

Photometric test report

Family
Highbay 11

Order number: 51HN31DB4VDA
EAN: 4069025438287

LP number
59711_166

serial
documentation
14.02.2025

siteco



Version primary light control with lens, PMMA, housing, black, narrow distribution

Lamps LED 4000 K | CRI ≥ 80

Controlgear ECG-DALI

Setting AC-mode

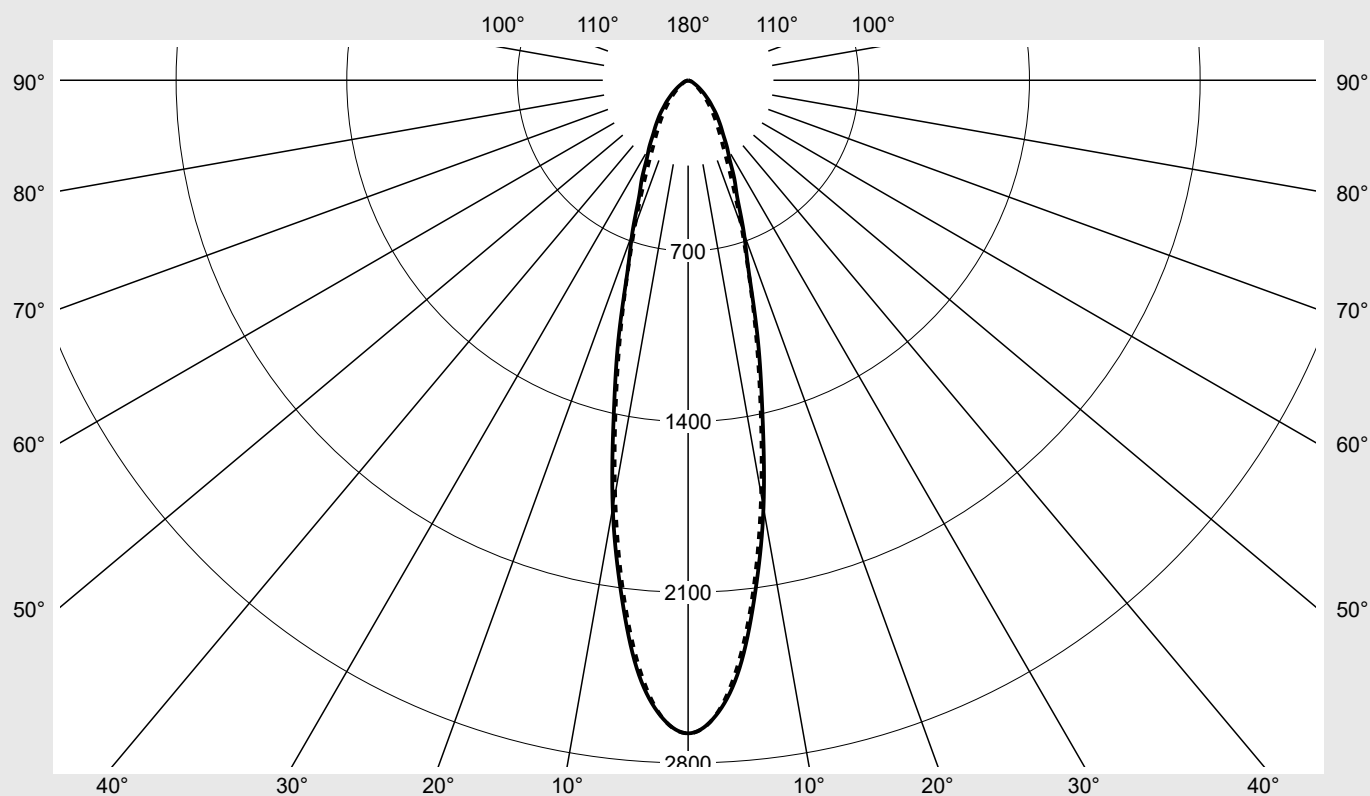
Rated values Net luminous flux = 56000 lm
Power consumption = 294.9 W
Luminous efficacy = 189.9 lm/W

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 2679 cd/klm



Classifications

DIN 5040 A 7 0
CIE N1=85 N2=97 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°	2678.6	2678.6	2678.6	2678.6	2678.6	2678.6	2678.6	4.0	4.0
2,5°	2608.0	2619.4	2619.4	2616.5	2617.6	2616.2	2606.1	31.3	35.3
5,0°	2420.1	2415.7	2414.1	2408.4	2406.6	2402.3	2391.7	57.6	92.8
7,5°	2113.4	2116.1	2112.3	2103.0	2097.6	2090.5	2079.6	75.2	168.1
10,0°	1780.1	1768.7	1762.7	1751.6	1743.6	1735.2	1724.7	83.4	251.5
12,5°	1410.1	1409.3	1404.7	1395.9	1388.1	1380.5	1373.1	82.8	334.3
15,0°	1106.5	1097.8	1095.0	1089.4	1083.1	1078.4	1073.9	77.3	411.5
17,5°	830.1	840.2	835.5	831.1	826.6	824.9	824.1	68.5	480.0
20,0°	671.1	661.9	651.8	643.2	639.9	639.4	641.0	60.8	540.8
22,5°	531.9	530.5	514.2	498.9	497.0	496.6	496.8	53.4	594.2
25,0°	450.6	441.3	420.6	401.3	399.0	395.8	392.4	47.9	642.1
27,5°	370.8	368.7	351.4	331.7	326.8	321.1	316.0	43.1	685.2
30,0°	320.4	312.1	300.8	284.1	278.0	270.2	264.7	39.7	724.9
32,5°	271.0	266.8	259.0	245.6	238.0	229.0	224.7	36.5	761.4
35,0°	235.8	228.9	222.7	210.5	201.6	193.0	191.7	33.3	794.7
37,5°	204.4	197.8	191.5	181.1	172.0	164.3	162.4	30.3	825.0
40,0°	176.7	170.7	163.1	154.3	146.1	138.3	135.6	27.3	852.2
42,5°	147.6	145.5	138.6	130.6	123.2	115.8	113.3	24.2	876.4
45,0°	126.0	121.8	116.3	109.0	102.0	95.3	93.2	21.1	897.6
47,5°	103.2	101.5	97.1	90.9	84.6	78.4	76.7	18.3	915.9
50,0°	85.9	82.9	79.4	74.6	69.1	63.7	61.9	15.5	931.4
52,5°	69.0	67.2	64.5	61.0	56.2	51.6	49.7	13.0	944.4
55,0°	55.6	54.1	52.2	49.5	45.7	41.7	40.0	10.9	955.3
57,5°	43.6	43.1	41.8	39.8	37.0	33.6	32.2	9.0	964.3
60,0°	33.2	33.3	33.9	32.4	30.5	27.5	26.1	7.4	971.7
62,5°	25.9	26.0	27.0	26.2	25.1	22.4	21.3	6.1	977.8
65,0°	21.6	21.2	21.7	21.3	20.9	18.8	17.7	5.1	982.9
67,5°	17.0	17.1	17.8	17.0	17.3	15.6	14.8	4.3	987.2
70,0°	13.5	13.4	14.4	13.6	14.1	13.0	12.4	3.5	990.7
72,5°	11.0	10.8	10.9	10.9	11.0	10.7	10.6	2.8	993.5
75,0°	9.0	8.4	8.4	8.3	8.6	9.0	8.9	2.3	995.8
77,5°	6.6	6.4	6.2	6.2	6.6	7.3	7.4	1.8	997.5
80,0°	4.4	4.2	4.1	4.2	4.7	5.7	5.8	1.3	998.8
82,5°	2.0	2.1	2.2	2.4	3.0	3.9	4.1	0.8	999.6
85,0°	0.8	0.8	0.8	1.0	1.5	2.2	2.4	0.4	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
Reflection factor of walls		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3
Reflection factor of floor		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	21.1	22.2	21.4	22.5	22.9	19.9	21.1	20.2	21.4
	3H	21.3	22.3	21.7	22.7	23.0	20.2	21.2	20.5	21.5
	4H	21.4	22.3	21.8	22.7	23.0	20.3	21.2	20.7	21.6
	6H	21.4	22.3	21.8	22.6	23.0	20.4	21.3	20.9	21.7
	8H	21.5	22.2	21.9	22.6	23.0	20.6	21.3	21.0	21.7
	12H	21.4	22.1	21.9	22.5	22.9	20.6	21.2	21.0	21.6
4H	2H	21.1	22.1	21.5	22.4	22.8	20.1	21.0	20.5	21.4
	3H	21.4	22.2	21.9	22.6	23.0	20.5	21.2	20.9	21.6
	4H	21.6	22.2	22.0	22.7	23.1	20.7	21.4	21.1	21.8
	6H	21.6	22.2	22.1	22.6	23.1	20.9	21.4	21.3	21.9
	8H	21.6	22.1	22.1	22.6	23.1	20.9	21.5	21.4	21.9
	12H	21.6	22.0	22.1	22.5	23.0	21.0	21.4	21.5	21.9
8H	4H	21.5	22.1	22.0	22.5	23.0	20.7	21.2	21.2	21.6
	6H	21.6	22.0	22.1	22.5	23.0	20.9	21.3	21.4	21.8
	8H	21.6	22.0	22.1	22.5	23.0	21.0	21.4	21.5	21.9
	12H	21.6	21.9	22.1	22.4	22.9	21.1	21.4	21.6	21.9
12H	4H	21.5	22.0	22.0	22.4	22.9	20.7	21.1	21.2	21.6
	6H	21.6	22.0	22.1	22.4	23.0	20.9	21.2	21.4	21.7
	8H	21.6	21.9	22.1	22.4	22.9	21.0	21.3	21.5	21.8

Luminance table		Max. for $\gamma \geq 65^\circ$		Photometric dimensions in mm:		L = 852 B = 264	
C-planes	γ	0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°
			Luminance in cd/m²				
45,0°	50,0°	55,0°	60,0°	65,0°	70,0°	75,0°	80,0°
65,0°	70,0°	75,0°	80,0°	85,0°			
85,0°							

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Luminance values in cd/m²

γ 65°

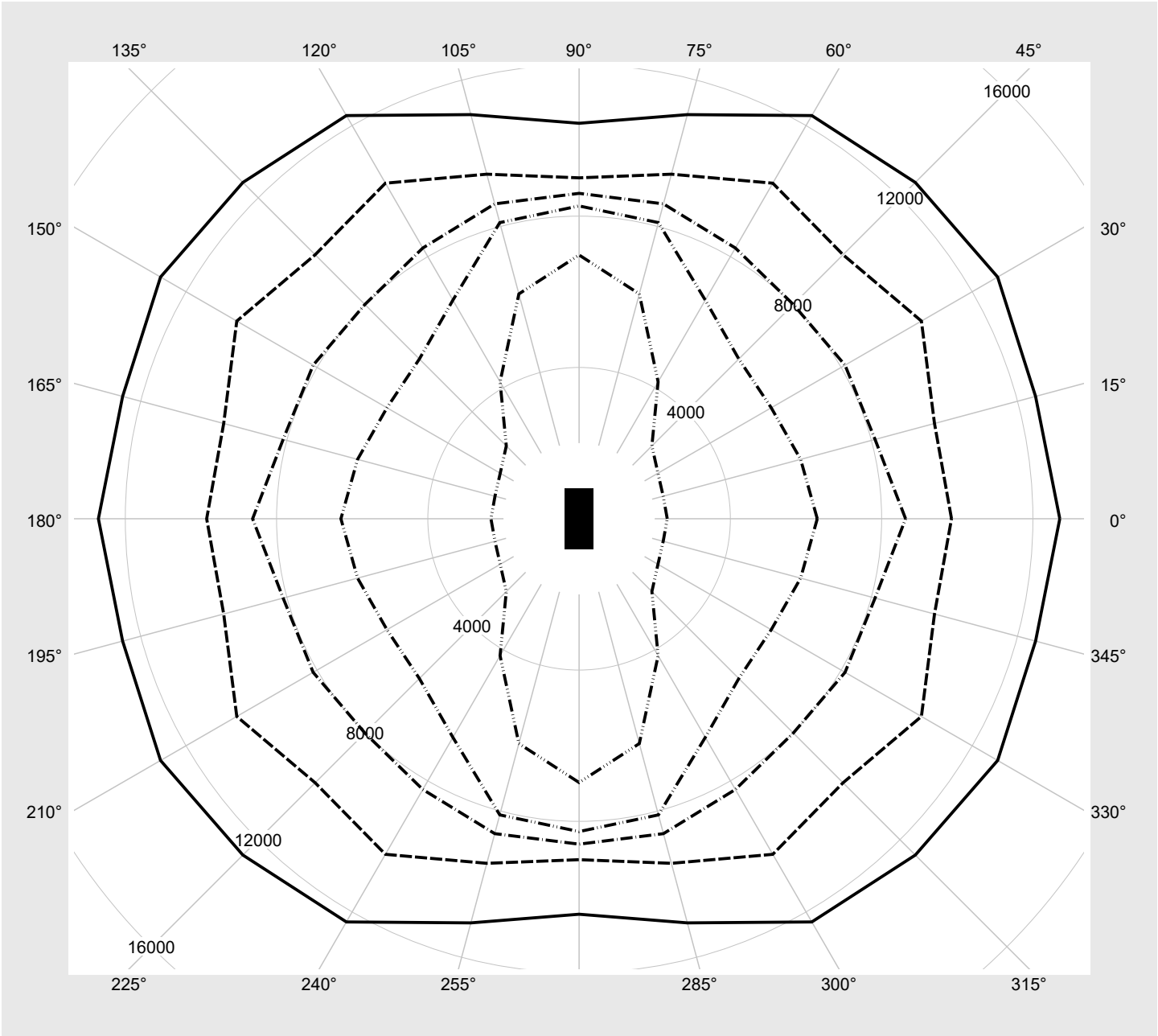
γ 70°

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	56000	294.9
95	240	252	53210	277.9
90	226	250	50330	261.0
85	213	248	47658	245.3
80	199	245	44755	228.3
75	186	243	42024	213.0
70	173	240	39281	197.6
65	160	237	36488	182.2
60	147	234	33675	167.1
55	134	231	30845	152.1
50	121	227	27992	137.1
45	108	223	25125	122.3
40	96	218	22443	108.5
35	83	213	19499	93.9
30	71	207	16763	80.6
25	59	201	13995	67.4
20	47	192	11182	54.2
15	35	181	8342	41.2
10	24	168	5708	29.3
5	12	142	2795	15.7
2	5	110	1082	7.9