

Photometric test report

Family
Highbay 11

Order number: 51HN12DA4PMA
EAN: 4069025419644

LP number
59710_327

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 = 34500 lm
Power consumption = 186.7 W
Luminous efficacy = 184.8 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	22.8	24.1	23.2	24.4	24.7	22.5	23.8	22.9	24.1	24.4
	3H	22.8	23.9	23.2	24.3	24.6	22.5	23.7	22.9	24.0	24.4
	4H	22.8	23.8	23.2	24.2	24.6	22.6	23.6	23.0	24.0	24.3
	6H	22.8	23.7	23.2	24.1	24.5	22.6	23.5	23.0	23.9	24.3
	8H	22.9	23.7	23.3	24.0	24.4	22.7	23.5	23.1	23.9	24.3
	12H	22.8	23.6	23.3	24.0	24.4	22.7	23.4	23.1	23.8	24.2
4H	2H	22.7	23.7	23.1	24.1	24.5	22.4	23.5	22.8	23.8	24.2
	3H	22.7	23.6	23.2	24.0	24.4	22.5	23.4	22.9	23.7	24.2
	4H	22.7	23.5	23.2	23.9	24.4	22.5	23.3	23.0	23.7	24.2
	6H	22.7	23.4	23.2	23.8	24.3	22.6	23.2	23.1	23.7	24.1
	8H	22.7	23.3	23.2	23.7	24.2	22.6	23.2	23.1	23.6	24.1
	12H	22.7	23.2	23.2	23.6	24.1	22.6	23.1	23.1	23.6	24.1
8H	4H	22.7	23.3	23.2	23.7	24.2	22.5	23.1	23.0	23.5	24.0
	6H	22.7	23.1	23.2	23.6	24.1	22.5	23.0	23.0	23.5	24.0
	8H	22.6	23.0	23.1	23.5	24.1	22.5	23.0	23.0	23.5	24.0
	12H	22.6	22.9	23.1	23.4	24.0	22.6	22.9	23.1	23.4	24.0
12H	4H	22.7	23.2	23.2	23.6	24.1	22.5	23.0	23.0	23.4	23.9
	6H	22.7	23.0	23.2	23.5	24.1	22.5	22.9	23.0	23.4	23.9
	8H	22.6	22.9	23.1	23.4	24.0	22.5	22.9	23.1	23.4	23.9

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°	50899.2	49839.4	51807.2	53135.2	47403.8	44507.6	44376.6
50,0°	28359.1	27688.6	27659.5	28153.4	25263.2	24087.8	23674.5
55,0°	17822.1	17345.5	17593.2	17997.0	16325.6	15346.4	15161.8
60,0°	12818.5	12374.3	13001.9	13392.1	12538.7	11611.7	11759.5
65,0°	10816.2	9839.1	10487.3	10939.5	10712.4	9906.6	10466.3
70,0°	9296.6	8482.2	9382.7	9077.7	9958.5	9065.2	9900.2
75,0°	7661.4	7096.1	7077.1	7569.0	7864.1	8417.6	9383.6
80,0°	5172.6	4826.3	5107.2	5517.1	6227.2	7324.3	8348.9
85,0°	2066.1	2055.5	2122.4	2484.9	3674.6	4895.9	6342.6

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Luminance values in cd/m²

γ 65°

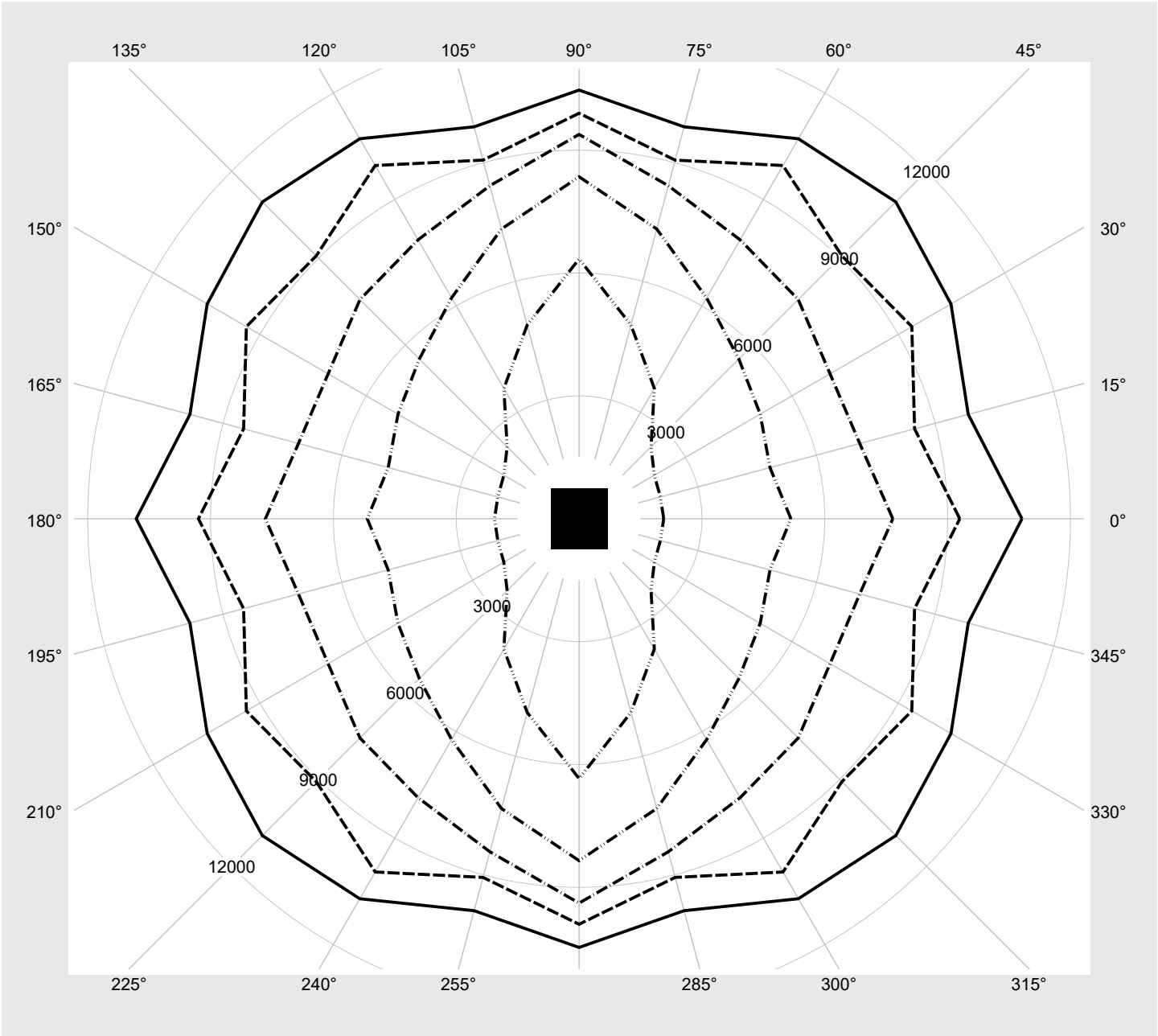
γ 70°

γ 75°

γ 80°

γ 85°

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Dimming levels table		environmental temperature: 25°C

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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	34500	186.7
95	240	252	32775	175.7
90	226	250	31037	165.0
85	212	247	29272	154.2
80	199	245	27631	144.5
75	186	243	25939	134.7
70	172	240	24132	124.1
65	159	237	22442	114.6
60	146	234	20729	105.1
55	133	230	19002	95.6
50	120	227	17248	86.2
45	107	222	15476	76.8
40	95	218	13817	68.3
35	83	213	12144	59.8
30	70	207	10306	50.6
25	58	200	8586	42.2
20	46	191	6846	34.0
15	35	181	5228	26.6
10	23	166	3438	18.5
5	12	142	1774	10.7
2	5	110	697	5.7