

Photometric test report

Family
Highbay 21

Order number: 52HN11DA5FLA
EAN: 4069025445063

LP number
59724_221



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 = 13620 lm
Power consumption = 72.1 W
Luminous efficacy = 188.9 lm/W

serial
documentation
24.04.2025

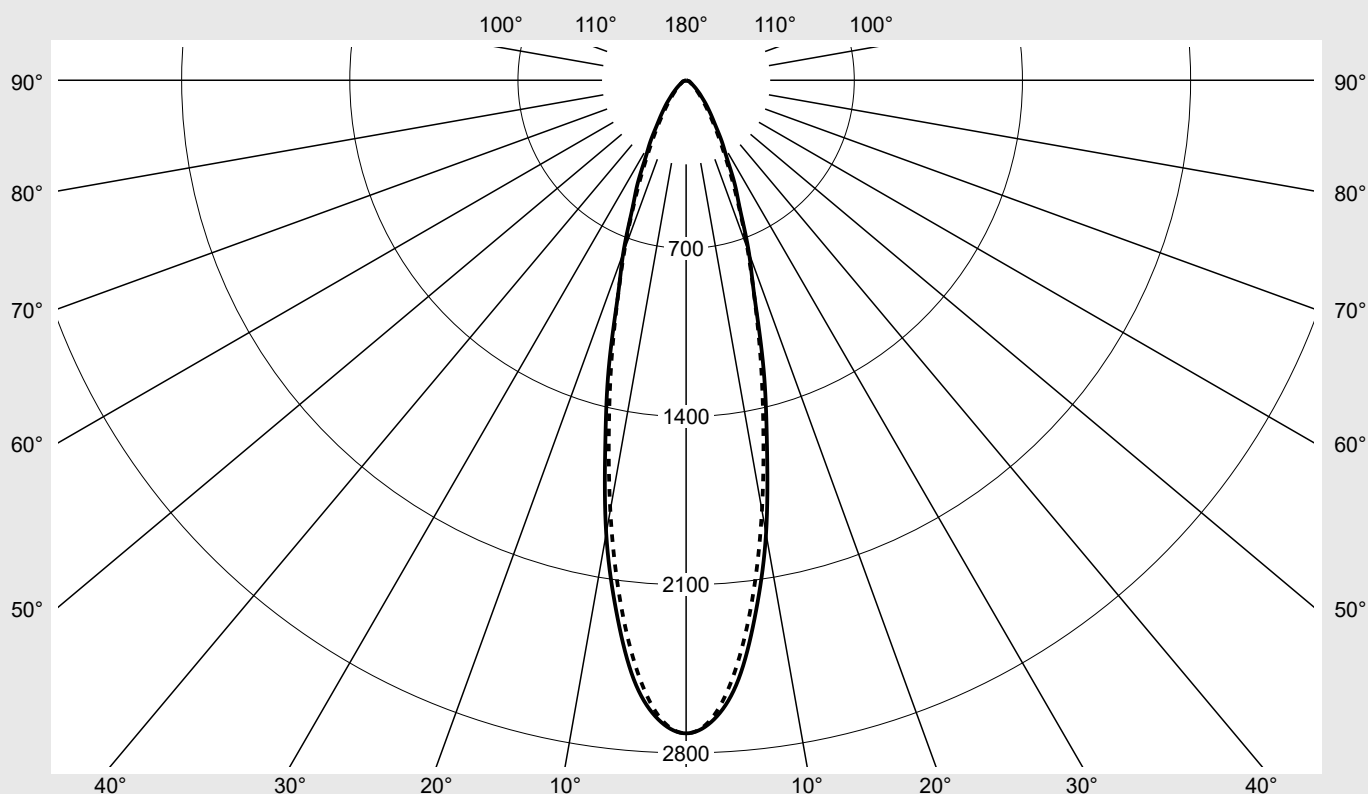
siteco

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

Photometric test report

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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

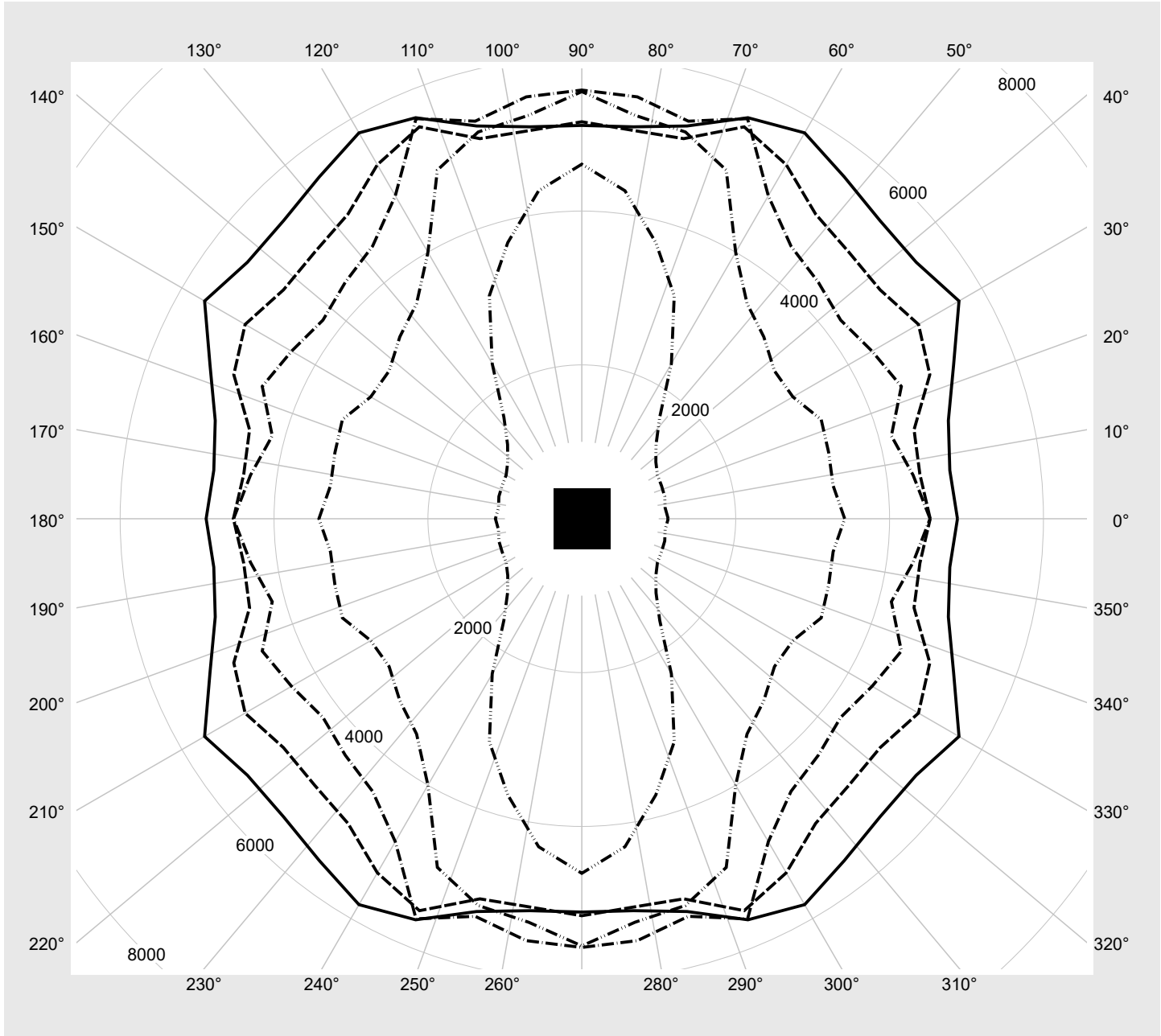
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Family Highbay 21			Order number: 52HN11DA5FLA EAN: 4069025445063							LP number 59724_221	
UGR-Table			Standard room							siteco	
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	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	16.3	17.4	16.6	17.7	18.0	15.7	16.9	16.1	17.2	17.5
	3H	16.7	17.7	17.1	18.0	18.4	16.4	17.4	16.8	17.7	18.1
	4H	16.9	17.8	17.3	18.2	18.6	16.8	17.7	17.2	18.1	18.4
	6H	17.1	17.9	17.5	18.3	18.7	17.2	18.0	17.6	18.4	18.8
	8H	17.2	17.9	17.6	18.2	18.7	17.4	18.1	17.9	18.5	18.9
	12H	17.2	17.8	17.6	18.2	18.6	17.5	18.1	18.0	18.5	18.9
4H	2H	16.4	17.3	16.8	17.7	18.1	16.0	16.9	16.4	17.2	17.6
	3H	17.0	17.8	17.5	18.2	18.6	16.8	17.6	17.2	18.0	18.4
	4H	17.3	18.0	17.8	18.4	18.9	17.4	18.0	17.8	18.4	18.9
	6H	17.6	18.1	18.0	18.6	19.0	17.9	18.5	18.4	18.9	19.4
	8H	17.6	18.1	18.1	18.5	19.0	18.1	18.6	18.6	19.0	19.5
	12H	17.6	18.0	18.1	18.5	19.0	18.2	18.6	18.7	19.1	19.6
8H	4H	17.4	17.9	17.9	18.4	18.9	17.5	17.9	17.9	18.4	18.9
	6H	17.7	18.1	18.2	18.6	19.1	18.1	18.5	18.6	18.9	19.5
	8H	17.7	18.1	18.2	18.6	19.1	18.3	18.6	18.8	19.1	19.7
	12H	17.7	18.0	18.2	18.5	19.1	18.5	18.7	19.0	19.3	19.8
12H	4H	17.5	17.9	18.0	18.3	18.8	17.5	17.9	18.0	18.3	18.8
	6H	17.7	18.0	18.2	18.5	19.1	18.1	18.4	18.6	18.9	19.4
	8H	17.8	18.0	18.3	18.5	19.1	18.3	18.6	18.8	19.1	19.6

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°	13939.9	13608.5	13590.3	13223.8	12654.8	12277.5	11961.3	11643.7	11478.6	11402.7
50,0°	9881.9	9716.8	9759.6	9606.9	9348.3	9166.1	8875.1	8621.6	8516.1	8434.8
55,0°	7158.3	7090.1	7305.7	7400.1	7367.1	7237.7	7058.0	6806.9	6577.2	6490.9
60,0°	5408.3	5442.7	5833.5	6260.4	6221.3	6209.5	6252.4	5919.3	5569.4	5479.8
65,0°	4882.4	4841.8	5116.5	5661.0	5458.2	5554.7	5792.5	5547.0	5174.5	5113.1
70,0°	4528.1	4429.6	4783.7	5052.8	4873.0	4936.8	5314.5	5448.1	5090.0	5160.8
75,0°	4526.1	4283.3	4437.4	4356.3	4252.0	4397.8	4848.1	5654.8	5486.9	5572.9
80,0°	3416.7	3287.1	3379.8	3168.4	3197.0	3434.5	3999.7	5072.8	5242.4	5552.8
85,0°	1122.7	1094.0	1118.6	1135.2	1255.4	1522.9	2328.9	3357.4	4136.6	4609.1

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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	13620	72.1
95	241	252	12941	68.3
90	228	250	12263	64.7
85	215	248	11577	61.0
80	202	246	10893	57.4
75	189	243	10208	53.5
70	176	241	9515	49.9
65	164	238	8877	46.6
60	151	235	8183	42.9
55	138	232	7485	39.3
50	125	228	6785	35.7
45	113	224	6140	32.4
40	100	220	5438	28.8
35	88	215	4784	25.5
30	75	209	4078	22.0
25	63	203	3424	18.7
20	50	194	2709	15.1
15	38	184	2051	11.9
10	25	169	1337	8.4
5	13	145	671	4.9
2	5	110	229	2.5