

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: P853566

Luminaire Tested: SQ2-BBM-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853566
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-930-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

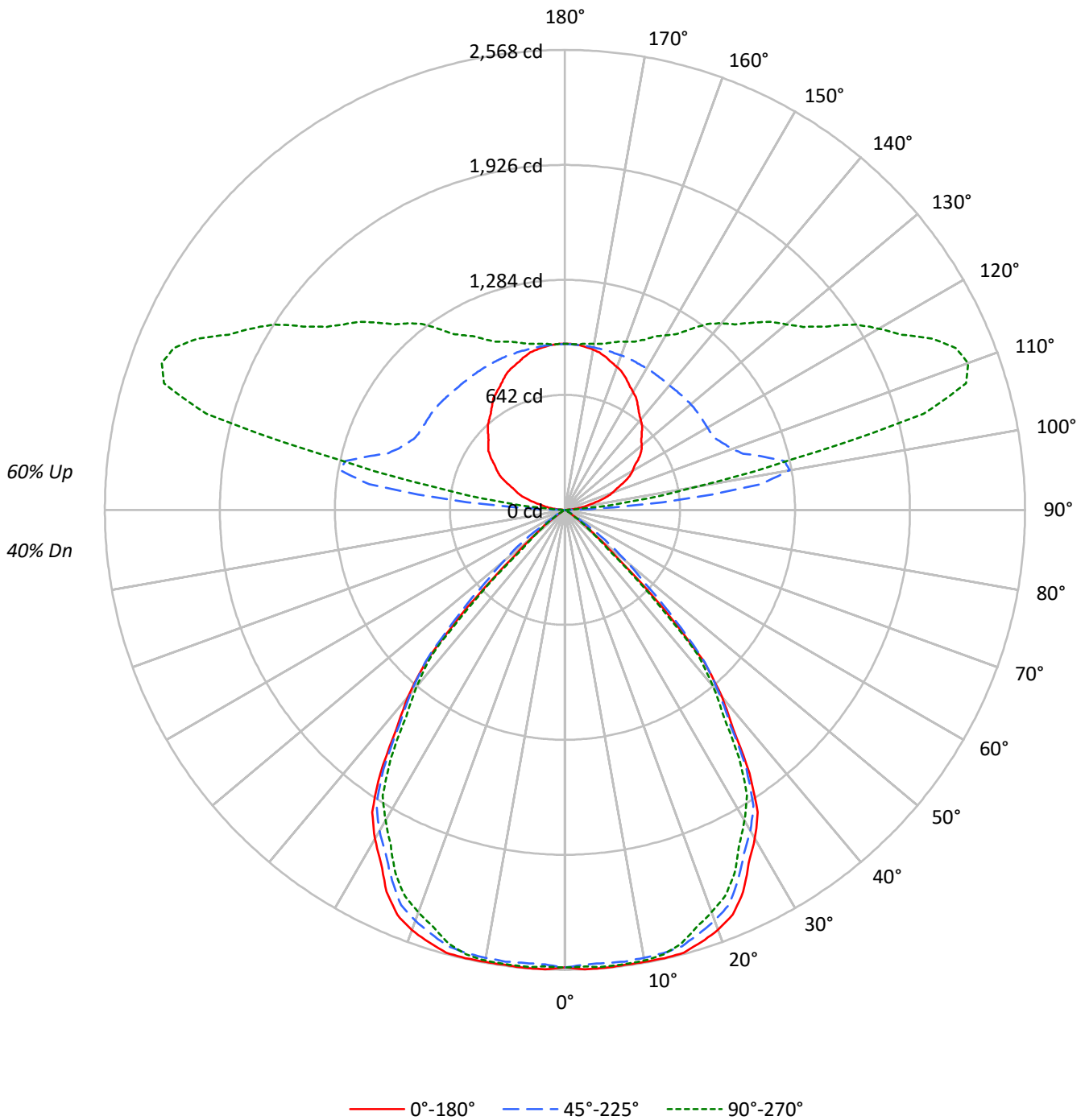
Lumens per Lamp: N/A
Luminaire Lumens: 9542.2 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	41253	41253	41253
5°	41611	41162	41503
10°	42014	41638	41904
15°	42788	42163	41907
20°	42897	41943	41087
25°	41936	40691	39889
30°	39532	38585	37354
35°	35416	34793	33397
40°	28732	28247	27137
45°	17486	19826	15694
50°	5579	11205	5097
55°	1939	4068	1993
60°	155	1175	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: 19826 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.2	2.6
10°-20°	714.0	7.5
20°-30°	1052.5	11.0
30°-40°	1077.8	11.3
40°-50°	621.0	6.5
50°-60°	108.8	1.1
60°-70°	4.2	0.0
70°-80°	0.0	0.0
80°-90°	1.3	0.0
90°-100°	353.0	3.7
100°-110°	1156.0	12.1
110°-120°	1142.9	12.0
120°-130°	934.2	9.8
130°-140°	762.4	8.0
140°-150°	593.3	6.2
150°-160°	427.2	4.5
160°-170°	261.4	2.7
170°-180°	88.3	0.9
0°-30°	2010.7	21.1
0°-40°	3088.4	32.4
0°-60°	3818.2	40.0
0°-90°	3823.7	40.1
90°-120°	2651.9	27.8
90°-150°	4941.9	51.8
90°-180°	5719.0	59.9
0°-180°	9542.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2555	2555	2555	2555	2555	
5°	2567	2562	2540	2570	2561	245
15°	2560	2580	2522	2522	2507	721
25°	2354	2372	2284	2263	2239	1074
35°	1797	1786	1765	1722	1694	1103
45°	766	857	868	825	687	586
55°	69	83	144	78	71	77
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°	50	144	642	229	149	56
105°	201	287	1148	2180	2071	212
115°	362	433	932	1926	2262	357
125°	504	562	919	1519	1784	448
135°	607	671	911	1310	1477	469
145°	709	762	909	1127	1235	445
155°	808	836	915	1008	1048	372
165°	883	891	919	954	965	249
175°	923	923	924	930	928	88
180°	926	926	926	926	926	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2555.0	2555.0	2555.0	2555.0	2555.0
2.5°	2568.0	2561.3	2541.2	2561.7	2552.7
5°	2567.4	2561.8	2539.7	2570.1	2560.7
7.5°	2562.6	2561.3	2544.3	2568.2	2557.5
10°	2562.6	2567.3	2539.7	2564.4	2555.9
12.5°	2564.2	2574.9	2535.1	2554.3	2542.2
15°	2559.8	2580.4	2522.4	2522.1	2507.1
17.5°	2531.1	2555.4	2482.4	2462.6	2442.6
20°	2496.6	2524.7	2441.1	2412.8	2391.3
22.5°	2446.8	2474.1	2389.0	2356.9	2335.4
25°	2354.0	2371.7	2284.1	2263.4	2239.1
27.5°	2222.2	2232.7	2164.6	2128.9	2107.0
30°	2120.4	2127.9	2069.6	2030.7	2003.6
32.5°	2002.4	1999.5	1957.1	1917.4	1891.8
35°	1796.8	1786.5	1765.2	1722.5	1694.4
37.5°	1543.9	1542.0	1520.9	1483.9	1454.5
40°	1363.2	1361.3	1340.2	1307.2	1287.5
42.5°	1144.1	1179.7	1154.9	1114.4	1102.2
45°	765.8	856.6	868.3	824.9	687.3
47.5°	395.2	516.5	604.6	470.9	326.2
50°	222.1	311.9	446.1	252.6	202.9
52.5°	144.7	188.2	311.3	161.2	136.3
55°	68.9	83.0	144.5	78.3	70.8
57.5°	24.7	38.2	63.2	38.7	23.9
60°	4.8	16.0	36.4	11.3	1.0
62.5°	1.7	4.7	21.1	3.0	1.0
65°	0.0	0.9	1.9	0.9	0.0
67.5°	0.0	0.7	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	1.5	1.3	1.5
90°	1.0	2.8	7.6	6.7	7.6
92.5°	16.2	59.0	181.3	59.0	47.2
95°	49.5	143.6	641.8	228.6	148.6
97.5°	89.9	189.3	1101.2	666.2	412.9
100°	118.1	213.0	1274.1	1137.8	754.2
102.5°	150.1	242.8	1255.1	1676.5	1299.6
105°	200.9	286.6	1147.5	2180.1	2071.1
107.5°	251.0	329.6	1042.5	2227.2	2346.9
110°	283.8	360.1	992.2	2172.4	2394.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	315.0	389.1	961.8	2077.0	2362.1
115°	361.9	432.6	932.3	1926.4	2261.6
117.5°	407.4	473.5	921.0	1778.3	2118.8
120°	437.1	499.5	918.0	1692.1	2023.5
122.5°	463.7	524.6	918.0	1617.6	1925.3
125°	503.7	561.5	918.9	1519.2	1784.5
127.5°	537.6	596.5	917.8	1446.6	1677.5
130°	559.0	618.6	917.0	1402.6	1611.2
132.5°	578.0	639.1	914.7	1364.9	1554.1
135°	606.6	670.8	911.3	1310.3	1476.9
137.5°	636.7	700.4	909.2	1253.3	1404.0
140°	658.0	719.5	908.4	1217.4	1359.8
142.5°	679.3	737.1	908.4	1179.0	1308.0
145°	709.4	761.6	909.4	1127.1	1235.1
147.5°	741.0	784.4	910.7	1081.9	1163.5
150°	760.8	799.0	912.3	1055.7	1124.6
152.5°	780.7	814.4	913.0	1034.1	1091.1
155°	808.5	835.5	915.1	1008.4	1047.5
157.5°	833.4	853.0	917.2	988.1	1016.4
160°	849.4	865.2	918.0	976.6	998.9
162.5°	863.1	876.0	918.0	967.3	983.7
165°	882.7	891.1	918.9	954.4	964.6
167.5°	899.3	903.4	920.1	944.4	950.0
170°	908.4	910.3	920.8	939.0	940.8
172.5°	915.3	916.4	923.1	935.1	935.5
175°	922.7	922.7	923.7	930.3	928.4
177.5°	926.5	925.8	925.0	929.5	926.5
180°	926.5	926.5	926.5	926.5	926.5



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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	0.37	0.78	1.42	2.84	0.00	0.00	0.25	0.89	2.31
	3H	0.00	0.10	0.59	1.16	2.60	0.00	0.00	0.06	0.63	2.07
	4H	0.00	0.00	0.49	1.02	2.46	0.00	0.00	0.00	0.49	1.93
	6H	0.00	0.00	0.39	0.86	2.32	0.00	0.00	0.00	0.33	1.79
	8H	0.00	0.00	0.33	0.79	2.24	0.00	0.00	0.00	0.26	1.71
	12H	0.00	0.00	0.27	0.70	2.17	0.00	0.00	0.00	0.17	1.64
4H	2H	0.00	0.00	0.51	1.03	2.47	0.00	0.00	0.00	0.50	1.94
	3H	0.00	0.00	0.31	0.75	2.21	0.00	0.00	0.00	0.23	1.68
	4H	0.00	0.00	0.20	0.59	2.07	0.00	0.00	0.00	0.06	1.54
	6H	0.00	0.00	0.09	0.44	1.91	0.00	0.00	0.00	0.00	1.38
	8H	0.00	0.00	0.03	0.35	1.83	0.00	0.00	0.00	0.00	1.30
	12H	0.00	0.00	0.00	0.25	1.74	0.00	0.00	0.00	0.00	1.21
8H	4H	0.00	0.00	0.03	0.35	1.83	0.00	0.00	0.00	0.00	1.30
	6H	0.00	0.00	0.00	0.21	1.69	0.00	0.00	0.00	0.00	1.16
	8H	0.00	0.00	0.00	0.10	1.60	0.00	0.00	0.00	0.00	1.07
	12H	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00	1.01
12H	4H	0.00	0.00	0.00	0.25	1.74	0.00	0.00	0.00	0.00	1.21
	6H	0.00	0.00	0.00	0.10	1.60	0.00	0.00	0.00	0.00	1.07
	8H	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00	1.01