

Photometric test report

Family
Highbay 11

Order number: 51HN12DA5MMA
EAN: 4069025424679

LP number
59710_391

serial
documentation
09.04.2025

siteco

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

Lamps LED 5000 K | CRI ≥ 80

Controlgear ECG-DALI

Rated values Net luminous flux = 27890 lm
Power consumption = 146.6 W
Luminous efficacy = 190.2 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	22.1	23.4	22.4	23.7	24.0	21.8	23.1	22.1	23.4	23.7
	3H	22.1	23.2	22.5	23.5	23.9	21.8	22.9	22.2	23.3	23.6
	4H	22.1	23.1	22.5	23.5	23.8	21.8	22.9	22.2	23.2	23.6
	6H	22.0	23.0	22.5	23.4	23.7	21.8	22.8	22.3	23.2	23.5
	8H	22.1	22.9	22.5	23.3	23.7	21.9	22.7	22.4	23.1	23.5
	12H	22.1	22.8	22.5	23.2	23.6	21.9	22.7	22.4	23.1	23.5
4H	2H	22.0	23.0	22.4	23.4	23.7	21.7	22.7	22.1	23.1	23.5
	3H	22.0	22.9	22.4	23.3	23.7	21.8	22.6	22.2	23.0	23.4
	4H	22.0	22.8	22.5	23.2	23.6	21.8	22.6	22.2	23.0	23.4
	6H	22.0	22.6	22.5	23.1	23.5	21.8	22.5	22.3	22.9	23.4
	8H	22.0	22.5	22.4	23.0	23.5	21.9	22.4	22.3	22.9	23.4
	12H	22.0	22.4	22.5	22.9	23.4	21.9	22.4	22.4	22.8	23.3
8H	4H	21.9	22.5	22.4	23.0	23.5	21.7	22.3	22.2	22.8	23.3
	6H	21.9	22.4	22.4	22.9	23.4	21.8	22.3	22.3	22.7	23.3
	8H	21.9	22.3	22.4	22.8	23.3	21.8	22.2	22.3	22.7	23.2
	12H	21.9	22.2	22.4	22.7	23.2	21.8	22.2	22.4	22.7	23.2
12H	4H	22.0	22.4	22.4	22.9	23.4	21.8	22.2	22.2	22.7	23.2
	6H	21.9	22.3	22.4	22.8	23.3	21.8	22.2	22.3	22.7	23.2
	8H	21.9	22.2	22.4	22.7	23.3	21.8	22.1	22.3	22.6	23.2

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°	41147.2	40290.4	41881.3	42954.8	38321.5	35980.2	35874.3
50,0°	22925.7	22383.6	22360.1	22759.4	20423.0	19472.7	19138.6
55,0°	14407.5	14022.2	14222.4	14548.9	13197.7	12406.1	12256.9
60,0°	10362.5	10003.4	10510.8	10826.3	10136.4	9386.9	9506.5
65,0°	8743.8	7954.0	8478.0	8843.6	8659.9	8008.6	8461.0
70,0°	7515.4	6857.0	7585.0	7338.5	8050.5	7328.3	8003.4
75,0°	6193.6	5736.5	5721.2	6118.8	6357.4	6804.9	7585.8
80,0°	4181.5	3901.6	4128.7	4460.0	5034.1	5921.0	6749.3
85,0°	1670.2	1661.7	1715.8	2008.8	2970.6	3957.9	5127.4

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Luminance values in cd/m²

γ 65°

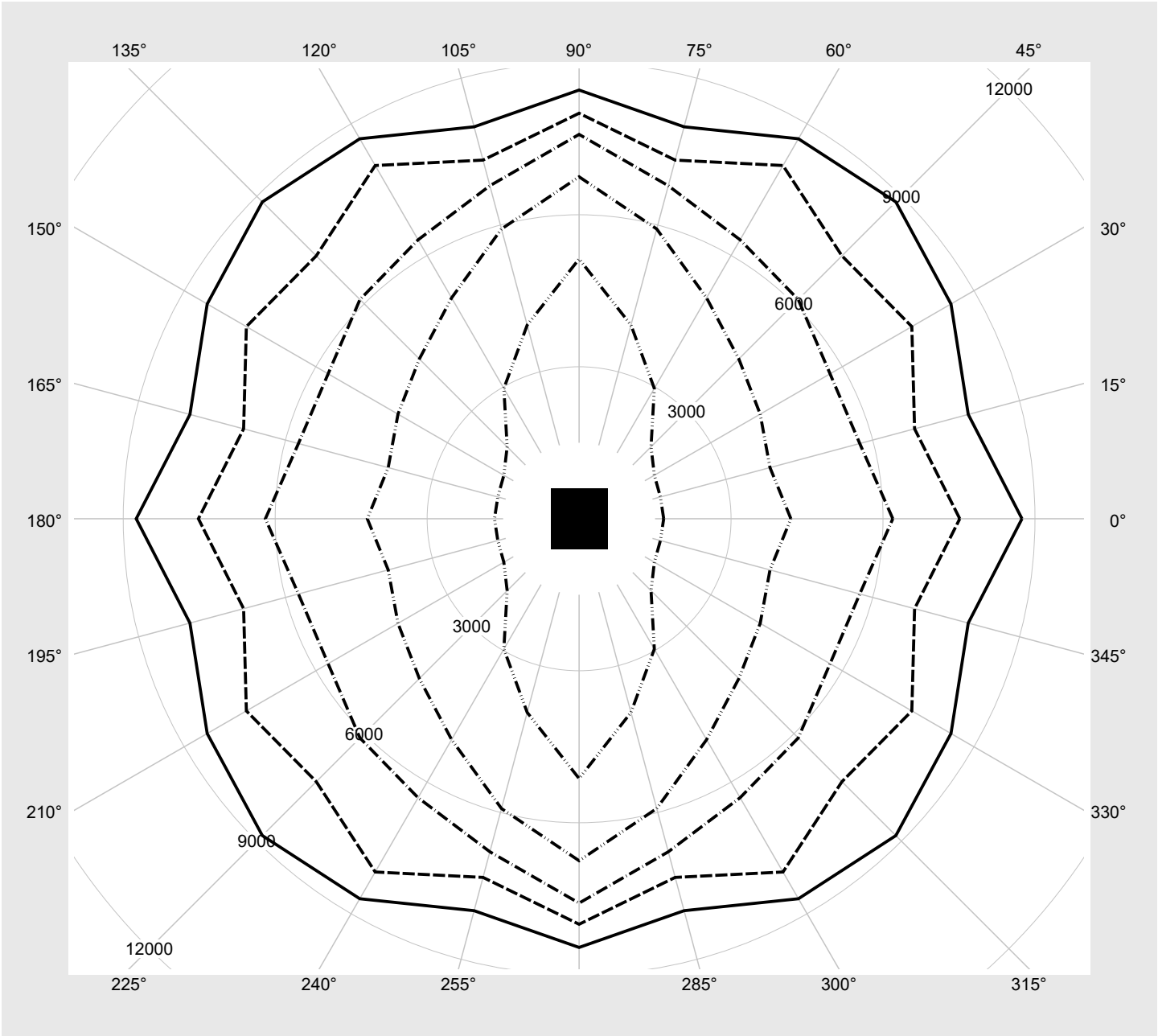
γ 70°

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	27890	146.6
95	240	252	26477	138.2
90	227	250	25143	130.3
85	213	248	23698	121.9
80	200	245	22348	114.2
75	186	243	20885	105.9
70	173	240	19513	98.3
65	160	237	18133	90.7
60	147	234	16732	83.1
55	134	231	15330	75.7
50	121	227	13907	68.3
45	109	223	12582	61.5
40	96	218	11139	54.1
35	84	213	9788	47.3
30	71	207	8314	40.2
25	59	201	6934	33.5
20	47	192	5543	27.0
15	35	181	4132	20.6
10	24	168	2828	14.6
5	12	142	1387	7.8
2	5	110	536	3.9