
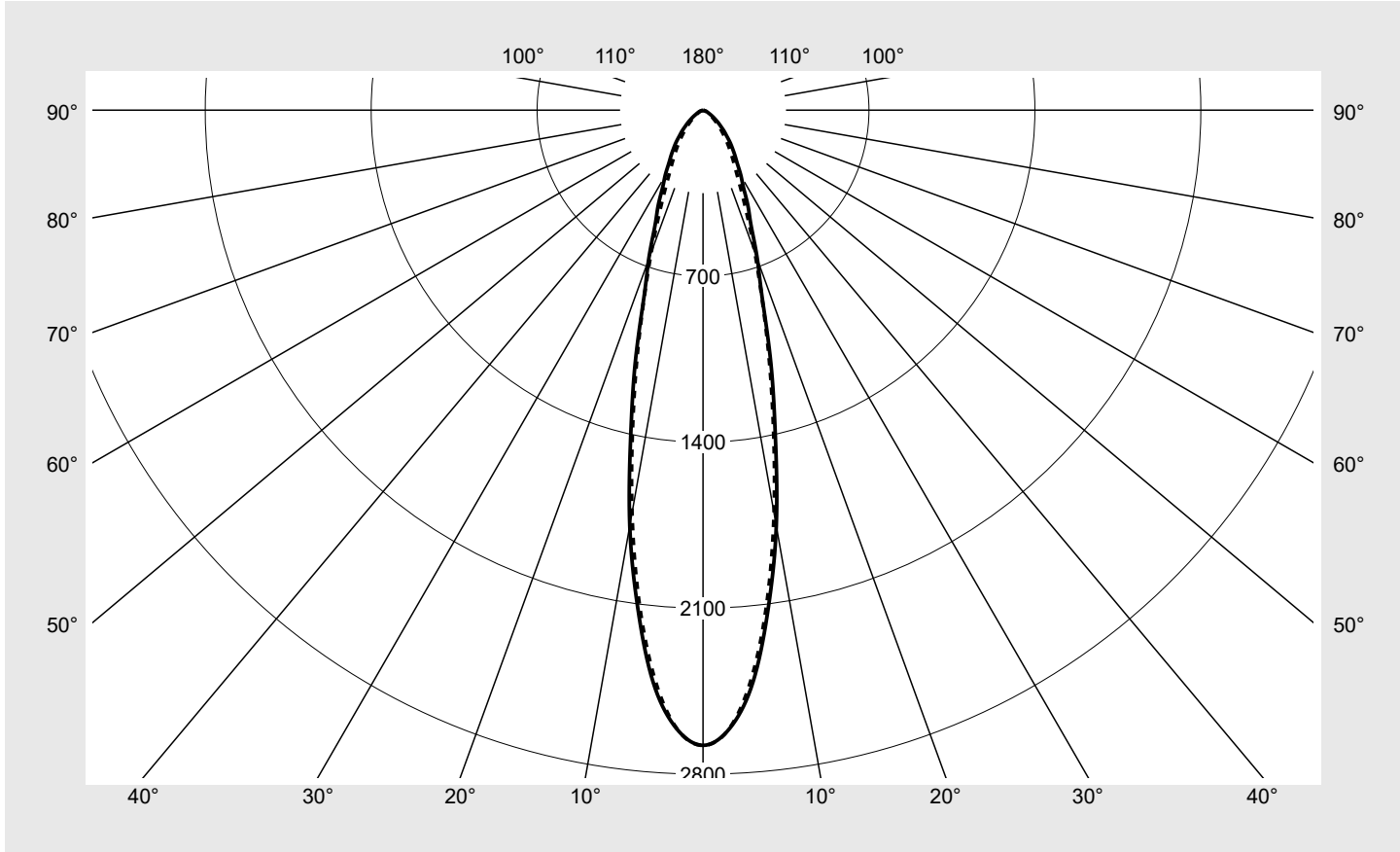


# Photometric test report

<b>Family</b> <b>Highbay 11</b>	<b>Order number: 51HN31DA4MDA</b> <b>EAN: 4069025431073</b>	<b>LP number</b> <b>59711_182</b>
	<b>Version</b> primary light control with lens, PMMA, housing, black, narrow distribution	<b>serial documentation</b> <b>14.02.2025</b>
	<b>Lamps</b> LED 4000 K   CRI ≥ 80	
	<b>Controlgear</b> ECG-DALI	<b>Rated values</b> Net luminous flux = 4530 lm Power consumption = 22.2 W Luminous efficacy = 204.1 lm/W
	<b>Setting</b> DC mode (central or group accumulator) initial emergency light level	



Luminous intensity in cd/klm C180-0 C270-90 Imax: 2679 cd/klm



Classifications	
DIN 5040	A 7 0
CIE	N1=85 N2=97 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°	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°	2678.6	2678.6	2678.6	2678.6	2678.6	2678.6	2678.6	4.0	4.0
2,5°	2608.0	2619.4	2619.4	2616.5	2617.6	2616.2	2606.1	31.3	35.3
5,0°	2420.1	2415.7	2414.1	2408.4	2406.6	2402.3	2391.7	57.6	92.8
7,5°	2113.4	2116.1	2112.3	2103.0	2097.6	2090.5	2079.6	75.2	168.1
10,0°	1780.1	1768.7	1762.7	1751.6	1743.6	1735.2	1724.7	83.4	251.5
12,5°	1410.1	1409.3	1404.7	1395.9	1388.1	1380.5	1373.1	82.8	334.3
15,0°	1106.5	1097.8	1095.0	1089.4	1083.1	1078.4	1073.9	77.3	411.5
17,5°	830.1	840.2	835.5	831.1	826.6	824.9	824.1	68.5	480.0
20,0°	671.1	661.9	651.8	643.2	639.9	639.4	641.0	60.8	540.8
22,5°	531.9	530.5	514.2	498.9	497.0	496.6	496.8	53.4	594.2
25,0°	450.6	441.3	420.6	401.3	399.0	395.8	392.4	47.9	642.1
27,5°	370.8	368.7	351.4	331.7	326.8	321.1	316.0	43.1	685.2
30,0°	320.4	312.1	300.8	284.1	278.0	270.2	264.7	39.7	724.9
32,5°	271.0	266.8	259.0	245.6	238.0	229.0	224.7	36.5	761.4
35,0°	235.8	228.9	222.7	210.5	201.6	193.0	191.7	33.3	794.7
37,5°	204.4	197.8	191.5	181.1	172.0	164.3	162.4	30.3	825.0
40,0°	176.7	170.7	163.1	154.3	146.1	138.3	135.6	27.3	852.2
42,5°	147.6	145.5	138.6	130.6	123.2	115.8	113.3	24.2	876.4
45,0°	126.0	121.8	116.3	109.0	102.0	95.3	93.2	21.1	897.6
47,5°	103.2	101.5	97.1	90.9	84.6	78.4	76.7	18.3	915.9
50,0°	85.9	82.9	79.4	74.6	69.1	63.7	61.9	15.5	931.4
52,5°	69.0	67.2	64.5	61.0	56.2	51.6	49.7	13.0	944.4
55,0°	55.6	54.1	52.2	49.5	45.7	41.7	40.0	10.9	955.3
57,5°	43.6	43.1	41.8	39.8	37.0	33.6	32.2	9.0	964.3
60,0°	33.2	33.3	33.9	32.4	30.5	27.5	26.1	7.4	971.7
62,5°	25.9	26.0	27.0	26.2	25.1	22.4	21.3	6.1	977.8
65,0°	21.6	21.2	21.7	21.3	20.9	18.8	17.7	5.1	982.9
67,5°	17.0	17.1	17.8	17.0	17.3	15.6	14.8	4.3	987.2
70,0°	13.5	13.4	14.4	13.6	14.1	13.0	12.4	3.5	990.7
72,5°	11.0	10.8	10.9	10.9	11.0	10.7	10.6	2.8	993.5
75,0°	9.0	8.4	8.4	8.3	8.6	9.0	8.9	2.3	995.8
77,5°	6.6	6.4	6.2	6.2	6.6	7.3	7.4	1.8	997.5
80,0°	4.4	4.2	4.1	4.2	4.7	5.7	5.8	1.3	998.8
82,5°	2.0	2.1	2.2	2.4	3.0	3.9	4.1	0.8	999.6
85,0°	0.8	0.8	0.8	1.0	1.5	2.2	2.4	0.4	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	14.7	15.9	15.1	16.2	16.5	13.5	14.7	13.9	15.0	15.4
	3H	15.0	16.0	15.4	16.3	16.7	13.8	14.9	14.2	15.2	15.6
	4H	15.1	16.0	15.5	16.3	16.7	14.0	14.9	14.4	15.3	15.6
	6H	15.1	15.9	15.5	16.3	16.7	14.1	15.0	14.5	15.3	15.7
	8H	15.2	15.9	15.6	16.3	16.7	14.2	15.0	14.7	15.3	15.7
	12H	15.1	15.8	15.6	16.2	16.6	14.2	14.9	14.7	15.3	15.7
4H	2H	14.8	15.7	15.2	16.1	16.5	13.7	14.7	14.1	15.0	15.4
	3H	15.1	15.9	15.5	16.3	16.7	14.1	14.9	14.6	15.3	15.7
	4H	15.2	15.9	15.7	16.3	16.8	14.3	15.0	14.8	15.4	15.9
	6H	15.3	15.9	15.8	16.3	16.8	14.5	15.1	15.0	15.6	16.0
	8H	15.3	15.8	15.8	16.3	16.7	14.6	15.1	15.1	15.6	16.1
	12H	15.3	15.7	15.8	16.2	16.7	14.7	15.1	15.2	15.6	16.1
8H	4H	15.2	15.7	15.7	16.2	16.7	14.4	14.9	14.8	15.3	15.8
	6H	15.3	15.7	15.8	16.2	16.7	14.6	15.0	15.1	15.5	16.0
	8H	15.3	15.6	15.8	16.1	16.7	14.7	15.1	15.2	15.5	16.1
	12H	15.3	15.6	15.8	16.1	16.6	14.8	15.1	15.3	15.6	16.1
12H	4H	15.2	15.6	15.7	16.1	16.6	14.3	14.8	14.8	15.2	15.7
	6H	15.3	15.6	15.8	16.1	16.6	14.6	14.9	15.1	15.4	15.9
	8H	15.3	15.6	15.8	16.1	16.6	14.7	15.0	15.2	15.5	16.0

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°		7176.8	6937.2	6624.7	6210.3	5810.4	5430.3	5308.8	
50,0°		5380.2	5192.9	4972.9	4677.7	4326.9	3989.1	3876.1	
55,0°		3903.9	3798.2	3666.6	3476.2	3208.4	2928.5	2810.8	
60,0°		2678.5	2681.4	2731.3	2609.5	2454.3	2214.3	2103.8	
65,0°		2056.5	2021.8	2067.6	2034.2	1991.2	1789.4	1691.5	
70,0°		1593.3	1574.1	1691.1	1597.0	1657.3	1525.7	1458.1	
75,0°		1396.8	1310.9	1313.8	1296.1	1337.2	1394.3	1391.8	
80,0°		1019.0	981.2	949.2	966.3	1079.8	1311.3	1337.9	
85,0°		377.1	372.5	389.6	440.4	676.1	995.5	1128.1	

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

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

**siteco**

