

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: P853536

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853536
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-100U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

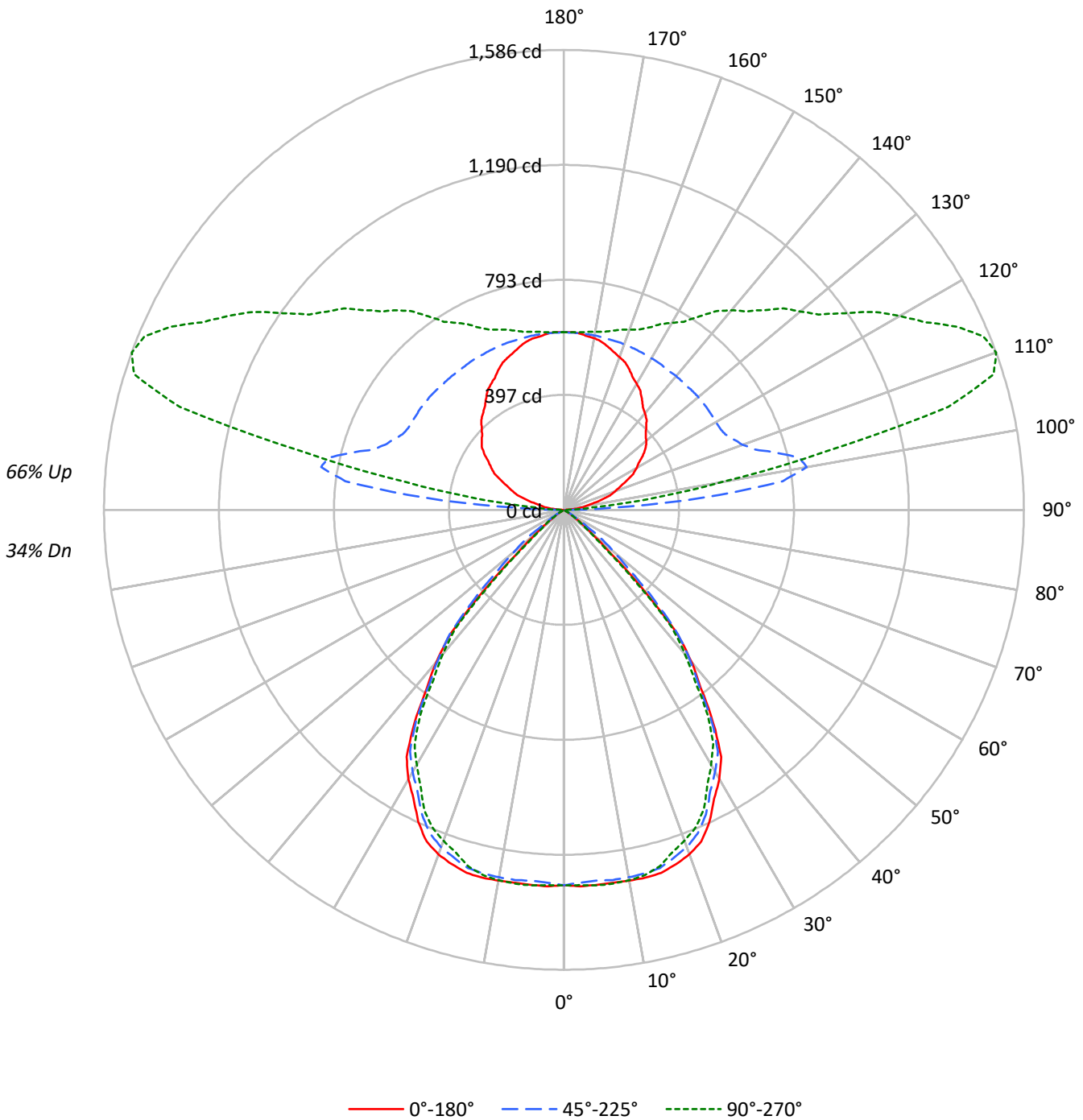
Lumens per Lamp: N/A
Luminaire Lumens: 5745.3 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 50.7
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

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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	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	95	92	88	85	86	83	80	78	67	65	63	52	51	50	38	38	37	31
2	88	82	76	72	80	74	70	66	60	57	55	47	46	44	35	34	34	28
3	81	73	67	62	73	67	61	57	54	51	48	43	41	39	33	31	30	26
4	75	66	59	53	68	60	54	50	49	45	42	39	37	35	30	29	27	23
5	69	59	52	47	63	54	48	43	45	40	37	36	33	31	28	26	25	21
6	64	54	46	41	58	49	43	38	41	36	33	33	30	28	26	24	23	19
7	60	49	42	37	54	45	39	34	37	33	30	31	27	25	24	22	21	18
8	56	44	37	33	50	41	35	31	34	30	27	28	25	23	22	20	19	16
9	52	41	34	29	47	38	32	28	32	27	24	26	23	21	21	19	17	15
10	49	38	31	27	44	35	29	25	29	25	22	24	21	19	19	17	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20898	20898	20898
5°	21039	20806	21071
10°	21282	21094	21267
15°	21667	21377	21280
20°	21727	21263	20866
25°	21155	20640	20314
30°	19986	19447	18927
35°	17716	17507	17014
40°	14461	14259	13692
45°	8526	10063	7932
50°	2876	5609	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: 10063 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	2.2
10°-20°	362.0	6.3
20°-30°	532.7	9.3
30°-40°	544.3	9.5
40°-50°	312.9	5.4
50°-60°	54.7	1.0
60°-70°	2.0	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	255.8	4.5
100°-110°	773.7	13.5
110°-120°	755.2	13.1
120°-130°	617.2	10.7
130°-140°	503.8	8.8
140°-150°	392.2	6.8
150°-160°	282.7	4.9
160°-170°	173.1	3.0
170°-180°	58.4	1.0
0°-30°	1018.4	17.7
0°-40°	1562.7	27.2
0°-60°	1930.3	33.6
0°-90°	1933.7	33.7
90°-120°	1784.7	31.1
90°-150°	3297.8	57.4
90°-180°	3812.0	66.3
0°-180°	5745.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1298	1295	1284	1302	1300	124
15°	1296	1308	1279	1280	1273	365
25°	1188	1198	1159	1146	1140	543
35°	899	904	888	874	863	555
45°	373	434	441	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	2	12	7	6	1
95°	32	100	483	178	112	38
105°	135	189	760	1443	1371	141
115°	239	286	614	1271	1493	237
125°	335	371	606	1004	1182	297
135°	401	443	602	866	974	310
145°	468	503	602	745	814	293
155°	534	552	606	668	693	246
165°	584	590	609	632	639	164
175°	611	611	612	616	614	58
180°	612	612	612	612	612	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.3	1294.3	1294.3	1294.3	1294.3
2.5°	1299.7	1296.7	1286.6	1298.1	1295.1
5°	1298.1	1295.3	1283.7	1302.0	1300.1
7.5°	1297.4	1295.1	1287.4	1303.3	1299.5
10°	1298.1	1298.1	1286.6	1300.9	1297.2
12.5°	1299.7	1303.4	1284.3	1295.5	1290.3
15°	1296.2	1307.5	1278.9	1279.7	1273.1
17.5°	1282.2	1297.4	1258.3	1249.0	1239.1
20°	1264.5	1280.5	1237.5	1222.9	1214.4
22.5°	1237.5	1252.8	1207.5	1195.2	1185.9
25°	1187.5	1197.8	1158.6	1146.0	1140.3
27.5°	1122.0	1127.3	1093.2	1080.1	1070.7
30°	1072.0	1072.0	1043.1	1028.4	1015.2
32.5°	1009.6	1006.6	987.7	970.7	958.3
35°	898.8	903.5	888.2	873.5	863.2
37.5°	776.2	780.7	765.0	748.3	741.2
40°	686.1	689.9	676.5	659.0	649.6
42.5°	575.3	595.6	583.3	564.2	551.8
45°	373.4	434.5	440.7	418.0	347.4
47.5°	194.6	258.6	305.6	233.4	163.6
50°	114.5	155.9	223.3	127.4	102.0
52.5°	73.7	91.8	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	0.4	2.3	1.3	1.2
90°	0.0	1.9	11.5	6.7	5.8
92.5°	10.8	43.5	156.2	51.8	37.3
95°	31.7	100.4	482.7	178.3	112.5
97.5°	61.3	127.7	760.8	503.4	306.5
100°	79.8	144.7	850.0	821.8	551.9
102.5°	100.6	163.2	831.5	1152.6	918.8
105°	134.6	189.1	759.6	1442.6	1371.2
107.5°	166.9	219.0	690.4	1471.3	1554.0
110°	188.5	238.3	655.8	1435.2	1585.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	209.2	257.6	635.0	1374.5	1564.8
115°	239.4	285.5	614.4	1271.4	1493.3
117.5°	269.4	313.0	607.1	1174.8	1401.9
120°	289.4	330.8	604.8	1118.4	1336.5
122.5°	307.9	347.0	604.8	1068.8	1270.4
125°	334.6	371.3	605.8	1004.0	1181.7
127.5°	356.3	394.3	604.8	955.2	1106.7
130°	370.2	409.7	604.8	927.2	1064.4
132.5°	382.5	422.7	604.0	901.5	1028.3
135°	401.0	443.3	601.9	865.9	974.0
137.5°	421.5	461.8	601.9	827.9	928.1
140°	434.6	474.1	601.9	803.1	898.1
142.5°	447.7	485.7	601.2	780.5	863.5
145°	468.3	503.1	601.9	744.9	814.4
147.5°	488.8	518.4	603.1	715.4	768.8
150°	501.9	529.2	603.8	699.1	744.2
152.5°	514.2	538.5	604.6	685.1	721.9
155°	533.7	551.5	605.8	667.9	693.3
157.5°	550.6	565.1	606.9	655.2	672.9
160°	560.6	572.8	607.7	647.4	660.6
162.5°	570.6	579.8	608.5	640.4	651.3
165°	583.7	590.2	608.7	631.9	639.4
167.5°	594.8	598.2	609.8	625.3	628.5
170°	601.0	602.8	610.6	622.1	623.1
172.5°	604.8	605.9	610.6	619.0	619.2
175°	610.6	610.6	611.5	616.3	614.4
177.5°	613.3	612.5	611.7	614.0	612.5
180°	612.5	612.5	612.5	612.5	612.5

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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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00