

Photometric test report

Family
Highbay 11

Order number: 51HN12DA4NMA
EAN: 4069025421067

LP number
59710_326

serial
documentation
27.02.2025

siteco

Version primary light control with lens, PMMA, housing, white, for Modario® rail, wide distribution

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

Rated values Net luminous flux = 31500 lm
Power consumption = 167.9 W
Luminous efficacy = 187.6 lm/W

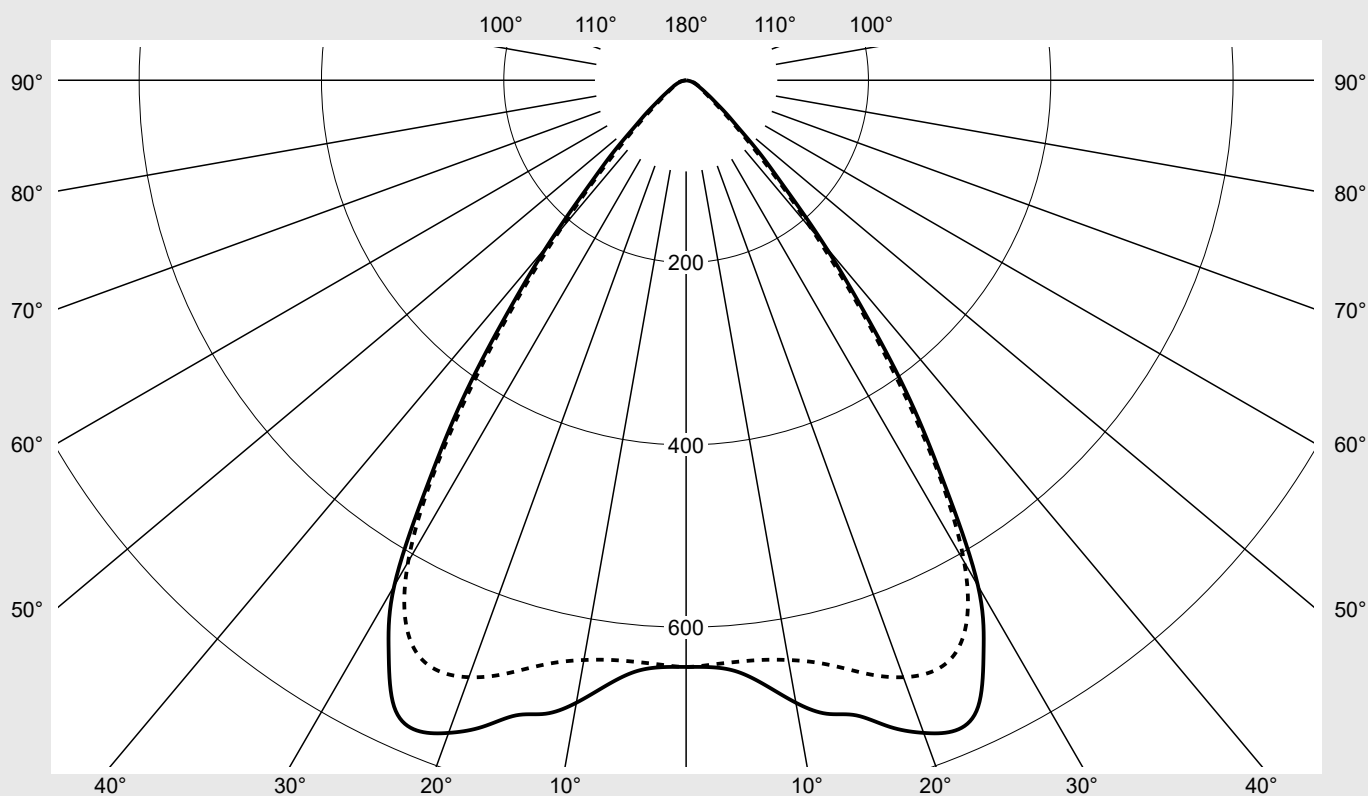


Luminous intensity in cd/klm

C180-0

C270-90

Imax: 772 cd/klm



Classifications

DIN 5040 A 6 0
CIE N1=88 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° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	Phi-zone	Total Phi-zone
γ	Luminous intensity in cd/klm							Luminous flux in lm/klm	
0,0°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	1.0	1.0
2,5°	644.5	645.1	645.0	644.3	644.2	643.7	641.7	7.7	8.7
5,0°	651.5	652.3	650.7	647.5	645.3	643.2	640.4	15.5	24.1
7,5°	669.6	669.1	664.2	657.2	651.2	645.8	641.3	23.5	47.6
10,0°	693.4	691.0	681.5	670.0	659.9	651.2	645.8	31.9	79.6
12,5°	711.8	709.4	700.3	685.9	671.9	660.7	654.0	40.7	120.2
15,0°	721.3	721.7	717.1	704.9	689.4	675.9	667.7	49.7	169.9
17,5°	743.8	740.8	737.9	726.5	708.9	693.0	684.2	59.4	229.3
20,0°	761.9	761.9	759.6	745.2	724.0	705.6	696.8	69.2	298.5
22,5°	772.0	771.2	770.0	754.7	731.1	710.8	702.6	78.2	376.7
25,0°	758.1	756.6	756.3	743.6	722.7	703.3	695.6	85.1	461.8
27,5°	706.7	709.5	709.5	700.0	685.7	672.3	667.0	87.8	549.7
30,0°	640.4	635.6	633.7	626.6	621.7	614.1	609.9	85.8	635.5
32,5°	530.6	537.6	535.6	526.2	530.2	524.1	520.8	78.1	713.6
35,0°	428.2	426.4	425.9	411.9	420.8	414.2	411.4	66.0	779.6
37,5°	322.5	323.4	327.0	311.0	319.4	310.8	308.2	53.0	832.6
40,0°	236.1	234.0	241.6	230.8	230.9	219.8	218.4	40.7	873.3
42,5°	162.3	165.3	172.9	171.1	161.7	151.3	150.8	30.2	903.5
45,0°	117.3	114.9	119.4	122.5	109.3	102.6	102.3	21.9	925.4
47,5°	80.5	81.4	82.8	85.5	75.2	71.4	70.8	15.9	941.3
50,0°	59.4	58.0	58.0	59.0	52.9	50.5	49.6	11.7	953.0
52,5°	43.3	42.8	42.8	43.0	39.3	37.2	36.6	8.9	961.8
55,0°	33.3	32.4	32.9	33.7	30.5	28.7	28.3	7.1	968.9
57,5°	25.9	25.4	25.9	26.8	24.5	22.9	22.9	5.8	974.7
60,0°	20.9	20.2	21.2	21.8	20.4	18.9	19.2	4.9	979.5
62,5°	16.9	16.2	17.4	18.0	17.2	15.9	16.4	4.1	983.6
65,0°	14.9	13.6	14.4	15.1	14.8	13.6	14.4	3.6	987.2
67,5°	12.3	11.4	12.5	12.4	13.0	11.7	12.6	3.1	990.3
70,0°	10.4	9.5	10.5	10.1	11.1	10.1	11.0	2.7	993.0
72,5°	8.2	7.7	7.9	8.2	8.7	8.6	9.5	2.2	995.2
75,0°	6.5	6.0	6.0	6.4	6.6	7.1	7.9	1.7	996.9
77,5°	4.5	4.3	4.4	4.7	5.1	5.6	6.3	1.3	998.2
80,0°	2.9	2.7	2.9	3.1	3.5	4.1	4.7	0.9	999.1
82,5°	1.3	1.4	1.6	1.8	2.2	2.7	3.3	0.5	999.7
85,0°	0.6	0.6	0.6	0.7	1.0	1.4	1.8	0.3	999.9
87,5°	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.1	1000.0
90,0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	22.5	23.8	22.9	24.1	24.4	22.2	23.5	22.6	23.8	24.1
	3H	22.5	23.6	22.9	24.0	24.3	22.2	23.4	22.6	23.7	24.0
	4H	22.5	23.5	22.9	23.9	24.3	22.2	23.3	22.6	23.6	24.0
	6H	22.5	23.4	22.9	23.8	24.2	22.3	23.2	22.7	23.6	24.0
	8H	22.5	23.3	23.0	23.7	24.1	22.4	23.2	22.8	23.5	24.0
	12H	22.5	23.2	22.9	23.6	24.1	22.4	23.1	22.8	23.5	23.9
4H	2H	22.4	23.4	22.8	23.8	24.2	22.1	23.1	22.5	23.5	23.9
	3H	22.4	23.3	22.9	23.7	24.1	22.2	23.0	22.6	23.4	23.8
	4H	22.4	23.2	22.9	23.6	24.0	22.2	23.0	22.7	23.4	23.8
	6H	22.4	23.1	22.9	23.5	24.0	22.3	22.9	22.7	23.4	23.8
	8H	22.4	23.0	22.9	23.4	23.9	22.3	22.9	22.8	23.3	23.8
	12H	22.4	22.9	22.9	23.3	23.8	22.3	22.8	22.8	23.3	23.8
8H	4H	22.4	22.9	22.8	23.4	23.9	22.2	22.7	22.6	23.2	23.7
	6H	22.3	22.8	22.8	23.3	23.8	22.2	22.7	22.7	23.2	23.7
	8H	22.3	22.7	22.8	23.2	23.7	22.2	22.6	22.7	23.1	23.7
	12H	22.3	22.6	22.8	23.1	23.7	22.3	22.6	22.8	23.1	23.6
12H	4H	22.4	22.8	22.9	23.3	23.8	22.2	22.6	22.7	23.1	23.6
	6H	22.3	22.7	22.9	23.2	23.7	22.2	22.6	22.7	23.1	23.6
	8H	22.3	22.6	22.8	23.1	23.7	22.2	22.5	22.8	23.1	23.6

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 426 B = 264	
C-planes	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°
γ	Luminance in cd/m²						
45,0°	46473.2	45505.5	47302.3	48514.7	43281.8	40637.4	40517.7
50,0°	25893.1	25280.9	25254.3	25705.3	23066.4	21993.2	21615.9
55,0°	16272.3	15837.2	16063.3	16432.0	14906.0	14011.9	13843.4
60,0°	11703.8	11298.3	11871.3	12227.6	11448.4	10602.0	10737.0
65,0°	9875.6	8983.6	9575.4	9988.3	9780.8	9045.2	9556.2
70,0°	8488.2	7744.6	8566.8	8288.4	9092.5	8276.9	9039.3
75,0°	6995.2	6479.0	6461.7	6910.8	7180.3	7685.7	8567.6
80,0°	4722.8	4406.6	4663.1	5037.3	5685.7	6687.4	7622.9
85,0°	1886.4	1876.8	1937.8	2268.8	3355.1	4470.2	5791.0

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Luminance values in cd/m²

γ 65°

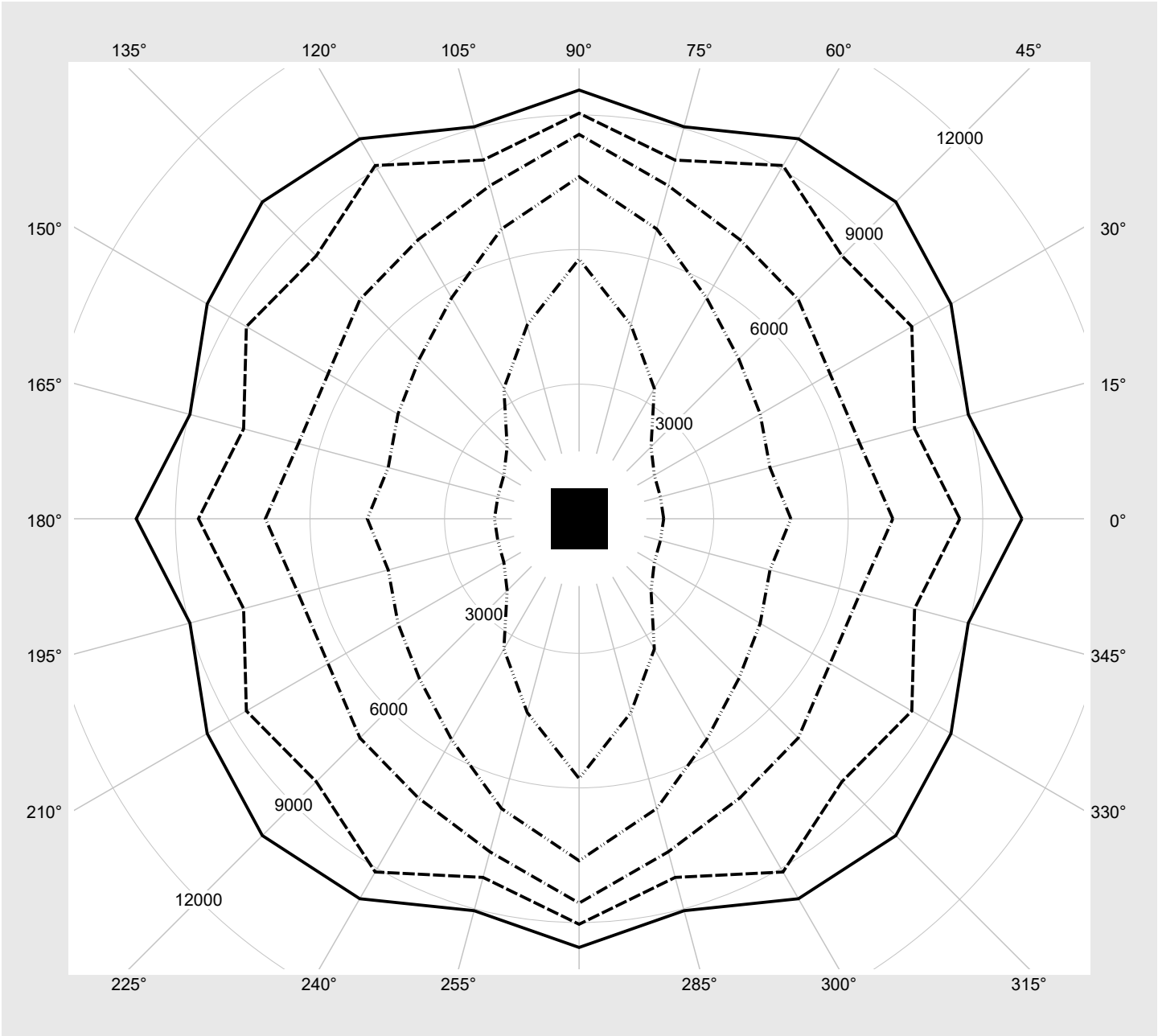
γ 70°

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	31500	167.9
95	240	252	29894	158.8
90	226	250	28303	148.5
85	213	248	26810	139.7
80	199	245	25167	130.2
75	186	243	23638	121.3
70	173	240	22107	112.7
65	159	237	20436	103.4
60	146	234	18872	94.9
55	133	230	17285	86.4
50	121	227	15808	78.5
45	108	223	14186	70.2
40	95	218	12554	61.9
35	83	213	11024	54.1
30	71	207	9480	46.6
25	59	201	7914	39.0
20	47	192	6334	31.7
15	35	181	4729	24.3
10	23	166	3107	16.9
5	12	142	1596	9.9
2	6	117	763	6.0