

Photometric test report

Family
Highbay 21

Order number: 52HN12DA3KLA
EAN: 4069025445391

LP number
59723_230



Version primary light control with lens, PMMA, housing, white, wide distribution
Lamps LED 3000 K | CRI ≥ 80
Controlgear ECG-DALI
Setting AC-mode
Rated values Net luminous flux = 24180 lm
Power consumption = 142.6 W
Luminous efficacy = 169.6 lm/W

serial
documentation
24.04.2025

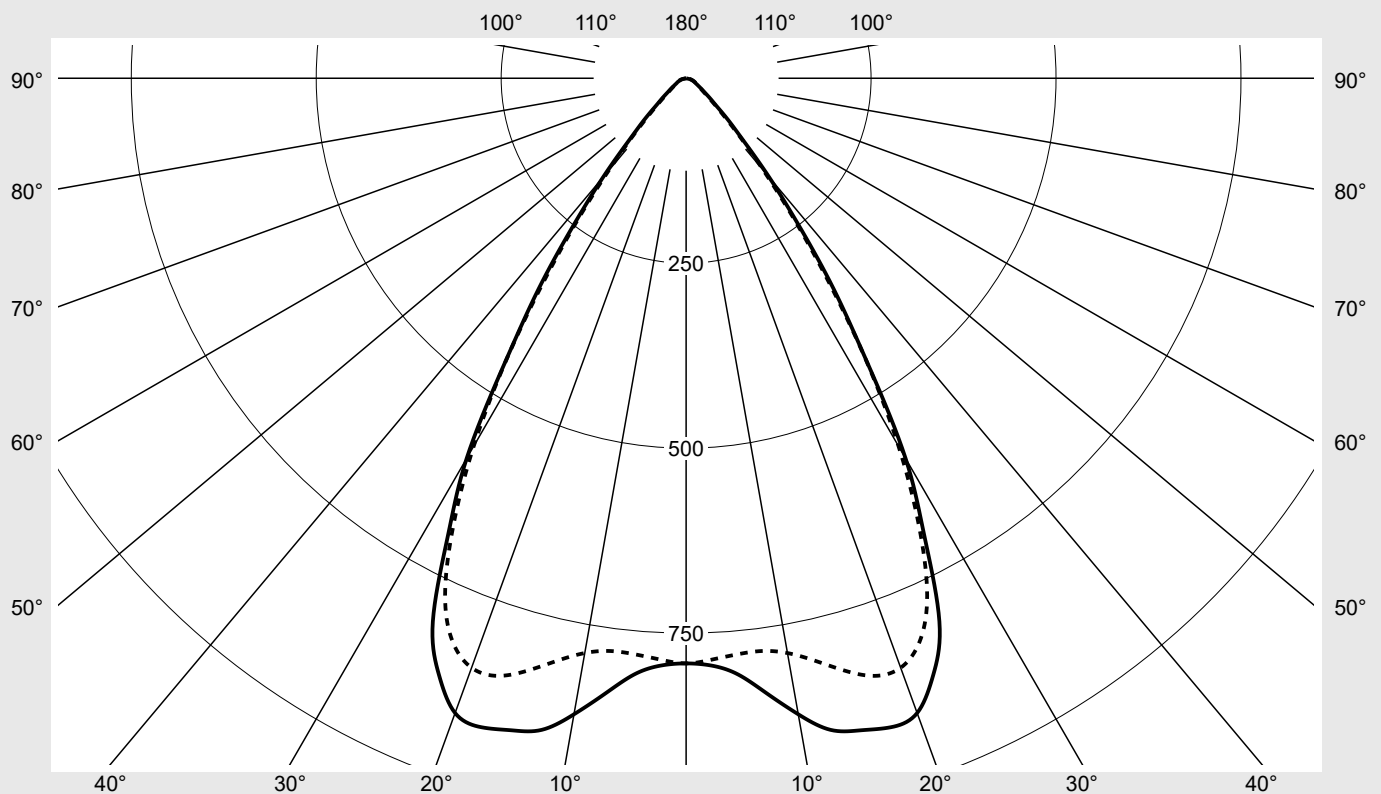
siteco

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

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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
γ	Luminous intensity in cd/klm						Luminous flux in lm/klm	
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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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	20.0	21.3	20.4	21.6	21.9	19.8	21.1	20.2	21.4	21.7
	3H	20.0	21.1	20.4	21.5	21.8	19.9	21.0	20.3	21.3	21.7
	4H	20.1	21.1	20.5	21.4	21.8	20.0	21.0	20.4	21.3	21.7
	6H	20.0	20.9	20.5	21.3	21.7	20.0	20.9	20.4	21.3	21.7
	8H	20.1	20.9	20.6	21.3	21.7	20.1	20.9	20.6	21.3	21.7
	12H	20.1	20.8	20.5	21.2	21.6	20.1	20.8	20.6	21.2	21.6
4H	2H	19.9	20.9	20.3	21.3	21.6	19.7	20.7	20.1	21.1	21.5
	3H	20.0	20.8	20.4	21.2	21.6	19.9	20.7	20.3	21.1	21.5
	4H	20.0	20.8	20.5	21.2	21.6	20.0	20.7	20.4	21.1	21.6
	6H	20.0	20.6	20.5	21.1	21.5	20.1	20.7	20.5	21.1	21.6
	8H	20.0	20.6	20.5	21.0	21.5	20.1	20.6	20.6	21.1	21.6
	12H	20.0	20.5	20.5	20.9	21.4	20.2	20.6	20.6	21.0	21.5
8H	4H	20.0	20.5	20.5	21.0	21.5	19.9	20.5	20.4	20.9	21.4
	6H	20.0	20.4	20.5	20.9	21.4	20.0	20.5	20.5	21.0	21.5
	8H	19.9	20.3	20.5	20.8	21.4	20.1	20.5	20.6	20.9	21.5
	12H	19.9	20.2	20.5	20.7	21.3	20.1	20.4	20.6	20.9	21.5
12H	4H	20.0	20.4	20.5	20.9	21.4	20.0	20.4	20.5	20.9	21.4
	6H	20.0	20.3	20.5	20.8	21.4	20.0	20.4	20.6	20.9	21.4
	8H	20.0	20.2	20.5	20.8	21.3	20.1	20.4	20.6	20.9	21.4

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°		25002.5	24228.6	24592.7	24729.4	24780.4	24229.2	23368.4	22729.0	22518.2	22456.3	
50,0°		14183.5	13792.6	14050.9	14083.1	14081.2	13814.1	13318.1	12875.5	12594.4	12495.7	
55,0°		9602.8	9321.8	9529.2	9772.6	10035.1	9842.8	9355.8	8964.9	8720.6	8750.4	
60,0°		7387.9	7174.9	7295.7	7810.6	8056.1	8042.8	7747.8	7273.3	7188.7	7339.3	
65,0°		6647.7	6261.3	6127.0	6631.4	6936.3	7134.3	6933.6	6467.9	6586.8	6881.2	
70,0°		5933.6	5603.9	5422.1	6005.9	5874.4	6094.9	6521.3	6068.7	6309.5	6687.9	
75,0°		4879.6	4710.5	4732.2	4684.3	4828.3	5103.3	5260.0	5728.2	5950.1	6313.4	
80,0°		3182.0	3080.2	3277.2	3400.0	3456.6	3778.6	4207.2	4758.1	5113.7	5414.4	
85,0°		1243.3	1212.1	1232.3	1238.4	1354.0	1706.8	2405.2	2995.1	3672.6	4003.7	

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Order number: 52HN12DA3KLA
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LP number
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Luminance values in cd/m²

γ 65°

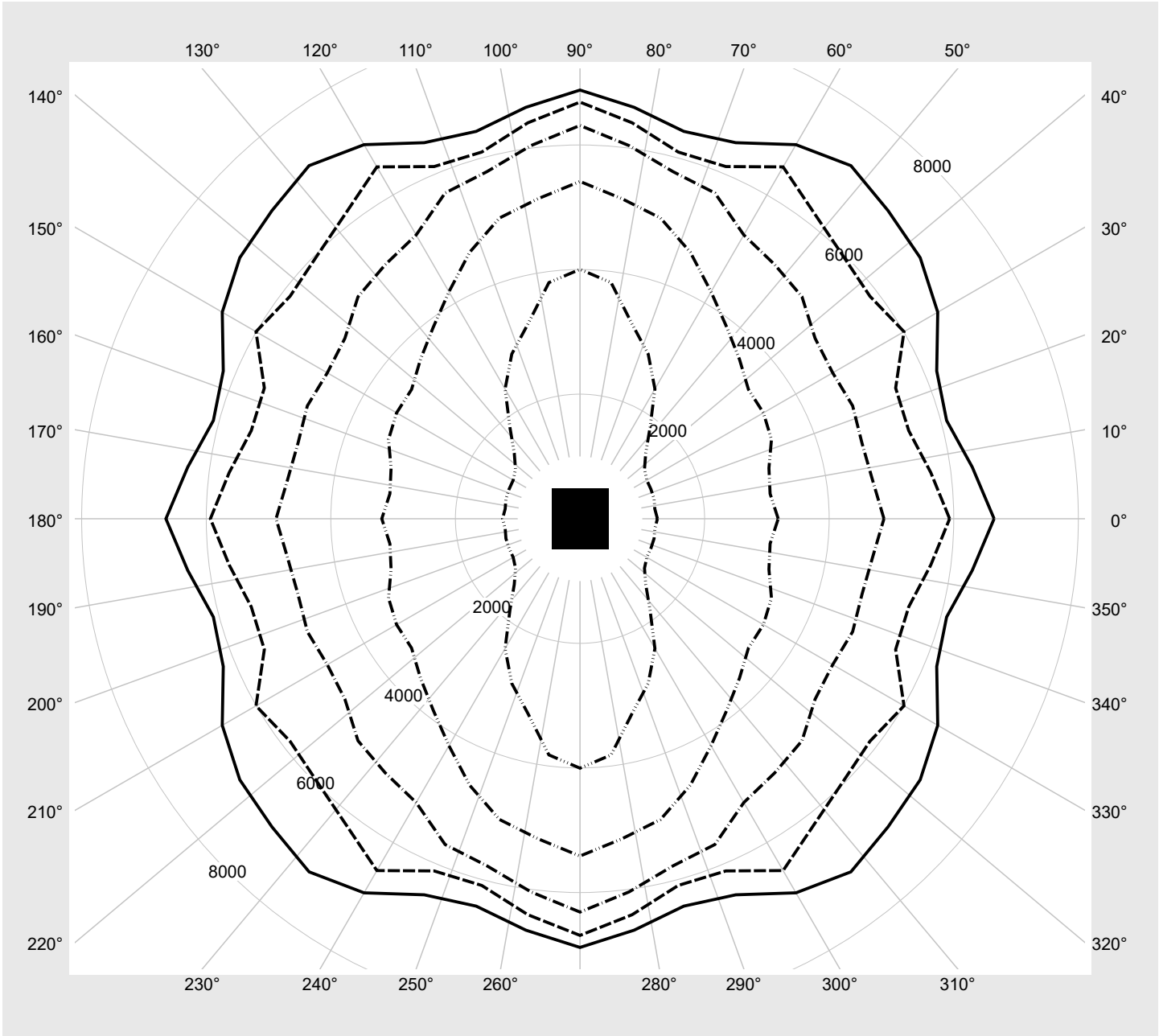
γ 70°

γ 75°

γ 80°

γ 85°

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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	24180	142.6
95	240	252	22946	134.6
90	227	250	21778	127.1
85	213	248	20518	119.1
80	200	245	19337	111.7
75	187	243	18146	104.4
70	174	240	16944	97.0
65	161	237	15736	89.7
60	148	234	14511	82.5
55	135	231	13283	75.2
50	123	227	12137	68.7
45	110	223	10885	61.5
40	97	219	9631	54.2
35	85	214	8459	47.6
30	73	208	7283	41.1
25	60	201	5997	34.1
20	48	193	4804	27.6
15	36	182	3601	21.2
10	24	168	2394	14.7
5	12	142	1178	7.9
2	5	110	465	4.1