

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: P853652

Luminaire Tested: SQ2-BBN-150U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853652
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-150U-100D-940-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

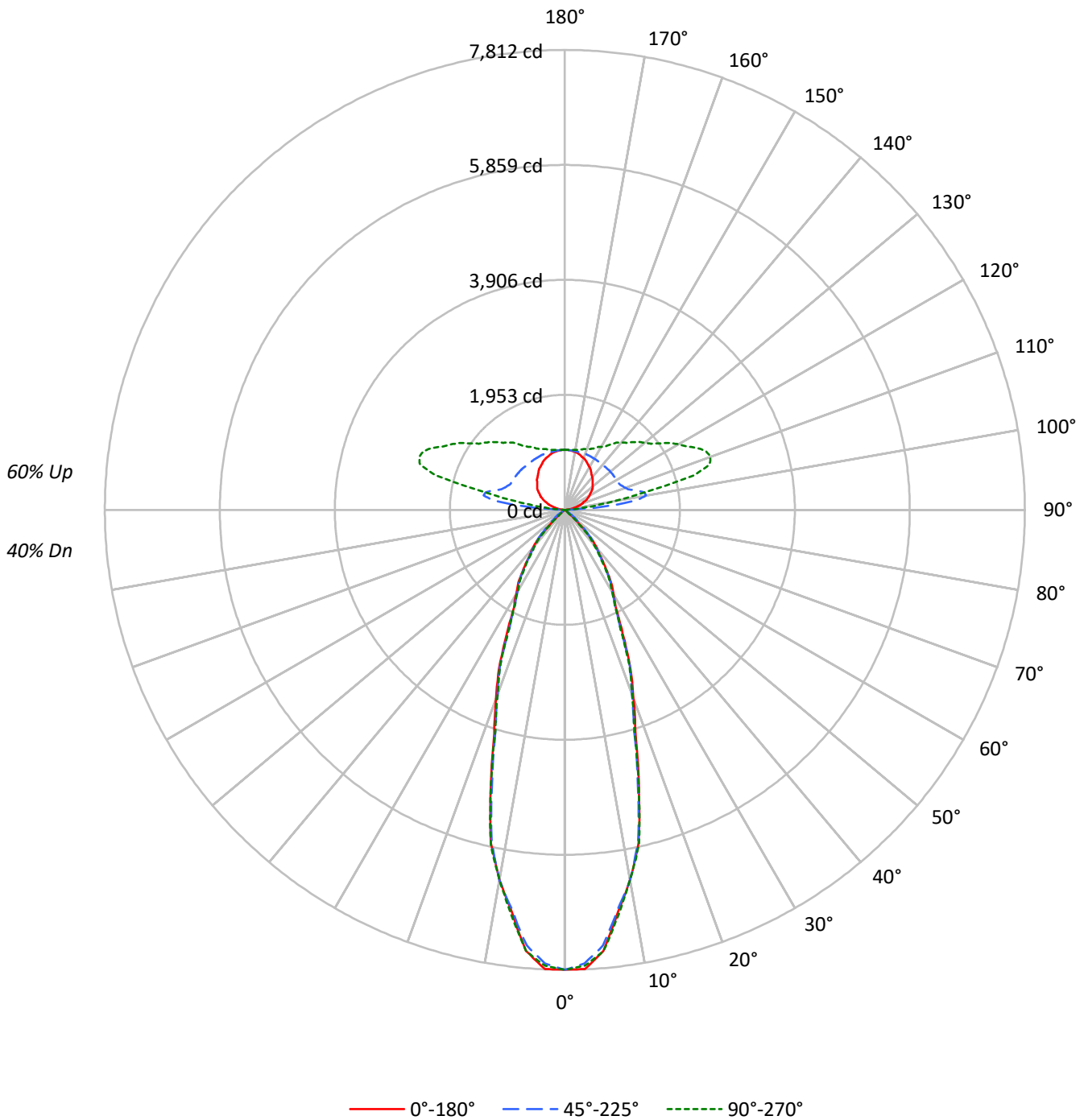
Lumens per Lamp: N/A
Luminaire Lumens: 10513.0 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	0
RCR																		
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	98	94	91	88	89	86	83	81	71	69	68	57	56	55	45	44	44	38
2	91	85	80	76	83	78	74	70	65	62	60	53	51	50	42	41	40	35
3	84	77	71	66	77	71	66	62	60	56	53	49	47	45	40	38	37	33
4	79	70	64	59	72	65	59	55	55	51	48	46	43	41	37	36	35	31
5	73	64	57	52	67	59	54	49	51	47	44	43	40	38	35	34	32	29
6	69	59	52	47	63	55	49	45	47	43	40	40	37	35	33	32	30	27
7	64	54	48	43	59	51	45	41	44	40	37	38	35	32	32	30	28	26
8	61	50	44	39	56	47	41	37	41	37	34	35	32	30	30	28	27	24
9	57	47	40	36	53	44	38	35	39	34	31	33	30	28	29	27	25	23
10	54	44	38	33	50	41	36	32	36	32	29	32	29	27	27	25	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	126125	126125	126125
5°	121906	120401	121975
10°	104621	104690	104621
15°	81205	79911	81018
20°	58608	57398	57350
25°	41555	39900	39975
30°	30917	30130	29841
35°	24057	23446	22947
40°	17802	17357	16259
45°	9097	11154	7330
50°	1979	6152	1449
55°	555	2497	436
60°	90	501	45
65°	0	53	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: 11154 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	675.5	6.4
10°-20°	1331.7	12.7
20°-30°	1074.3	10.2
30°-40°	746.3	7.1
40°-50°	344.8	3.3
50°-60°	48.4	0.5
60°-70°	1.6	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	388.3	3.7
100°-110°	1271.3	12.1
110°-120°	1256.9	12.0
120°-130°	1027.5	9.8
130°-140°	838.5	8.0
140°-150°	652.5	6.2
150°-160°	469.8	4.5
160°-170°	287.4	2.7
170°-180°	97.1	0.9
0°-30°	3081.4	29.3
0°-40°	3827.7	36.4
0°-60°	4220.9	40.1
0°-90°	4224.0	40.2
90°-120°	2916.5	27.7
90°-150°	5435.0	51.7
90°-180°	6289.0	59.8
0°-180°	10513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7812	7812	7812	7812	7812	
5°	7522	7482	7429	7520	7526	676
15°	4858	4920	4781	4848	4847	1337
25°	2333	2280	2240	2273	2244	1092
35°	1220	1220	1190	1168	1164	764
45°	398	476	488	444	321	322
55°	20	31	89	25	16	25
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	54	158	706	251	163	62
105°	221	315	1262	2398	2278	233
115°	398	476	1025	2119	2487	393
125°	554	618	1011	1671	1963	493
135°	667	738	1002	1441	1624	516
145°	780	838	1000	1240	1358	489
155°	889	919	1006	1109	1152	409
165°	971	980	1011	1050	1061	274
175°	1015	1015	1016	1023	1021	96
180°	1019	1019	1019	1019	1019	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7811.6	7811.6	7811.6	7811.6	7811.6
2.5°	7807.1	7778.4	7710.2	7771.7	7753.0
5°	7521.6	7481.7	7428.7	7520.3	7525.8
7.5°	6891.5	6904.4	6855.1	6956.3	6945.5
10°	6381.3	6390.9	6385.5	6418.5	6381.3
12.5°	5790.0	5828.3	5756.0	5807.0	5822.7
15°	4858.1	4920.1	4780.7	4848.2	4846.9
17.5°	3984.2	3977.9	3905.9	3918.5	3914.4
20°	3411.0	3401.3	3340.6	3330.9	3337.8
22.5°	2919.9	2903.7	2882.2	2857.9	2867.0
25°	2332.6	2280.3	2239.7	2272.8	2243.9
27.5°	1872.3	1871.5	1837.9	1841.7	1847.2
30°	1658.3	1648.7	1616.1	1617.1	1600.6
32.5°	1468.0	1474.9	1434.8	1426.8	1410.3
35°	1220.5	1220.5	1189.5	1168.3	1164.2
37.5°	991.1	988.6	966.6	936.5	925.7
40°	844.6	837.8	823.5	786.6	771.4
42.5°	678.0	696.4	682.8	645.6	622.8
45°	398.4	475.5	488.5	443.5	321.0
47.5°	171.2	256.0	326.0	212.5	110.6
50°	78.8	144.9	244.9	104.5	57.7
52.5°	46.2	79.2	181.9	61.1	36.3
55°	19.7	30.7	88.7	25.1	15.5
57.5°	7.3	13.4	33.5	10.9	5.9
60°	2.8	5.6	15.5	4.2	1.4
62.5°	0.6	2.2	7.6	1.9	0.3
65°	0.0	0.0	1.4	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°	0.2	0.6	1.7	1.5	1.7
90°	1.0	3.1	8.4	7.4	8.4
92.5°	17.8	64.9	199.4	64.8	51.9
95°	54.5	157.9	705.9	251.4	163.4
97.5°	98.9	208.2	1211.1	732.6	454.1
100°	129.9	234.3	1401.2	1251.3	829.4
102.5°	165.0	267.0	1380.3	1843.8	1429.3
105°	221.0	315.2	1262.0	2397.6	2277.8
107.5°	276.1	362.5	1146.5	2449.4	2581.1
110°	312.1	396.1	1091.3	2389.1	2633.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	346.4	427.9	1057.7	2284.3	2597.8
115°	398.0	475.8	1025.3	2118.6	2487.3
117.5°	448.0	520.7	1012.9	1955.8	2330.2
120°	480.7	549.3	1009.6	1860.9	2225.4
122.5°	510.0	577.0	1009.6	1779.0	2117.4
125°	554.0	617.5	1010.6	1670.7	1962.6
127.5°	591.3	656.0	1009.4	1590.9	1844.9
130°	614.7	680.3	1008.5	1542.6	1772.0
132.5°	635.7	702.9	1006.0	1501.1	1709.1
135°	667.1	737.8	1002.2	1441.0	1624.3
137.5°	700.2	770.2	999.9	1378.4	1544.1
140°	723.7	791.2	999.1	1338.8	1495.5
142.5°	747.1	810.6	999.1	1296.6	1438.5
145°	780.2	837.6	1000.1	1239.5	1358.3
147.5°	815.0	862.7	1001.6	1189.8	1279.5
150°	836.8	878.7	1003.3	1161.0	1236.8
152.5°	858.5	895.6	1004.1	1137.3	1200.0
155°	889.1	918.8	1006.4	1109.0	1152.0
157.5°	916.6	938.1	1008.7	1086.7	1117.9
160°	934.2	951.6	1009.6	1074.0	1098.6
162.5°	949.2	963.4	1009.6	1063.8	1081.8
165°	970.8	980.0	1010.6	1049.6	1060.9
167.5°	989.0	993.5	1011.9	1038.6	1044.8
170°	999.1	1001.1	1012.7	1032.7	1034.7
172.5°	1006.6	1007.9	1015.2	1028.4	1028.8
175°	1014.8	1014.8	1015.8	1023.1	1021.1
177.5°	1019.0	1018.2	1017.3	1022.3	1019.0
180°	1019.0	1019.0	1019.0	1019.0	1019.0



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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