

Photometric test report

Family
Highbay 21

Order number: 52HN12DB5LLA
EAN: 4069025445605

LP number
59723_253

serial
documentation
24.04.2025



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

Lamps LED 5000 K | CRI ≥ 80

Controlgear ECG-DALI

Setting AC-mode

Rated values Net luminous flux = 27240 lm
Power consumption = 144.0 W
Luminous efficacy = 189.2 lm/W

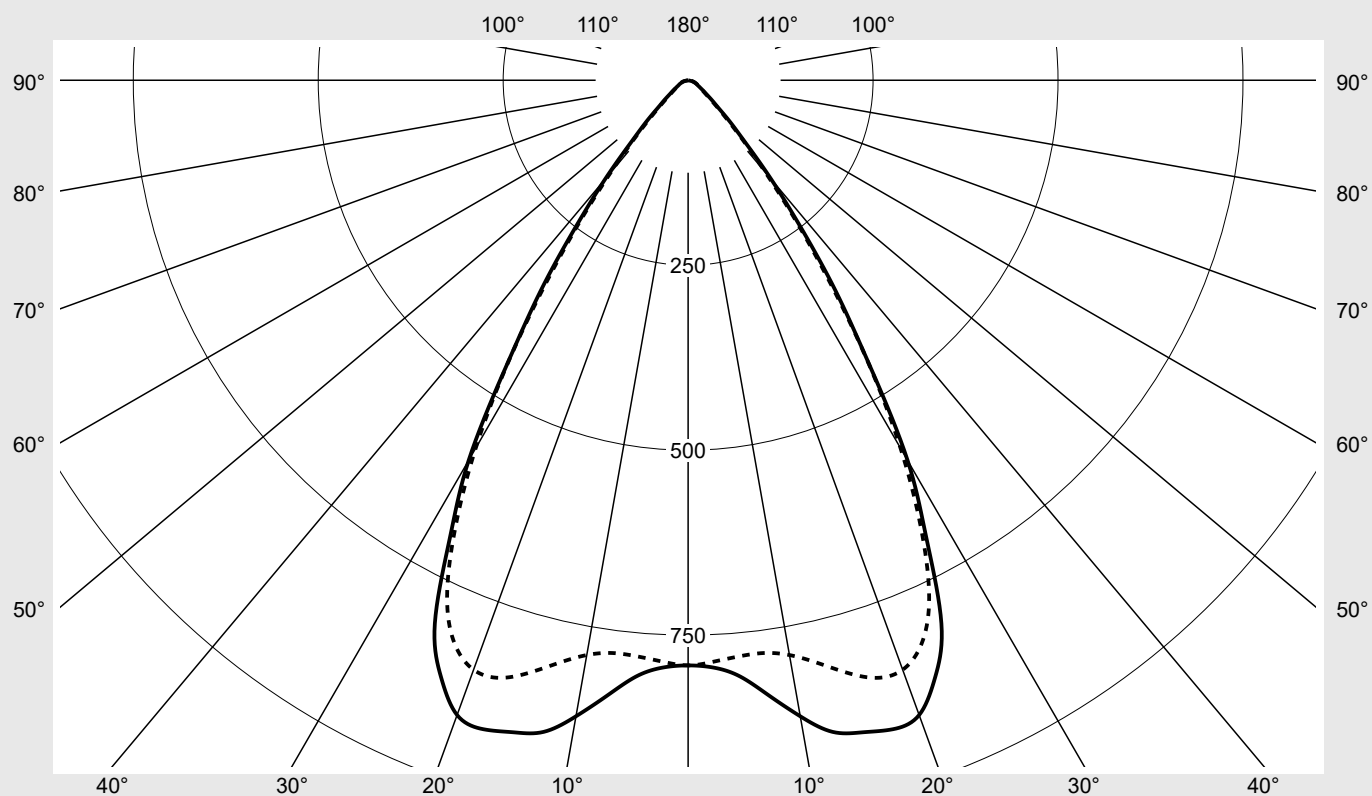
siteco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 920 cd/klm



Classifications

DIN 5040 A 7 0
CIE N1=90 N2=98 N3=100
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°
γ	Luminous intensity in cd/klm						
0,0°	791.0	791.0	791.0	791.0	791.0	791.0	791.0
2,5°	794.7	794.4	795.0	795.0	794.2	792.8	792.0
5,0°	809.1	811.4	809.6	807.9	804.8	800.8	797.1
7,5°	839.0	837.9	835.9	831.3	824.9	817.3	810.1
10,0°	873.0	873.9	866.7	857.6	846.5	834.6	825.0
12,5°	902.2	899.8	892.6	881.8	868.2	853.9	842.5
15,0°	912.4	911.0	905.2	895.6	883.1	869.5	858.7
17,5°	919.8	918.2	913.1	904.4	892.7	879.7	870.3
20,0°	913.1	910.4	906.8	900.7	891.6	880.0	870.9
22,5°	873.0	875.7	872.3	868.8	863.2	854.7	847.2
25,0°	810.1	803.4	805.6	804.0	800.6	794.9	789.9
27,5°	697.5	704.9	702.5	701.8	699.9	697.0	693.3
30,0°	593.2	587.4	585.8	584.9	582.5	580.2	578.9
32,5°	456.1	464.3	462.1	462.0	458.3	454.5	453.6
35,0°	347.7	343.4	342.9	343.5	340.5	335.4	333.2
37,5°	248.6	249.1	246.7	247.3	245.8	241.7	237.9
40,0°	174.7	169.8	171.0	172.0	172.0	169.5	166.1
42,5°	115.9	118.7	117.3	118.1	118.9	118.2	116.5
45,0°	82.2	79.8	80.4	81.1	81.3	81.6	80.9
47,5°	56.5	57.6	57.2	57.7	57.6	57.9	57.5
50,0°	42.4	41.3	41.7	42.1	42.1	42.1	42.0
52,5°	32.0	31.8	31.7	32.2	32.5	32.7	32.7
55,0°	25.6	24.9	25.0	25.6	26.1	26.6	26.9
57,5°	20.6	20.3	20.3	20.8	21.4	22.1	22.4
60,0°	17.2	16.8	16.6	17.2	18.2	18.6	18.9
62,5°	14.5	14.3	13.9	14.3	15.3	15.8	16.0
65,0°	13.1	12.5	12.0	12.2	13.0	13.5	13.7
67,5°	11.1	10.9	10.3	10.4	11.4	11.4	11.5
70,0°	9.4	9.0	8.7	8.7	9.6	9.3	9.5
72,5°	7.6	7.5	7.3	7.2	7.3	7.4	7.8
75,0°	5.9	5.7	5.6	5.7	5.6	5.7	6.1
77,5°	4.1	4.1	4.1	4.2	4.1	4.2	4.5
80,0°	2.6	2.5	2.5	2.7	2.7	2.8	2.9
82,5°	1.1	1.2	1.2	1.3	1.5	1.5	1.7
85,0°	0.5	0.5	0.5	0.5	0.5	0.5	0.6
87,5°	0.2	0.3	0.3	0.3	0.3	0.3	0.3

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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
	Luminous intensity in cd/klm						Luminous flux in lm/klm	
γ								
0,0°	791.0	791.0	791.0	791.0	791.0	791.0	1.2	1.2
2,5°	791.3	790.7	790.0	789.4	788.0	786.7	9.5	10.7
5,0°	794.2	790.9	788.1	786.0	783.2	781.9	19.1	29.7
7,5°	803.7	797.3	791.2	786.8	782.5	780.9	29.0	58.7
10,0°	816.7	808.7	801.4	796.1	791.2	788.9	39.5	98.2
12,5°	833.0	825.3	818.6	813.6	808.7	806.6	50.4	148.6
15,0°	850.7	844.9	836.9	832.9	831.6	829.0	61.4	210.0
17,5°	864.2	859.8	856.6	853.6	849.6	847.0	72.4	282.5
20,0°	864.8	860.1	856.9	853.9	850.4	848.0	82.3	364.7
22,5°	841.4	836.7	833.2	829.7	826.8	824.5	89.2	453.9
25,0°	786.0	782.5	779.1	775.6	772.9	771.0	91.6	545.4
27,5°	691.2	689.6	687.4	684.8	682.7	681.4	87.8	633.3
30,0°	578.6	579.1	578.3	576.4	575.3	574.3	79.6	712.9
32,5°	454.5	456.7	457.0	455.4	454.6	454.3	67.4	780.2
35,0°	335.0	337.7	338.0	336.6	336.0	336.2	53.3	833.5
37,5°	239.3	241.4	241.0	239.6	239.1	239.2	40.5	874.0
40,0°	166.2	166.4	164.7	163.3	162.9	163.0	29.6	903.6
42,5°	115.3	113.5	111.1	110.0	109.8	109.7	21.3	924.9
45,0°	79.0	76.9	75.1	74.3	74.0	73.9	15.2	940.1
47,5°	56.0	54.4	53.1	52.3	51.9	51.7	11.2	951.3
50,0°	40.9	39.8	38.8	38.0	37.5	37.4	8.5	959.8
52,5°	31.8	30.8	29.9	29.1	28.8	28.7	6.8	966.6
55,0°	25.9	25.0	24.2	23.4	23.2	23.3	5.6	972.3
57,5°	21.7	20.8	20.1	19.5	19.4	19.6	4.8	977.0
60,0°	18.6	18.0	17.1	16.6	16.8	17.1	4.2	981.2
62,5°	16.0	15.6	14.7	14.4	14.7	15.1	3.6	984.8
65,0°	14.0	13.6	12.8	12.7	13.1	13.5	3.2	988.1
67,5°	12.0	12.1	11.2	11.1	11.6	12.1	2.9	991.0
70,0°	9.8	10.4	9.7	9.7	10.2	10.6	2.5	993.4
72,5°	7.8	8.3	8.3	8.3	8.8	9.1	2.1	995.5
75,0°	6.2	6.3	6.8	6.9	7.3	7.6	1.6	997.1
77,5°	4.6	4.9	5.3	5.5	5.8	6.0	1.3	998.4
80,0°	3.1	3.4	3.7	4.0	4.2	4.4	0.9	999.2
82,5°	1.8	2.1	2.4	2.6	2.8	2.9	0.5	999.7
85,0°	0.7	1.0	1.2	1.3	1.6	1.6	0.2	1000.0
87,5°	0.3	0.3	0.3	0.3	0.4	0.4	0.1	1000.0

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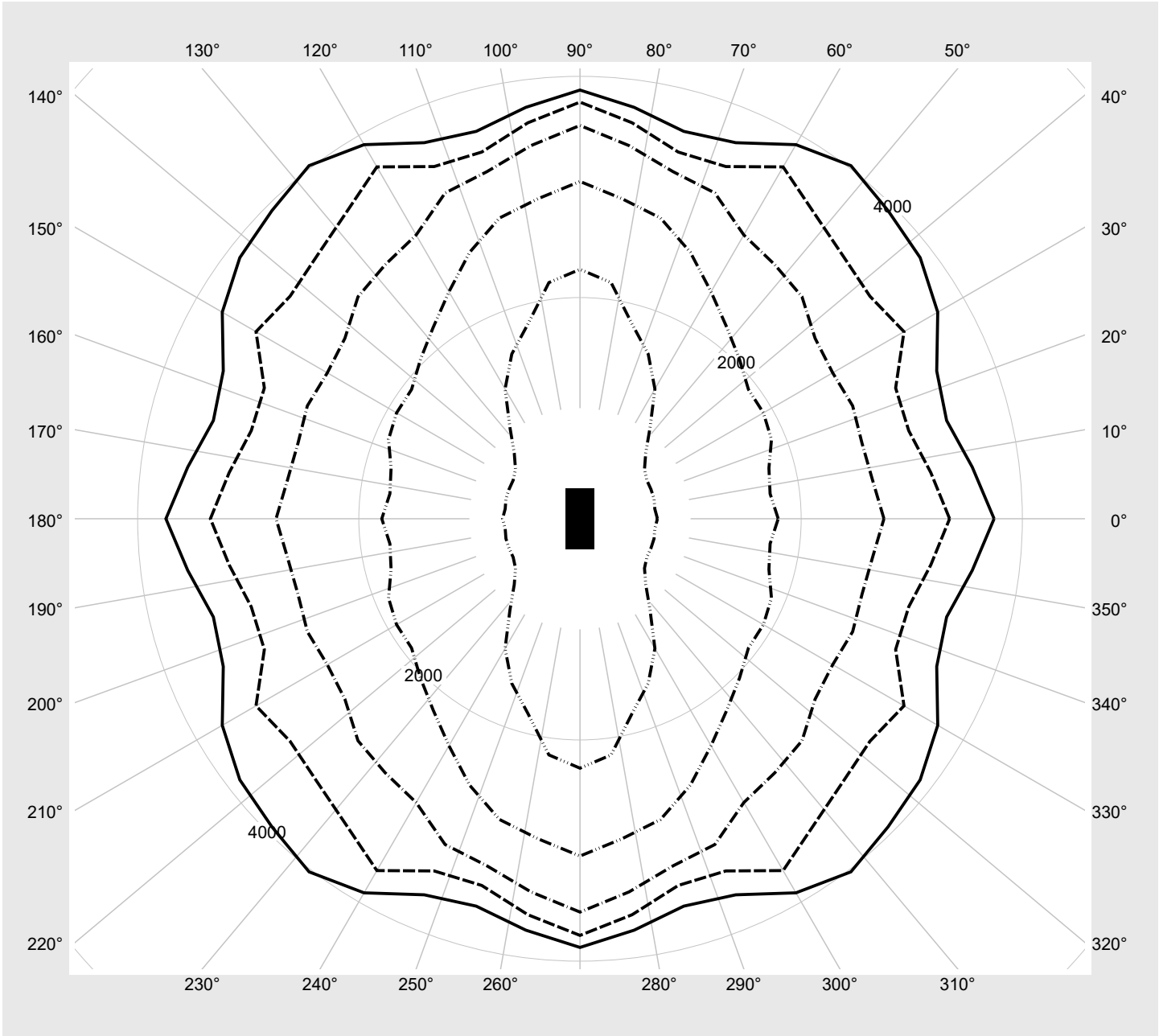
Family Highbay 21	Order number: 52HN12DB5LLA EAN: 4069025445605	LP number 59723_253
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UGR-Table		Standard room							siteco		
Reflection factor of ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Reflection factor of walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	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	18.0	19.3	18.4	19.6	19.9	17.8	19.1	18.2	19.4	19.7
	3H	18.1	19.1	18.4	19.5	19.8	17.9	19.0	18.3	19.3	19.7
	4H	18.1	19.1	18.5	19.4	19.8	18.0	19.0	18.4	19.3	19.7
	6H	18.0	18.9	18.5	19.3	19.7	18.0	18.9	18.4	19.3	19.7
	8H	18.1	18.9	18.6	19.3	19.7	18.1	18.9	18.6	19.3	19.7
	12H	18.1	18.8	18.6	19.2	19.6	18.1	18.8	18.6	19.2	19.6
4H	2H	17.9	18.9	18.3	19.3	19.6	17.8	18.7	18.2	19.1	19.5
	3H	18.0	18.8	18.4	19.2	19.6	17.9	18.7	18.3	19.1	19.5
	4H	18.0	18.8	18.5	19.2	19.6	18.0	18.7	18.4	19.1	19.6
	6H	18.0	18.6	18.5	19.1	19.6	18.1	18.7	18.5	19.1	19.6
	8H	18.0	18.6	18.5	19.0	19.5	18.1	18.7	18.6	19.1	19.6
	12H	18.0	18.5	18.5	18.9	19.4	18.2	18.6	18.7	19.1	19.6
8H	4H	18.0	18.5	18.5	19.0	19.5	17.9	18.5	18.4	18.9	19.4
	6H	18.0	18.4	18.5	18.9	19.4	18.0	18.5	18.5	19.0	19.5
	8H	17.9	18.3	18.5	18.8	19.4	18.1	18.5	18.6	19.0	19.5
	12H	17.9	18.2	18.5	18.7	19.3	18.1	18.4	18.6	18.9	19.5
12H	4H	18.0	18.4	18.5	18.9	19.4	18.0	18.4	18.5	18.9	19.4
	6H	18.0	18.3	18.5	18.8	19.4	18.1	18.4	18.6	18.9	19.4
	8H	18.0	18.3	18.5	18.8	19.3	18.1	18.4	18.6	18.9	19.4

Luminance table		Max. for $\gamma \geq 65^\circ$				Photometric dimensions in mm:		L = 852 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°	14083.3	13647.4	13852.5	13929.5	13958.2	13647.7	13162.9	12802.7	12684.0	12649.1
50,0°	7989.2	7769.1	7914.5	7932.7	7931.6	7781.2	7501.8	7252.5	7094.1	7038.5
55,0°	5409.0	5250.7	5367.6	5504.7	5652.5	5544.2	5269.9	5049.7	4912.1	4928.9
60,0°	4161.4	4041.4	4109.5	4399.5	4537.8	4530.3	4364.2	4096.9	4049.2	4134.1
65,0°	3744.5	3526.8	3451.2	3735.3	3907.1	4018.6	3905.5	3643.2	3710.2	3876.0
70,0°	3342.2	3156.5	3054.1	3383.0	3308.9	3433.1	3673.3	3418.4	3554.0	3767.1
75,0°	2748.5	2653.3	2665.5	2638.6	2719.7	2874.6	2962.8	3226.5	3351.5	3556.2
80,0°	1792.4	1735.0	1846.0	1915.1	1947.0	2128.4	2369.8	2680.1	2880.4	3049.8
85,0°	700.3	682.7	694.1	697.5	762.7	961.4	1354.8	1687.0	2068.7	2255.2

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



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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	27240	144.0
95	241	252	25884	136.5
90	228	250	24524	129.1
85	215	248	23159	121.6
80	202	246	21786	114.0
75	189	243	20413	106.8
70	176	241	19030	99.4
65	164	238	17755	92.7
60	151	235	16368	85.2
55	138	232	14977	77.9
50	125	228	13581	70.7
45	113	224	12283	63.9
40	100	220	10879	56.7
35	88	215	9574	50.0
30	75	209	8160	42.8
25	63	203	6846	36.2
20	50	194	5424	29.2
15	38	184	4102	22.5
10	25	169	2672	15.5
5	13	145	1344	8.6
2	5	110	459	4.0