

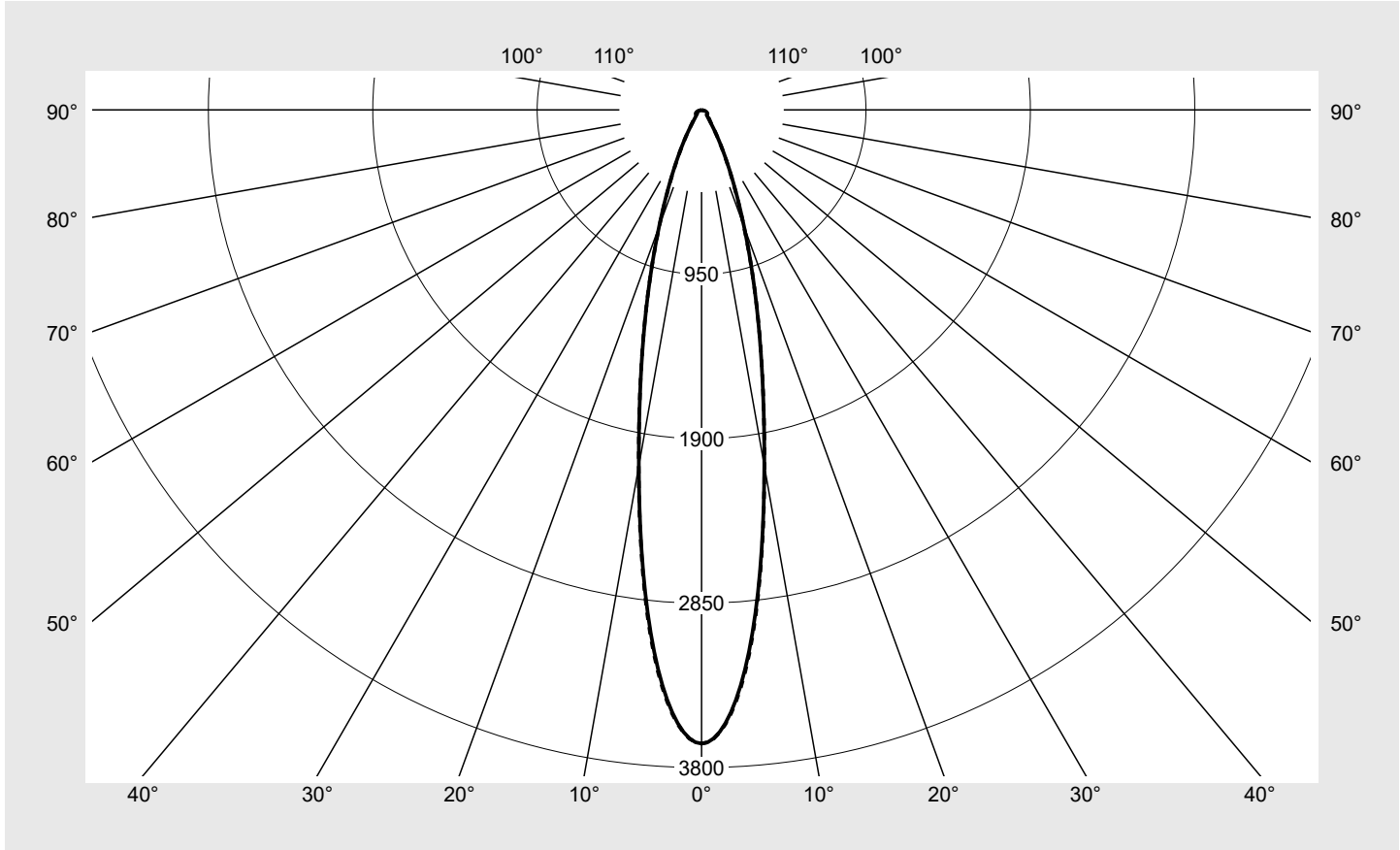


# Photometric test report

<b>Family</b> <b>Highbay 11</b>	<b>Order number: 51HLA1D24NCA</b> <b>EAN: 4058352322932</b>	<b>LP number</b> <b>58918_4</b>
	<b>Version</b> narrow 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 = 32370 lm Power consumption = 189.6 W Luminous efficacy = 170.7 lm/W	

**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 3662 cd/klm**



Classifications	
DIN 5040	A 7 0
CIE	N1=88 N2=95 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 $\gamma$	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°	3661.5	3661.5	3661.5	3661.5	3661.5	3661.5	3661.5	21.9	21.9
5°	3142.6	3138.8	3148.7	3152.8	3150.8	3162.1	3157.3	150.5	172.4
10°	2088.2	2082.4	2095.8	2102.6	2097.1	2098.1	2092.4	199.3	371.8
15°	1265.5	1263.0	1272.3	1276.0	1271.9	1272.7	1269.2	180.2	552.0
20°	717.4	718.4	730.4	738.2	732.8	722.5	712.3	136.1	688.1
25°	380.2	383.6	397.1	405.5	395.8	382.2	373.9	90.4	778.5
30°	189.9	192.8	203.8	209.2	205.7	196.2	189.8	54.7	833.2
35°	93.4	93.2	98.1	106.1	108.6	103.6	99.4	31.8	865.0
40°	56.8	57.1	60.0	67.1	71.1	71.1	70.3	22.9	887.9
45°	41.2	40.8	44.9	50.9	50.2	47.6	46.5	18.0	905.9
50°	41.3	41.9	46.2	48.9	40.8	33.1	32.5	17.3	923.2
55°	41.3	42.1	45.2	43.2	36.0	29.8	29.9	17.4	940.6
60°	39.0	39.2	40.5	39.6	33.4	27.4	27.5	16.9	957.4
65°	33.8	33.6	34.5	34.8	29.3	24.3	24.5	15.4	972.8
70°	26.5	26.3	27.0	27.6	23.9	20.0	20.0	12.7	985.5
75°	15.9	16.7	18.0	19.3	17.3	15.5	15.6	9.0	994.6
80°	6.4	6.9	7.9	9.2	9.9	9.6	10.9	4.7	999.3
85°	0.5	0.5	0.6	1.0	1.8	2.4	3.4	0.7	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

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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	17.2	18.3	17.6	18.7	19.0	16.0	17.1	16.3	17.4	17.7
	3H	19.1	20.1	19.5	20.4	20.8	17.6	18.5	17.9	18.9	19.2
	4H	19.7	20.6	20.1	20.9	21.3	18.3	19.2	18.7	19.5	19.9
	6H	19.9	20.7	20.3	21.1	21.5	18.9	19.8	19.3	20.1	20.5
	8H	20.0	20.7	20.4	21.1	21.5	19.3	19.9	19.7	20.3	20.7
	12H	20.0	20.6	20.4	21.0	21.4	19.3	20.0	19.7	20.4	20.8
4H	2H	18.0	18.9	18.4	19.3	19.7	17.1	18.0	17.5	18.4	18.8
	3H	20.0	20.8	20.4	21.2	21.6	18.8	19.6	19.3	20.0	20.4
	4H	20.7	21.4	21.1	21.8	22.2	19.6	20.3	20.1	20.7	21.2
	6H	21.0	21.5	21.4	22.0	22.4	20.3	20.9	20.8	21.3	21.8
	8H	21.0	21.5	21.5	22.0	22.4	20.6	21.1	21.0	21.5	22.0
	12H	21.0	21.4	21.4	21.9	22.4	20.6	21.1	21.1	21.5	22.0
8H	4H	21.0	21.5	21.5	21.9	22.4	20.1	20.6	20.6	21.1	21.5
	6H	21.4	21.7	21.9	22.2	22.7	20.9	21.3	21.4	21.8	22.3
	8H	21.3	21.7	21.8	22.2	22.7	21.1	21.5	21.6	22.0	22.5
	12H	21.3	21.6	21.8	22.1	22.7	21.2	21.5	21.7	22.0	22.5
12H	4H	21.0	21.4	21.5	21.9	22.4	20.1	20.5	20.6	21.0	21.5
	6H	21.3	21.7	21.8	22.2	22.7	20.9	21.2	21.4	21.7	22.2
	8H	21.3	21.7	21.9	22.2	22.7	21.1	21.4	21.6	21.9	22.5

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°	45°	9815.1	9719.7	10713.3	12134.8	11972.9	11352.3	11085.7	
50°	50°	10843.4	10999.5	12107.6	12829.4	10693.6	8689.3	8522.4	
55°	55°	12149.2	12372.9	13294.9	12685.6	10571.3	8753.9	8801.3	
60°	60°	13154.7	13216.7	13642.6	13359.4	11270.5	9239.6	9280.4	
65°	65°	13473.8	13390.8	13744.6	13883.8	11706.9	9704.7	9786.5	
70°	70°	13048.5	12946.4	13291.0	13623.2	11775.2	9875.5	9878.9	
75°	75°	10346.8	10856.8	11699.1	12581.1	11277.0	10102.5	10160.5	
80°	80°	6250.6	6670.0	7658.4	8940.0	9621.5	9336.1	10572.1	
85°	85°	891.8	897.6	1226.4	1971.1	3503.2	4578.7	6635.0	

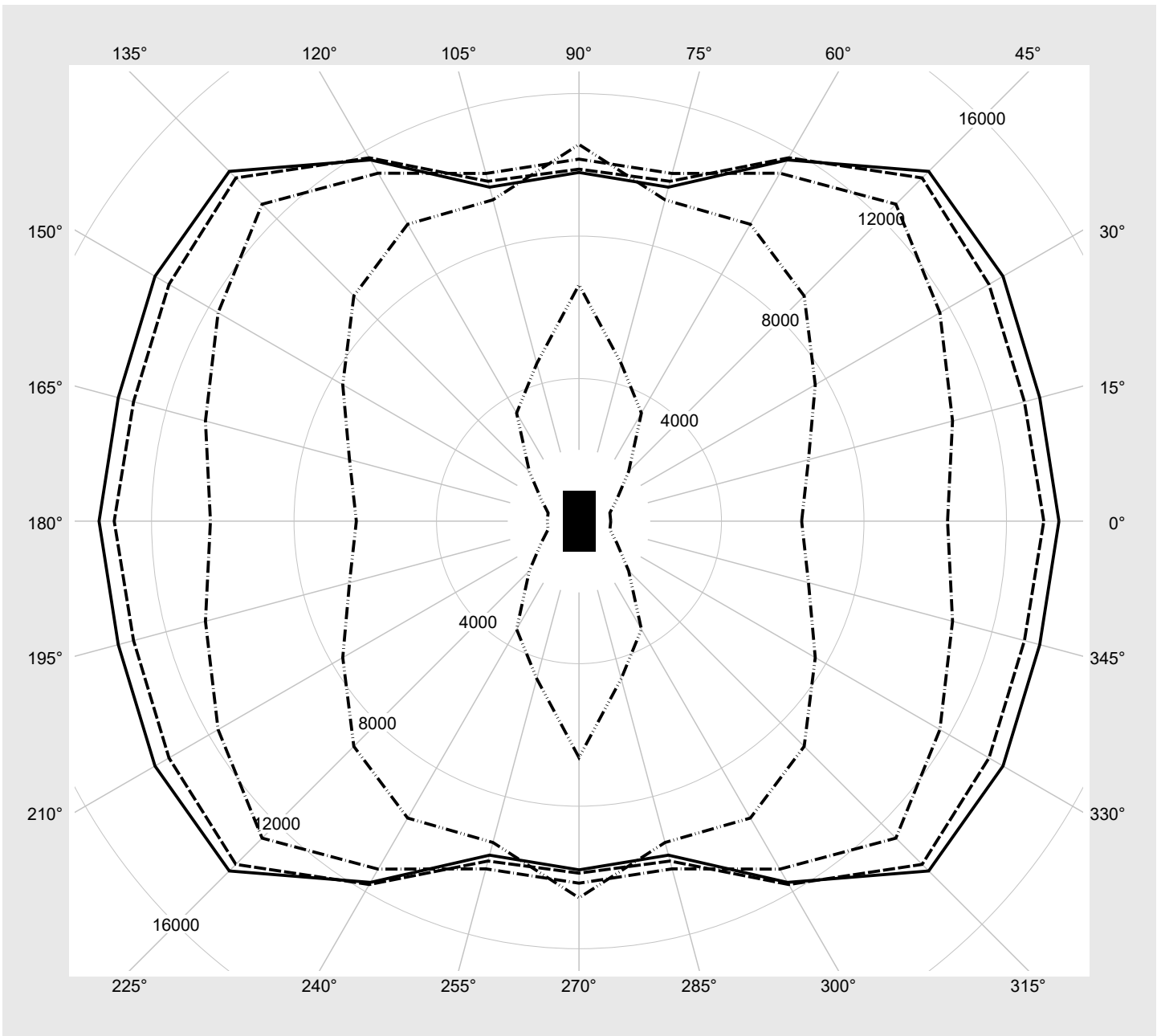
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**Family**  
Highbay 11

**Order number: 51HLA1D24NCA**  
**EAN: 4058352322932**

**LP number**  
58918\_4

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



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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	32370	189.6
95	240	252	30752	179.4
90	227	250	29133	169.2
85	213	248	27515	158.9
80	200	245	25896	148.9
75	187	243	24278	139.4
70	174	240	22659	129.6
65	161	237	21041	120.1
60	148	234	19422	110.8
55	135	231	17804	101.4
50	123	227	16185	92.3
45	110	224	14567	83.2
40	98	219	12948	74.4
35	85	214	11330	65.5
30	73	209	9711	56.9
25	61	202	8093	48.4
20	49	194	6474	39.9
15	37	184	4856	31.4
10	25	170	3236	23.0