

Photometric test report

Family
Highbay 11

Order number: 51HN12DA4KMA
EAN: 4069025419583

LP number
59710_340

serial
documentation
18.03.2025

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 = 23000 lm
Power consumption = 117.3 W
Luminous efficacy = 196.1 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	21.4	22.7	21.8	23.0	23.3	21.1	22.4	21.5	22.7	23.0
	3H	21.4	22.5	21.8	22.9	23.2	21.1	22.3	21.5	22.6	23.0
	4H	21.4	22.4	21.8	22.8	23.2	21.2	22.2	21.6	22.6	22.9
	6H	21.4	22.3	21.8	22.7	23.1	21.2	22.1	21.6	22.5	22.9
	8H	21.4	22.2	21.9	22.6	23.0	21.3	22.1	21.7	22.5	22.9
	12H	21.4	22.1	21.9	22.5	23.0	21.3	22.0	21.7	22.4	22.8
4H	2H	21.3	22.3	21.7	22.7	23.1	21.0	22.1	21.4	22.4	22.8
	3H	21.3	22.2	21.8	22.6	23.0	21.1	21.9	21.5	22.3	22.8
	4H	21.3	22.1	21.8	22.5	23.0	21.1	21.9	21.6	22.3	22.7
	6H	21.3	22.0	21.8	22.4	22.9	21.2	21.8	21.6	22.3	22.7
	8H	21.3	21.9	21.8	22.3	22.8	21.2	21.8	21.7	22.2	22.7
	12H	21.3	21.8	21.8	22.2	22.7	21.2	21.7	21.7	22.2	22.7
8H	4H	21.3	21.9	21.7	22.3	22.8	21.1	21.7	21.5	22.1	22.6
	6H	21.2	21.7	21.7	22.2	22.7	21.1	21.6	21.6	22.1	22.6
	8H	21.2	21.6	21.7	22.1	22.6	21.1	21.6	21.6	22.0	22.6
	12H	21.2	21.5	21.7	22.0	22.6	21.2	21.5	21.7	22.0	22.5
12H	4H	21.3	21.8	21.8	22.2	22.7	21.1	21.5	21.6	22.0	22.5
	6H	21.3	21.6	21.8	22.1	22.6	21.1	21.5	21.6	22.0	22.5
	8H	21.2	21.5	21.7	22.0	22.6	21.1	21.5	21.7	22.0	22.5

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°	33932.8	33226.2	34538.2	35423.5	31602.6	29671.7	29584.4
50,0°	18906.1	18459.1	18439.7	18768.9	16842.2	16058.5	15783.0
55,0°	11881.4	11563.7	11728.8	11998.0	10883.8	10230.9	10107.9
60,0°	8545.7	8249.5	8667.9	8928.1	8359.1	7741.1	7839.7
65,0°	7210.8	6559.4	6991.6	7293.0	7141.6	6604.4	6977.5
70,0°	6197.7	5654.8	6255.1	6051.8	6639.0	6043.4	6600.1
75,0°	5107.6	4730.7	4718.1	5046.0	5242.7	5611.8	6255.7
80,0°	3448.4	3217.5	3404.8	3678.0	4151.5	4882.8	5565.9
85,0°	1377.4	1370.3	1414.9	1656.6	2449.7	3264.0	4228.4

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Luminance values in cd/m²

γ 65°

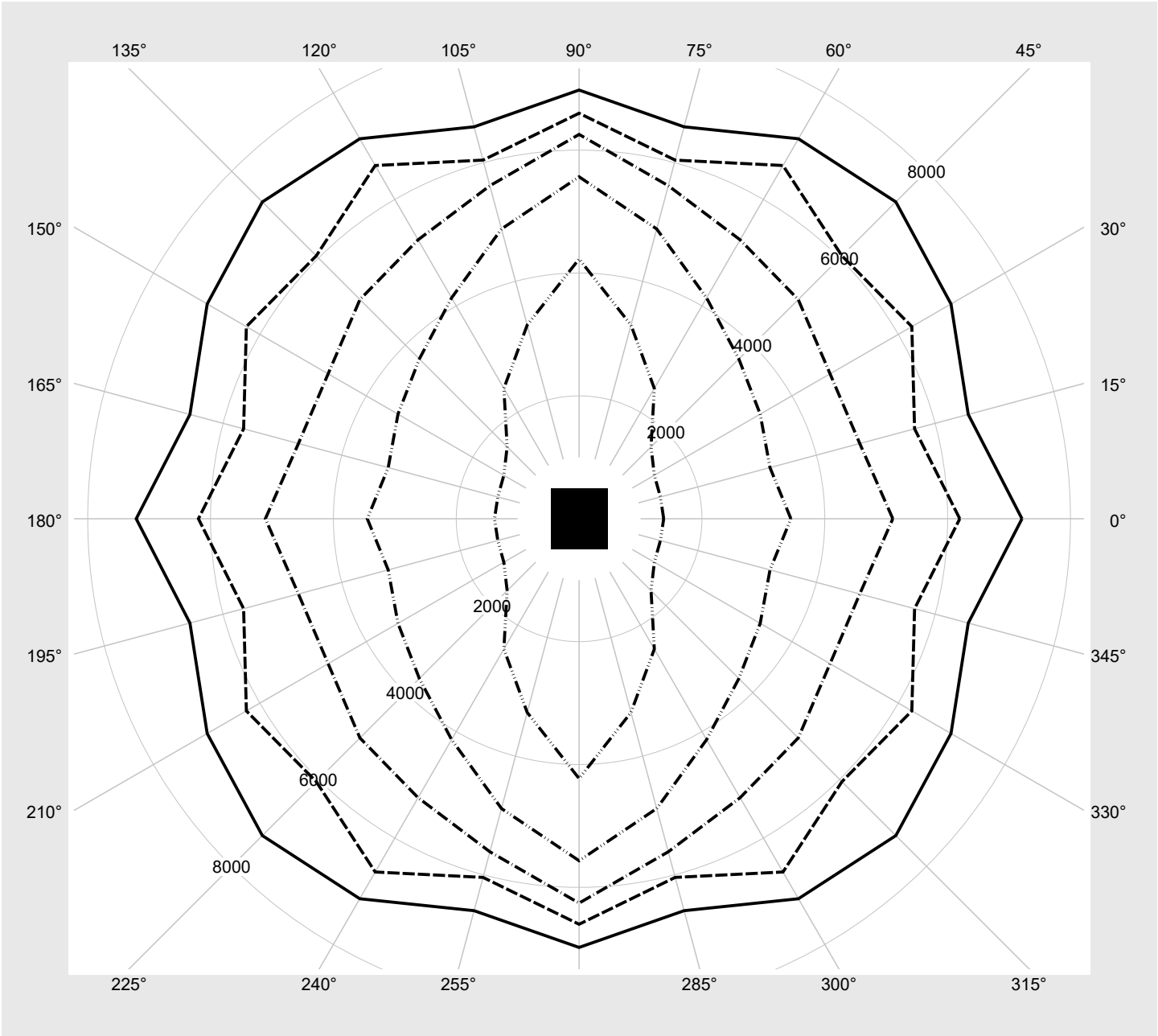
γ 70°

γ 75°

γ 80°

γ 85°

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Dimming levels table environmental temperature: 25°C		siteco

Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	23000	117.3
95	240	252	21817	110.5
90	227	250	20712	104.4
85	213	248	19510	97.8
80	200	245	18390	91.7
75	187	243	17257	85.6
70	174	240	16121	79.5
65	161	237	14975	73.5
60	148	234	13820	67.6
55	135	231	12656	61.6
50	122	227	11484	55.6
45	110	223	10395	50.1
40	97	219	9201	44.3
35	85	214	8092	38.9
30	72	208	6876	33.1
25	60	201	5747	27.8
20	48	193	4608	22.6
15	36	182	3453	17.4
10	24	168	2290	12.0
5	12	142	1112	6.5
2	6	117	520	3.8