

Photometric test report

Family
Highbay 11

Order number: 51HN12DB4QMA
EAN: 4069025349828

LP number
59710_5

serial
documentation
29.01.2025



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 = 36000 lm
Power consumption = 177.7 W
Luminous efficacy = 202.6 lm/W

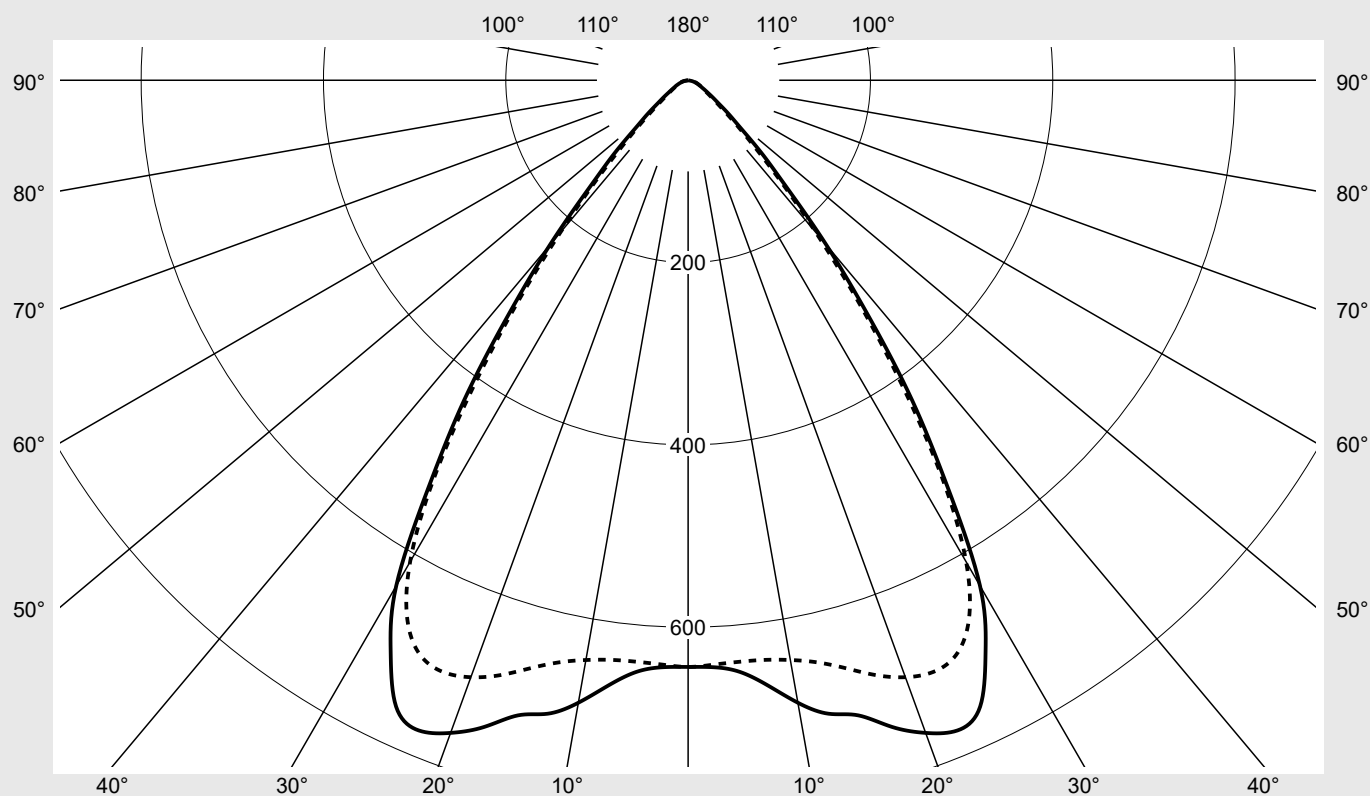
siteco

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
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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	20.6	21.8	20.9	22.2	22.5	20.3	21.5	20.6	21.9	22.2
	3H	20.6	21.7	20.9	22.0	22.4	20.3	21.4	20.7	21.7	22.1
	4H	20.6	21.6	21.0	21.9	22.3	20.3	21.3	20.7	21.7	22.1
	6H	20.5	21.5	20.9	21.8	22.2	20.3	21.3	20.7	21.6	22.0
	8H	20.6	21.4	21.0	21.8	22.2	20.4	21.2	20.8	21.6	22.0
	12H	20.6	21.3	21.0	21.7	22.1	20.4	21.1	20.8	21.5	22.0
4H	2H	20.4	21.5	20.8	21.8	22.2	20.2	21.2	20.6	21.6	21.9
	3H	20.5	21.3	20.9	21.7	22.1	20.2	21.1	20.7	21.5	21.9
	4H	20.5	21.2	20.9	21.7	22.1	20.3	21.0	20.7	21.5	21.9
	6H	20.5	21.1	20.9	21.5	22.0	20.3	21.0	20.8	21.4	21.9
	8H	20.4	21.0	20.9	21.5	22.0	20.3	20.9	20.8	21.4	21.8
	12H	20.5	20.9	20.9	21.4	21.9	20.4	20.8	20.9	21.3	21.8
8H	4H	20.4	21.0	20.9	21.5	21.9	20.2	20.8	20.7	21.2	21.7
	6H	20.4	20.9	20.9	21.3	21.9	20.3	20.7	20.8	21.2	21.7
	8H	20.4	20.8	20.9	21.3	21.8	20.3	20.7	20.8	21.2	21.7
	12H	20.4	20.7	20.9	21.2	21.7	20.3	20.6	20.8	21.1	21.7
12H	4H	20.4	20.9	20.9	21.4	21.9	20.2	20.7	20.7	21.2	21.7
	6H	20.4	20.8	20.9	21.3	21.8	20.3	20.6	20.8	21.1	21.7
	8H	20.4	20.7	20.9	21.2	21.7	20.3	20.6	20.8	21.1	21.7

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°	26556.1	26003.2	27029.9	27722.7	24732.4	23221.4	23153.0
50,0°	14796.1	14446.2	14431.0	14688.7	13180.8	12567.5	12351.9
55,0°	9298.5	9049.9	9179.0	9389.7	8517.7	8006.8	7910.5
60,0°	6687.9	6456.1	6783.6	6987.2	6541.9	6058.3	6135.4
65,0°	5643.2	5133.5	5471.7	5707.6	5589.1	5168.7	5460.7
70,0°	4850.4	4425.5	4895.3	4736.2	5195.7	4729.7	5165.3
75,0°	3997.3	3702.3	3692.4	3949.0	4103.0	4391.8	4895.8
80,0°	2698.7	2518.1	2664.6	2878.5	3249.0	3821.4	4355.9
85,0°	1078.0	1072.4	1107.3	1296.5	1917.2	2554.4	3309.2

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Luminance values in cd/m²

γ 65°

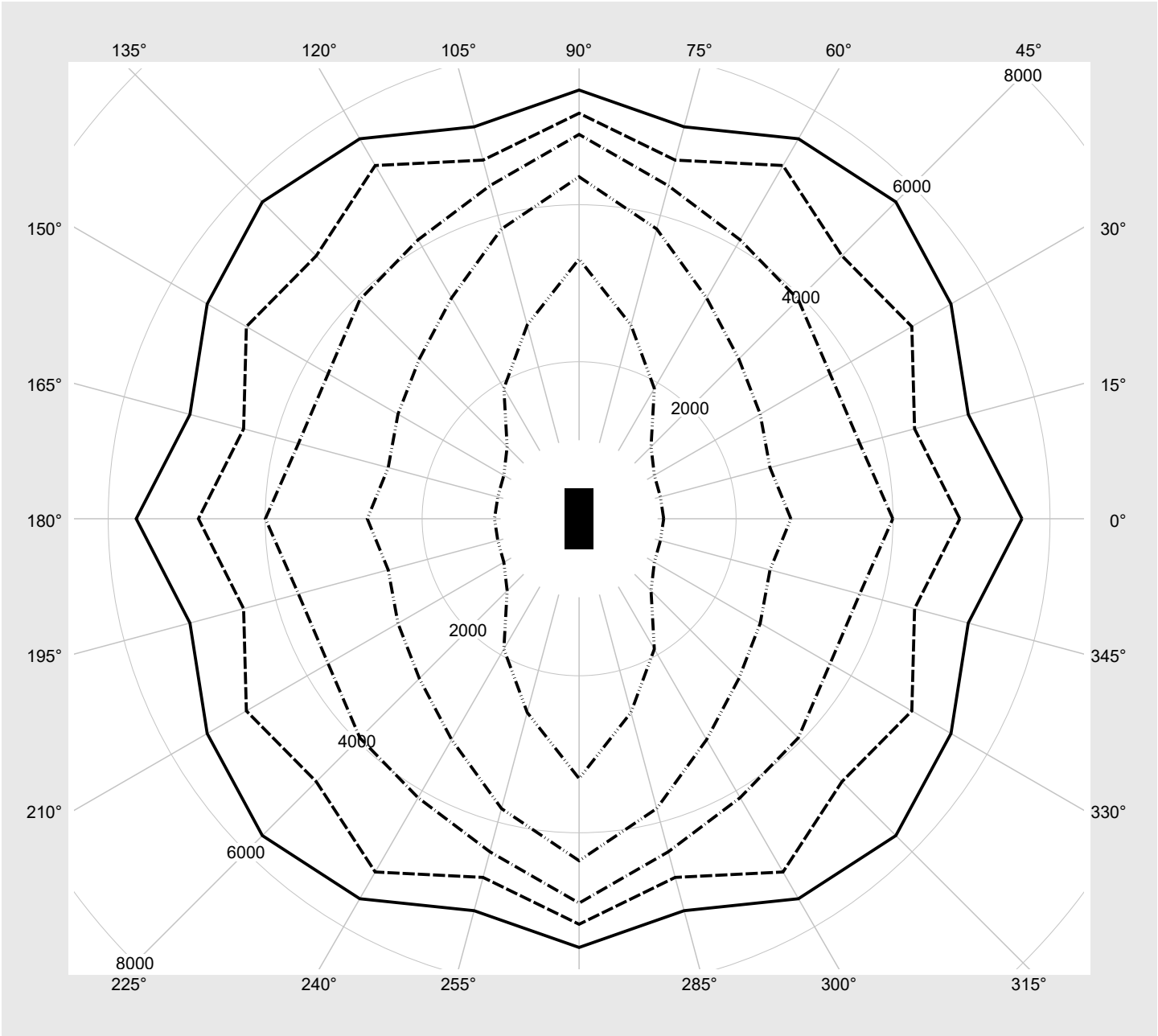
γ 70°

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	36000	177.7
95	241	252	34258	168.3
90	227	250	32370	158.2
85	214	248	30612	149.0
80	201	245	28833	139.6
75	188	243	27050	130.5
70	175	240	25256	121.2
65	162	238	23457	112.2
60	149	234	21641	103.1
55	136	231	19822	94.1
50	123	227	17982	85.1
45	111	224	16268	76.9
40	98	219	14402	68.0
35	86	214	12670	59.9
30	73	208	10780	51.0
25	61	202	9014	43.0
20	49	194	7241	35.1
15	37	183	5454	27.2
10	25	169	3653	19.3
5	13	145	1834	11.1
1	4	102	463	4.8