

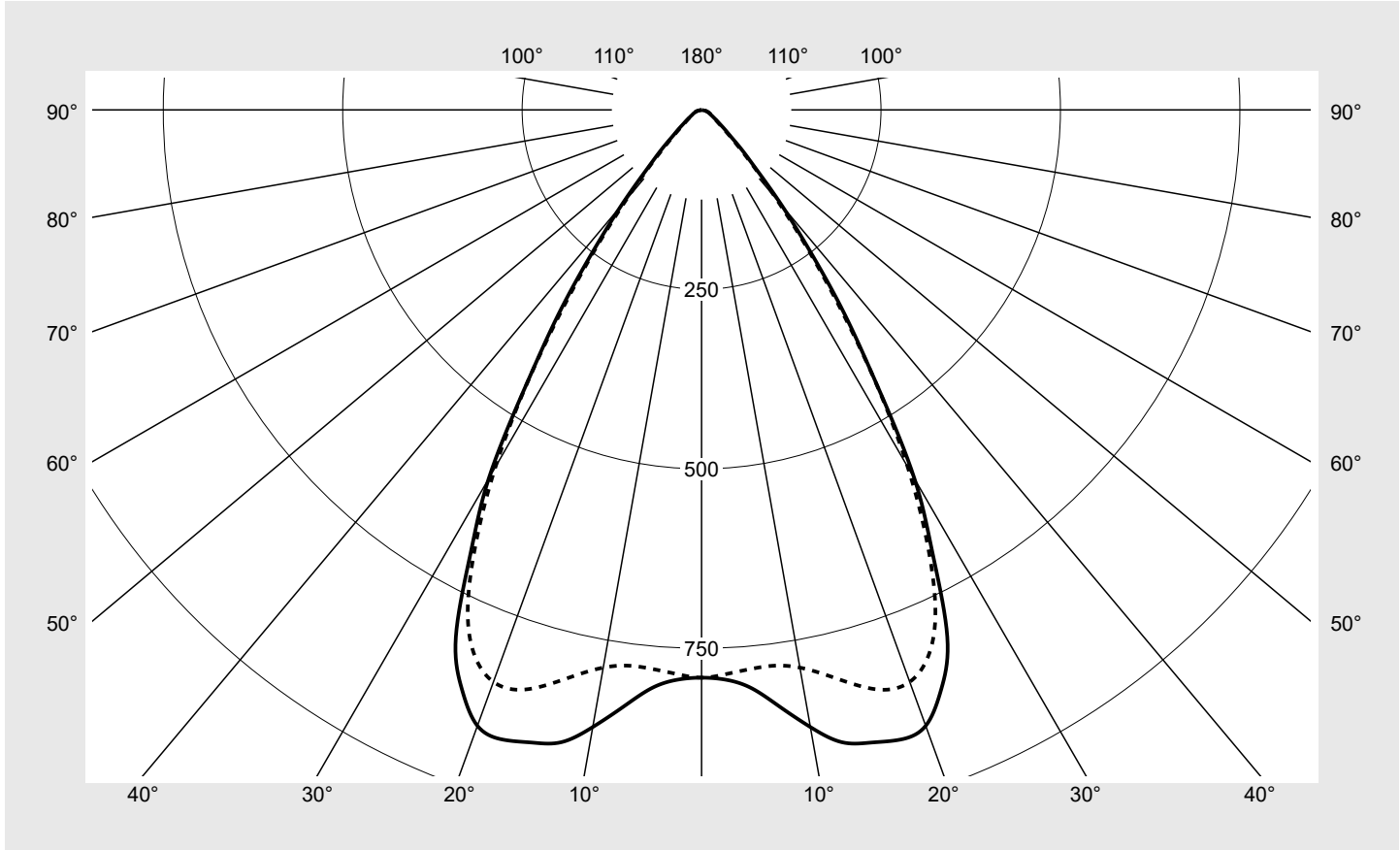


# Photometric test report

<b>Family</b> <b>Highbay 21</b>	<b>Order number: 52HN32DA4FDA</b> <b>EAN: 4069025256836</b>	<b>LP number</b> <b>59723_4</b>
	<b>Version</b> primary light control with lens, PMMA, housing, black, wide distribution	<b>serial documentation</b> <b>24.02.2025</b>
	<b>Lamps</b> LED 4000 K   CRI ≥ 80 <b>Controlgear</b> ECG-DALI <b>Setting</b> AC-mode <b>Rated values</b> Net luminous flux = 14000 lm Power consumption = 72.1 W Luminous efficacy = 194.2 lm/W	
		

**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 920 cd/klm**



Classifications	
DIN 5040	A 7 0
CIE	N1=90 N2=98 N3=100 N4=100 N5=100

Luminaire light output ratios	
$\eta_{LB}$	100.0%
$\phi_u$	100.0%
$\phi_o$	0.0%

**Measurement conditions**  
 DIN EN 13032 and DIN 5032

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Table of values for luminous intensities	Maximum luminous intensity	sITeco
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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°	791.0	791.0	791.0	791.0	791.0	791.0	791.0
2,5°	794.7	794.4	795.0	795.0	794.2	792.8	792.0
5,0°	809.1	811.4	809.6	807.9	804.8	800.8	797.1
7,5°	839.0	837.9	835.9	831.3	824.9	817.3	810.1
10,0°	873.0	873.9	866.7	857.6	846.5	834.6	825.0
12,5°	902.2	899.8	892.6	881.8	868.2	853.9	842.5
15,0°	912.4	911.0	905.2	895.6	883.1	869.5	858.7
17,5°	919.8	918.2	913.1	904.4	892.7	879.7	870.3
20,0°	913.1	910.4	906.8	900.7	891.6	880.0	870.9
22,5°	873.0	875.7	872.3	868.8	863.2	854.7	847.2
25,0°	810.1	803.4	805.6	804.0	800.6	794.9	789.9
27,5°	697.5	704.9	702.5	701.8	699.9	697.0	693.3
30,0°	593.2	587.4	585.8	584.9	582.5	580.2	578.9
32,5°	456.1	464.3	462.1	462.0	458.3	454.5	453.6
35,0°	347.7	343.4	342.9	343.5	340.5	335.4	333.2
37,5°	248.6	249.1	246.7	247.3	245.8	241.7	237.9
40,0°	174.7	169.8	171.0	172.0	172.0	169.5	166.1
42,5°	115.9	118.7	117.3	118.1	118.9	118.2	116.5
45,0°	82.2	79.8	80.4	81.1	81.3	81.6	80.9
47,5°	56.5	57.6	57.2	57.7	57.6	57.9	57.5
50,0°	42.4	41.3	41.7	42.1	42.1	42.1	42.0
52,5°	32.0	31.8	31.7	32.2	32.5	32.7	32.7
55,0°	25.6	24.9	25.0	25.6	26.1	26.6	26.9
57,5°	20.6	20.3	20.3	20.8	21.4	22.1	22.4
60,0°	17.2	16.8	16.6	17.2	18.2	18.6	18.9
62,5°	14.5	14.3	13.9	14.3	15.3	15.8	16.0
65,0°	13.1	12.5	12.0	12.2	13.0	13.5	13.7
67,5°	11.1	10.9	10.3	10.4	11.4	11.4	11.5
70,0°	9.4	9.0	8.7	8.7	9.6	9.3	9.5
72,5°	7.6	7.5	7.3	7.2	7.3	7.4	7.8
75,0°	5.9	5.7	5.6	5.7	5.6	5.7	6.1
77,5°	4.1	4.1	4.1	4.2	4.1	4.2	4.5
80,0°	2.6	2.5	2.5	2.7	2.7	2.8	2.9
82,5°	1.1	1.2	1.2	1.3	1.5	1.5	1.7
85,0°	0.5	0.5	0.5	0.5	0.5	0.5	0.6
87,5°	0.2	0.3	0.3	0.3	0.3	0.3	0.3

## Photometric test report

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Table of values for luminous intensities	Maximum luminous intensity	sITeco
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C-planes $\gamma$	52,5°	60,0°	67,5°	75,0°	82,5°	90,0° 270,0°	Phi-zone	Total Phi-zone
	127,5° 232,5° 307,5°	120,0° 240,0° 300,0°	112,5° 247,5° 292,5°	105,0° 255,0° 285,0°	97,5° 262,5° 277,5°			
	Luminous intensity in cd/klm						Luminous flux in lm/klm	
0,0°	791.0	791.0	791.0	791.0	791.0	791.0	1.2	1.2
2,5°	791.3	790.7	790.0	789.4	788.0	786.7	9.5	10.7
5,0°	794.2	790.9	788.1	786.0	783.2	781.9	19.1	29.7
7,5°	803.7	797.3	791.2	786.8	782.5	780.9	29.0	58.7
10,0°	816.7	808.7	801.4	796.1	791.2	788.9	39.5	98.2
12,5°	833.0	825.3	818.6	813.6	808.7	806.6	50.4	148.6
15,0°	850.7	844.9	836.9	832.9	831.6	829.0	61.4	210.0
17,5°	864.2	859.8	856.6	853.6	849.6	847.0	72.4	282.5
20,0°	864.8	860.1	856.9	853.9	850.4	848.0	82.3	364.7
22,5°	841.4	836.7	833.2	829.7	826.8	824.5	89.2	453.9
25,0°	786.0	782.5	779.1	775.6	772.9	771.0	91.6	545.4
27,5°	691.2	689.6	687.4	684.8	682.7	681.4	87.8	633.3
30,0°	578.6	579.1	578.3	576.4	575.3	574.3	79.6	712.9
32,5°	454.5	456.7	457.0	455.4	454.6	454.3	67.4	780.2
35,0°	335.0	337.7	338.0	336.6	336.0	336.2	53.3	833.5
37,5°	239.3	241.4	241.0	239.6	239.1	239.2	40.5	874.0
40,0°	166.2	166.4	164.7	163.3	162.9	163.0	29.6	903.6
42,5°	115.3	113.5	111.1	110.0	109.8	109.7	21.3	924.9
45,0°	79.0	76.9	75.1	74.3	74.0	73.9	15.2	940.1
47,5°	56.0	54.4	53.1	52.3	51.9	51.7	11.2	951.3
50,0°	40.9	39.8	38.8	38.0	37.5	37.4	8.5	959.8
52,5°	31.8	30.8	29.9	29.1	28.8	28.7	6.8	966.6
55,0°	25.9	25.0	24.2	23.4	23.2	23.3	5.6	972.3
57,5°	21.7	20.8	20.1	19.5	19.4	19.6	4.8	977.0
60,0°	18.6	18.0	17.1	16.6	16.8	17.1	4.2	981.2
62,5°	16.0	15.6	14.7	14.4	14.7	15.1	3.6	984.8
65,0°	14.0	13.6	12.8	12.7	13.1	13.5	3.2	988.1
67,5°	12.0	12.1	11.2	11.1	11.6	12.1	2.9	991.0
70,0°	9.8	10.4	9.7	9.7	10.2	10.6	2.5	993.4
72,5°	7.8	8.3	8.3	8.3	8.8	9.1	2.1	995.5
75,0°	6.2	6.3	6.8	6.9	7.3	7.6	1.6	997.1
77,5°	4.6	4.9	5.3	5.5	5.8	6.0	1.3	998.4
80,0°	3.1	3.4	3.7	4.0	4.2	4.4	0.9	999.2
82,5°	1.8	2.1	2.4	2.6	2.8	2.9	0.5	999.7
85,0°	0.7	1.0	1.2	1.3	1.6	1.6	0.2	1000.0
87,5°	0.3	0.3	0.3	0.3	0.4	0.4	0.1	1000.0

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Family Highbay 21	Order number: 52HN32DA4FDA EAN: 4069025256836	LP number 59723_4
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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	18.1	19.4	18.5	19.7	20.0	17.9	19.2	18.3	19.5	19.8
	3H	18.2	19.2	18.5	19.6	19.9	18.0	19.1	18.4	19.4	19.8
	4H	18.2	19.2	18.6	19.5	19.9	18.1	19.1	18.5	19.4	19.8
	6H	18.1	19.0	18.6	19.4	19.8	18.1	19.0	18.5	19.4	19.8
	8H	18.2	19.0	18.7	19.4	19.8	18.2	19.0	18.7	19.4	19.8
	12H	18.2	18.9	18.6	19.3	19.7	18.2	18.9	18.7	19.3	19.7
4H	2H	18.0	19.0	18.4	19.4	19.7	17.9	18.8	18.2	19.2	19.6
	3H	18.1	18.9	18.5	19.3	19.7	18.0	18.8	18.4	19.2	19.6
	4H	18.1	18.9	18.6	19.3	19.7	18.1	18.8	18.5	19.2	19.7
	6H	18.1	18.7	18.6	19.2	19.7	18.2	18.8	18.6	19.2	19.7
	8H	18.1	18.7	18.6	19.1	19.6	18.2	18.7	18.7	19.2	19.7
	12H	18.1	18.6	18.6	19.0	19.5	18.3	18.7	18.8	19.1	19.6
8H	4H	18.1	18.6	18.6	19.1	19.6	18.0	18.6	18.5	19.0	19.5
	6H	18.1	18.5	18.6	19.0	19.5	18.1	18.6	18.6	19.1	19.6
	8H	18.0	18.4	18.6	18.9	19.5	18.2	18.6	18.7	19.1	19.6
	12H	18.0	18.3	18.6	18.8	19.4	18.2	18.5	18.7	19.0	19.6
12H	4H	18.1	18.5	18.6	19.0	19.5	18.1	18.5	18.6	19.0	19.5
	6H	18.1	18.4	18.6	18.9	19.5	18.2	18.5	18.7	19.0	19.5
	8H	18.1	18.3	18.6	18.9	19.4	18.2	18.5	18.7	19.0	19.5

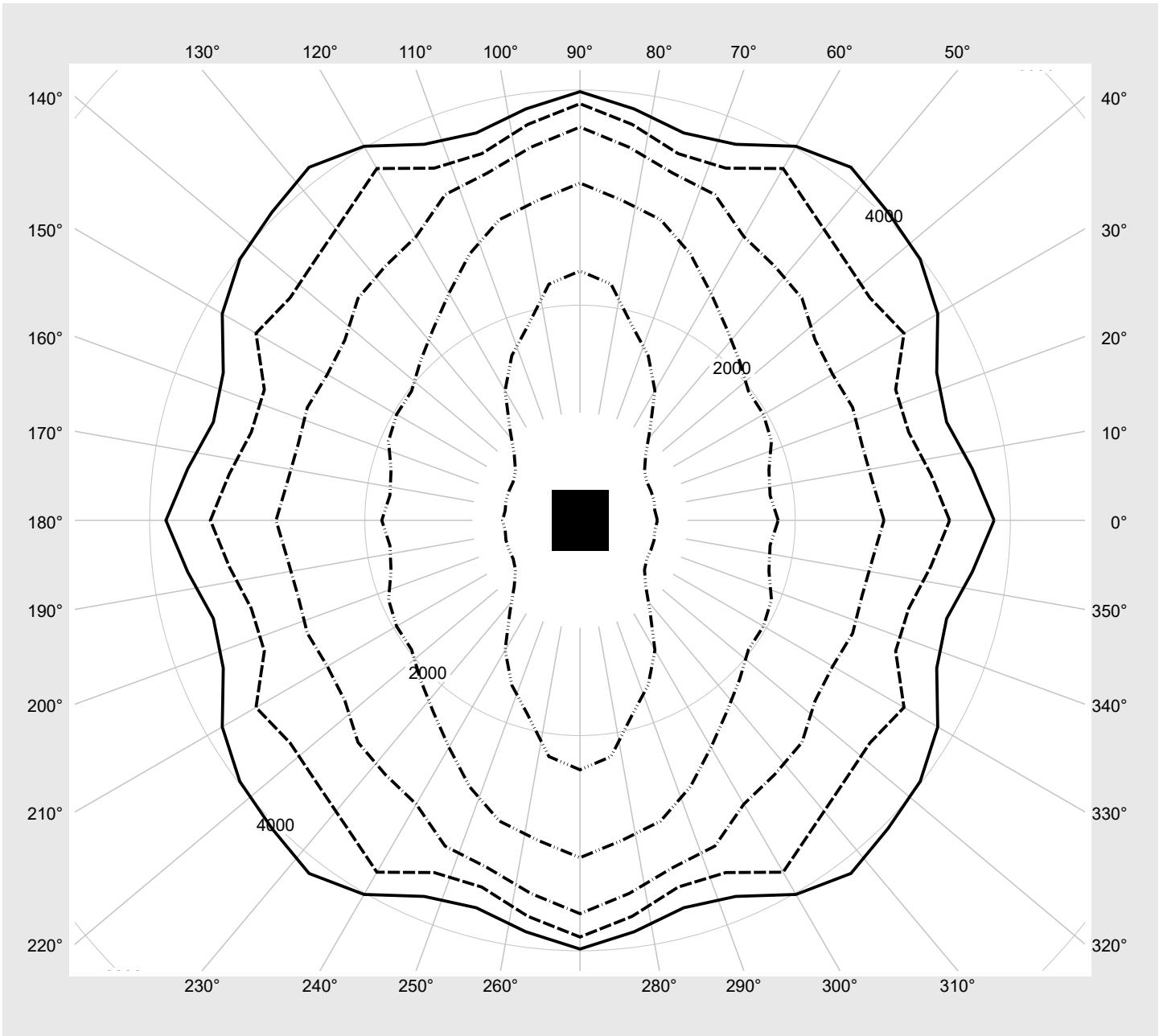
Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 426 B = 264
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C-planes	0,0° 180,0°	10,0° 170,0°	20,0° 160,0°	30,0° 150,0°	40,0° 140,0°	50,0° 130,0°	60,0° 120,0°	70,0° 110,0°	80,0° 100,0°	90,0° 270,0°
		190,0° 350,0°	200,0° 340,0°	210,0° 330,0°	220,0° 320,0°	230,0° 310,0°	240,0° 300,0°	250,0° 290,0°	260,0° 280,0°	
$\gamma$	Luminance in cd/m <sup>2</sup>									
45,0°	14476.2	14028.1	14239.0	14318.1	14347.6	14028.5	13530.1	13159.9	13037.9	13002.0
50,0°	8212.1	7985.8	8135.3	8154.0	8152.9	7998.3	7711.1	7454.8	7292.0	7234.9
55,0°	5559.9	5397.2	5517.3	5658.2	5810.2	5698.9	5416.9	5190.6	5049.2	5066.4
60,0°	4277.5	4154.2	4224.2	4522.3	4664.4	4656.7	4485.9	4211.2	4162.2	4249.4
65,0°	3848.9	3625.2	3547.5	3839.5	4016.1	4130.7	4014.5	3744.9	3813.7	3984.1
70,0°	3435.5	3244.6	3139.3	3477.3	3401.2	3528.9	3775.8	3513.7	3653.1	3872.3
75,0°	2825.2	2727.3	2739.9	2712.2	2795.6	2954.8	3045.5	3316.6	3445.0	3655.4
80,0°	1842.4	1783.4	1897.5	1968.5	2001.4	2187.7	2435.9	2754.9	2960.8	3134.9
85,0°	719.9	701.8	713.5	717.0	784.0	988.2	1392.6	1734.1	2126.4	2318.1

**Photometric test report**

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**Luminance values in cd/m<sup>2</sup>**     γ 65°   γ 70°   γ 75°   γ 80°   γ 85°     **siteco**



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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	14000	72.1
95	241	252	13303	68.3
90	228	250	12606	64.7
85	215	248	11901	61.0
80	202	246	11197	57.4
75	189	243	10494	53.5
70	176	241	9782	49.9
65	164	238	9126	46.6
60	151	235	8413	42.9
55	138	232	7695	39.3
50	125	228	6976	35.7
45	113	224	6313	32.4
40	100	220	5591	28.8
35	88	215	4919	25.5
30	75	209	4192	22.0
25	63	203	3520	18.7
20	50	194	2785	15.1
15	38	184	2109	11.9
10	25	169	1374	8.4
5	13	145	690	4.9
2	5	110	235	2.5