3
40	101	220	1939	13.8
35	88	215	1688	12.3
30	76	210	1452	11.0
25	64	204	1215	9.6
20	52	196	977	8.3
15	39	185	718	6.9
10	27	172	477	5.6
5	15	150	235	4.4
2	8	127	95	3.6