

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P853506

Luminaire Tested: SQ2-BBM-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853506
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-050U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

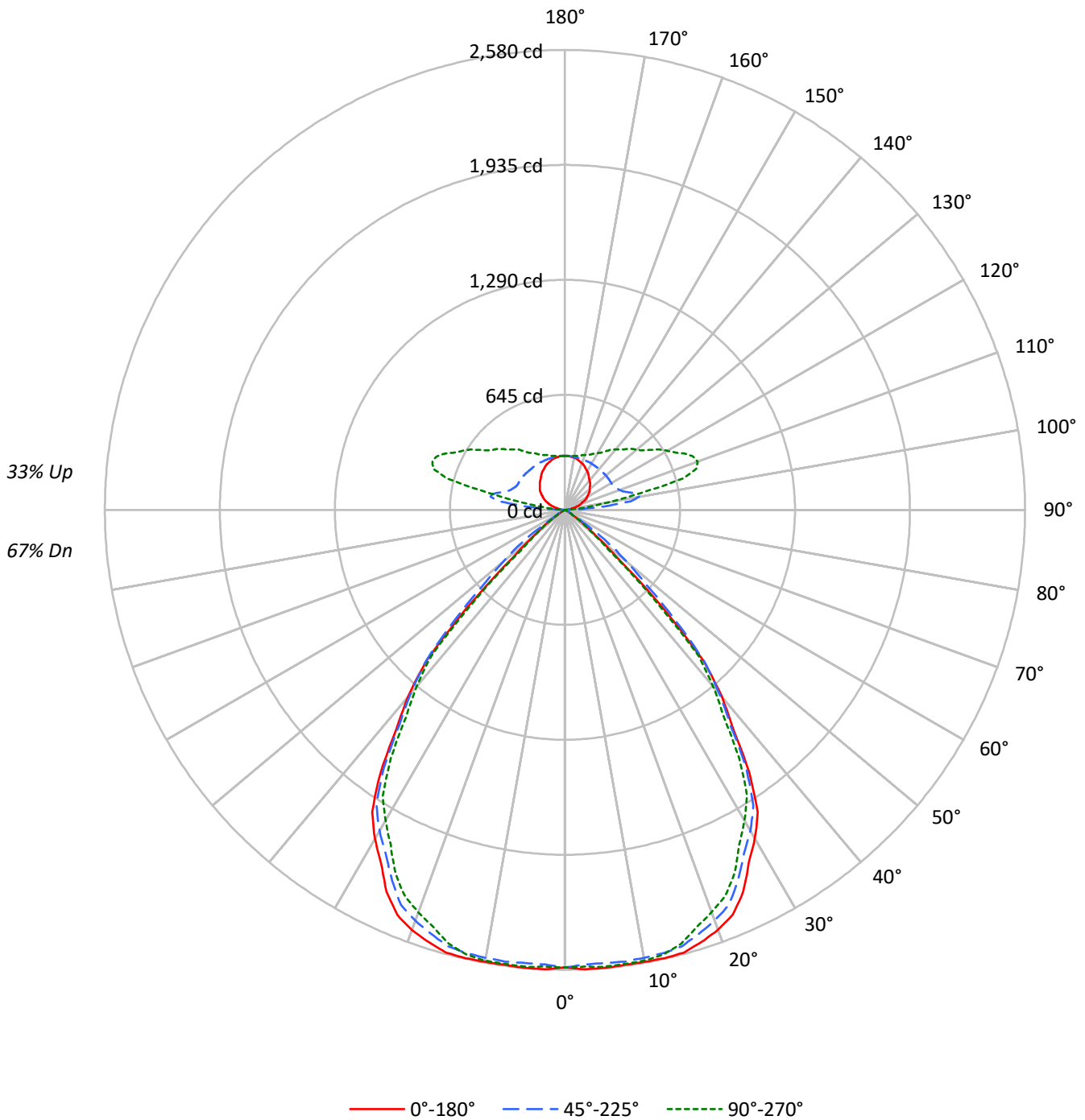
Lumens per Lamp: N/A
Luminaire Lumens: 5722.6 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P853506

CATALOG NUMBER: SQ2-BBM-050U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67		
1	104	101	98	95	98	95	93	91	85	83	82	76	75	74	68	67	66	62		
2	97	91	87	82	92	87	83	79	78	75	72	70	68	66	63	61	60	56		
3	91	83	77	72	86	79	74	70	72	68	64	65	62	59	59	56	54	51		
4	85	76	69	64	80	72	66	62	66	61	58	60	56	53	54	52	49	47		
5	79	69	62	57	75	66	60	55	60	56	52	55	51	48	50	47	45	43		
6	74	63	56	51	70	61	54	50	56	51	47	51	47	44	47	44	41	39		
7	69	58	51	46	65	56	49	45	51	46	43	47	43	40	44	40	38	36		
8	65	54	47	42	61	52	45	41	48	42	39	44	40	37	41	37	35	33		
9	61	50	43	38	58	48	42	37	44	39	36	41	37	34	38	34	32	30		
10	57	46	39	35	54	44	38	34	41	36	33	38	34	31	36	32	30	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41445	41445	41445
5°	41806	41353	41697
10°	42210	41832	42101
15°	42987	42360	42103
20°	43096	42139	41278
25°	42131	40880	40075
30°	39716	38766	37528
35°	35581	34956	33553
40°	28865	28378	27265
45°	17568	19918	15767
50°	5604	11258	5122
55°	1948	4087	2004
60°	155	1179	32
65°	0	73	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 19918 cd/sqm



TEST NUMBER: P853506

CATALOG NUMBER: SQ2-BBM-050U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.3	4.3
10°-20°	717.4	12.5
20°-30°	1057.4	18.5
30°-40°	1082.8	18.9
40°-50°	623.9	10.9
50°-60°	109.3	1.9
60°-70°	4.2	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	120.7	2.1
100°-110°	382.8	6.7
110°-120°	375.4	6.6
120°-130°	305.5	5.3
130°-140°	249.1	4.4
140°-150°	194.2	3.4
150°-160°	139.9	2.4
160°-170°	85.5	1.5
170°-180°	28.9	0.5
0°-30°	2020.0	35.3
0°-40°	3102.8	54.2
0°-60°	3836.1	67.0
0°-90°	3840.7	67.1
90°-120°	879.0	15.4
90°-150°	1627.7	28.4
90°-180°	1882.0	32.9
0°-180°	5722.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2567	2567	2567	2567	2567	
5°	2579	2574	2552	2582	2573	246
15°	2572	2592	2534	2534	2519	724
25°	2365	2383	2295	2274	2250	1079
35°	1805	1795	1774	1730	1702	1108
45°	769	861	872	829	690	589
55°	69	83	145	79	71	77
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	1
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	

TEST NUMBER: P853506

CATALOG NUMBER: SQ2-BBM-050U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2566.9	2566.9	2566.9	2566.9	2566.9
2.5°	2580.0	2573.2	2553.1	2573.6	2564.6
5°	2579.4	2573.8	2551.5	2582.1	2572.7
7.5°	2574.6	2573.3	2556.1	2580.1	2569.4
10°	2574.6	2579.3	2551.5	2576.3	2567.9
12.5°	2576.1	2586.9	2546.9	2566.2	2554.0
15°	2571.7	2592.4	2534.2	2533.9	2518.8
17.5°	2542.9	2567.3	2494.0	2474.1	2454.0
20°	2508.2	2536.5	2452.5	2424.1	2402.4
22.5°	2458.2	2485.7	2400.1	2367.9	2346.3
25°	2364.9	2382.8	2294.7	2274.0	2249.5
27.5°	2232.6	2243.1	2174.7	2138.8	2116.8
30°	2130.3	2137.8	2079.3	2040.2	2012.9
32.5°	2011.8	2008.8	1966.2	1926.4	1900.6
35°	1805.2	1794.9	1773.5	1730.5	1702.3
37.5°	1551.1	1549.2	1528.0	1490.8	1461.3
40°	1369.5	1367.6	1346.4	1313.3	1293.6
42.5°	1149.5	1185.2	1160.3	1119.6	1107.4
45°	769.4	860.6	872.3	828.8	690.5
47.5°	397.0	518.9	607.4	473.1	327.8
50°	223.1	313.4	448.2	253.7	203.9
52.5°	145.4	189.0	312.8	162.0	137.0
55°	69.2	83.4	145.2	78.7	71.2
57.5°	24.8	38.4	63.5	38.9	24.0
60°	4.8	16.1	36.5	11.3	1.0
62.5°	1.7	4.7	21.2	3.0	1.0
65°	0.0	0.9	1.9	0.9	0.0
67.5°	0.0	0.8	0.8	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.6	0.6
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



TEST NUMBER: P853506

CATALOG NUMBER: SQ2-BBM-050U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	2.32	3.12	3.15	3.94	4.96	1.78	2.58	2.62	3.41	4.43
	3H	2.13	2.83	2.98	3.67	4.72	1.60	2.30	2.44	3.14	4.19
	4H	2.03	2.69	2.89	3.53	4.59	1.49	2.16	2.36	3.00	4.06
	6H	1.92	2.52	2.79	3.38	4.45	1.39	1.99	2.26	2.84	3.91
	8H	1.86	2.43	2.74	3.30	4.37	1.33	1.90	2.21	2.77	3.84
	12H	1.80	2.35	2.69	3.20	4.30	1.27	1.81	2.15	2.67	3.77
4H	2H	2.03	2.70	2.90	3.54	4.60	1.50	2.17	2.37	3.01	4.07
	3H	1.84	2.38	2.72	3.26	4.33	1.31	1.85	2.19	2.73	3.80
	4H	1.73	2.22	2.61	3.09	4.19	1.20	1.69	2.08	2.56	3.66
	6H	1.62	2.04	2.52	2.93	4.04	1.09	1.51	1.99	2.40	3.51
	8H	1.55	1.94	2.46	2.83	3.95	1.02	1.41	1.93	2.30	3.42
	12H	1.48	1.83	2.40	2.74	3.86	0.95	1.30	1.87	2.21	3.33
8H	4H	1.55	1.94	2.46	2.83	3.95	1.02	1.41	1.93	2.30	3.42
	6H	1.43	1.75	2.36	2.69	3.80	0.90	1.22	1.83	2.16	3.27
	8H	1.37	1.65	2.31	2.58	3.71	0.84	1.12	1.78	2.05	3.18
	12H	1.31	1.55	2.24	2.47	3.66	0.78	1.02	1.71	1.94	3.13
12H	4H	1.48	1.83	2.40	2.74	3.86	0.95	1.30	1.87	2.21	3.33
	6H	1.37	1.65	2.31	2.58	3.71	0.84	1.12	1.78	2.05	3.18
	8H	1.31	1.55	2.24	2.47	3.66	0.78	1.02	1.71	1.94	3.13