

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: P853567

Luminaire Tested: SQ2-BBM-150U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853567
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-150U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

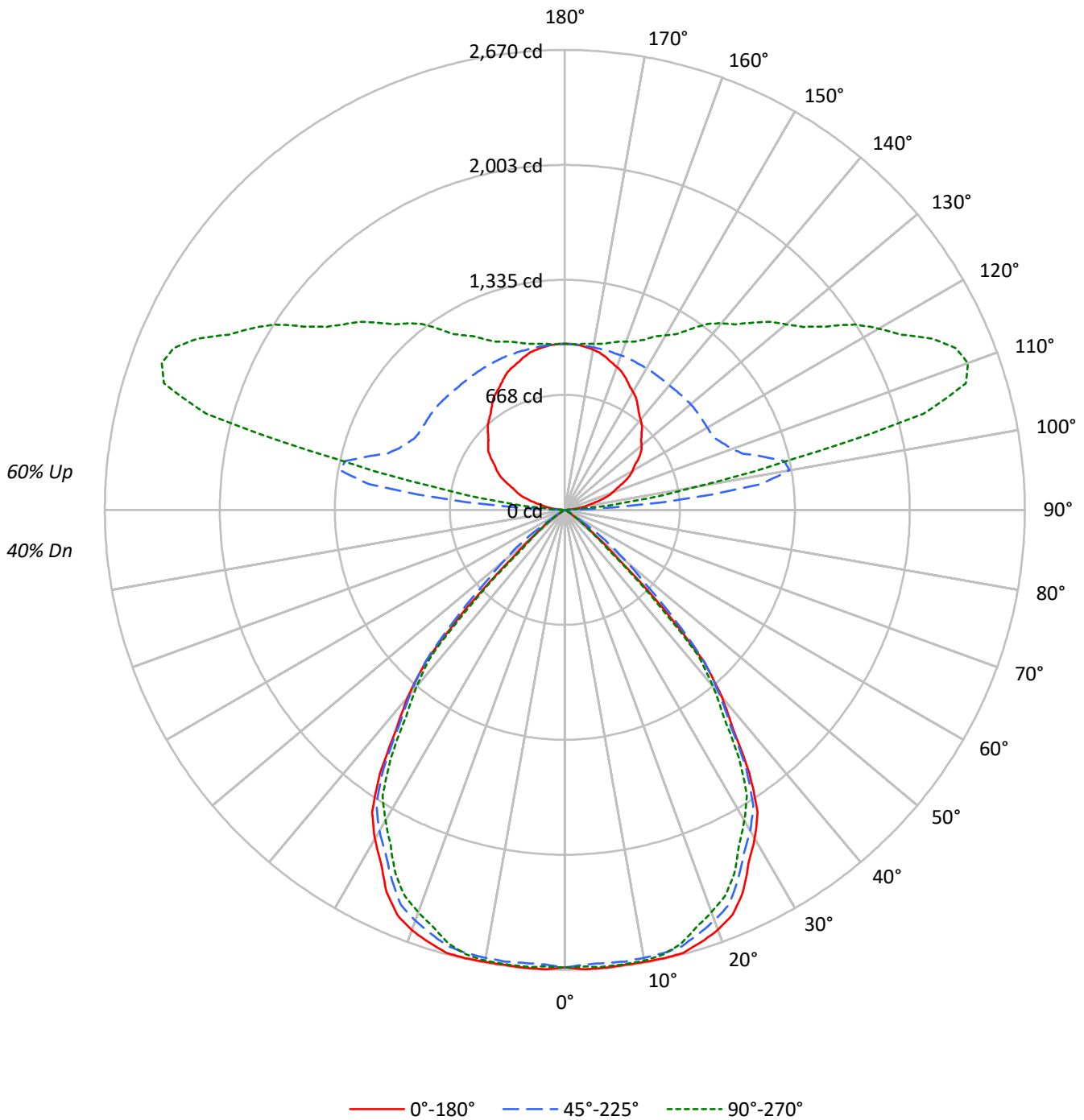
Lumens per Lamp: N/A
Luminaire Lumens: 9921.2 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.3
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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	97	93	90	87	88	85	83	80	70	69	67	57	56	54	44	43	43	37				
2	90	84	78	74	82	77	72	69	64	61	58	52	50	48	41	40	39	34				
3	83	75	69	64	76	69	64	59	58	54	51	47	45	43	38	36	35	31				
4	77	68	61	56	70	62	56	52	52	48	45	43	40	38	35	33	32	28				
5	71	61	54	49	65	56	50	46	48	43	40	40	37	34	32	30	29	25				
6	66	55	48	43	60	51	45	41	44	39	36	37	33	31	30	28	26	23				
7	61	50	43	38	56	47	41	36	40	35	32	34	30	28	28	26	24	21				
8	57	46	39	34	53	43	37	33	37	32	29	31	28	25	26	24	22	20				
9	54	42	36	31	49	40	34	29	34	30	26	29	26	23	24	22	20	18				
10	50	39	33	28	46	37	31	27	32	27	24	27	24	21	23	20	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42891	42891	42891
5°	43264	42796	43151
10°	43683	43291	43569
15°	44488	43838	43572
20°	44601	43608	42720
25°	43602	42307	41473
30°	41102	40119	38838
35°	36823	36175	34724
40°	29872	29369	28216
45°	18180	20612	16317
50°	5800	11650	5300
55°	2018	4231	2075
60°	161	1221	32
65°	0	76	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: 20612 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.9	2.6
10°-20°	742.4	7.5
20°-30°	1094.3	11.0
30°-40°	1120.6	11.3
40°-50°	645.7	6.5
50°-60°	113.1	1.1
60°-70°	4.3	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	367.1	3.7
100°-110°	1201.9	12.1
110°-120°	1188.3	12.0
120°-130°	971.3	9.8
130°-140°	792.7	8.0
140°-150°	616.9	6.2
150°-160°	444.2	4.5
160°-170°	271.7	2.7
170°-180°	91.8	0.9
0°-30°	2090.5	21.1
0°-40°	3211.1	32.4
0°-60°	3969.9	40.0
0°-90°	3975.6	40.1
90°-120°	2757.3	27.8
90°-150°	5138.2	51.8
90°-180°	5946.0	59.9
0°-180°	9921.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2656	2656	2656	2656	2656	
5°	2669	2664	2640	2672	2662	254
15°	2662	2683	2623	2622	2607	749
25°	2448	2466	2375	2353	2328	1117
35°	1868	1858	1835	1791	1762	1146
45°	796	891	903	858	715	609
55°	72	86	150	81	74	80
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	52	149	667	238	154	58
105°	209	298	1193	2267	2153	220
115°	376	450	969	2003	2351	372
125°	524	584	955	1580	1855	466
135°	631	698	948	1362	1536	488
145°	738	792	946	1172	1284	462
155°	841	869	952	1048	1089	387
165°	918	926	955	992	1003	259
175°	959	959	960	967	965	91
180°	963	963	963	963	963	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2656.5	2656.5	2656.5	2656.5	2656.5
2.5°	2670.0	2663.0	2642.1	2663.4	2654.1
5°	2669.4	2663.6	2640.5	2672.2	2662.4
7.5°	2664.4	2663.1	2645.3	2670.2	2659.1
10°	2664.4	2669.3	2640.5	2666.2	2657.5
12.5°	2666.0	2677.1	2635.8	2655.8	2643.1
15°	2661.5	2682.9	2622.6	2622.3	2606.7
17.5°	2631.6	2656.9	2581.0	2560.5	2539.6
20°	2595.8	2625.0	2538.0	2508.7	2486.3
22.5°	2544.0	2572.4	2483.9	2450.5	2428.2
25°	2447.5	2466.0	2374.8	2353.3	2328.0
27.5°	2310.5	2321.4	2250.6	2213.4	2190.7
30°	2204.6	2212.4	2151.9	2111.4	2083.2
32.5°	2082.0	2078.9	2034.8	1993.6	1966.9
35°	1868.2	1857.5	1835.3	1790.9	1761.7
37.5°	1605.2	1603.3	1581.3	1542.8	1512.3
40°	1417.3	1415.4	1393.4	1359.1	1338.7
42.5°	1189.6	1226.6	1200.7	1158.6	1146.0
45°	796.2	890.6	902.7	857.7	714.6
47.5°	410.9	537.0	628.6	489.7	339.2
50°	230.9	324.3	463.8	262.6	211.0
52.5°	150.5	195.6	323.7	167.6	141.7
55°	71.7	86.3	150.3	81.4	73.7
57.5°	25.7	39.7	65.7	40.3	24.9
60°	5.0	16.7	37.8	11.7	1.0
62.5°	1.8	4.9	21.9	3.1	1.0
65°	0.0	1.0	2.0	1.0	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°	0.2	0.6	1.6	1.4	1.6
90°	1.0	2.9	7.9	7.0	7.9
92.5°	16.8	61.4	188.5	61.3	49.1
95°	51.5	149.3	667.3	237.7	154.5
97.5°	93.5	196.9	1144.9	692.6	429.3
100°	122.8	221.5	1324.7	1183.0	784.1
102.5°	156.0	252.5	1304.9	1743.1	1351.3
105°	208.9	298.0	1193.0	2266.7	2153.4
107.5°	261.0	342.7	1083.9	2315.6	2440.1
110°	295.0	374.4	1031.7	2258.7	2490.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	327.5	404.6	1000.0	2159.5	2456.0
115°	376.2	449.8	969.3	2002.9	2351.4
117.5°	423.6	492.3	957.6	1849.0	2202.9
120°	454.4	519.3	954.4	1759.3	2103.9
122.5°	482.2	545.5	954.4	1681.9	2001.7
125°	523.7	583.8	955.4	1579.5	1855.4
127.5°	559.0	620.2	954.2	1504.0	1744.1
130°	581.2	643.1	953.4	1458.4	1675.2
132.5°	601.0	664.5	951.1	1419.1	1615.8
135°	630.7	697.5	947.5	1362.3	1535.6
137.5°	662.0	728.2	945.3	1303.1	1459.8
140°	684.1	748.0	944.5	1265.7	1413.8
142.5°	706.3	766.3	944.5	1225.8	1360.0
145°	737.6	791.8	945.5	1171.8	1284.1
147.5°	770.5	815.6	946.9	1124.9	1209.7
150°	791.1	830.8	948.5	1097.6	1169.3
152.5°	811.7	846.7	949.3	1075.2	1134.4
155°	840.6	868.6	951.5	1048.4	1089.1
157.5°	866.5	886.8	953.6	1027.4	1056.8
160°	883.1	899.6	954.4	1015.4	1038.6
162.5°	897.4	910.8	954.4	1005.7	1022.7
165°	917.8	926.5	955.4	992.3	1002.9
167.5°	935.0	939.3	956.6	981.9	987.7
170°	944.5	946.5	957.4	976.3	978.2
172.5°	951.7	952.8	959.8	972.3	972.6
175°	959.4	959.4	960.4	967.3	965.3
177.5°	963.3	962.6	961.8	966.4	963.3
180°	963.3	963.3	963.3	963.3	963.3

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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	0.51	0.92	1.56	2.98	0.00	0.00	0.38	1.02	2.44
	3H	0.00	0.24	0.73	1.30	2.74	0.00	0.00	0.19	0.76	2.20
	4H	0.00	0.10	0.63	1.16	2.60	0.00	0.00	0.10	0.62	2.07
	6H	0.00	0.00	0.53	1.01	2.46	0.00	0.00	0.00	0.47	1.92
	8H	0.00	0.00	0.47	0.93	2.38	0.00	0.00	0.00	0.39	1.84
	12H	0.00	0.00	0.41	0.84	2.31	0.00	0.00	0.00	0.30	1.77
4H	2H	0.00	0.11	0.65	1.17	2.61	0.00	0.00	0.11	0.63	2.08
	3H	0.00	0.00	0.45	0.89	2.35	0.00	0.00	0.00	0.36	1.81
	4H	0.00	0.00	0.34	0.73	2.21	0.00	0.00	0.00	0.20	1.67
	6H	0.00	0.00	0.23	0.58	2.05	0.00	0.00	0.00	0.05	1.52
	8H	0.00	0.00	0.17	0.49	1.97	0.00	0.00	0.00	0.00	1.43
	12H	0.00	0.00	0.11	0.39	1.88	0.00	0.00	0.00	0.00	1.35
8H	4H	0.00	0.00	0.17	0.49	1.97	0.00	0.00	0.00	0.00	1.43
	6H	0.00	0.00	0.07	0.35	1.83	0.00	0.00	0.00	0.00	1.30
	8H	0.00	0.00	0.02	0.24	1.74	0.00	0.00	0.00	0.00	1.20
	12H	0.00	0.00	0.00	0.13	1.68	0.00	0.00	0.00	0.00	1.14
12H	4H	0.00	0.00	0.11	0.39	1.88	0.00	0.00	0.00	0.00	1.35
	6H	0.00	0.00	0.02	0.24	1.74	0.00	0.00	0.00	0.00	1.20
	8H	0.00	0.00	0.00	0.13	1.68	0.00	0.00	0.00	0.00	1.14