

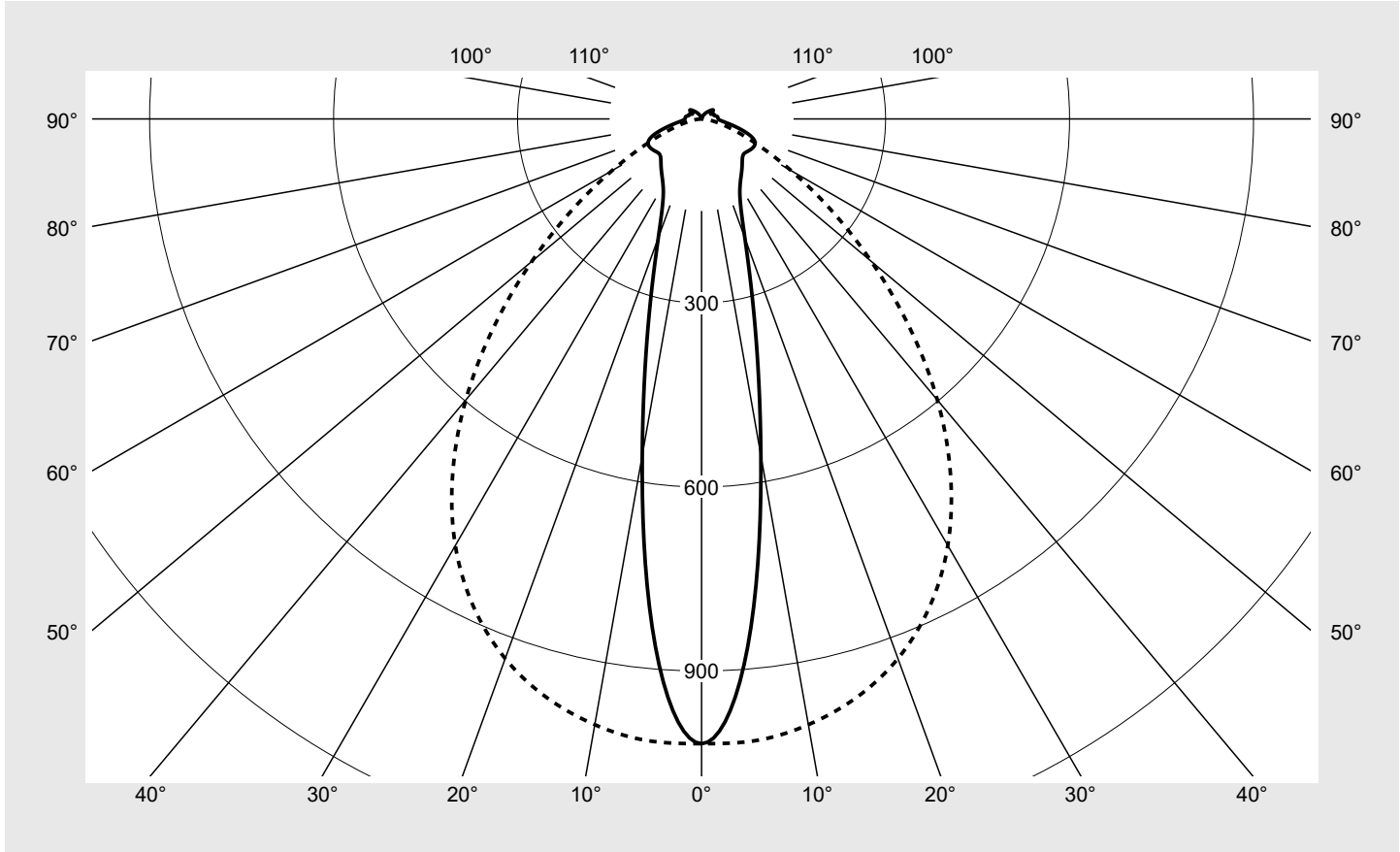


# Photometric test report

<b>Family</b> <b>Modario® 31</b>	<b>Order number: 53BM813DU4L3D2</b> <b>EAN: 4069025134738</b>	<b>LP number</b> <b>59591_5</b>
	<b>Version</b> diffuser optic, frosted, extremely narrow distribution	<b>serial documentation</b> <b>02.05.2024</b>
	<b>Lamps</b> LED 4000 K   CRI ≥ 80 <b>Controlgear</b> ECG-DALI <b>Rated values</b> Net luminous flux = 23060 lm Power consumption = 128.4 W Luminous efficacy = 179.6 lm/W	
		

Luminous intensity in cd/klm C180-0 C270-90 Imax: 1018 cd/klm



Classifications	
DIN 5040	A 5 1
CIE	N1=62 N2=83 N3=95 N4=93 N5=100

Luminaire light output ratios	
$\eta_{LB}$	100.0%
$\phi_u$	92.8%
$\phi_o$	7.2%

Measurement conditions
DIN EN 13032 and DIN 5032

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<b>Table of values for luminous intensities</b>		<b>Maximum luminous intensity</b>
		<b>sITeco</b>

C-planes γ	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°	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	1018.4	6.1	6.1
5°	863.5	865.5	885.2	926.9	972.5	1004.2	1017.2	44.5	50.6
10°	557.0	571.1	621.3	716.9	841.6	954.3	1002.7	71.2	121.8
15°	330.4	345.0	393.6	498.9	672.6	875.0	976.4	81.3	203.1
20°	206.3	216.3	249.8	333.3	506.8	775.2	936.2	82.9	286.0
25°	149.5	154.3	171.2	225.2	368.7	662.8	878.7	80.9	366.9
30°	125.5	127.4	133.4	162.0	266.2	549.9	803.0	77.8	444.7
35°	112.6	113.0	113.6	126.4	194.4	443.6	707.7	73.4	518.1
40°	102.7	102.5	100.9	105.0	146.7	352.3	598.2	68.0	586.1
45°	93.9	93.4	90.8	90.4	114.5	275.3	478.6	61.4	647.5
50°	89.5	88.3	84.1	80.2	92.6	211.5	361.2	54.7	702.3
55°	91.9	90.0	83.1	75.6	78.1	158.7	256.1	49.4	751.6
60°	95.5	93.6	85.8	74.7	67.8	115.2	168.7	45.0	796.7
65°	96.1	94.0	85.1	70.0	57.9	81.0	104.2	40.4	837.1
70°	87.7	84.6	73.6	58.2	46.6	54.7	61.7	33.7	870.8
75°	66.6	64.7	55.8	44.2	34.3	34.3	34.9	25.1	895.8
80°	45.0	43.9	38.9	31.0	22.7	19.3	17.8	16.8	912.7
85°	31.6	30.7	28.4	21.9	13.8	9.4	6.9	11.2	923.9
90°	27.2	26.2	22.9	14.6	8.5	3.8	0.6	8.2	932.1
95°	26.6	25.3	20.3	12.9	8.9	4.2	0.7	7.8	939.9
100°	25.2	23.4	18.5	13.8	10.2	5.1	0.7	7.5	947.4
105°	21.7	20.9	18.5	15.3	11.2	5.6	0.7	7.3	954.7
110°	21.5	20.8	18.3	14.7	13.6	5.3	0.7	7.2	961.9
115°	18.6	17.5	16.2	18.7	13.7	4.5	0.8	6.6	968.5
120°	17.4	17.9	21.4	21.9	11.5	3.8	0.8	6.8	975.3
125°	23.0	23.5	23.9	18.0	9.5	3.5	0.9	6.8	982.1
130°	22.8	21.9	19.4	14.0	7.3	3.3	1.1	5.5	987.5
135°	18.6	17.4	15.0	10.9	5.5	3.1	1.2	4.0	991.5
140°	14.9	13.8	11.8	8.1	4.5	2.9	1.3	2.9	994.4
145°	11.8	10.9	8.9	6.0	4.0	2.6	1.4	2.0	996.4
150°	8.7	8.0	6.5	4.8	3.6	2.2	1.4	1.4	997.8
155°	6.2	5.8	5.2	4.1	3.2	1.8	1.4	0.9	998.7
160°	5.1	4.8	4.0	3.4	2.7	1.6	1.4	0.6	999.3
165°	4.0	3.9	3.1	2.8	2.0	1.5	1.4	0.4	999.7
170°	3.1	2.7	2.2	1.9	1.6	1.5	1.4	0.2	999.9
175°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.1	1000.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0	1000.0

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UGR-Table	Standard room	<b>siteco</b>	
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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	20.0	21.5	20.3	21.8	22.1	25.0	26.5	25.3	26.8	27.1
	3H	22.8	24.1	23.2	24.5	24.8	25.8	27.1	26.2	27.4	27.8
	4H	23.8	25.1	24.2	25.4	25.8	26.0	27.2	26.4	27.6	28.0
	6H	24.4	25.7	24.8	26.0	26.4	26.1	27.3	26.6	27.6	28.0
	8H	24.7	25.8	25.1	26.2	26.6	26.2	27.3	26.7	27.6	28.0
	12H	24.9	26.0	25.3	26.4	26.8	26.2	27.2	26.7	27.6	28.0
4H	2H	20.9	22.1	21.3	22.4	22.8	25.0	26.3	25.4	26.6	27.0
	3H	23.7	24.8	24.1	25.2	25.6	25.9	27.0	26.3	27.3	27.8
	4H	24.8	25.8	25.3	26.2	26.6	26.2	27.2	26.6	27.6	28.0
	6H	25.6	26.5	26.1	26.9	27.4	26.4	27.2	26.8	27.7	28.1
	8H	25.9	26.7	26.4	27.2	27.6	26.5	27.2	27.0	27.7	28.2
	12H	26.2	26.9	26.7	27.4	27.9	26.5	27.2	27.0	27.7	28.1
8H	4H	25.1	25.8	25.6	26.3	26.8	26.3	27.1	26.8	27.5	28.0
	6H	26.1	26.7	26.5	27.1	27.6	26.6	27.2	27.1	27.7	28.2
	8H	26.4	27.0	26.9	27.5	28.0	26.7	27.3	27.2	27.7	28.3
	12H	26.8	27.3	27.3	27.8	28.3	26.7	27.2	27.3	27.7	28.3
12H	4H	25.1	25.8	25.6	26.2	26.7	26.3	27.0	26.8	27.5	28.0
	6H	26.1	26.6	26.6	27.1	27.6	26.6	27.2	27.1	27.7	28.2
	8H	26.5	27.0	27.0	27.5	28.0	26.7	27.2	27.2	27.7	28.3

Luminance table	Max. for $\gamma \geq 65^\circ$	Photometric dimensions in mm:		L = 2392	H(C0) = 25	H(C180) = 25
				B = 75	H(C90) = 0	H(C270) = 0

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°		12804.5	12845.9	12812.9	13297.7	17844.4	46074.4	87002.7
50°		12804.9	12761.8	12517.3	12517.9	15456.9	38356.1	72219.9
55°		13956.0	13811.5	13184.2	12677.5	14133.5	31672.7	57385.1
60°		15568.3	15450.4	14706.6	13640.3	13523.7	25773.2	43380.8
65°		17044.2	16908.7	15986.1	14148.2	12962.6	20801.1	31703.4
70°		17207.1	16861.5	15429.3	13265.3	12017.8	16624.6	23197.8
75°		14745.5	14589.3	13350.8	11672.4	10501.3	12881.3	17339.6
80°		11519.2	11485.8	10925.7	9830.6	8642.4	9604.8	13140.6
85°		9698.6	9672.3	9739.3	8738.6	7003.0	6968.3	10179.3

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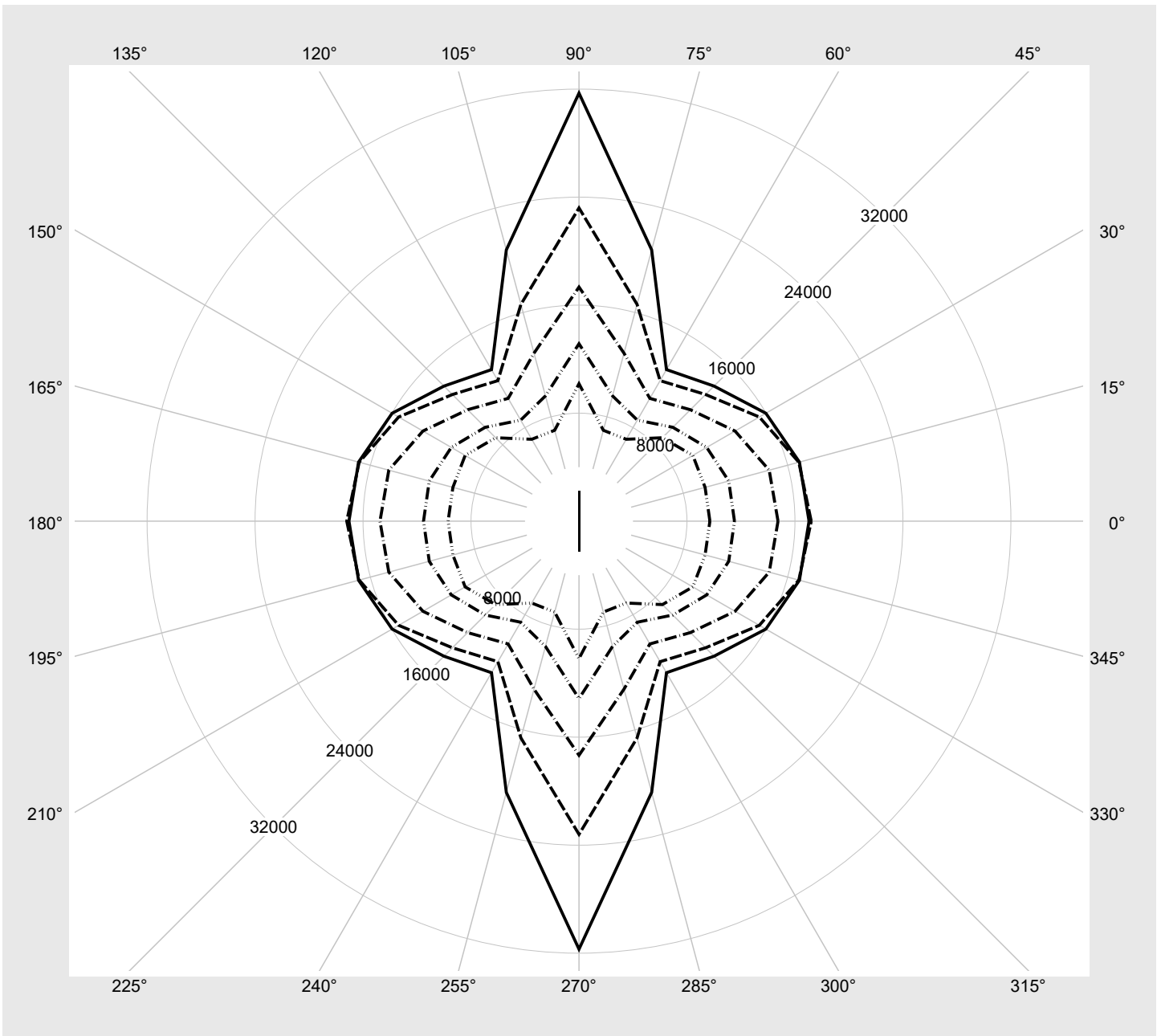
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**Modario® 31**

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**EAN: 4069025134738**

**LP number**  
**59591\_5**

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

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



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<b>Dimming levels table</b>	environmental temperature: 25°C	<b>sITeco</b>
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Luminous flux %	Dimming level linear	Dimming level logarithmic	Luminous flux [lm]	Power consumption [W]
100	254	254	23060	128.4
95	240	252	21885	121.3
90	227	250	20779	114.8
85	213	248	19577	107.7
80	200	245	18452	101.2
75	187	243	17315	94.8
70	174	240	16169	88.3
65	161	237	15012	81.9
60	148	234	13847	75.4
55	135	231	12670	69.0
50	123	227	11575	63.1
45	110	223	10383	56.6
40	97	219	9181	50.2
35	85	214	8064	44.3
30	73	208	6938	38.4
25	61	202	5807	32.5
20	48	193	4573	26.0
15	36	182	3427	20.0
10	24	168	2275	13.8
5	12	142	1117	7.3
1	4	102	342	2.6