

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: P853651

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853651  
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-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**

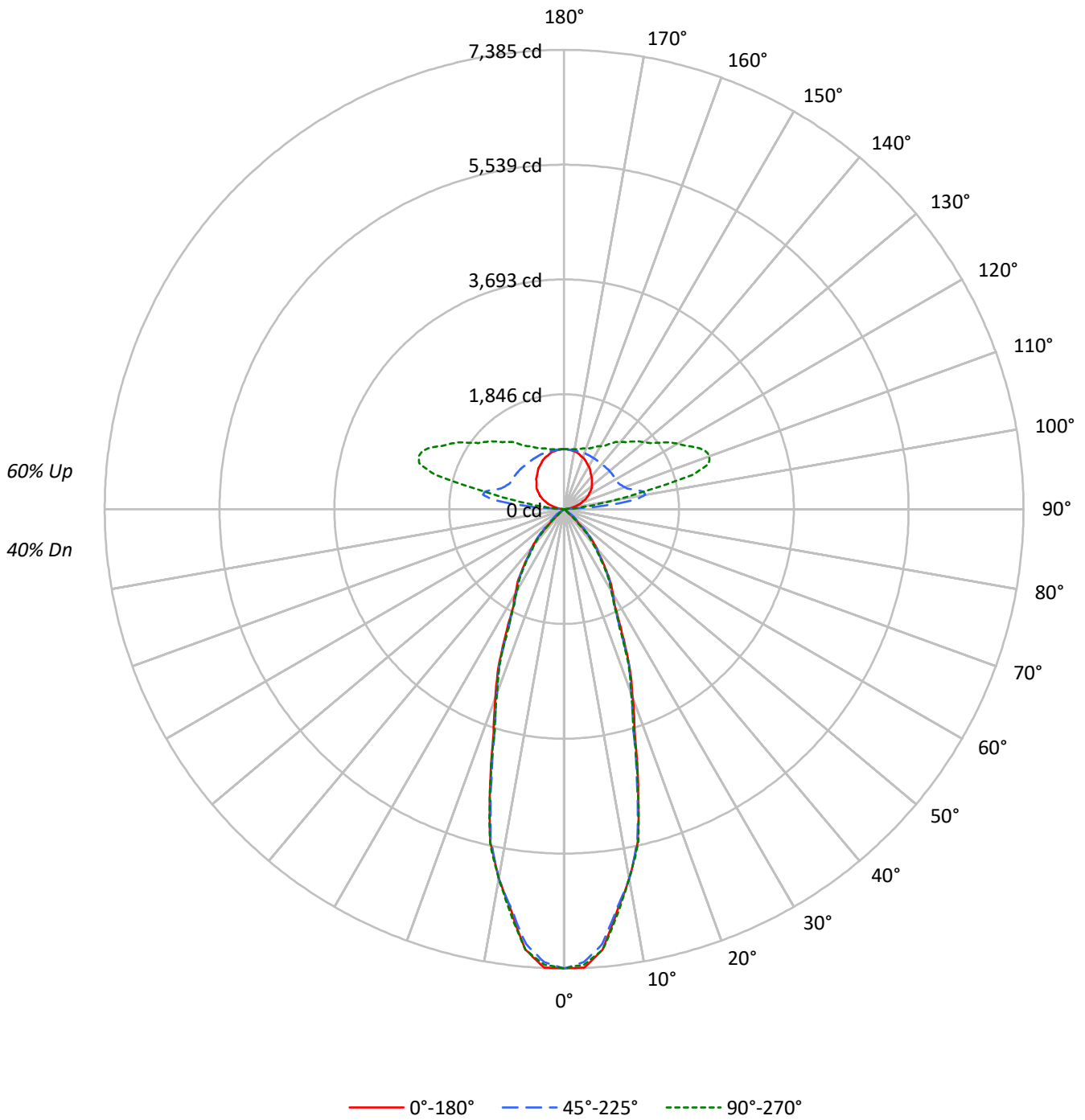
Lumens per Lamp: N/A  
Luminaire Lumens: 9938.9 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

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	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°	119237	119237	119237
5°	115248	113825	115313
10°	98907	98973	98907
15°	76771	75547	76593
20°	55407	54263	54218
25°	39286	37721	37793
30°	29229	28484	28212
35°	22744	22166	21693
40°	16830	16410	15371
45°	8599	10545	6928
50°	1871	5817	1371
55°	524	2359	411
60°	87	471	42
65°	0	50	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: 10545 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	638.6	6.4
10°-20°	1259.0	12.7
20°-30°	1015.6	10.2
30°-40°	705.5	7.1
40°-50°	325.9	3.3
50°-60°	45.8	0.5
60°-70°	1.6	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°	2913.2	29.3
0°-40°	3618.7	36.4
0°-60°	3990.4	40.1
0°-90°	3993.3	40.2
90°-120°	2757.3	27.7
90°-150°	5138.2	51.7
90°-180°	5946.0	59.8
0°-180°	9938.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7385	7385	7385	7385	7385	
5°	7111	7073	7023	7110	7115	639
15°	4593	4651	4520	4584	4582	1264
25°	2205	2156	2117	2149	2121	1032
35°	1154	1154	1125	1104	1101	722
45°	377	450	462	419	303	304
55°	19	29	84	24	15	24
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°	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°	7385.0	7385.0	7385.0	7385.0	7385.0
2.5°	7380.7	7353.6	7289.1	7347.3	7329.6
5°	7110.8	7073.1	7023.0	7109.6	7114.8
7.5°	6515.1	6527.3	6480.8	6576.4	6566.2
10°	6032.8	6041.9	6036.8	6067.9	6032.8
12.5°	5473.8	5510.0	5441.6	5489.9	5504.7
15°	4592.8	4651.4	4519.6	4583.5	4582.2
17.5°	3766.6	3760.6	3692.6	3704.5	3700.6
20°	3224.7	3215.6	3158.1	3149.0	3155.5
22.5°	2760.5	2745.1	2724.8	2701.8	2710.4
25°	2205.2	2155.8	2117.4	2148.7	2121.4
27.5°	1770.0	1769.3	1737.6	1741.2	1746.4
30°	1567.8	1558.6	1527.8	1528.8	1513.2
32.5°	1387.8	1394.3	1356.4	1348.9	1333.3
35°	1153.9	1153.9	1124.6	1104.5	1100.6
37.5°	936.9	934.6	913.8	885.3	875.2
40°	798.5	792.0	778.6	743.6	729.3
42.5°	640.9	658.4	645.5	610.4	588.8
45°	376.6	449.5	461.8	419.3	303.4
47.5°	161.8	242.0	308.2	200.9	104.6
50°	74.5	137.0	231.6	98.8	54.6
52.5°	43.7	74.9	171.9	57.8	34.3
55°	18.6	29.0	83.8	23.7	14.6
57.5°	6.9	12.6	31.7	10.3	5.6
60°	2.7	5.3	14.6	3.9	1.3
62.5°	0.5	2.1	7.2	1.8	0.3
65°	0.0	0.0	1.3	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	1.6	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	0.00	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