



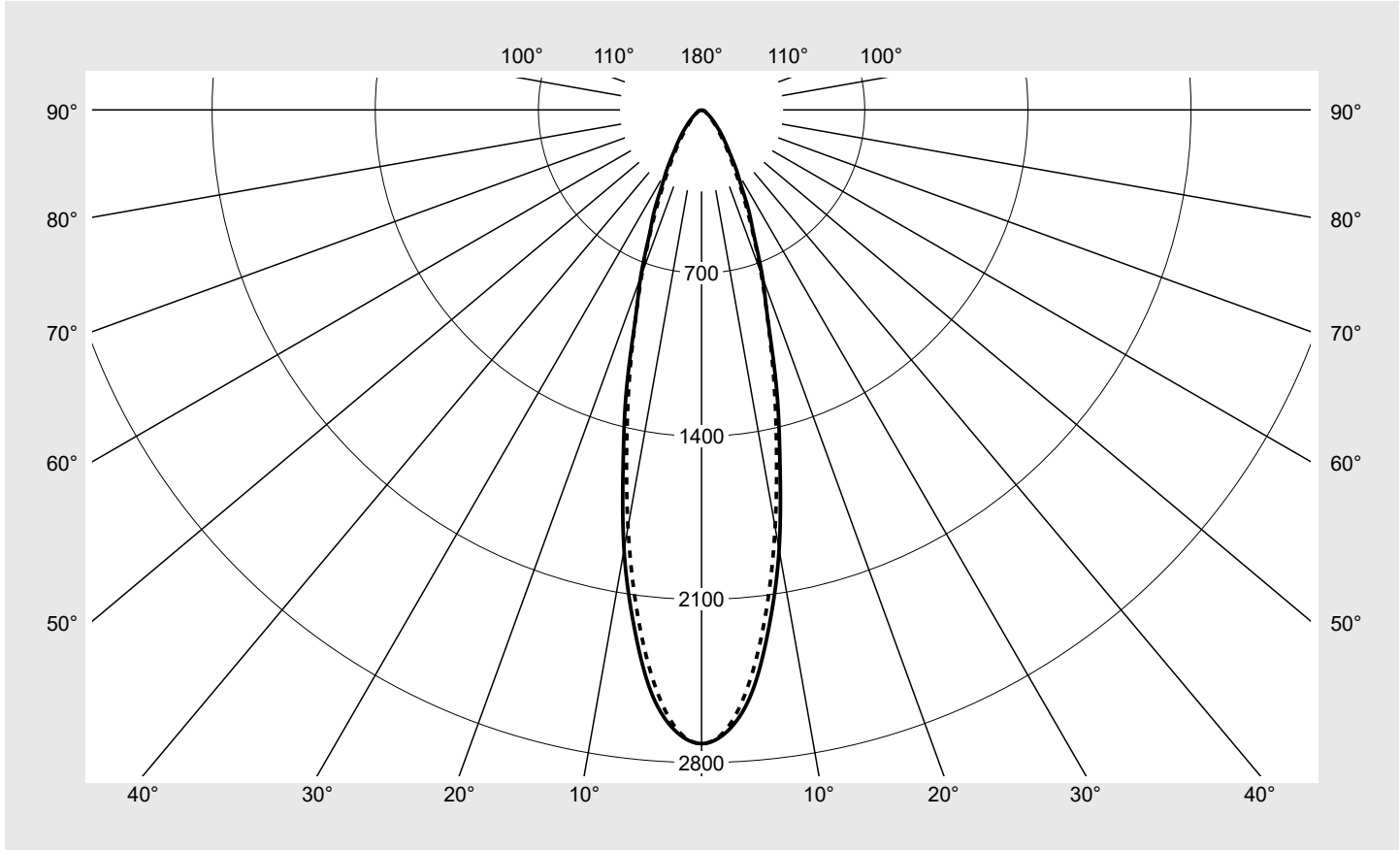
Photometric test report

Family Highbay 21	Order number: 52HN11DB4MDA02 EAN: 4069025421401	LP number 59724_149
	Version primary light control with lens, PMMA, housing, white, narrow distribution, with Node BT Lamps LED 4000 K CRI ≥ 80 Controlgear ECG-DALI Rated values Net luminous flux = 28000 lm Power consumption = 144.5 W Luminous efficacy = 193.8 lm/W	serial documentation 20.03.2025





Luminous intensity in cd/klm C180-0 C270-90 **Imax: 2719 cd/klm**



Classifications	
DIN 5040	A 7 0
CIE	N1=89 N2=97 N3=99 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	0,0° 180,0°	7,5°	15,0°	22,5°	30,0°	37,5°	45,0°
		172,5° 187,5° 352,5°	165,0° 195,0° 345,0°	157,5° 202,5° 337,5°	150,0° 210,0° 330,0°	142,5° 217,5° 322,5°	135,0° 225,0° 315,0°
γ	Luminous intensity in cd/klm						
0,0°	2718.5	2718.5	2718.5	2718.5	2718.5	2718.5	2718.5
2,5°	2662.8	2671.1	2671.1	2670.6	2667.6	2663.3	2662.4
5,0°	2502.8	2490.9	2498.0	2494.5	2487.6	2479.1	2473.3
7,5°	2228.4	2233.8	2227.9	2223.2	2214.7	2203.4	2194.2
10,0°	1915.8	1894.8	1902.8	1897.9	1890.8	1880.8	1870.9
12,5°	1554.6	1560.7	1554.3	1552.6	1548.0	1540.2	1531.7
15,0°	1246.2	1237.0	1237.4	1238.4	1237.7	1233.9	1229.0
17,5°	947.1	964.7	959.6	960.0	960.5	959.5	958.4
20,0°	765.0	752.2	754.6	751.6	749.0	747.8	747.5
22,5°	591.2	598.6	590.3	583.2	577.5	573.8	572.1
25,0°	481.4	472.8	470.4	460.9	451.8	445.8	443.1
27,5°	370.5	376.3	371.1	363.9	355.1	347.9	344.8
30,0°	301.2	297.9	295.0	290.6	284.7	279.0	275.2
32,5°	234.8	237.8	234.9	232.8	229.2	225.3	220.4
35,0°	189.2	188.5	187.7	186.9	184.4	180.6	175.3
37,5°	154.0	153.7	151.7	151.0	148.4	144.9	141.0
40,0°	125.7	123.3	123.0	121.9	119.1	115.8	113.2
42,5°	99.2	100.3	99.3	98.6	95.9	92.9	90.7
45,0°	81.4	79.6	79.7	79.0	77.2	74.6	72.7
47,5°	64.2	64.9	64.5	64.0	62.8	60.9	59.5
50,0°	52.5	51.6	51.8	51.7	51.0	49.9	49.1
52,5°	41.7	41.9	41.8	42.1	41.9	41.4	40.9
55,0°	33.9	33.5	34.1	34.8	35.0	35.0	34.7
57,5°	27.1	27.4	28.1	29.2	29.7	29.7	29.6
60,0°	22.3	22.3	23.0	24.6	25.8	25.8	25.5
62,5°	19.0	19.2	19.6	20.7	22.4	22.3	22.0
65,0°	17.0	16.8	17.2	18.3	19.8	19.1	19.1
67,5°	14.7	14.8	14.9	16.1	17.2	16.3	16.1
70,0°	12.8	12.5	12.6	13.8	14.3	13.8	13.9
72,5°	11.3	11.1	10.9	11.6	11.4	11.2	11.7
75,0°	9.7	9.3	8.9	9.6	9.3	9.1	9.3
77,5°	7.4	7.4	7.1	7.5	7.1	6.8	7.1
80,0°	4.9	4.7	4.8	4.8	4.5	4.5	4.8
82,5°	2.2	2.3	2.3	2.4	2.4	2.5	2.7
85,0°	0.8	0.8	0.8	0.8	0.8	0.9	1.0
87,5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4

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Family Highbay 21	Order number: 52HN11DB4MDA02 EAN: 4069025421401	LP number 59724_149
Table of values for luminous intensities		Maximum luminous intensity
		siteco

C-planes γ	52,5° 127,5° 232,5° 307,5°	60,0° 120,0° 240,0° 300,0°	67,5° 112,5° 247,5° 292,5°	75,0° 105,0° 255,0° 285,0°	82,5° 97,5° 262,5° 277,5°	90,0° 270,0°	Phi-zone	Total Phi-zone
	Luminous intensity in cd/klm						Luminous flux in lm/klm	
0,0°	2718.5	2718.5	2718.5	2718.5	2718.5	2718.5	4.1	4.1
2,5°	2661.4	2660.0	2657.7	2657.0	2651.0	2647.2	31.8	35.9
5,0°	2468.0	2461.9	2456.3	2452.9	2444.7	2440.4	59.1	95.0
7,5°	2185.5	2176.0	2168.0	2162.0	2152.6	2148.3	78.5	173.5
10,0°	1860.3	1847.8	1837.7	1831.0	1822.1	1817.6	88.9	262.4
12,5°	1522.0	1510.4	1500.7	1495.5	1488.9	1485.2	90.6	353.0
15,0°	1223.0	1215.3	1207.9	1204.2	1200.8	1197.6	86.8	439.8
17,5°	955.3	949.4	945.6	944.9	945.8	944.0	78.6	518.5
20,0°	745.4	741.8	741.4	743.7	748.0	747.7	70.2	588.6
22,5°	571.4	571.2	573.5	575.9	579.7	580.1	60.8	649.4
25,0°	443.2	444.5	446.3	448.3	449.2	448.8	52.5	701.9
27,5°	344.0	344.5	345.1	346.1	344.9	343.6	44.7	746.7
30,0°	273.7	273.8	273.9	272.4	270.2	268.2	38.5	785.2
32,5°	217.7	217.2	215.9	213.7	211.0	209.4	32.9	818.1
35,0°	172.5	170.5	168.2	166.4	165.0	164.5	27.8	845.9
37,5°	138.1	135.6	133.3	132.0	130.7	130.3	23.7	869.5
40,0°	110.2	108.1	106.1	104.8	103.7	103.1	20.0	889.6
42,5°	88.5	86.8	85.0	83.9	83.2	82.7	16.9	906.5
45,0°	71.2	69.8	68.4	67.3	66.9	66.6	14.2	920.7
47,5°	58.5	57.3	56.0	55.1	54.8	54.6	12.1	932.8
50,0°	48.3	47.1	46.0	45.5	45.1	44.8	10.3	943.0
52,5°	40.2	39.3	38.3	37.7	37.1	36.8	8.7	951.8
55,0°	34.1	33.4	32.5	31.7	31.0	30.7	7.5	959.3
57,5°	29.3	29.0	28.2	27.0	26.3	26.1	6.6	965.9
60,0°	25.7	25.8	24.8	23.5	22.8	22.6	5.8	971.6
62,5°	22.4	22.9	21.8	20.7	20.1	19.9	5.1	976.8
65,0°	19.6	20.2	19.7	18.4	17.9	17.8	4.6	981.4
67,5°	16.7	17.6	17.8	16.4	16.0	16.0	4.1	985.5
70,0°	14.1	15.0	15.6	14.4	14.4	14.6	3.6	989.1
72,5°	11.7	12.4	13.4	12.9	13.2	13.4	3.1	992.3
75,0°	9.5	10.4	12.0	11.4	11.8	11.9	2.7	995.0
77,5°	7.2	8.1	9.6	9.6	10.0	10.2	2.1	997.1
80,0°	5.1	5.7	7.0	7.5	7.6	8.0	1.5	998.6
82,5°	3.0	3.6	4.5	5.0	5.3	5.6	0.9	999.5
85,0°	1.2	1.7	2.3	2.7	3.1	3.3	0.4	999.9
87,5°	0.4	0.4	0.5	0.6	0.8	0.9	0.1	1000.1

Photometric test report

Family Highbay 21	Order number: 52HN11DB4MDA02 EAN: 4069025421401	LP number 59724_149
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UGR-Table	Standard room	siteco								
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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	16.4	17.5	16.7	17.8	18.1	15.8	17.0	16.2	17.3	17.6
	3H	16.8	17.8	17.2	18.1	18.5	16.5	17.5	16.9	17.8	18.2
	4H	17.0	17.9	17.4	18.3	18.7	16.9	17.8	17.3	18.2	18.5
	6H	17.2	18.0	17.6	18.4	18.8	17.3	18.1	17.7	18.5	18.9
	8H	17.3	18.0	17.7	18.3	18.7	17.5	18.2	18.0	18.6	19.0
	12H	17.3	17.9	17.7	18.3	18.7	17.6	18.2	18.0	18.6	19.0
4H	2H	16.5	17.4	16.9	17.8	18.2	16.1	17.0	16.5	17.3	17.7
	3H	17.1	17.9	17.6	18.3	18.7	16.9	17.7	17.3	18.1	18.5
	4H	17.4	18.1	17.9	18.5	19.0	17.5	18.1	17.9	18.5	19.0
	6H	17.7	18.2	18.1	18.7	19.1	18.0	18.5	18.5	19.0	19.5
	8H	17.7	18.2	18.2	18.6	19.1	18.2	18.7	18.7	19.1	19.6
	12H	17.7	18.1	18.2	18.6	19.1	18.3	18.7	18.8	19.2	19.7
8H	4H	17.5	18.0	18.0	18.5	19.0	17.6	18.0	18.0	18.5	19.0
	6H	17.8	18.2	18.3	18.7	19.2	18.2	18.6	18.7	19.0	19.5
	8H	17.8	18.2	18.3	18.7	19.2	18.4	18.7	18.9	19.2	19.8
	12H	17.8	18.1	18.3	18.6	19.2	18.6	18.8	19.1	19.3	19.9
12H	4H	17.6	18.0	18.0	18.4	18.9	17.6	18.0	18.0	18.4	18.9
	6H	17.8	18.1	18.3	18.6	19.2	18.2	18.5	18.7	19.0	19.5
	8H	17.8	18.1	18.4	18.6	19.2	18.4	18.7	18.9	19.2	19.7

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 852
			B = 264

C-planes	0,0° 180,0°	10,0°	20,0°	30,0°	40,0°	50,0°	60,0°	70,0°	80,0°	90,0° 270,0°
		170,0°	160,0°	150,0°	140,0°	130,0°	120,0°	110,0°	100,0°	
		190,0°	200,0°	210,0°	220,0°	230,0°	240,0°	250,0°	260,0°	
		350,0°	340,0°	330,0°	320,0°	310,0°	300,0°	290,0°	280,0°	
γ	Luminance in cd/m ²									
45,0°	14328.8	13988.2	13969.5	13592.8	13007.9	12620.0	12295.0	11968.6	11798.9	11720.9
50,0°	10157.6	9987.9	10031.9	9874.9	9609.1	9421.9	9122.7	8862.2	8753.7	8670.1
55,0°	7358.0	7287.9	7509.5	7606.5	7572.7	7439.7	7254.9	6996.9	6760.7	6672.0
60,0°	5559.2	5594.5	5996.2	6435.1	6394.9	6382.7	6426.9	6084.5	5724.8	5632.7
65,0°	5018.6	4976.9	5259.2	5818.9	5610.5	5709.7	5954.1	5701.8	5318.8	5255.7
70,0°	4654.4	4553.2	4917.1	5193.8	5009.0	5074.6	5462.8	5600.1	5232.0	5304.8
75,0°	4652.4	4402.9	4561.2	4477.8	4370.6	4520.5	4983.3	5812.5	5640.0	5728.4
80,0°	3512.0	3378.8	3474.1	3256.8	3286.2	3530.3	4111.3	5214.3	5388.7	5707.8
85,0°	1154.1	1124.5	1149.8	1166.9	1290.4	1565.4	2393.8	3451.1	4252.0	4737.7

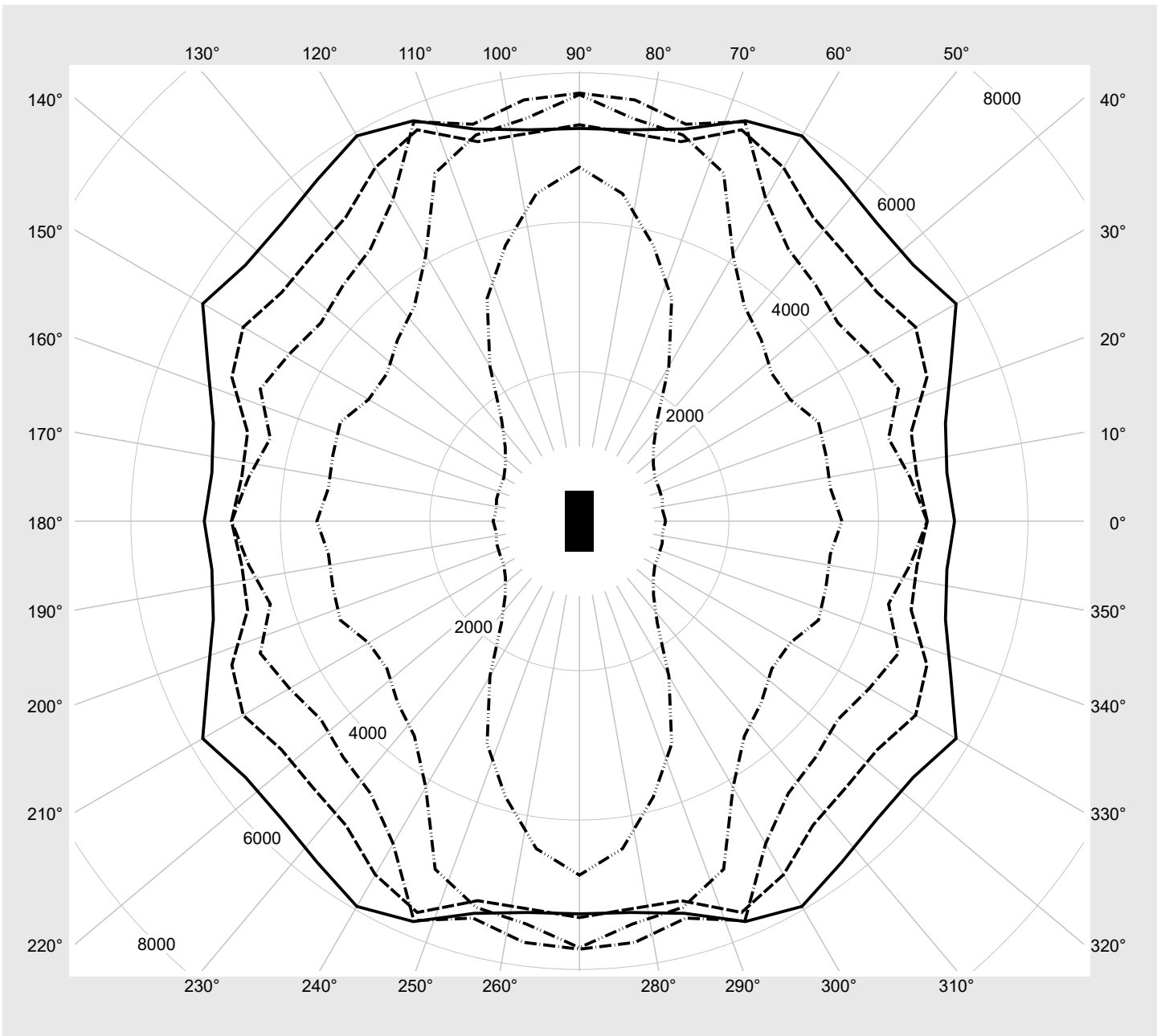
Photometric test report

Family
Highbay 21

Order number: 52HN11DB4MDA02
EAN: 4069025421401

LP number
59724_149

Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85° **siteco**



Photometric test report

Family Highbay 21	Order number: 52HN11DB4MDA02 EAN: 4069025421401	LP number 59724_149
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Dimming levels table	environmental temperature: 25°C	sITeco
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	28000	144.5
95	241	252	26607	137.0
90	228	250	25210	129.6
85	215	248	23807	122.1
80	202	246	22396	114.5
75	189	243	20985	107.3
70	176	241	19564	99.9
65	164	238	18254	93.2
60	151	235	16828	85.7
55	138	232	15398	78.4
50	125	228	13963	71.2
45	113	224	12629	64.4
40	100	220	11186	57.2
35	88	215	9845	50.5
30	75	209	8391	43.3
25	63	203	7039	36.7
20	50	194	5577	29.7
15	38	184	4219	23.0
10	25	169	2748	16.0
5	13	145	1382	9.1
2	5	110	472	4.5