

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: P853500

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853500
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-050U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

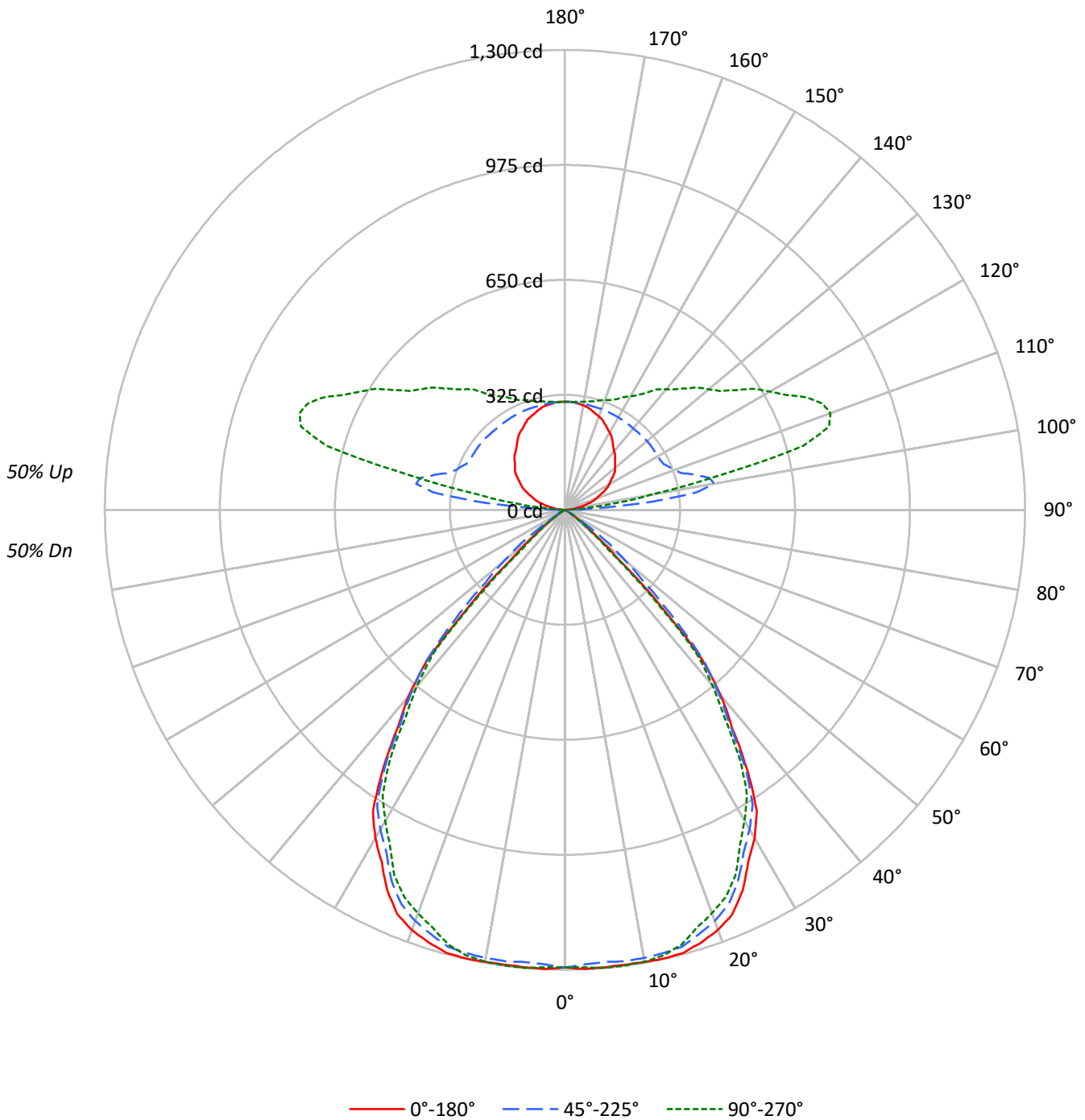
Lumens per Lamp: N/A
Luminaire Lumens: 3831.0 lumens
Efficiency: N/A
Efficacy: 116.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.9
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: P853500

CATALOG NUMBER: SQ2-BBM-050U-050D-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	0	
RCR																						
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50				
1	100	96	93	90	92	89	87	84	76	74	73	64	63	62	53	52	52	46				
2	93	87	82	77	86	81	76	73	69	66	64	59	57	55	49	48	47	42				
3	86	78	72	67	80	73	68	63	63	59	56	54	51	49	46	44	42	39				
4	80	71	64	59	74	66	60	56	58	53	50	50	47	44	42	40	38	35				
5	74	64	57	52	69	60	54	49	53	48	44	46	42	40	39	37	35	32				
6	69	58	51	46	64	55	49	44	48	44	40	42	39	36	36	34	32	29				
7	64	53	46	41	60	50	44	40	44	40	36	39	35	33	34	31	29	27				
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	32	29	27	25				
9	56	45	38	34	52	43	37	33	38	33	30	34	30	27	29	27	25	23				
10	53	42	35	31	49	40	34	30	35	31	27	31	28	25	28	25	23	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20888	20888	20888
5°	21031	20797	21062
10°	21274	21084	21258
15°	21658	21367	21272
20°	21716	21254	20857
25°	21146	20632	20305
30°	19977	19440	18920
35°	17708	17499	17006
40°	14455	14252	13685
45°	8522	10058	7928
50°	2876	5606	2562
55°	974	2004	1030
60°	94	591	32
65°	0	38	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: 10058 cd/sqm



TEST NUMBER: P853500

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	3.2
10°-20°	361.9	9.4
20°-30°	532.5	13.9
30°-40°	544.0	14.2
40°-50°	312.8	8.2
50°-60°	54.7	1.4
60°-70°	2.0	0.1
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	121.8	3.2
100°-110°	386.3	10.1
110°-120°	378.8	9.9
120°-130°	308.3	8.0
130°-140°	251.4	6.6
140°-150°	196.0	5.1
150°-160°	141.2	3.7
160°-170°	86.3	2.3
170°-180°	29.1	0.8
0°-30°	1017.9	26.6
0°-40°	1562.0	40.8
0°-60°	1929.5	50.4
0°-90°	1932.0	50.4
90°-120°	887.0	23.2
90°-150°	1642.6	42.9
90°-180°	1899.0	49.6
0°-180°	3831.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1298	1295	1283	1301	1300	124
15°	1296	1307	1278	1279	1273	365
25°	1187	1197	1158	1146	1140	543
35°	898	903	888	873	863	554
45°	373	434	440	418	347	292
55°	35	41	71	40	37	39
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	1
95°	16	49	221	82	53	19
105°	67	95	381	725	695	71
115°	120	143	308	639	752	119
125°	166	186	303	501	590	148
135°	201	221	301	431	486	155
145°	235	252	301	372	405	147
155°	267	277	302	332	345	123
165°	291	294	303	314	317	82
175°	305	304	305	307	306	29
180°	306	306	306	306	306	



TEST NUMBER: P853500

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1293.7	1293.7	1293.7	1293.7	1293.7
2.5°	1299.1	1296.1	1286.0	1297.5	1294.5
5°	1297.6	1294.8	1283.2	1301.4	1299.5
7.5°	1296.8	1294.6	1286.8	1302.7	1298.9
10°	1297.6	1297.6	1286.0	1300.4	1296.6
12.5°	1299.1	1302.9	1283.7	1295.0	1289.7
15°	1295.7	1306.9	1278.3	1279.2	1272.6
17.5°	1281.6	1296.9	1257.8	1248.5	1238.5
20°	1263.9	1279.9	1237.0	1222.4	1213.9
22.5°	1237.0	1252.2	1207.0	1194.6	1185.4
25°	1187.0	1197.3	1158.1	1145.5	1139.8
27.5°	1121.6	1126.8	1092.7	1079.6	1070.2
30°	1071.5	1071.5	1042.7	1028.0	1014.8
32.5°	1009.2	1006.2	987.3	970.3	957.8
35°	898.4	903.1	887.8	873.2	862.8
37.5°	775.9	780.4	764.7	748.0	740.8
40°	685.8	689.6	676.2	658.7	649.3
42.5°	575.0	595.3	583.1	564.0	551.5
45°	373.2	434.3	440.5	417.8	347.2
47.5°	194.5	258.4	305.5	233.3	163.5
50°	114.5	155.8	223.2	127.4	102.0
52.5°	73.7	91.7	157.0	81.5	68.9
55°	34.6	41.2	71.2	40.3	36.6
57.5°	12.9	19.3	32.1	19.5	14.0
60°	2.9	8.5	18.3	5.7	1.0
62.5°	0.6	2.5	10.6	1.1	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	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°	5.4	21.4	68.3	22.7	16.0
95°	16.3	49.3	221.2	82.0	52.9
97.5°	30.4	63.9	374.7	234.1	143.7
100°	40.4	72.4	427.0	389.3	252.9
102.5°	51.2	81.6	417.8	571.7	437.6
105°	67.3	94.6	380.8	725.4	695.3
107.5°	83.5	108.7	345.6	741.4	782.1
110°	94.2	118.7	327.9	723.0	798.2



TEST NUMBER: P853500

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.0	128.0	317.9	691.1	786.7
115°	120.2	142.8	307.7	639.2	752.1
117.5°	135.0	156.5	303.7	589.2	703.0
120°	144.3	164.9	302.9	558.4	668.4
122.5°	153.5	173.4	302.9	533.6	636.1
125°	166.4	186.1	302.9	501.2	590.5
127.5°	177.7	196.7	302.9	476.0	552.2
130°	184.6	204.4	302.9	461.3	529.9
132.5°	191.6	211.3	302.2	449.6	511.4
135°	201.0	220.7	301.0	431.1	485.7
137.5°	210.2	230.9	300.8	413.5	462.2
140°	216.4	237.1	300.1	401.1	445.3
142.5°	224.1	244.0	300.8	388.7	429.9
145°	234.7	252.5	301.0	372.0	404.9
147.5°	245.2	260.5	301.2	357.2	384.1
150°	252.9	265.2	302.0	348.6	370.3
152.5°	259.1	269.8	302.0	341.6	359.5
155°	267.4	276.8	302.0	332.1	345.3
157.5°	276.2	282.6	302.9	326.2	335.3
160°	280.8	286.5	302.9	322.3	329.9
162.5°	285.4	289.6	302.9	319.2	324.5
165°	291.4	294.2	302.9	314.5	317.4
167.5°	297.0	297.7	303.9	311.3	313.7
170°	300.1	300.1	303.9	309.7	310.6
172.5°	301.6	302.3	303.9	308.1	308.3
175°	304.9	303.9	304.9	306.8	305.8
177.5°	305.8	305.1	305.1	306.6	305.1
180°	305.8	305.8	305.8	305.8	305.8



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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	0.00	0.00	0.00	0.07	1.35	0.00	0.00	0.00	0.00	0.95
	3H	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00	0.71
	4H	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.58
	6H	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.44
	8H	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.36
	12H	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.29
4H	2H	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.59
	3H	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.33
	4H	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.19
	6H	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.03
	8H	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00