

Photometric test report

Family
Highbay 21

Order number: 52HN12DA6FMA
EAN: 4069025445490

LP number
59723_239

serial
documentation
24.04.2025

siteco

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

Lamps LED 6500 K | CRI ≥ 80

Controlgear ECG-DALI

Setting AC-mode

Rated values Net luminous flux = 13570 lm
Power consumption = 72.1 W
Luminous efficacy = 188.2 lm/W

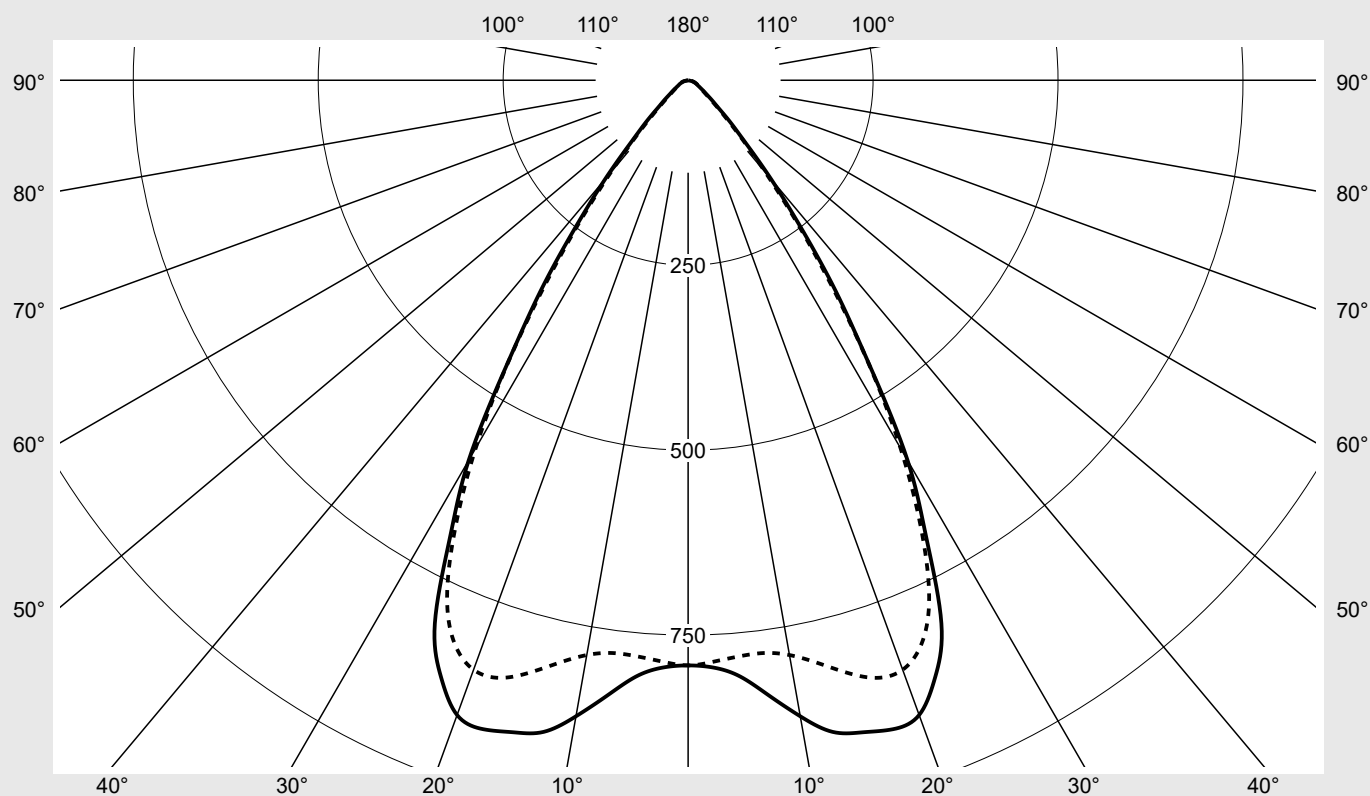


Luminous intensity in cd/klm

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
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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
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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: 52HN12DA6FMA EAN: 4069025445490							LP number 59723_239	
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
Reflection factor of walls		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3
Reflection factor of floor		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)			
2H	x									
	y									
	2H	18.0	19.2	18.4	19.6	19.9	17.8	19.1	18.2	19.4
	3H	18.0	19.1	18.4	19.5	19.8	17.9	19.0	18.3	19.3
	4H	18.1	19.0	18.5	19.4	19.8	18.0	19.0	18.4	19.3
	6H	18.0	18.9	18.4	19.3	19.7	18.0	18.9	18.4	19.3
4H	8H	18.1	18.9	18.6	19.2	19.7	18.1	18.9	18.6	19.2
	12H	18.1	18.8	18.5	19.2	19.6	18.1	18.8	18.6	19.2
	2H	17.9	18.9	18.3	19.3	19.6	17.7	18.7	18.1	19.1
	3H	18.0	18.8	18.4	19.2	19.6	17.9	18.7	18.3	19.1
	4H	18.0	18.8	18.5	19.2	19.6	18.0	18.7	18.4	19.1
	6H	18.0	18.6	18.5	19.1	19.5	18.1	18.7	18.5	19.1
8H	8H	18.0	18.5	18.5	19.0	19.5	18.1	18.6	18.6	19.1
	12H	18.0	18.4	18.5	18.9	19.4	18.1	18.6	18.6	19.0
	4H	18.0	18.5	18.5	19.0	19.5	17.9	18.5	18.4	18.9
	6H	18.0	18.4	18.5	18.9	19.4	18.0	18.5	18.5	19.0
	8H	17.9	18.3	18.4	18.8	19.4	18.1	18.5	18.6	18.9
	12H	17.9	18.2	18.5	18.7	19.3	18.1	18.4	18.6	18.9
12H	4H	18.0	18.4	18.5	18.9	19.4	18.0	18.4	18.4	18.8
	6H	18.0	18.3	18.5	18.8	19.4	18.0	18.4	18.6	18.9
	8H	17.9	18.2	18.5	18.7	19.3	18.1	18.4	18.6	18.9
	2H	18.0	18.4	18.5	18.9	19.4	18.0	18.4	18.4	18.8
	3H	18.0	18.3	18.5	18.8	19.4	18.0	18.4	18.6	18.9
	4H	17.9	18.2	18.5	18.7	19.3	18.1	18.4	18.6	18.9

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°	14031.6	13597.3	13801.6	13878.3	13907.0	13597.6	13114.6	12755.7	12637.4	12602.6
50,0°	7959.9	7740.5	7885.4	7903.5	7902.5	7752.6	7474.2	7225.8	7068.1	7012.7
55,0°	5389.1	5231.5	5347.8	5484.4	5631.7	5523.9	5250.5	5031.2	4894.1	4910.8
60,0°	4146.1	4026.6	4094.4	4383.4	4521.1	4513.7	4348.1	4081.8	4034.4	4118.9
65,0°	3730.7	3513.9	3438.5	3721.6	3892.7	4003.8	3891.2	3629.9	3696.6	3861.8
70,0°	3330.0	3145.0	3042.9	3370.5	3296.8	3420.5	3659.8	3405.8	3540.9	3753.3
75,0°	2738.4	2643.5	2655.7	2628.9	2709.7	2864.0	2952.0	3214.7	3339.2	3543.1
80,0°	1785.8	1728.7	1839.2	1908.1	1939.9	2120.6	2361.1	2670.3	2869.8	3038.6
85,0°	697.8	680.2	691.6	695.0	759.9	957.9	1349.8	1680.8	2061.1	2246.9

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Order number: 52HN12DA6FMA
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LP number
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Luminance values in cd/m²

γ 65°

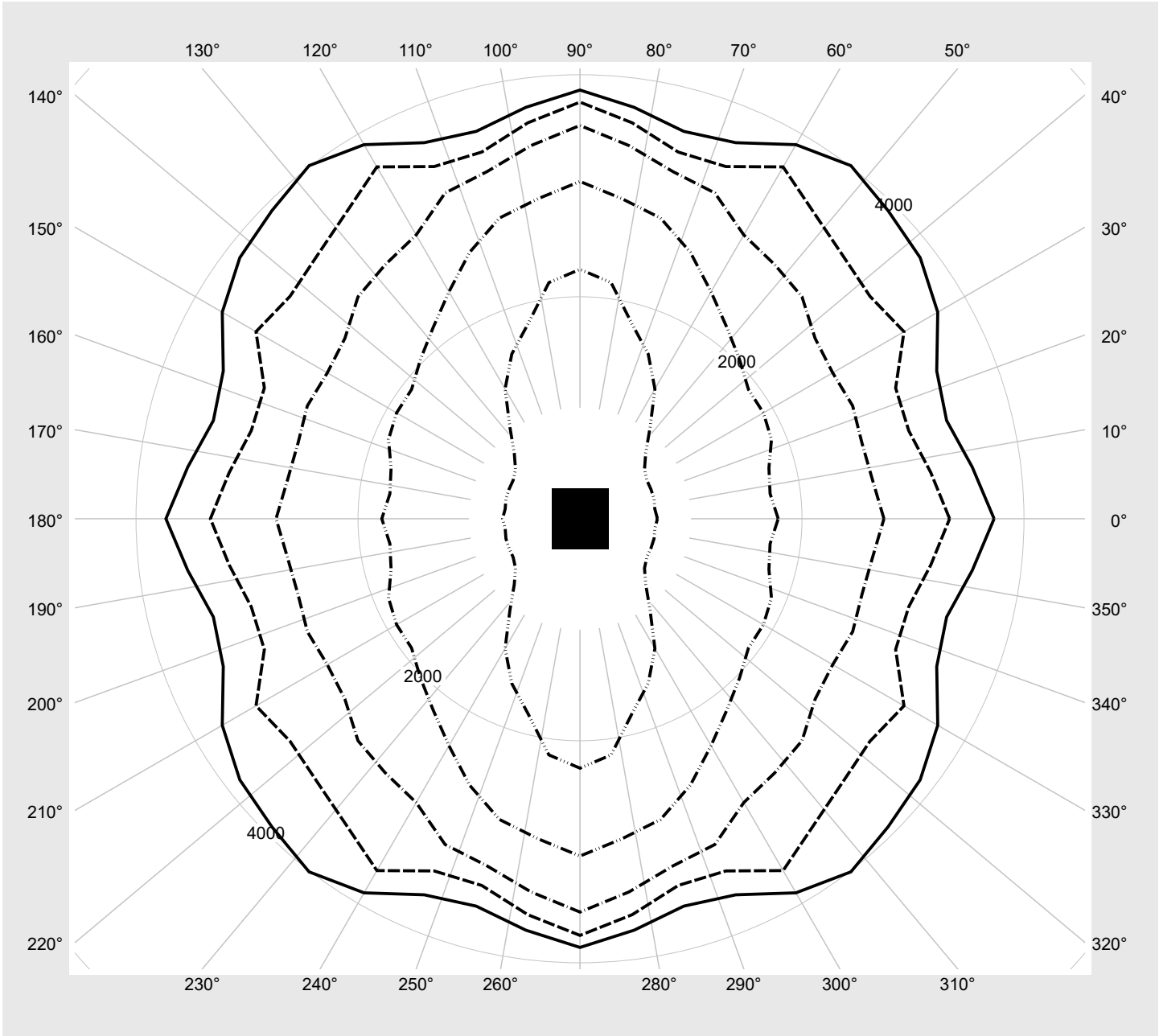
γ 70°

γ 75°

γ 80°

γ 85°

siteco



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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	13570	72.1
95	241	252	12893	68.3
90	228	250	12218	64.7
85	215	248	11535	61.0
80	202	246	10853	57.4
75	189	243	10171	53.5
70	176	241	9480	49.9
65	164	238	8844	46.6
60	151	235	8153	42.9
55	138	232	7458	39.3
50	125	228	6761	35.7
45	113	224	6118	32.4
40	100	220	5418	28.8
35	88	215	4767	25.5
30	75	209	4063	22.0
25	63	203	3411	18.7
20	50	194	2698	15.1
15	38	184	2043	11.9
10	25	169	1332	8.4
5	13	145	669	4.9
2	5	110	229	2.5