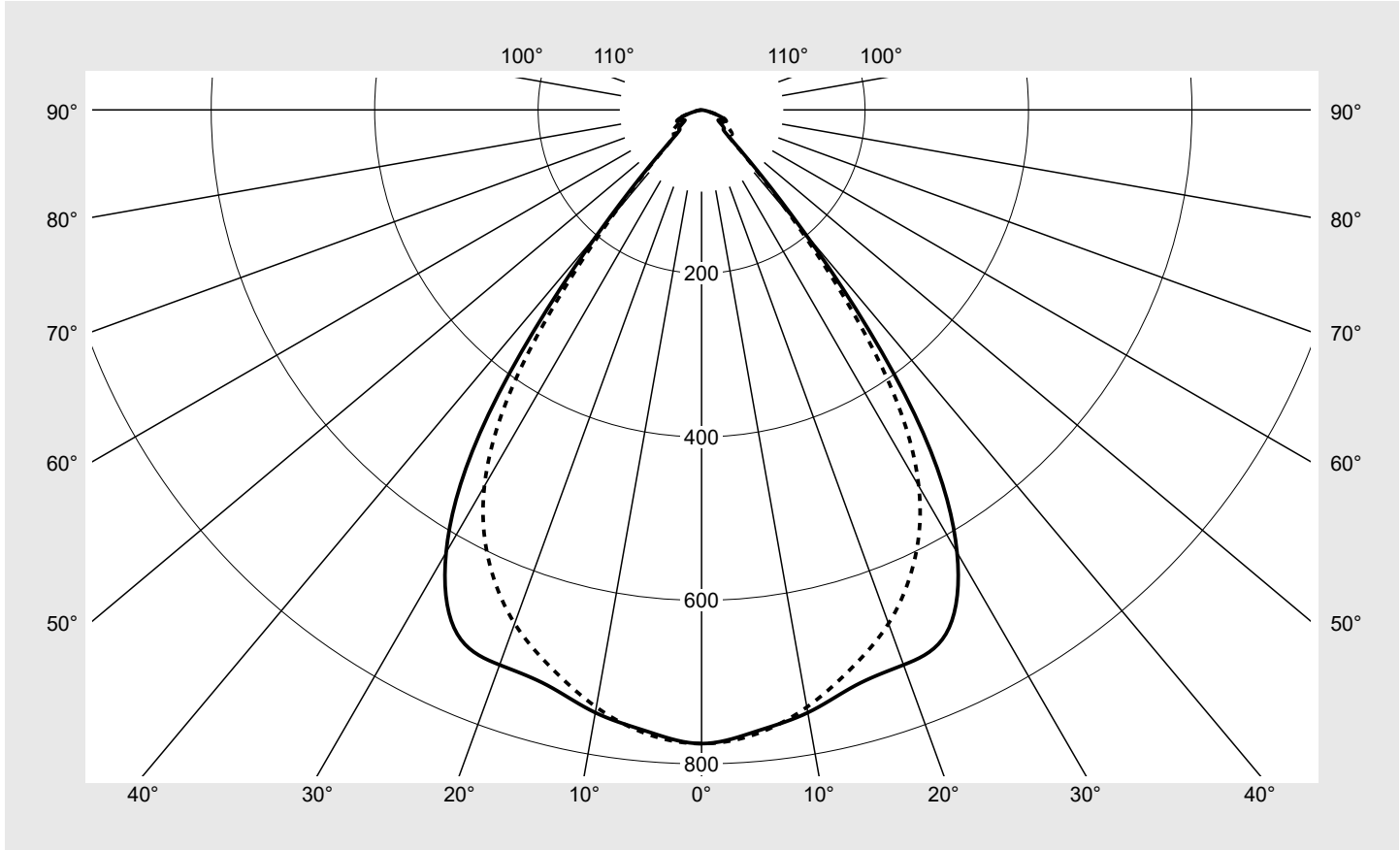


# Photometric test report

<b>Family</b> <b>Highbay 11</b>	<b>Order number: 51HLA2D24MCAD</b> <b>EAN: 4058352341636</b>	<b>LP number</b> <b>58922_11</b>
	<b>Version</b> wide distribution, UGR≤22 <b>Lamps</b> LED 4000 K   CRI ≥ 80 <b>Controlgear</b> ECG-DALI	<b>serial documentation</b> <b>21.05.2019</b>
	<b>Rated values</b> Net luminous flux = 28800 lm Power consumption = 162.4 W Luminous efficacy = 177.3 lm/W	

**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 775 cd/klm**



Classifications	
DIN 5040	A 6 0
CIE	N1=89 N2=96 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

### Photometric test report

Family Highbay 11	Order number: 51HLA2D24MCAD EAN: 4058352341636	LP number 58922_11
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Table of values for luminous intensities	Maximum luminous intensity
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C-planes $\gamma$	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°	775.3	775.3	775.3	775.3	775.3	775.3	775.3	4.6	4.6
5°	763.3	765.5	767.8	768.1	766.5	768.2	766.4	36.6	41.3
10°	748.7	752.6	756.7	755.9	749.0	745.7	741.9	71.5	112.7
15°	728.8	736.6	748.6	748.7	732.9	716.3	707.4	104.1	216.8
20°	722.5	731.1	745.9	741.9	711.6	682.4	668.7	134.6	351.4
25°	707.4	710.1	723.4	713.1	669.4	627.0	613.5	158.4	509.9
30°	625.1	622.7	643.6	650.9	594.8	541.3	531.4	165.9	675.7
35°	454.3	465.0	515.3	546.7	478.1	404.7	385.8	148.3	824.0
40°	194.7	222.6	276.1	324.0	261.7	198.8	171.4	86.1	910.1
45°	52.4	51.4	56.0	64.9	54.8	51.5	51.3	21.3	931.5
50°	36.0	31.0	27.7	34.1	33.7	39.2	46.8	14.5	946.0
55°	27.7	25.7	21.5	23.0	24.8	33.2	42.0	12.2	958.2
60°	24.8	27.6	25.1	19.0	18.2	24.5	32.6	11.3	969.5
65°	33.0	23.0	22.5	18.8	16.0	23.0	31.5	11.2	980.7
70°	25.9	19.0	18.9	17.8	15.3	19.4	28.1	10.1	990.8
75°	12.6	8.9	10.2	12.8	12.0	13.0	13.0	6.1	996.9
80°	3.5	3.2	4.0	5.1	6.3	6.1	5.9	2.6	999.6
85°	0.3	0.3	0.4	0.5	1.1	1.3	1.4	0.4	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: 51HLA2D24MCAD EAN: 4058352341636	LP number 58922_11
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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	20.4	21.7	20.7	22.0	22.3	19.9	21.2	20.2	21.5	21.8
	3H	20.8	21.9	21.2	22.3	22.6	20.4	21.5	20.8	21.9	22.2
	4H	20.9	22.0	21.3	22.3	22.7	20.6	21.7	21.0	22.0	22.4
	6H	20.9	21.9	21.4	22.2	22.6	20.7	21.6	21.1	22.0	22.4
	8H	21.0	21.8	21.4	22.2	22.6	20.8	21.6	21.2	22.0	22.4
	12H	21.0	21.7	21.4	22.1	22.5	20.8	21.5	21.2	21.9	22.3
4H	2H	20.3	21.4	20.7	21.7	22.1	19.8	20.8	20.2	21.2	21.6
	3H	20.9	21.7	21.3	22.1	22.5	20.4	21.3	20.9	21.7	22.1
	4H	21.0	21.8	21.5	22.2	22.6	20.7	21.5	21.2	21.9	22.4
	6H	21.0	21.7	21.5	22.1	22.6	20.9	21.5	21.4	22.0	22.4
	8H	21.0	21.6	21.5	22.0	22.5	20.9	21.5	21.4	21.9	22.4
	12H	21.0	21.5	21.5	21.9	22.4	20.9	21.4	21.4	21.9	22.4
8H	4H	21.0	21.6	21.5	22.1	22.6	20.8	21.4	21.3	21.8	22.3
	6H	21.0	21.5	21.5	22.0	22.5	21.0	21.5	21.5	21.9	22.4
	8H	21.0	21.4	21.5	21.9	22.5	21.0	21.4	21.5	21.9	22.4
	12H	21.0	21.3	21.5	21.8	22.4	21.0	21.3	21.5	21.8	22.4
12H	4H	21.1	21.5	21.5	22.0	22.5	20.8	21.3	21.3	21.7	22.2
	6H	21.1	21.4	21.6	21.9	22.5	21.0	21.4	21.5	21.9	22.4
	8H	21.0	21.4	21.5	21.9	22.4	21.0	21.3	21.5	21.8	22.4

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 600 B = 320
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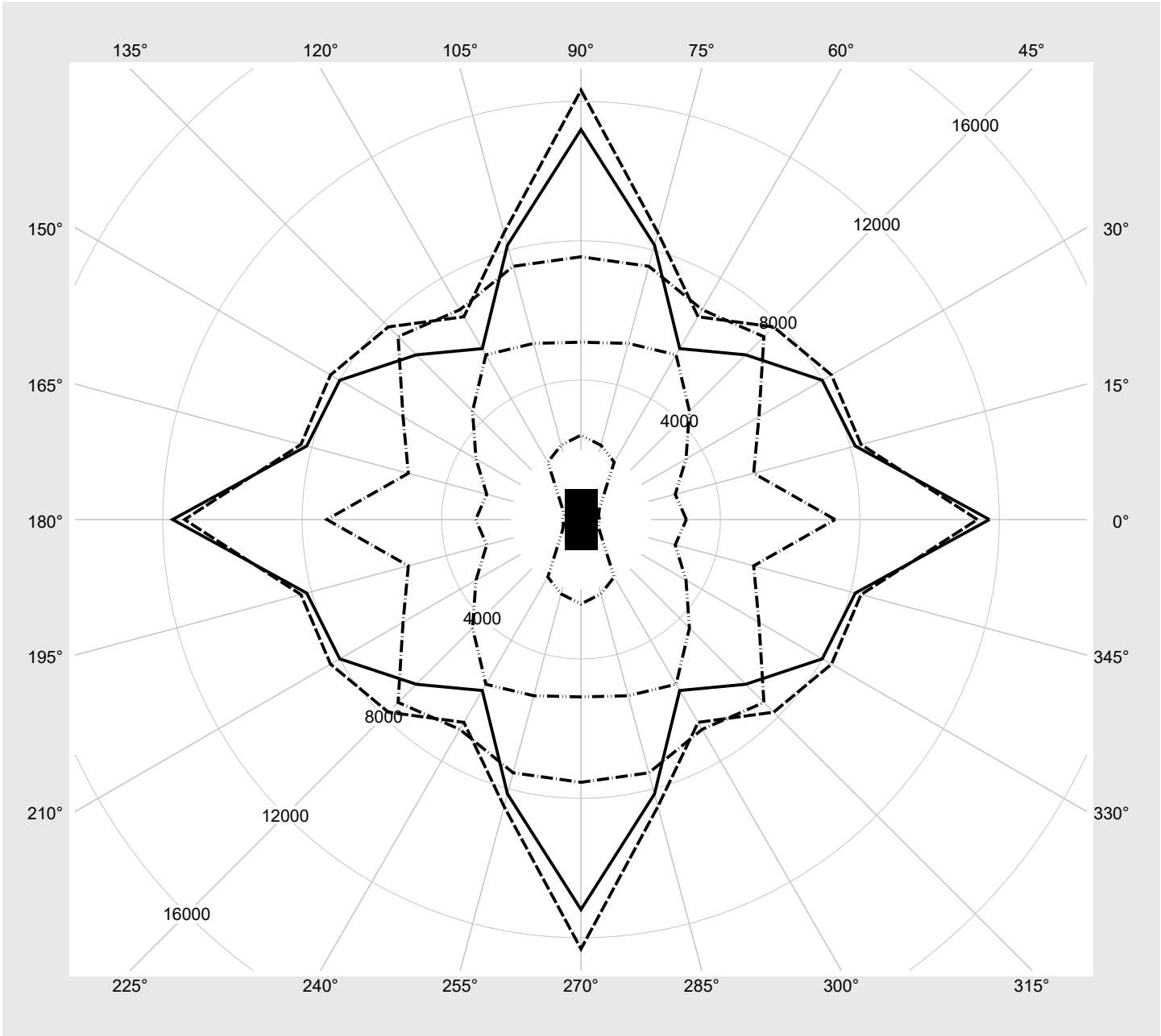
C-planes	$\gamma$	Luminance in cd/m <sup>2</sup>						
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°
45°		11110.2	10907.8	11880.5	13759.5	11629.9	10932.0	10874.7
50°		8401.1	7241.6	6475.2	7965.0	7871.0	9143.0	10910.0
55°		7239.3	6717.6	5619.2	6027.7	6475.7	8675.8	10983.5
60°		7439.1	8294.1	7528.2	5711.1	5454.9	7355.4	9772.5
65°		11718.7	8148.5	7993.7	6684.0	5664.3	8151.0	11191.0
70°		11375.2	8319.2	8298.6	7817.5	6719.8	8525.8	12320.3
75°		7290.8	5129.1	5896.4	7421.8	6952.3	7523.2	7540.0
80°		3023.4	2799.6	3479.4	4400.3	5457.6	5233.9	5089.6
85°		530.1	521.5	611.0	889.8	1903.5	2208.1	2421.5

**Photometric test report**

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

γ 65°
γ 70°
γ 75°
γ 80°
γ 85°



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Family Highbay 11	Order number: 51HLA2D24MCAD EAN: 4058352341636	LP number 58922_11
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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	28800	162.4
95	241	252	27360	153.6
90	227	250	25920	145.0
85	214	248	24480	136.6
80	201	245	23040	128.3
75	188	243	21600	120.1
70	175	240	20160	111.9
65	162	237	18720	103.9
60	149	234	17280	95.9
55	136	231	15840	88.1
50	124	228	14400	80.3
45	111	224	12960	72.7
40	99	219	11520	65.0
35	86	215	10080	57.5
30	74	209	8640	50.1
25	62	203	7200	42.6
20	50	195	5760	35.3
15	38	185	4320	28.1
10	26	170	2879	20.8