

Photometric test report

Family
Highbay 21

Order number: 52HN11DA5LLA
EAN: 4069025445094

LP number
59724_222

serial
documentation
24.04.2025



Version primary light control with lens, PMMA, housing, white, narrow distribution

Lamps LED 5000 K | CRI ≥ 80

Controlgear ECG-DALI

Setting AC-mode

Rated values Net luminous flux = 25790 lm
Power consumption = 142.6 W
Luminous efficacy = 180.9 lm/W

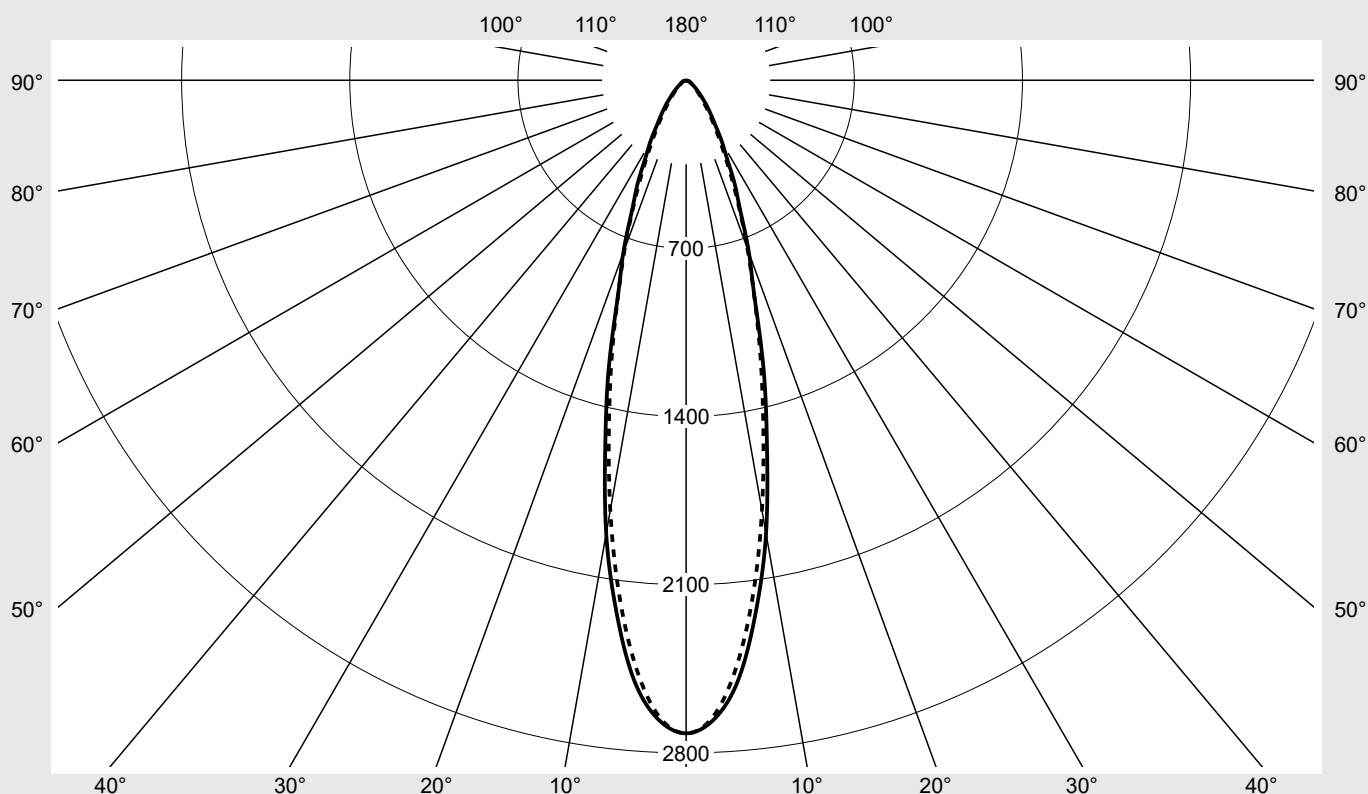
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 2719 cd/klm



Classifications

DIN 5040 A 7 0
CIE N1=89 N2=97 N3=99
N4=100 N5=100

Luminaire light output ratios

η_{LB} 100.0%
 ϕ_u 100.0%
 ϕ_o 0.0%

Measurement conditions

DIN EN 13032 and DIN 5032

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Table of values for luminous intensities		Maximum luminous intensity

sitEco

C- planes	0,0° 180,0°	7,5° 172,5° 187,5° 352,5°	15,0° 165,0° 195,0° 345,0°	22,5° 157,5° 202,5° 337,5°	30,0° 150,0° 210,0° 330,0°	37,5° 142,5° 217,5° 322,5°	45,0° 135,0° 225,0° 315,0°
		Luminous intensity in cd/klm					
γ							
0,0°	2718.5	2718.5	2718.5	2718.5	2718.5	2718.5	2718.5
2,5°	2662.8	2671.1	2671.1	2670.6	2667.6	2663.3	2662.4
5,0°	2502.8	2490.9	2498.0	2494.5	2487.6	2479.1	2473.3
7,5°	2228.4	2233.8	2227.9	2223.2	2214.7	2203.4	2194.2
10,0°	1915.8	1894.8	1902.8	1897.9	1890.8	1880.8	1870.9
12,5°	1554.6	1560.7	1554.3	1552.6	1548.0	1540.2	1531.7
15,0°	1246.2	1237.0	1237.4	1238.4	1237.7	1233.9	1229.0
17,5°	947.1	964.7	959.6	960.0	960.5	959.5	958.4
20,0°	765.0	752.2	754.6	751.6	749.0	747.8	747.5
22,5°	591.2	598.6	590.3	583.2	577.5	573.8	572.1
25,0°	481.4	472.8	470.4	460.9	451.8	445.8	443.1
27,5°	370.5	376.3	371.1	363.9	355.1	347.9	344.8
30,0°	301.2	297.9	295.0	290.6	284.7	279.0	275.2
32,5°	234.8	237.8	234.9	232.8	229.2	225.3	220.4
35,0°	189.2	188.5	187.7	186.9	184.4	180.6	175.3
37,5°	154.0	153.7	151.7	151.0	148.4	144.9	141.0
40,0°	125.7	123.3	123.0	121.9	119.1	115.8	113.2
42,5°	99.2	100.3	99.3	98.6	95.9	92.9	90.7
45,0°	81.4	79.6	79.7	79.0	77.2	74.6	72.7
47,5°	64.2	64.9	64.5	64.0	62.8	60.9	59.5
50,0°	52.5	51.6	51.8	51.7	51.0	49.9	49.1
52,5°	41.7	41.9	41.8	42.1	41.9	41.4	40.9
55,0°	33.9	33.5	34.1	34.8	35.0	35.0	34.7
57,5°	27.1	27.4	28.1	29.2	29.7	29.7	29.6
60,0°	22.3	22.3	23.0	24.6	25.8	25.8	25.5
62,5°	19.0	19.2	19.6	20.7	22.4	22.3	22.0
65,0°	17.0	16.8	17.2	18.3	19.8	19.1	19.1
67,5°	14.7	14.8	14.9	16.1	17.2	16.3	16.1
70,0°	12.8	12.5	12.6	13.8	14.3	13.8	13.9
72,5°	11.3	11.1	10.9	11.6	11.4	11.2	11.7
75,0°	9.7	9.3	8.9	9.6	9.3	9.1	9.3
77,5°	7.4	7.4	7.1	7.5	7.1	6.8	7.1
80,0°	4.9	4.7	4.8	4.8	4.5	4.5	4.8
82,5°	2.2	2.3	2.3	2.4	2.4	2.5	2.7
85,0°	0.8	0.8	0.8	0.8	0.8	0.9	1.0
87,5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4

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Table of values for luminous intensities		Maximum luminous intensity

sitEco

C- planes	52,5° 127,5° 232,5° 307,5°	60,0° 120,0° 240,0° 300,0°	67,5° 112,5° 247,5° 292,5°	75,0° 105,0° 255,0° 285,0°	82,5° 97,5° 262,5° 277,5°	90,0° 270,0°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm						Luminous flux in lm/klm	
0,0°	2718.5	2718.5	2718.5	2718.5	2718.5	2718.5	4.1	4.1
2,5°	2661.4	2660.0	2657.7	2657.0	2651.0	2647.2	31.8	35.9
5,0°	2468.0	2461.9	2456.3	2452.9	2444.7	2440.4	59.1	95.0
7,5°	2185.5	2176.0	2168.0	2162.0	2152.6	2148.3	78.5	173.5
10,0°	1860.3	1847.8	1837.7	1831.0	1822.1	1817.6	88.9	262.4
12,5°	1522.0	1510.4	1500.7	1495.5	1488.9	1485.2	90.6	353.0
15,0°	1223.0	1215.3	1207.9	1204.2	1200.8	1197.6	86.8	439.8
17,5°	955.3	949.4	945.6	944.9	945.8	944.0	78.6	518.5
20,0°	745.4	741.8	741.4	743.7	748.0	747.7	70.2	588.6
22,5°	571.4	571.2	573.5	575.9	579.7	580.1	60.8	649.4
25,0°	443.2	444.5	446.3	448.3	449.2	448.8	52.5	701.9
27,5°	344.0	344.5	345.1	346.1	344.9	343.6	44.7	746.7
30,0°	273.7	273.8	273.9	272.4	270.2	268.2	38.5	785.2
32,5°	217.7	217.2	215.9	213.7	211.0	209.4	32.9	818.1
35,0°	172.5	170.5	168.2	166.4	165.0	164.5	27.8	845.9
37,5°	138.1	135.6	133.3	132.0	130.7	130.3	23.7	869.5
40,0°	110.2	108.1	106.1	104.8	103.7	103.1	20.0	889.6
42,5°	88.5	86.8	85.0	83.9	83.2	82.7	16.9	906.5
45,0°	71.2	69.8	68.4	67.3	66.9	66.6	14.2	920.7
47,5°	58.5	57.3	56.0	55.1	54.8	54.6	12.1	932.8
50,0°	48.3	47.1	46.0	45.5	45.1	44.8	10.3	943.0
52,5°	40.2	39.3	38.3	37.7	37.1	36.8	8.7	951.8
55,0°	34.1	33.4	32.5	31.7	31.0	30.7	7.5	959.3
57,5°	29.3	29.0	28.2	27.0	26.3	26.1	6.6	965.9
60,0°	25.7	25.8	24.8	23.5	22.8	22.6	5.8	971.6
62,5°	22.4	22.9	21.8	20.7	20.1	19.9	5.1	976.8
65,0°	19.6	20.2	19.7	18.4	17.9	17.8	4.6	981.4
67,5°	16.7	17.6	17.8	16.4	16.0	16.0	4.1	985.5
70,0°	14.1	15.0	15.6	14.4	14.4	14.6	3.6	989.1
72,5°	11.7	12.4	13.4	12.9	13.2	13.4	3.1	992.3
75,0°	9.5	10.4	12.0	11.4	11.8	11.9	2.7	995.0
77,5°	7.2	8.1	9.6	9.6	10.0	10.2	2.1	997.1
80,0°	5.1	5.7	7.0	7.5	7.6	8.0	1.5	998.6
82,5°	3.0	3.6	4.5	5.0	5.3	5.6	0.9	999.5
85,0°	1.2	1.7	2.3	2.7	3.1	3.3	0.4	999.9
87,5°	0.4	0.4	0.5	0.6	0.8	0.9	0.1	1000.1

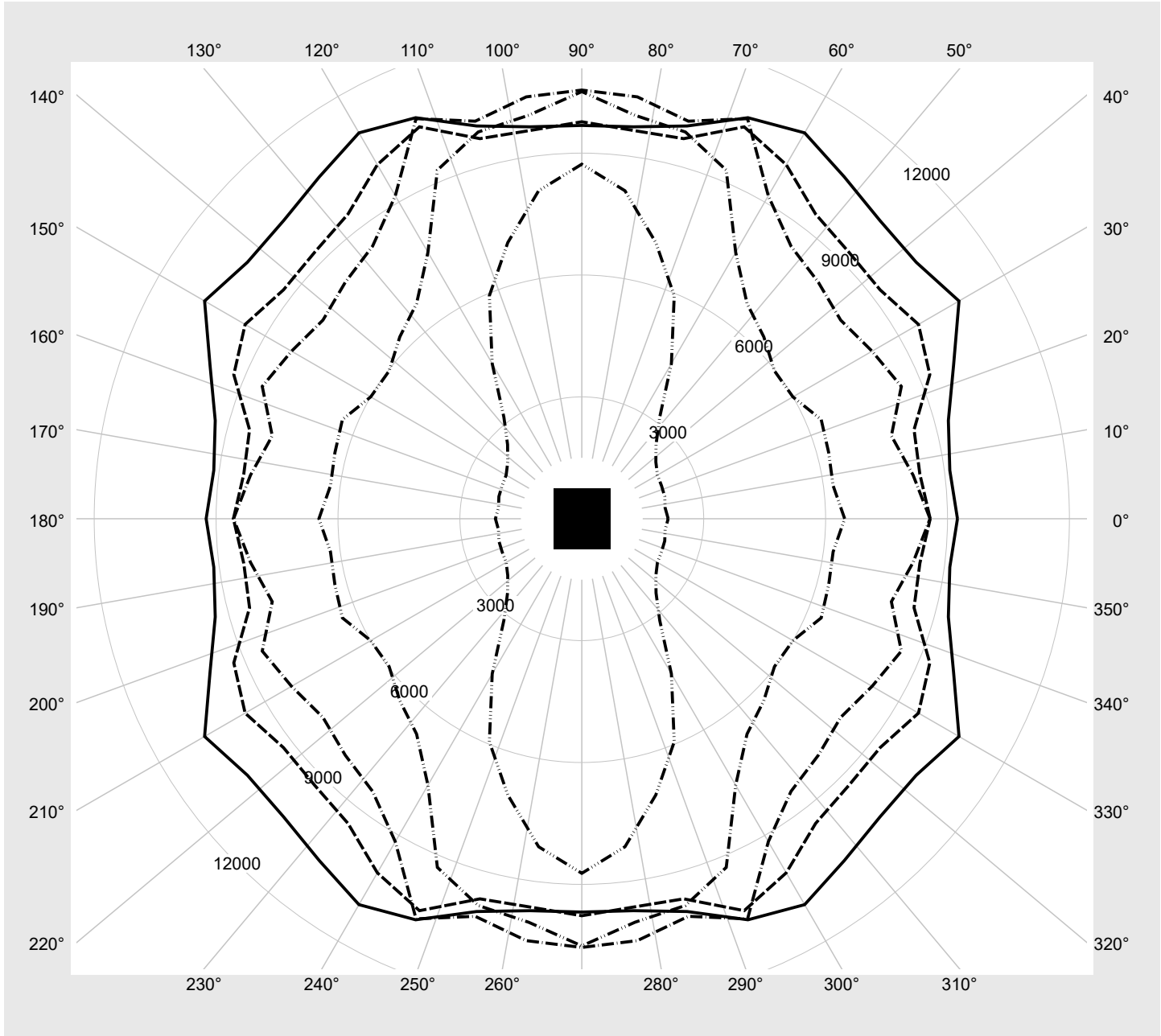
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Family Highbay 21			Order number: 52HN11DA5LLA EAN: 4069025445094							LP number 59724_222	
UGR-Table			Standard room							siteco	
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	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	18.5	19.6	18.9	19.9	20.3	18.0	19.1	18.3	19.4	19.7
	3H	18.9	19.9	19.3	20.2	20.6	18.6	19.6	19.0	19.9	20.3
	4H	19.1	20.0	19.5	20.4	20.8	19.0	19.9	19.4	20.3	20.6
	6H	19.3	20.1	19.7	20.5	20.9	19.4	20.2	19.8	20.6	21.0
	8H	19.4	20.1	19.8	20.5	20.9	19.7	20.3	20.1	20.7	21.1
	12H	19.4	20.0	19.8	20.4	20.8	19.7	20.4	20.2	20.7	21.2
4H	2H	18.7	19.6	19.1	19.9	20.3	18.2	19.1	18.6	19.4	19.8
	3H	19.3	20.0	19.7	20.4	20.8	19.0	19.8	19.5	20.2	20.6
	4H	19.6	20.2	20.0	20.6	21.1	19.6	20.2	20.0	20.7	21.1
	6H	19.8	20.4	20.3	20.8	21.3	20.1	20.7	20.6	21.1	21.6
	8H	19.8	20.3	20.3	20.8	21.2	20.3	20.8	20.8	21.3	21.7
	12H	19.8	20.2	20.3	20.7	21.2	20.5	20.9	20.9	21.3	21.8
8H	4H	19.7	20.2	20.1	20.6	21.1	19.7	20.2	20.2	20.6	21.1
	6H	19.9	20.3	20.4	20.8	21.3	20.3	20.7	20.8	21.2	21.7
	8H	20.0	20.3	20.5	20.8	21.3	20.5	20.9	21.0	21.4	21.9
	12H	19.9	20.2	20.5	20.7	21.3	20.7	21.0	21.2	21.5	22.0
12H	4H	19.7	20.1	20.2	20.5	21.0	19.7	20.1	20.2	20.5	21.0
	6H	19.9	20.3	20.5	20.8	21.3	20.3	20.6	20.8	21.1	21.6
	8H	20.0	20.2	20.5	20.8	21.3	20.5	20.8	21.0	21.3	21.8

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 426 B = 264				
C-planes	0,0° 180,0°	10,0° 170,0° 190,0° 350,0°	20,0° 160,0° 200,0° 340,0°	30,0° 150,0° 210,0° 330,0°	40,0° 140,0° 220,0° 320,0°	50,0° 130,0° 230,0° 310,0°	60,0° 120,0° 240,0° 300,0°	70,0° 110,0° 250,0° 290,0°	80,0° 100,0° 260,0° 280,0°	90,0° 270,0°
		Luminance in cd/m²								
γ										
45,0°	26395.8	25768.2	25733.8	25039.9	23962.4	23247.9	22649.1	22047.8	21735.2	21591.5
50,0°	18711.8	18399.2	18480.2	18190.9	17701.3	17356.5	16805.3	16325.4	16125.6	15971.6
55,0°	13554.5	13425.4	13833.6	14012.3	13949.9	13704.9	13364.6	12889.2	12454.1	12290.8
60,0°	10240.9	10305.9	11045.9	11854.4	11780.3	11757.9	11839.2	11208.4	10545.9	10376.2
65,0°	9245.0	9168.1	9688.2	10719.3	10335.4	10518.0	10968.4	10503.5	9798.1	9681.8
70,0°	8574.1	8387.7	9058.0	9567.8	9227.3	9348.1	10063.2	10316.2	9638.2	9772.3
75,0°	8570.4	8110.7	8402.4	8248.8	8051.3	8327.5	9180.0	10707.5	10389.6	10552.5
80,0°	6469.6	6224.2	6399.7	5999.4	6053.7	6503.3	7573.6	9605.5	9926.7	10514.5
85,0°	2126.0	2071.6	2118.1	2149.6	2377.1	2883.7	4409.8	6357.4	7832.9	8727.4

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Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85°			



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Dimming levels table		environmental temperature: 25°C



Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	25790	142.6
95	240	252	24467	134.6
90	227	250	23217	127.1
85	214	248	21965	119.7
80	200	245	20603	111.7
75	187	243	19330	104.4
70	174	240	18045	97.0
65	161	237	16754	89.7
60	148	234	15446	82.5
55	135	231	14135	75.2
50	123	227	12912	68.7
45	110	223	11577	61.5
40	98	219	10343	54.7
35	85	214	8991	47.6
30	73	208	7739	41.1
25	61	202	6477	34.6
20	49	194	5208	28.1
15	36	182	3823	21.2
10	24	168	2541	14.7
5	12	142	1251	7.9
2	5	110	493	4.1