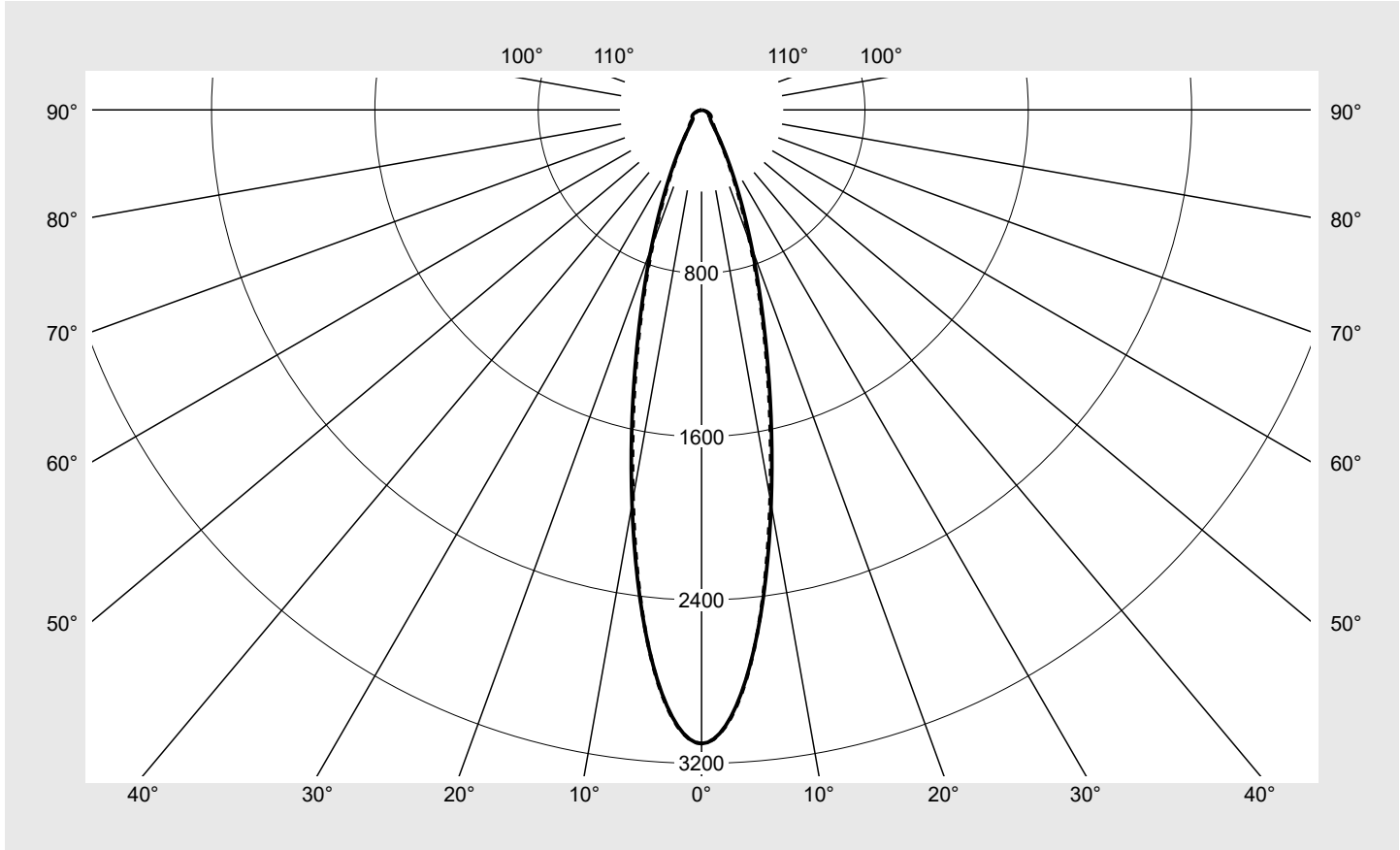


# Photometric test report

<b>Family</b> Highbay 11	<b>Order number:</b> 51HL61D24HCA + 59HL91001 <b>EAN:</b> 4058352348895 + 4058352323519	<b>LP number</b> 58920_7
<b>Version</b>	narrow distribution, UGR≤22, toughened safety glass	<b>serial documentation</b> 13.06.2019
<b>Lamps</b>	LED 4000 K   CRI ≥ 80	
<b>Controlgear</b>	ECG-DALI	
<b>Rated values</b>	Net luminous flux = 18890 lm Power consumption = 111.2 W Luminous efficacy = 169.9 lm/W	



**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 3103 cd/klm**



Classifications	
DIN 5040	A 7 0
CIE	N1=85 N2=94 N3=99 N4=100 N5=100

Luminaire light output ratios	
$\eta_{LB}$	100.0%
$\phi_u$	100.0%
$\phi_o$	0.0%

Measurement conditions
DIN EN 13032 and DIN 5032

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**Table of values for luminous intensities** Maximum luminous intensity

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°	3103.3	3103.3	3103.3	3103.3	3103.3	3103.3	3103.3	18.6	18.6
5°	2728.1	2725.7	2734.5	2735.8	2731.2	2739.6	2732.7	130.6	149.1
10°	1961.3	1955.1	1962.7	1959.8	1944.6	1940.4	1933.3	185.8	334.9
15°	1234.5	1231.5	1237.4	1233.6	1223.5	1217.2	1209.8	174.2	509.0
20°	720.2	721.2	730.7	731.8	720.5	706.3	696.1	134.9	644.0
25°	391.5	395.5	407.7	412.0	396.6	377.5	368.6	91.5	735.4
30°	203.6	206.8	216.0	219.0	212.4	200.7	194.3	57.3	792.7
35°	109.3	109.5	113.4	118.8	120.5	117.6	115.6	36.3	829.0
40°	71.8	72.6	76.4	83.5	87.0	87.1	87.3	28.5	857.5
45°	59.8	60.1	64.9	71.1	68.6	64.2	62.9	25.2	882.8
50°	58.8	60.0	64.4	66.4	57.1	49.4	48.5	24.6	907.3
55°	56.5	57.6	60.7	58.9	51.3	43.9	43.6	24.1	931.5
60°	50.4	50.7	52.1	52.2	45.2	38.5	38.0	22.4	953.8
65°	40.7	40.4	41.4	42.5	37.1	32.0	31.7	19.0	972.8
70°	28.4	28.2	29.2	30.2	27.5	24.4	24.3	14.2	987.1
75°	15.1	15.6	16.5	18.0	16.8	16.4	16.8	8.8	995.8
80°	5.3	5.6	6.2	6.9	7.4	7.5	9.1	3.7	999.5
85°	0.5	0.5	0.6	0.8	1.1	1.3	1.8	0.5	1000.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0

## Photometric test report

Family Highbay 11	Order number: 51HL61D24HCA + 59HL91001 EAN: 4058352348895 + 4058352323519	LP number 58920_7
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UGR-Table	Standard room	siteco	
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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	17.3	18.4	17.6	18.8	19.1	16.2	17.4	16.6	17.7	18.0
	3H	18.7	19.8	19.1	20.1	20.4	17.6	18.6	18.0	19.0	19.3
	4H	19.1	20.0	19.5	20.4	20.8	18.1	19.1	18.5	19.4	19.8
	6H	19.2	20.0	19.6	20.4	20.8	18.5	19.3	18.9	19.7	20.1
	8H	19.3	20.0	19.7	20.4	20.8	18.6	19.3	19.0	19.7	20.1
	12H	19.2	19.9	19.7	20.3	20.7	18.6	19.3	19.0	19.7	20.1
4H	2H	18.0	18.9	18.4	19.3	19.7	17.2	18.2	17.6	18.5	18.9
	3H	19.5	20.3	20.0	20.7	21.1	18.7	19.5	19.1	19.9	20.3
	4H	19.9	20.7	20.4	21.1	21.5	19.3	20.0	19.7	20.4	20.8
	6H	20.1	20.7	20.5	21.1	21.6	19.6	20.2	20.1	20.6	21.1
	8H	20.1	20.6	20.6	21.0	21.5	19.7	20.2	20.2	20.7	21.1
	12H	20.1	20.5	20.5	21.0	21.5	19.7	20.1	20.2	20.6	21.1
8H	4H	20.1	20.6	20.6	21.1	21.6	19.5	20.0	20.0	20.5	21.0
	6H	20.3	20.7	20.8	21.2	21.7	19.9	20.3	20.4	20.8	21.3
	8H	20.2	20.6	20.7	21.1	21.6	19.9	20.3	20.5	20.8	21.3
	12H	20.2	20.5	20.7	21.0	21.6	19.9	20.3	20.5	20.8	21.3
12H	4H	20.1	20.6	20.6	21.0	21.5	19.5	19.9	20.0	20.4	20.9
	6H	20.3	20.6	20.8	21.1	21.6	19.9	20.2	20.4	20.7	21.2
	8H	20.2	20.5	20.8	21.0	21.6	19.9	20.2	20.5	20.8	21.3

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 590 B = 312
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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°	45°	8678.3	8728.7	9416.5	10316.2	9953.6	9322.6	9123.8	
50°	50°	9383.3	9575.6	10274.7	10603.7	9121.5	7894.0	7740.3	
55°	55°	10106.4	10297.5	10865.5	10542.6	9169.5	7855.0	7805.1	
60°	60°	10333.7	10413.9	10701.0	10707.2	9280.8	7898.7	7796.7	
65°	65°	9871.9	9818.3	10062.5	10319.2	9004.3	7766.2	7691.2	
70°	70°	8533.0	8467.0	8751.2	9059.9	8236.0	7329.3	7305.0	
75°	75°	5975.9	6167.8	6557.5	7137.6	6673.7	6504.4	6673.7	
80°	80°	3158.7	3290.4	3658.6	4058.7	4377.8	4416.2	5351.7	
85°	85°	541.6	544.0	666.4	916.0	1311.6	1582.4	2151.1	

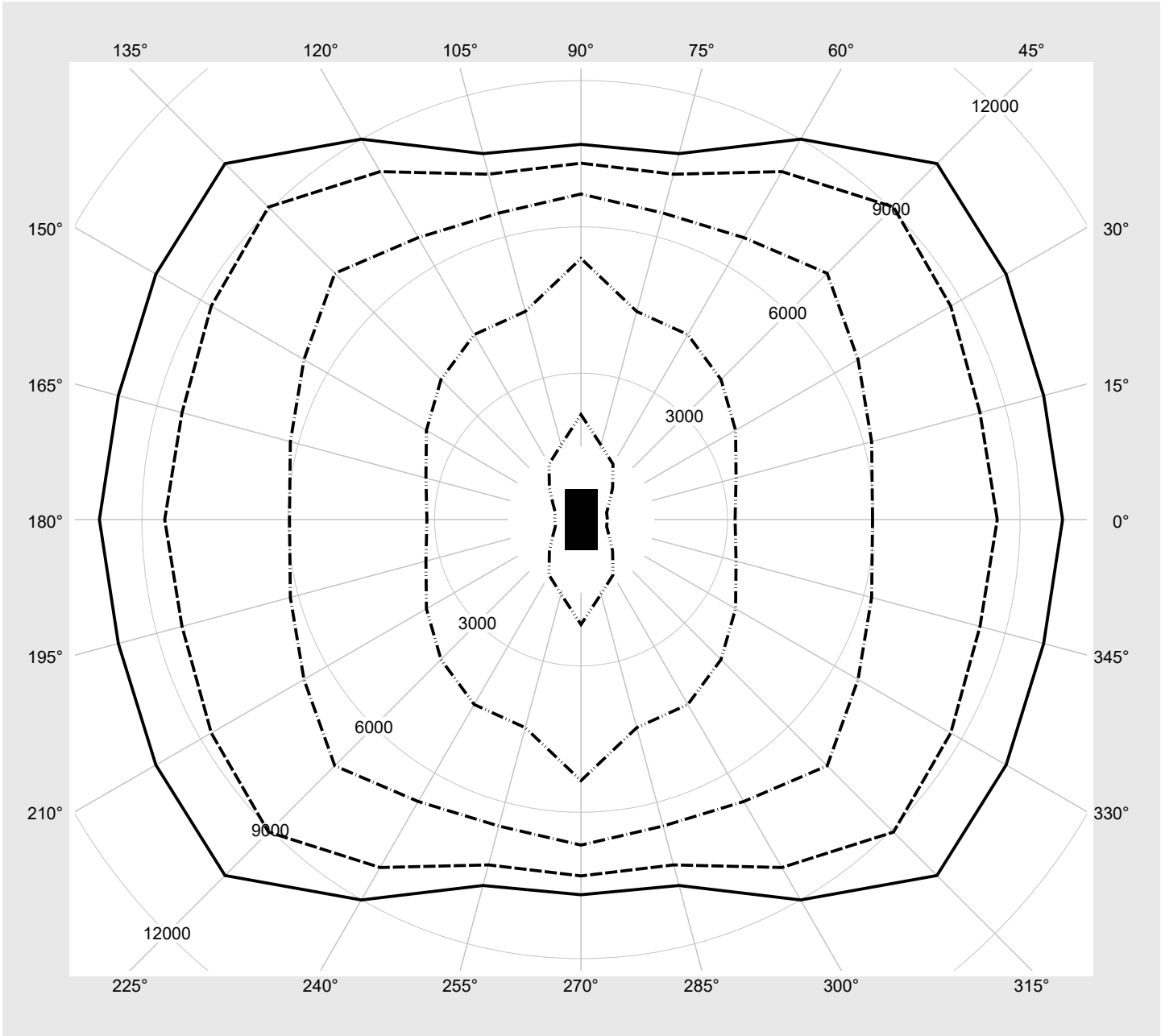
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**Luminance values in cd/m<sup>2</sup>**

$\gamma$  65°   
   $\gamma$  70°   
   $\gamma$  75°   
   $\gamma$  80°   
   $\gamma$  85°



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Dimming levels table	environmental temperature: 25°C	sITeco
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	18890	111.2
95	241	252	17946	105.5
90	228	250	17001	100.0
85	215	248	16057	94.3
80	202	246	15112	89.0
75	189	244	14168	83.5
70	176	241	13223	78.2
65	163	239	12279	73.0
60	151	236	11334	67.5
55	138	233	10390	62.3
50	125	230	9445	57.1
45	113	226	8501	51.9
40	100	222	7556	47.0
35	88	218	6612	41.5
30	76	213	5667	36.5
25	63	208	4723	31.6
20	51	202	3778	26.6
15	39	194	2834	21.5
10	27	184	1888	16.4