

Photometric test report

Family
Highbay 11

Order number: 51HN12DB4VMA
EAN: 4069025419705

LP number
59710_343

serial
documentation
18.03.2025



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 = 56000 lm
Power consumption = 294.9 W
Luminous efficacy = 189.9 lm/W

siteco

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
		siteco

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	22.5	23.7	24.0	21.8	23.1	22.2	23.4	23.7
	3H	22.1	23.2	22.5	23.6	23.9	21.8	22.9	22.2	23.3	23.6
	4H	22.1	23.1	22.5	23.5	23.9	21.8	22.9	22.2	23.2	23.6
	6H	22.1	23.0	22.5	23.4	23.8	21.9	22.8	22.3	23.2	23.6
	8H	22.1	22.9	22.6	23.3	23.7	22.0	22.8	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	23.8	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	22.3	23.0	23.4
	6H	22.0	22.6	22.5	23.1	23.6	21.9	22.5	22.3	22.9	23.4
	8H	22.0	22.6	22.5	23.0	23.5	21.9	22.5	22.3	22.9	23.4
	12H	22.0	22.5	22.5	22.9	23.4	21.9	22.4	22.4	22.8	23.3
8H	4H	22.0	22.5	22.4	23.0	23.5	21.8	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	22.8	23.3
	8H	21.9	22.3	22.4	22.8	23.3	21.8	22.2	22.3	22.7	23.3
	12H	21.9	22.2	22.4	22.7	23.3	21.9	22.2	22.4	22.7	23.2
12H	4H	22.0	22.4	22.5	22.9	23.4	21.8	22.2	22.3	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 = 852 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°	41309.5	40449.3	42046.4	43124.2	38472.7	36122.1	36015.8
50,0°	23016.1	22471.9	22448.3	22849.2	20503.5	19549.5	19214.1
55,0°	14464.3	14077.5	14278.5	14606.2	13249.8	12455.0	12305.3
60,0°	10403.4	10042.9	10552.3	10869.0	10176.3	9424.0	9544.0
65,0°	8778.3	7985.4	8511.5	8878.5	8694.1	8040.2	8494.4
70,0°	7545.1	6884.1	7614.9	7367.4	8082.3	7357.2	8035.0
75,0°	6218.0	5759.1	5743.7	6143.0	6382.5	6831.7	7615.7
80,0°	4198.0	3917.0	4145.0	4477.6	5054.0	5944.3	6775.9
85,0°	1676.8	1668.3	1722.5	2016.8	2982.3	3973.5	5147.6

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Luminance values in cd/m²

γ 65°

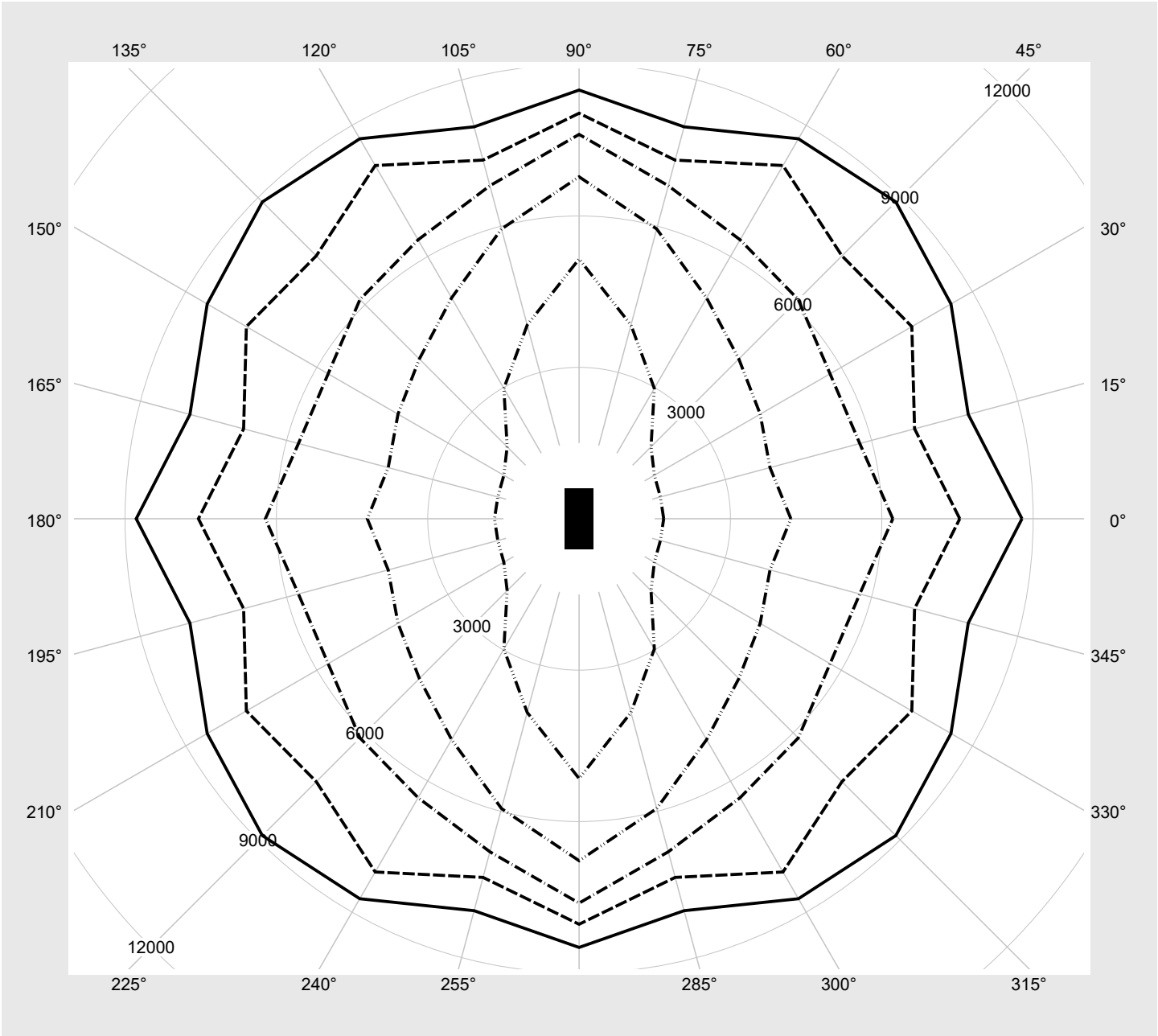
γ 70°

γ 75°

γ 80°

γ 85°

siteco



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Dimming levels table		environmental temperature: 25°C
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	56000	294.9
95	240	252	53210	277.9
90	226	250	50330	261.0
85	213	248	47659	245.4
80	199	245	44755	228.3
75	186	243	42025	213.0
70	173	240	39282	197.7
65	160	237	36489	182.3
60	147	234	33676	167.1
55	134	231	30846	152.1
50	121	227	27992	137.1
45	108	223	25125	122.4
40	96	218	22443	108.5
35	83	213	19500	93.9
30	71	207	16764	80.6
25	59	201	13995	67.4
20	47	192	11182	54.2
15	35	181	8343	41.2
10	24	168	5708	29.3
5	12	142	2795	15.7
2	5	110	1082	7.9