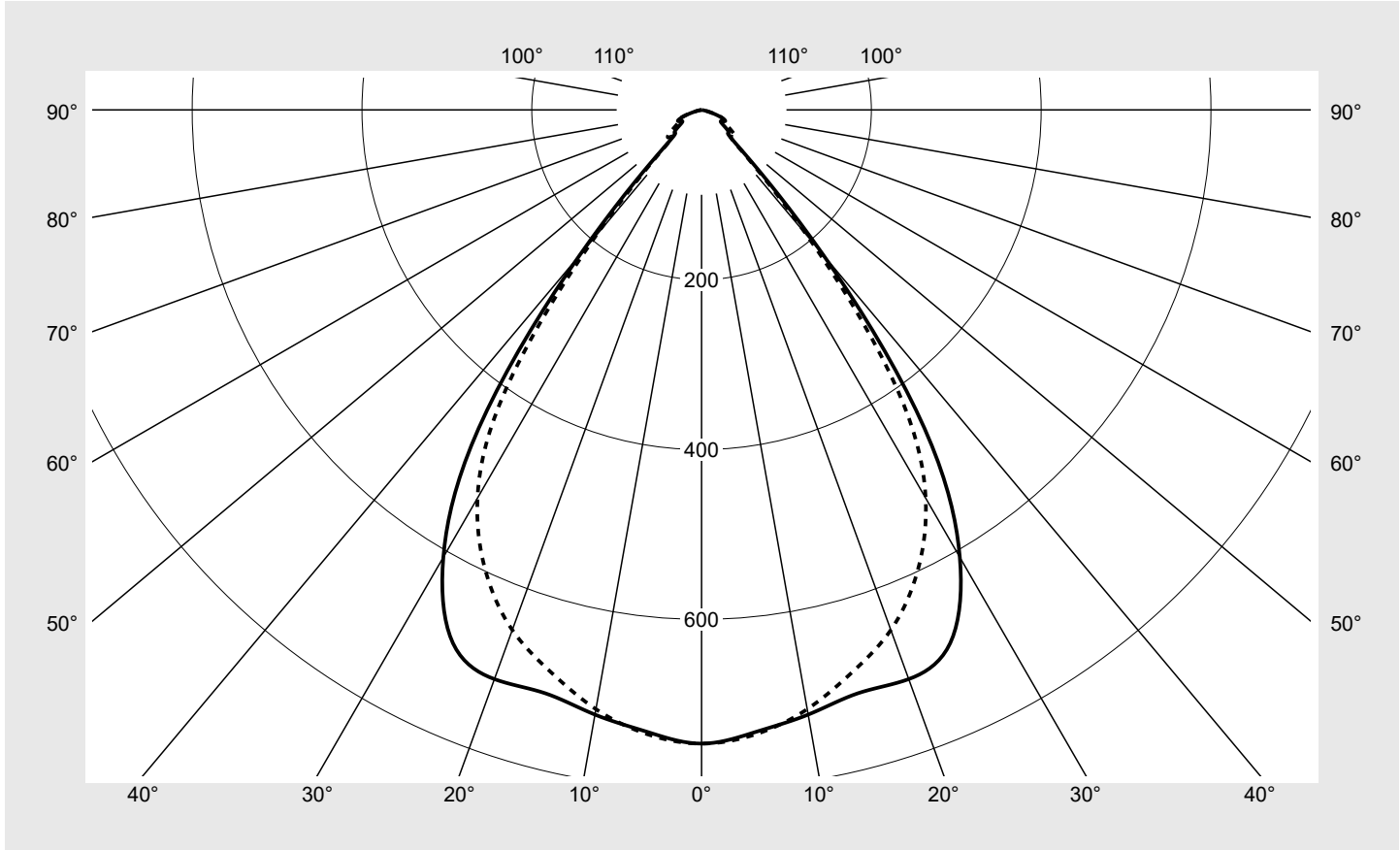


# Photometric test report

<b>Family</b> Highbay 11	<b>Order number: 51HLA2D24NLA + 59HL91001</b> <b>EAN: 4058352361481 + 4058352323519</b>	<b>LP number</b> 58924_21
<b>Version</b>	wide distribution, UGR≤22, toughened safety glass	<b>serial documentation</b> 31.03.2020
<b>Lamps</b>	LED 4000 K   CRI ≥ 80	
<b>Controlgear</b>	ECG-DALI	
<b>Rated values</b>	Net luminous flux = 31620 lm Power consumption = 189.7 W Luminous efficacy = 166.7 lm/W	



**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 746 cd/klm**



Classifications	
DIN 5040	A 6 0
CIE	N1=88 N2=97 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

### Photometric test report

Family Highbay 11	Order number: 51HLA2D24NLA + 59HL91001 EAN: 4058352361481 + 4058352323519	LP number 58924_21
Table of values for luminous intensities		Maximum luminous intensity



C-planes $\gamma$	0° 180°	15°	30°	45°	60°	75°	90° 270°	Phi-zone	Total Phi-zone
		165° 195° 345°	150° 210° 330°	135° 225° 315°	120° 240° 300°	105° 255° 285°			
Luminous intensity in cd/klm								Luminous flux in lm/klm	
0°	746.3	746.3	746.3	746.3	746.3	746.3	746.3	4.5	4.5
5°	735.3	737.5	739.7	739.9	738.3	739.6	738.0	35.3	39.7
10°	723.2	726.6	729.4	728.5	722.4	719.9	716.7	69.0	108.7
15°	711.3	717.1	725.5	723.9	708.1	693.6	685.6	100.9	209.6
20°	713.4	718.0	728.3	720.4	690.5	663.2	651.9	131.3	340.9
25°	693.0	694.9	704.2	693.3	653.0	614.7	601.0	154.7	495.6
30°	608.4	605.8	624.6	634.7	585.4	537.6	527.9	162.4	658.1
35°	457.7	465.3	511.3	544.0	482.6	417.8	402.1	149.4	807.5
40°	223.2	249.0	306.2	349.8	284.7	219.8	194.6	95.0	902.5
45°	63.3	67.7	80.1	90.2	68.6	60.3	58.8	27.6	930.1
50°	41.6	37.0	34.8	39.2	39.3	44.2	50.6	16.8	947.0
55°	31.4	29.8	26.5	27.8	29.3	36.0	43.6	14.0	961.0
60°	26.5	29.7	26.3	21.9	21.3	25.9	33.0	12.2	973.2
65°	30.8	23.4	22.4	19.4	17.1	22.6	29.4	11.2	984.4
70°	22.6	17.1	16.5	15.8	14.1	17.3	23.9	8.9	993.3
75°	9.7	7.3	8.1	9.4	9.5	10.1	9.9	4.8	998.1
80°	2.5	2.3	2.6	3.2	3.7	3.7	3.7	1.7	999.8
85°	0.2	0.2	0.3	0.3	0.6	0.6	0.7	0.2	1000.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0

## Photometric test report

Family Highbay 11	Order number: 51HLA2D24NLA + 59HL91001 EAN: 4058352361481 + 4058352323519	LP number 58924_21
----------------------	--	-----------------------

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	21.1	22.4	21.5	22.7	23.1	20.7	22.0	21.0	22.3	22.6
	3H	21.4	22.6	21.8	22.9	23.3	21.0	22.2	21.4	22.5	22.9
	4H	21.5	22.5	21.9	22.9	23.3	21.1	22.2	21.5	22.6	22.9
	6H	21.5	22.4	21.9	22.8	23.2	21.2	22.1	21.6	22.5	22.9
	8H	21.5	22.3	22.0	22.7	23.1	21.2	22.0	21.6	22.4	22.8
	12H	21.5	22.2	21.9	22.6	23.1	21.2	21.9	21.6	22.3	22.8
4H	2H	21.1	22.1	21.5	22.5	22.8	20.6	21.7	21.0	22.0	22.4
	3H	21.5	22.3	21.9	22.7	23.1	21.0	21.9	21.5	22.3	22.7
	4H	21.5	22.3	22.0	22.7	23.1	21.2	22.0	21.6	22.4	22.8
	6H	21.5	22.1	22.0	22.6	23.1	21.2	21.9	21.7	22.3	22.8
	8H	21.5	22.0	21.9	22.5	23.0	21.2	21.8	21.7	22.2	22.7
	12H	21.5	21.9	22.0	22.4	22.9	21.2	21.7	21.7	22.2	22.7
8H	4H	21.5	22.1	22.0	22.5	23.0	21.2	21.8	21.7	22.2	22.7
	6H	21.4	21.9	21.9	22.4	22.9	21.2	21.7	21.7	22.2	22.7
	8H	21.4	21.8	21.9	22.3	22.8	21.2	21.6	21.7	22.1	22.6
	12H	21.4	21.7	21.9	22.2	22.8	21.2	21.5	21.7	22.0	22.6
12H	4H	21.5	22.0	22.0	22.4	22.9	21.2	21.7	21.7	22.1	22.6
	6H	21.4	21.8	22.0	22.3	22.8	21.2	21.6	21.7	22.1	22.6
	8H	21.4	21.7	21.9	22.2	22.8	21.2	21.5	21.7	22.0	22.6

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:	L = 590 B = 312
-----------------	---------------------------------	-------------------------------	--------------------

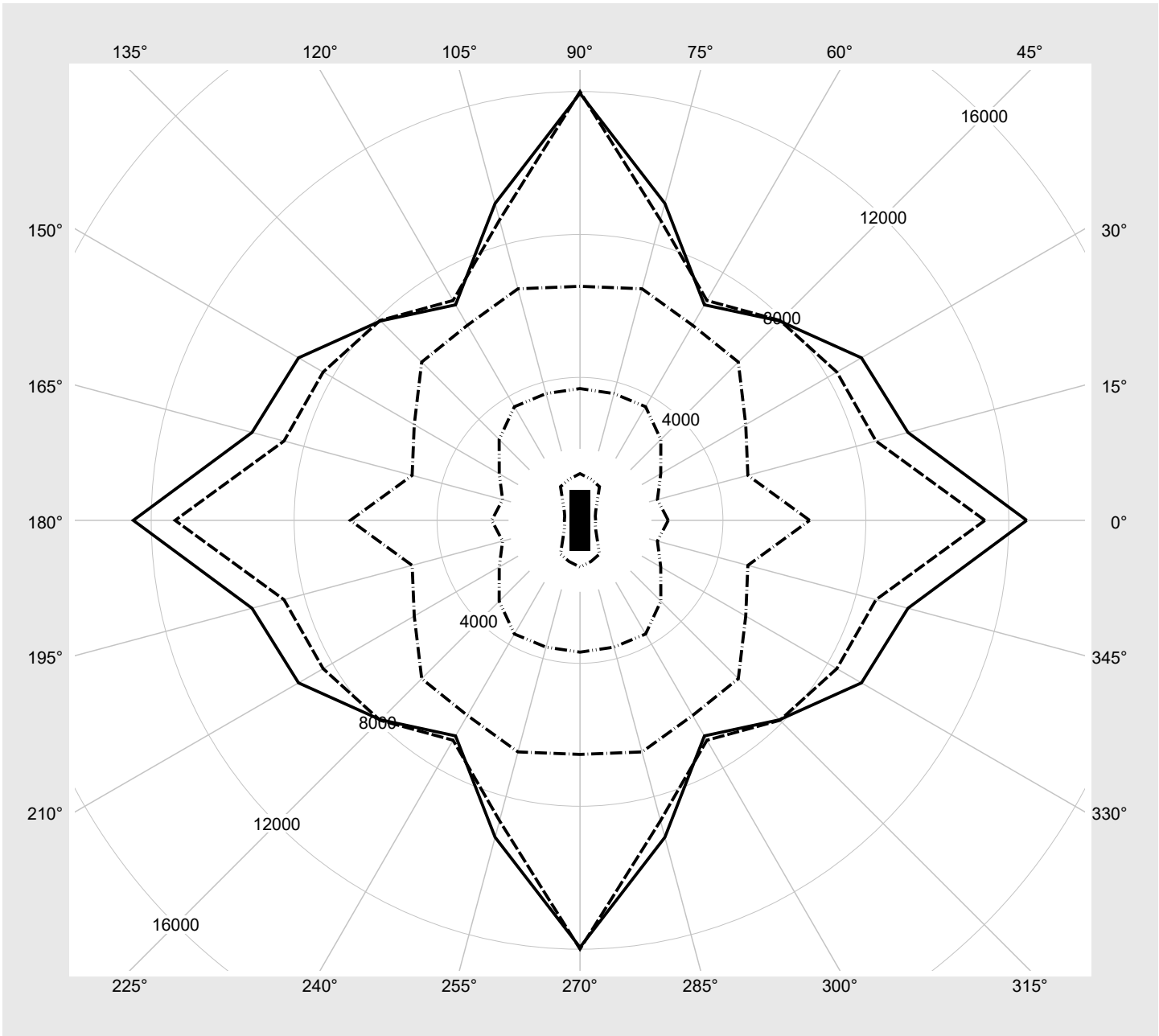
C-planes	$\gamma$	Luminance in cd/m <sup>2</sup>							
		0° 180°	15° 165° 195° 345°	30° 150° 210° 330°	45° 135° 225° 315°	60° 120° 240° 300°	75° 105° 255° 285°	90° 270°	
45°		15382.2	16438.9	19468.7	21923.2	16661.7	14645.4	14275.2	
50°		11125.4	9892.6	9286.6	10478.7	10512.9	11822.3	13513.4	
55°		9399.1	8915.4	7933.5	8313.8	8769.6	10785.7	13055.4	
60°		9097.8	10192.3	9031.5	7540.5	7319.9	8884.5	11334.3	
65°		12501.6	9502.4	9095.5	7892.0	6964.1	9180.1	11948.4	
70°		11331.3	8576.1	8299.9	7911.6	7104.1	8701.7	11995.8	
75°		6427.7	4863.5	5355.9	6265.1	6303.6	6708.5	6549.2	
80°		2470.0	2242.5	2609.5	3199.1	3671.9	3672.9	3687.7	
85°		437.5	443.4	506.5	668.1	1089.9	1190.4	1306.7	

**Photometric test report**

<b>Family</b> <b>Highbay 11</b>	<b>Order number: 51HLA2D24NLA + 59HL91001</b> <b>EAN: 4058352361481 + 4058352323519</b>	<b>LP number</b> <b>58924_21</b>
------------------------------------	--	-------------------------------------

**Luminance values in cd/m<sup>2</sup>**

$\gamma$  65°   
   $\gamma$  70°   
   $\gamma$  75°   
   $\gamma$  80°   
   $\gamma$  85°



## Photometric test report

Family Highbay 11	Order number: 51HLA2D24NLA + 59HL91001 EAN: 4058352361481 + 4058352323519	LP number 58924_21
----------------------	--	-----------------------

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	31620	189.7
95	240	252	29999	179.0
90	227	250	28474	169.1
85	213	247	26822	158.4
80	200	245	25272	148.6
75	187	243	23706	139.0
70	174	240	22131	129.4
65	161	237	20539	119.9
60	148	234	18938	110.4
55	136	231	17437	101.5
50	123	228	15809	92.1
45	110	224	14166	82.8
40	98	220	12638	74.2
35	86	215	11097	65.6
30	74	210	9542	57.1
25	61	204	7849	48.1
20	49	197	6274	39.6
15	37	188	4687	31.2
10	26	177	3215	23.3
5	14	161	1606	14.9