
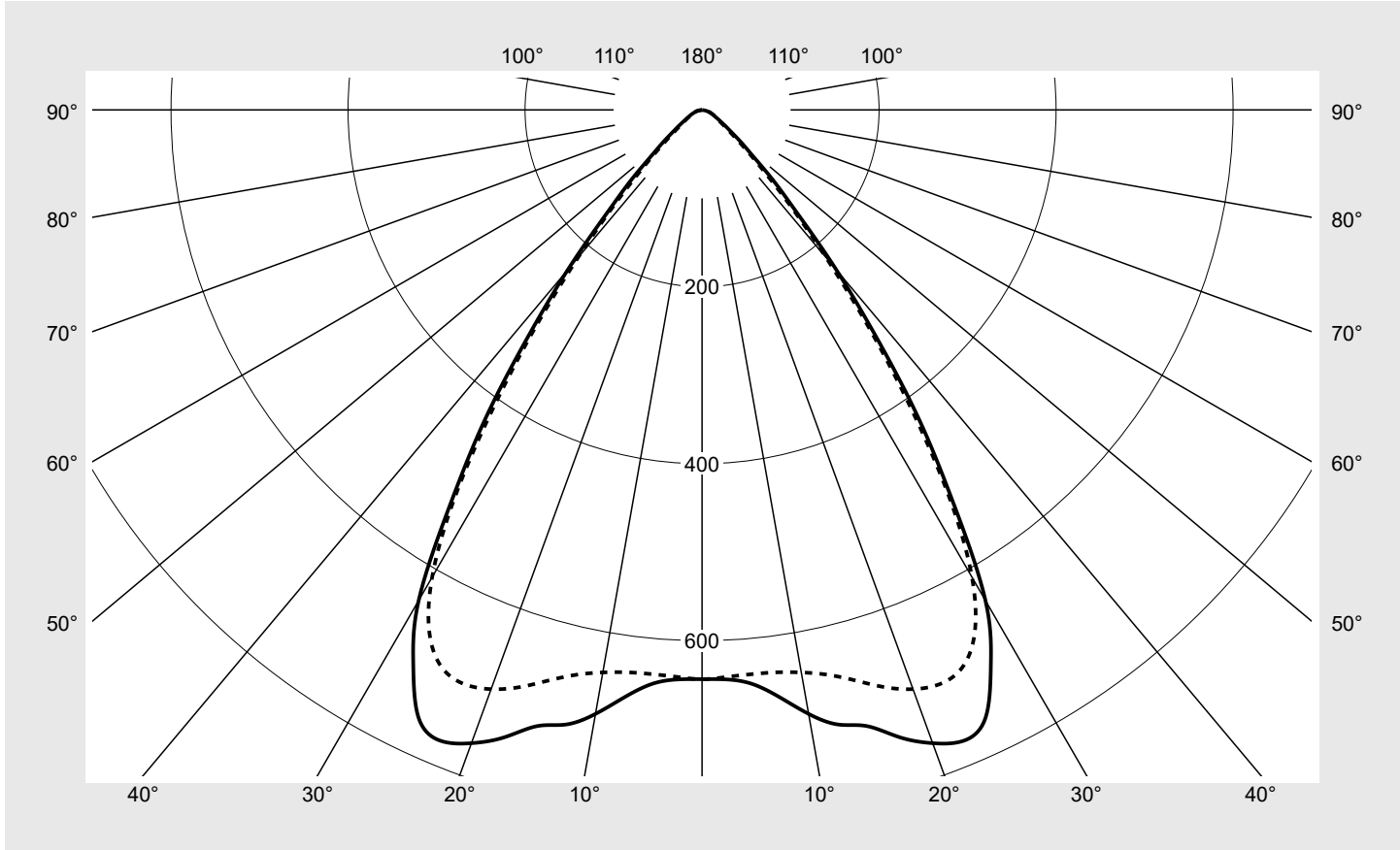


# Photometric test report

<b>Family</b> <b>Highbay 11</b>	<b>Order number: 51HN12DA4KEA</b> <b>EAN: 4069025421029</b>	<b>LP number</b> <b>59710_125</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 = 23000 lm Power consumption = 117.2 W Luminous efficacy = 196.2 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
		<b>siteco</b>

C-planes $\gamma$	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Luminous flux in lm/klm	
								Phi-zone	Total Phi-zone
Luminous intensity in cd/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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Family Highbay 11	Order number: 51HN12DA4KEA EAN: 4069025421029	LP number 59710_125
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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	21.4	22.7	21.8	23.0	23.3	21.1	22.4	21.5	22.7	23.0
	3H	21.4	22.5	21.8	22.9	23.2	21.1	22.3	21.5	22.6	23.0
	4H	21.4	22.4	21.8	22.8	23.2	21.2	22.2	21.6	22.6	22.9
	6H	21.4	22.3	21.8	22.7	23.1	21.2	22.1	21.6	22.5	22.9
	8H	21.4	22.2	21.9	22.6	23.0	21.3	22.1	21.7	22.5	22.9
	12H	21.4	22.1	21.9	22.5	23.0	21.3	22.0	21.7	22.4	22.8
4H	2H	21.3	22.3	21.7	22.7	23.1	21.0	22.1	21.4	22.4	22.8
	3H	21.3	22.2	21.8	22.6	23.0	21.1	21.9	21.5	22.3	22.8
	4H	21.3	22.1	21.8	22.5	23.0	21.1	21.9	21.6	22.3	22.7
	6H	21.3	22.0	21.8	22.4	22.9	21.2	21.8	21.6	22.3	22.7
	8H	21.3	21.9	21.8	22.3	22.8	21.2	21.8	21.7	22.2	22.7
	12H	21.3	21.8	21.8	22.2	22.7	21.2	21.7	21.7	22.2	22.7
8H	4H	21.3	21.9	21.7	22.3	22.8	21.1	21.7	21.5	22.1	22.6
	6H	21.2	21.7	21.7	22.2	22.7	21.1	21.6	21.6	22.1	22.6
	8H	21.2	21.6	21.7	22.1	22.6	21.1	21.6	21.6	22.0	22.6
	12H	21.2	21.5	21.7	22.0	22.6	21.2	21.5	21.7	22.0	22.5
12H	4H	21.3	21.8	21.8	22.2	22.7	21.1	21.5	21.6	22.0	22.5
	6H	21.3	21.6	21.8	22.1	22.6	21.1	21.5	21.6	22.0	22.5
	8H	21.2	21.5	21.7	22.0	22.6	21.1	21.5	21.7	22.0	22.5

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°		33932.8	33226.2	34538.2	35423.5	31602.6	29671.7	29584.4	
50,0°		18906.1	18459.1	18439.7	18768.9	16842.2	16058.5	15783.0	
55,0°		11881.4	11563.7	11728.8	11998.0	10883.8	10230.9	10107.9	
60,0°		8545.7	8249.5	8667.9	8928.1	8359.1	7741.1	7839.7	
65,0°		7210.8	6559.4	6991.6	7293.0	7141.6	6604.4	6977.5	
70,0°		6197.7	5654.8	6255.1	6051.8	6639.0	6043.4	6600.1	
75,0°		5107.6	4730.7	4718.1	5046.0	5242.7	5611.8	6255.7	
80,0°		3448.4	3217.5	3404.8	3678.0	4151.5	4882.8	5565.9	
85,0°		1377.4	1370.3	1414.9	1656.6	2449.7	3264.0	4228.4	

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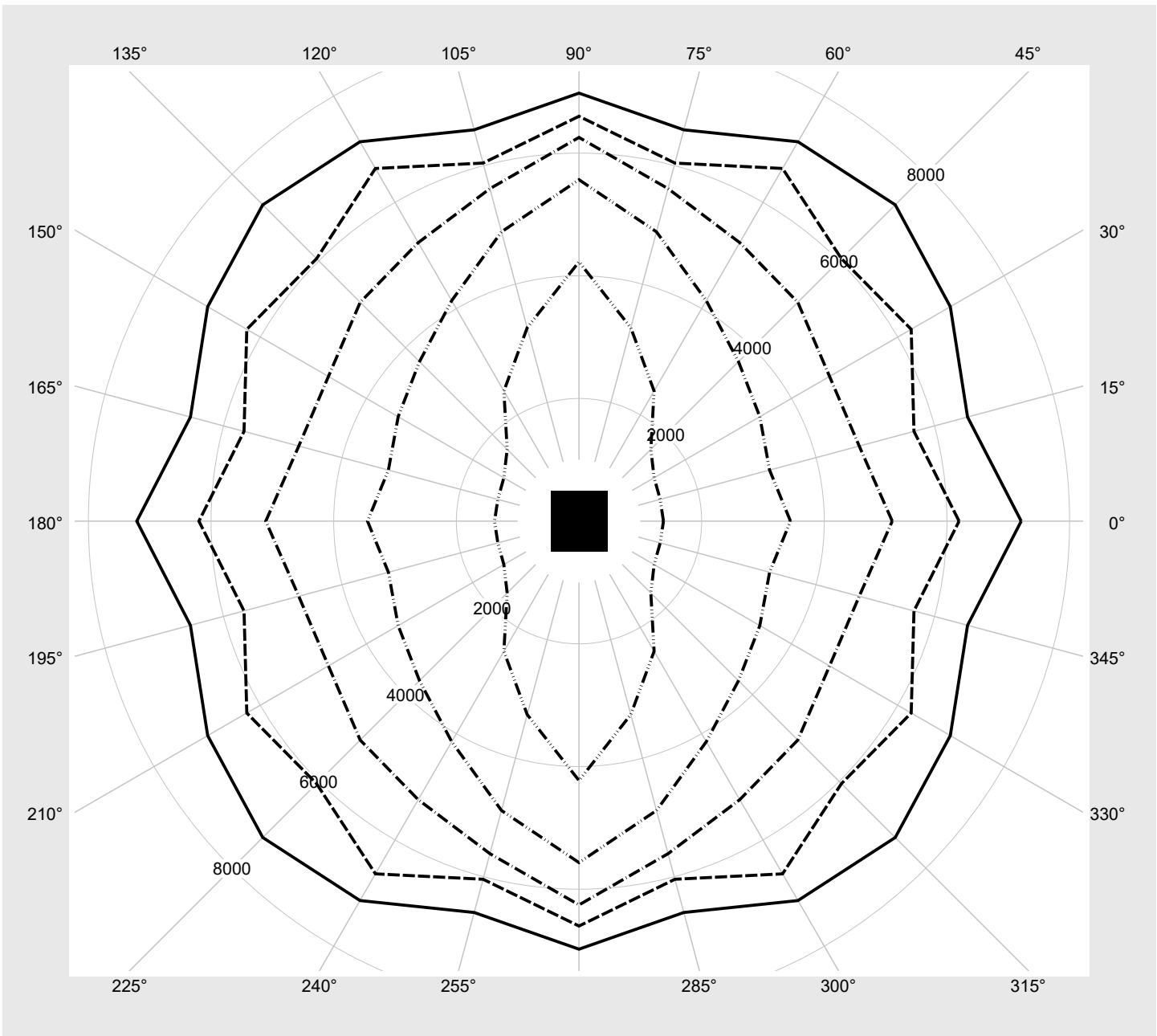
**Family**  
Highbay 11

**Order number: 51HN12DA4KEA**  
**EAN: 4069025421029**

**LP number**  
59710\_125

**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	23000	117.2
95	240	252	21817	110.5
90	227	250	20712	104.4
85	213	248	19510	97.8
80	200	245	18390	91.6
75	187	243	17257	85.6
70	174	240	16121	79.5
65	161	237	14975	73.5
60	148	234	13820	67.6
55	135	231	12656	61.6
50	122	227	11484	55.6
45	110	223	10395	50.1
40	97	219	9201	44.3
35	85	214	8092	38.9
30	72	208	6876	33.1
25	60	201	5747	27.8
20	48	193	4608	22.6
15	36	182	3453	17.4
10	24	168	2290	12.0
5	12	142	1112	6.5
2	6	117	520	3.8