

# Lichttechnischer Prüfbefund

<b>Familie</b> <b>Silica® 21</b>	<b>Bestell-Nr.: 51MX24DA34BB</b> <b>EAN: 4058352898963</b>	<b>LP-Nummer</b> <b>59270_83</b>
	<b>Ausführung</b> Anbauleuchte, Reflektor, schwarz, direkt strahlend, asymmetrisch strahlend <b>Bestückung</b> LED 3000 K   CRI ≥ 80 <b>Betriebsgerät</b> EVG-DALI <b>Bemessungswerte</b> Nettolichtstrom = 4320 lm Systemleistung = 32.1 W Lichtausbeute = 134.6 lm/W	<b>Seriendokumentation</b> <b>02.08.2023</b>
		

**Lichtstärke in cd/klm**      **C180-0**      **C270-90**      **Imax: 826 cd/klm**



Klassifizierungen	
DIN 5040	A 6 0
CIE	N1=74 N2=94 N3=99 N4=100 N5=100

Leuchtenbetriebswirkungsgrade	
$\eta_{LB}$	100,0%
$\phi_u$	100,0%
$\phi_o$	0,0%

Messbedingungen
DIN EN 13032 und DIN 5032

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<b>Wertetabelle Lichtstärkemessung</b>		<b>Maximale Lichtstärke</b>
		<b>siteco</b>

C- Ebenen	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°
$\gamma$	Lichtstärke in cd/klm						
0°	652.0	652.0	652.0	652.0	652.0	652.0	652.0
5°	666.9	669.0	664.7	668.1	665.8	658.5	656.3
10°	694.1	699.5	694.9	697.8	687.8	669.7	657.2
15°	745.9	757.8	758.6	751.7	720.3	681.6	653.2
20°	797.2	810.9	815.9	795.0	737.5	674.0	633.0
25°	811.7	825.8	812.3	769.4	703.1	631.1	577.8
30°	788.3	790.4	769.6	695.9	622.5	550.2	501.9
35°	654.2	653.0	648.0	598.2	512.7	433.1	387.1
40°	493.4	503.0	513.6	491.7	407.8	312.4	261.1
45°	356.9	371.2	396.6	382.3	311.7	212.0	163.2
50°	252.0	264.9	292.8	285.3	227.0	141.1	102.4
55°	174.1	185.5	214.4	210.2	168.5	93.5	60.0
60°	116.9	126.6	154.3	157.4	127.4	55.1	26.1
65°	85.8	90.4	106.5	115.9	84.8	29.1	8.4
70°	58.6	65.3	76.1	78.1	49.1	15.0	3.2
75°	29.3	36.5	51.8	37.7	23.5	8.4	1.1
80°	4.9	7.0	15.4	15.1	10.7	3.3	0.5
85°	1.0	1.2	2.3	2.1	0.8	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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<b>Wertetabelle Lichtstärkemessung</b>		<b>Maximale Lichtstärke</b>
		<b>siteco</b>

C- Ebenen	105° 255°	120° 240°	135° 225°	150° 210°	165° 195°	180°	Phi-Zone	Summe Phi-Zone
$\gamma$	Lichtstärke in cd/klm						Lichtstrom in lm/klm	
0°	652.0	652.0	652.0	652.0	652.0	652.0	3.9	3.9
5°	648.8	644.3	634.4	624.8	623.0	624.2	31.1	35.0
10°	640.2	622.4	598.9	573.5	560.8	555.7	61.3	96.3
15°	627.5	590.3	536.8	485.9	456.2	443.8	90.0	186.3
20°	595.4	535.2	448.1	369.0	322.8	305.6	113.9	300.1
25°	535.8	444.7	330.5	240.5	178.2	155.1	126.1	426.3
30°	439.6	334.4	213.1	117.0	65.0	52.1	126.1	552.3
35°	312.5	213.9	111.2	44.6	25.1	21.7	112.1	664.4
40°	197.6	120.2	49.4	22.0	16.7	15.5	92.5	756.9
45°	117.6	62.5	22.8	14.8	11.5	10.5	72.7	829.5
50°	69.7	30.7	13.3	9.8	7.0	5.9	55.0	884.6
55°	38.5	15.6	8.4	6.0	3.7	3.2	40.9	925.5
60°	14.7	7.6	5.1	3.5	2.8	2.3	29.3	954.8
65°	4.9	3.9	3.0	2.5	1.8	1.2	20.5	975.2
70°	1.9	1.9	1.7	1.4	1.0	0.6	13.9	989.2
75°	0.7	0.9	0.9	0.8	0.6	0.5	7.8	997.0
80°	0.4	0.5	0.5	0.5	0.4	0.4	2.6	999.6
85°	0.4	0.4	0.4	0.4	0.3	0.3	0.4	1000.0
90°	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	1000.0
100°	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	1000.0
110°	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	1000.0
120°	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	1000.0
130°	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	1000.0
140°	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	1000.0
150°	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	1000.0
160°	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	1000.0
170°	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	1000.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0

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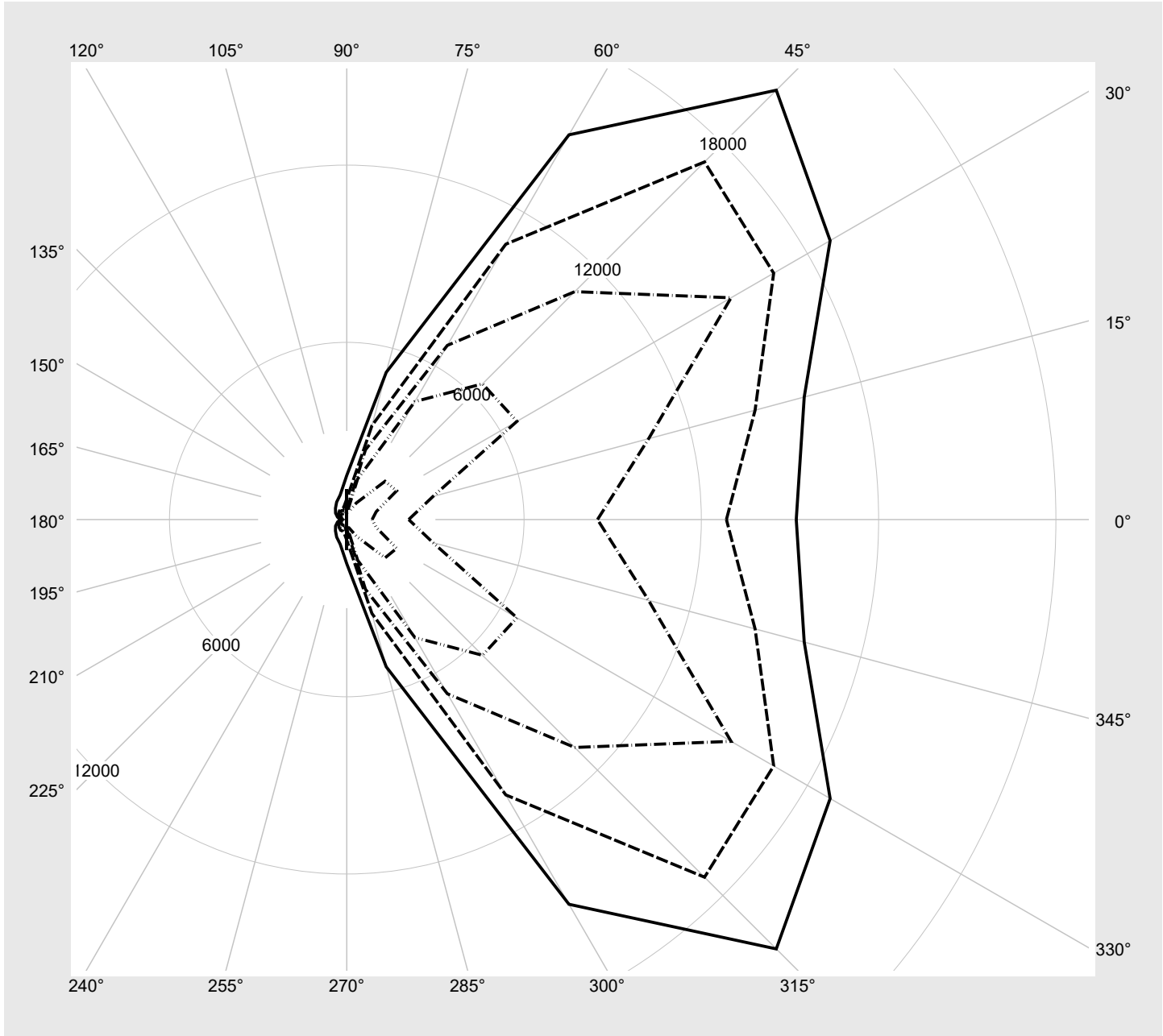
UGR-Tabelle		Standardraum									
		Blickrichtung quer zur Leuchte (C0)					Blickrichtung längs zur Leuchte (C90)				
Raumabmessungen											
x	y										
2H	2H	25,0	26,4	25,4	26,7	27,0	20,4	21,8	20,8	22,1	22,4
	3H	25,5	26,8	25,9	27,1	27,5	20,4	21,6	20,7	21,9	22,3
	4H	25,7	26,8	26,1	27,2	27,5	20,3	21,5	20,7	21,8	22,2
	6H	25,7	26,7	26,1	27,1	27,5	20,2	21,3	20,7	21,7	22,1
	8H	25,6	26,6	26,1	27,0	27,4	20,2	21,2	20,7	21,6	22,0
	12H	25,7	26,5	26,1	26,9	27,3	20,3	21,1	20,7	21,5	21,9
4H	2H	25,4	26,5	25,8	26,9	27,3	21,2	22,4	21,6	22,8	23,1
	3H	26,1	27,1	26,5	27,5	27,9	21,4	22,4	21,8	22,8	23,2
	4H	26,4	27,2	26,8	27,6	28,1	21,4	22,2	21,8	22,7	23,1
	6H	26,4	27,1	26,8	27,5	28,0	21,3	22,1	21,8	22,5	23,0
	8H	26,3	27,0	26,8	27,4	27,9	21,3	22,0	21,8	22,4	22,9
	12H	26,3	26,9	26,8	27,4	27,9	21,3	21,9	21,8	22,3	22,8
8H	4H	26,4	27,1	26,9	27,5	28,0	21,6	22,3	22,1	22,7	23,2
	6H	26,5	27,0	26,9	27,5	28,0	21,6	22,1	22,1	22,6	23,1
	8H	26,4	26,9	26,9	27,4	27,9	21,6	22,0	22,1	22,5	23,1
	12H	26,4	26,8	26,9	27,3	27,8	21,5	21,9	22,1	22,4	23,0
12H	4H	26,4	27,0	26,9	27,4	27,9	21,7	22,2	22,2	22,7	23,2
	6H	26,5	26,9	27,0	27,4	27,9	21,6	22,1	22,1	22,6	23,1
	8H	26,4	26,8	26,9	27,3	27,8	21,6	22,0	22,1	22,5	23,0

Leuchtdichten-Tabelle		Max. für $\gamma \geq 65^\circ$											
		Lichttechnische Abmessungen in mm: L = 1176 B = 49											
C-Ebenen	0°	15° 345°	30° 330°	45° 315°	60° 300°	75° 285°	90° 270°	105° 255°	120° 240°	135° 225°	150° 210°	165° 195°	180°
$\gamma$	Leuchtdichte in cd/m <sup>2</sup>												
45°	37839.4	39355.2	42043.7	40527.9	33048.7	22474.8	17303.7	12471.6	6626.9	2419.6	1571.7	1222.7	1112.6
50°	29386.5	30896.8	34153.2	33272.3	26476.2	16458.3	11940.3	8123.8	3582.1	1555.9	1146.8	814.9	682.8
55°	22760.1	24248.1	28024.4	27469.0	22017.9	12219.3	7847.1	5028.1	2036.2	1094.8	781.0	481.3	412.5
60°	17526.2	18986.4	23128.3	23597.5	19103.7	8263.5	3917.4	2206.5	1140.6	766.5	529.9	412.6	347.9
65°	15212.9	16028.7	18890.4	20558.2	15040.6	5161.0	1495.4	861.4	684.4	540.7	437.8	325.3	215.4
70°	12849.2	14306.8	16684.0	17124.5	10764.8	3293.6	697.7	416.9	416.9	369.6	307.5	221.8	135.9
75°	8486.1	10576.2	15018.4	10912.3	6809.8	2445.9	320.4	210.9	257.8	246.2	226.5	183.6	148.6
80°	2096.5	3022.1	6650.3	6498.8	4612.1	1426.9	203.8	192.1	227.1	233.1	221.5	192.1	174.8
85°	858.4	1032.2	1949.1	1833.0	649.4	289.9	278.7	313.1	348.4	359.6	336.3	289.9	278.7

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



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<b>Dimmstufen-Tabelle</b>	Umgebungstemperatur: 25°C	<b>sITeco</b>
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Lichtstrom [%]	Dimmstufe linear	Dimmstufe logarithmisch	Lichtstrom [lm]	Systemleistung [W]
100	254	254	4320	32.1
95	240	252	4100	30.4
90	227	250	3893	28.7
85	213	248	3670	27.0
80	200	245	3459	25.4
75	187	243	3245	23.8
70	174	240	3031	22.2
65	161	237	2815	20.6
60	148	234	2597	19.0
55	135	231	2378	17.4
50	122	227	2156	15.8
45	110	223	1949	14.3
40	97	219	1724	12.7
35	85	214	1514	11.3
30	73	208	1303	9.8
25	60	201	1073	8.3
20	48	193	860	6.9
15	36	182	644	5.5
10	24	168	428	4.0
5	12	142	210	2.7
2	4	102	65	1.7