

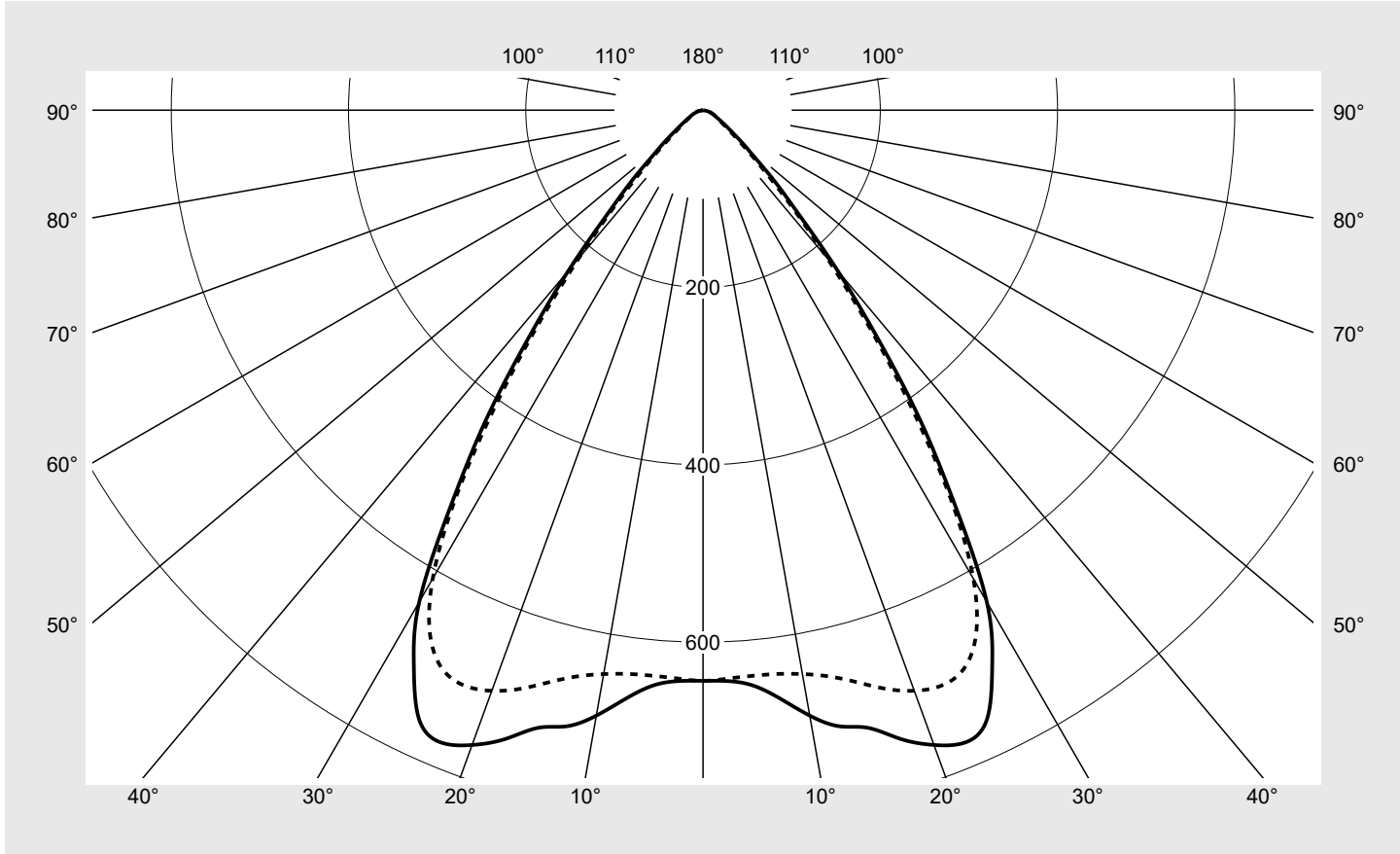


# Photometric test report

<b>Family</b> <b>Highbay 11</b>	<b>Order number: 51HN12DA4HDA</b> <b>EAN: 4069025230560</b>	<b>LP number</b> <b>59710_116</b>
	<b>Version</b> primary light control with lens, PMMA, housing, white, wide distribution	<b>serial documentation</b> <b>14.02.2025</b>
	<b>Lamps</b> LED 4000 K   CRI ≥ 80	
<b>Controlgear</b> ECG-DALI	<b>Setting</b> AC-mode	
<b>Rated values</b> Net luminous flux = 18500 lm Power consumption = 91.8 W Luminous efficacy = 201.5 lm/W		

**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 772 cd/klm**



Classifications	
DIN 5040	A 6 0
CIE	N1=88 N2=98 N3=100 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	
0,0°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	1.0	1.0
2,5°	644.5	645.1	645.0	644.3	644.2	643.7	641.7	7.7	8.7
5,0°	651.5	652.3	650.7	647.5	645.3	643.2	640.4	15.5	24.1
7,5°	669.6	669.1	664.2	657.2	651.2	645.8	641.3	23.5	47.6
10,0°	693.4	691.0	681.5	670.0	659.9	651.2	645.8	31.9	79.6
12,5°	711.8	709.4	700.3	685.9	671.9	660.7	654.0	40.7	120.2
15,0°	721.3	721.7	717.1	704.9	689.4	675.9	667.7	49.7	169.9
17,5°	743.8	740.8	737.9	726.5	708.9	693.0	684.2	59.4	229.3
20,0°	761.9	761.9	759.6	745.2	724.0	705.6	696.8	69.2	298.5
22,5°	772.0	771.2	770.0	754.7	731.1	710.8	702.6	78.2	376.7
25,0°	758.1	756.6	756.3	743.6	722.7	703.3	695.6	85.1	461.8
27,5°	706.7	709.5	709.5	700.0	685.7	672.3	667.0	87.8	549.7
30,0°	640.4	635.6	633.7	626.6	621.7	614.1	609.9	85.8	635.5
32,5°	530.6	537.6	535.6	526.2	530.2	524.1	520.8	78.1	713.6
35,0°	428.2	426.4	425.9	411.9	420.8	414.2	411.4	66.0	779.6
37,5°	322.5	323.4	327.0	311.0	319.4	310.8	308.2	53.0	832.6
40,0°	236.1	234.0	241.6	230.8	230.9	219.8	218.4	40.7	873.3
42,5°	162.3	165.3	172.9	171.1	161.7	151.3	150.8	30.2	903.5
45,0°	117.3	114.9	119.4	122.5	109.3	102.6	102.3	21.9	925.4
47,5°	80.5	81.4	82.8	85.5	75.2	71.4	70.8	15.9	941.3
50,0°	59.4	58.0	58.0	59.0	52.9	50.5	49.6	11.7	953.0
52,5°	43.3	42.8	42.8	43.0	39.3	37.2	36.6	8.9	961.8
55,0°	33.3	32.4	32.9	33.7	30.5	28.7	28.3	7.1	968.9
57,5°	25.9	25.4	25.9	26.8	24.5	22.9	22.9	5.8	974.7
60,0°	20.9	20.2	21.2	21.8	20.4	18.9	19.2	4.9	979.5
62,5°	16.9	16.2	17.4	18.0	17.2	15.9	16.4	4.1	983.6
65,0°	14.9	13.6	14.4	15.1	14.8	13.6	14.4	3.6	987.2
67,5°	12.3	11.4	12.5	12.4	13.0	11.7	12.6	3.1	990.3
70,0°	10.4	9.5	10.5	10.1	11.1	10.1	11.0	2.7	993.0
72,5°	8.2	7.7	7.9	8.2	8.7	8.6	9.5	2.2	995.2
75,0°	6.5	6.0	6.0	6.4	6.6	7.1	7.9	1.7	996.9
77,5°	4.5	4.3	4.4	4.7	5.1	5.6	6.3	1.3	998.2
80,0°	2.9	2.7	2.9	3.1	3.5	4.1	4.7	0.9	999.1
82,5°	1.3	1.4	1.6	1.8	2.2	2.7	3.3	0.5	999.7
85,0°	0.6	0.6	0.6	0.7	1.0	1.4	1.8	0.3	999.9
87,5°	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.1	1000.0
90,0°	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	20.7	21.9	21.0	22.2	22.6	20.4	21.6	20.7	22.0	22.3
	3H	20.7	21.8	21.0	22.1	22.5	20.4	21.5	20.8	21.8	22.2
	4H	20.6	21.7	21.0	22.0	22.4	20.4	21.4	20.8	21.8	22.2
	6H	20.6	21.6	21.0	21.9	22.3	20.4	21.4	20.8	21.7	22.1
	8H	20.7	21.5	21.1	21.9	22.3	20.5	21.3	20.9	21.7	22.1
	12H	20.7	21.4	21.1	21.8	22.2	20.5	21.2	20.9	21.6	22.1
4H	2H	20.5	21.6	20.9	21.9	22.3	20.3	21.3	20.7	21.7	22.0
	3H	20.6	21.4	21.0	21.8	22.2	20.3	21.2	20.8	21.6	22.0
	4H	20.6	21.3	21.0	21.8	22.2	20.4	21.1	20.8	21.5	22.0
	6H	20.6	21.2	21.0	21.6	22.1	20.4	21.1	20.9	21.5	22.0
	8H	20.5	21.1	21.0	21.6	22.0	20.4	21.0	20.9	21.5	21.9
	12H	20.6	21.0	21.0	21.5	22.0	20.5	20.9	21.0	21.4	21.9
8H	4H	20.5	21.1	21.0	21.5	22.0	20.3	20.9	20.8	21.3	21.8
	6H	20.5	21.0	21.0	21.4	22.0	20.4	20.8	20.9	21.3	21.8
	8H	20.5	20.9	21.0	21.4	21.9	20.4	20.8	20.9	21.3	21.8
	12H	20.4	20.8	21.0	21.3	21.8	20.4	20.7	20.9	21.2	21.8
12H	4H	20.5	21.0	21.0	21.5	22.0	20.3	20.8	20.8	21.3	21.8
	6H	20.5	20.9	21.0	21.4	21.9	20.4	20.7	20.9	21.2	21.8
	8H	20.5	20.8	21.0	21.3	21.8	20.4	20.7	20.9	21.2	21.8

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 426 B = 264
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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°	
45,0°		27293.8	26725.5	27780.7	28492.8	25419.5	23866.4	23796.1	
50,0°		15207.1	14847.5	14831.9	15096.8	13547.0	12916.6	12695.0	
55,0°		9556.8	9301.2	9434.0	9650.5	8754.3	8229.2	8130.3	
60,0°		6873.7	6635.5	6972.0	7181.3	6723.7	6226.5	6305.8	
65,0°		5800.0	5276.1	5623.6	5866.1	5744.3	5312.3	5612.4	
70,0°		4985.1	4548.4	5031.3	4867.8	5340.1	4861.0	5308.8	
75,0°		4108.3	3805.1	3795.0	4058.7	4217.0	4513.8	5031.8	
80,0°		2773.7	2588.0	2738.6	2958.4	3339.2	3927.5	4476.9	
85,0°		1107.9	1102.2	1138.1	1332.5	1970.4	2625.4	3401.1	

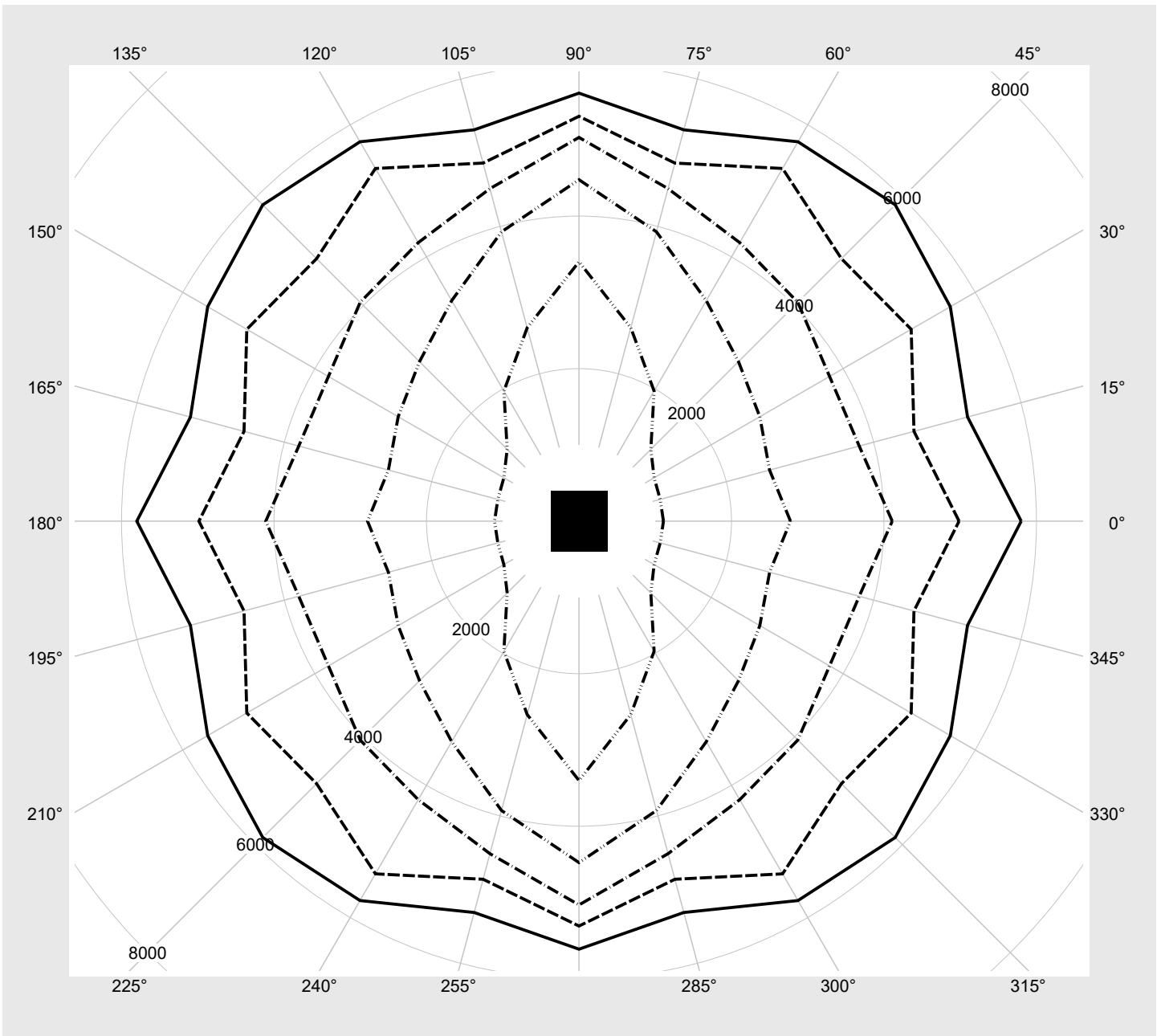
**Photometric test report**

**Family**  
Highbay 11

**Order number: 51HN12DA4HDA**  
**EAN: 4069025230560**

**LP number**  
59710\_116

**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]
100	254	254	18500	91.8
95	241	252	17603	86.9
90	227	250	16637	81.7
85	214	248	15730	76.9
80	201	245	14822	72.3
75	188	243	13906	67.6
70	175	240	12985	62.8
65	162	238	12059	58.1
60	149	234	11124	53.2
55	136	231	10186	48.6
50	123	227	9242	44.0
45	110	223	8291	39.4
40	98	219	7407	35.2
35	85	214	6441	30.6
30	73	208	5543	26.5
25	61	202	4639	22.4
20	49	194	3726	18.2
15	37	183	2804	14.1
10	25	169	1879	10.0
5	13	145	945	5.7
2	5	110	318	2.8