

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: P853654

Luminaire Tested: SQ2-BBN-150U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853654  
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-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

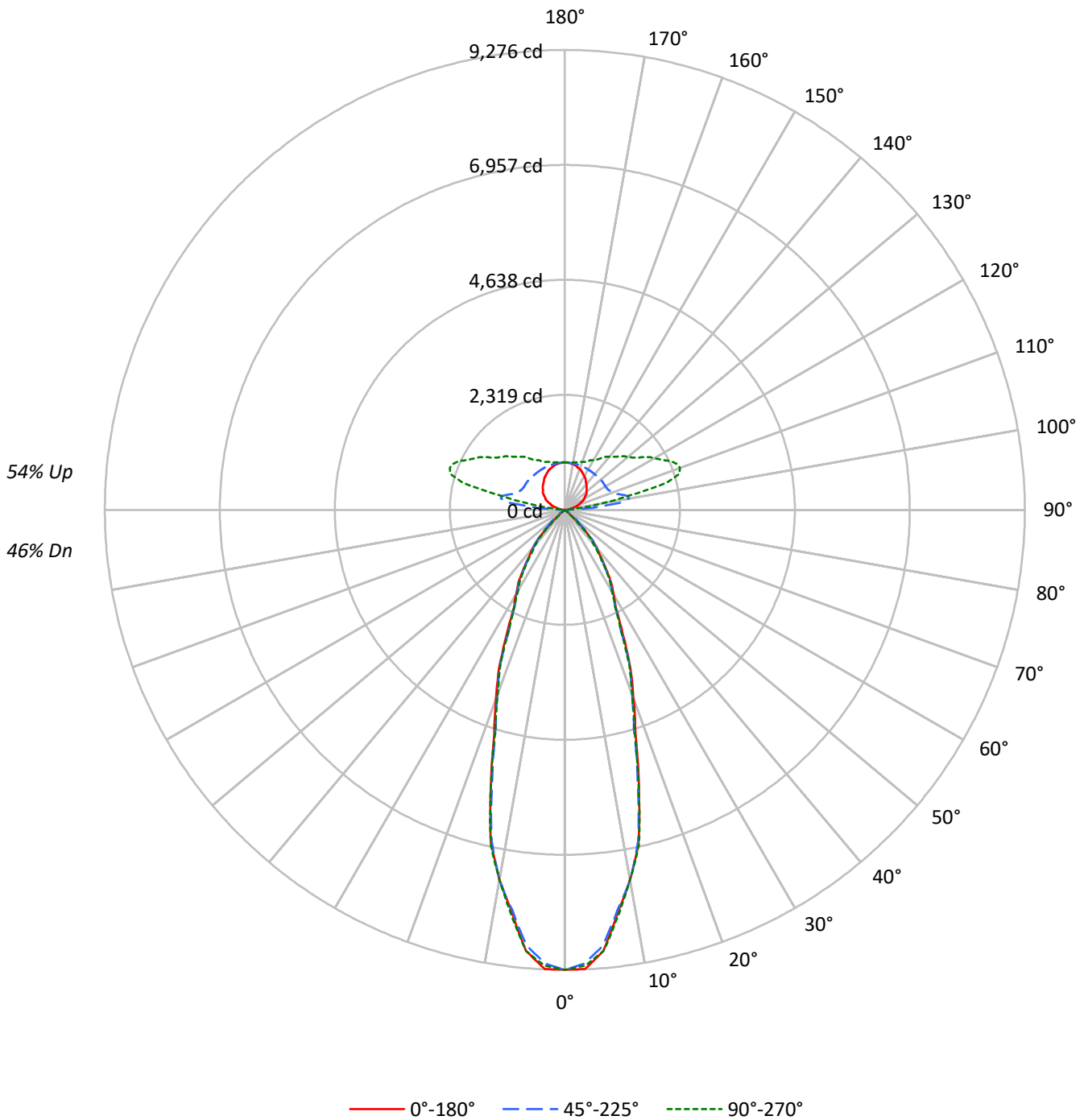
Lumens per Lamp: N/A  
Luminaire Lumens: 10909.7 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 105.9  
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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46				
1	99	96	93	90	91	88	86	83	74	73	71	62	61	60	50	49	49	43				
2	92	87	82	78	85	80	76	73	68	66	63	57	55	54	47	46	45	40				
3	86	79	73	68	80	73	68	64	63	59	57	53	51	49	44	43	42	38				
4	81	72	66	61	75	67	62	58	58	54	51	50	47	45	42	40	39	36				
5	75	66	60	55	70	62	56	52	54	50	47	47	44	41	40	38	36	33				
6	71	61	54	50	66	57	51	47	50	46	43	44	41	38	38	36	34	31				
7	67	56	50	45	62	53	47	43	47	43	39	41	38	36	36	34	32	30				
8	63	52	46	42	58	50	44	40	44	40	37	39	36	33	34	32	30	28				
9	59	49	43	38	55	46	41	37	41	37	34	37	34	31	32	30	28	27				
10	56	46	40	36	52	43	38	34	39	35	32	35	32	29	31	29	27	25				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	149762	149762	149762
5°	144753	142965	144834
10°	124228	124311	124228
15°	96424	94888	96200
20°	69591	68154	68098
25°	49344	47379	47468
30°	36711	35777	35434
35°	28566	27841	27248
40°	21138	20611	19306
45°	10803	13244	8702
50°	2351	7307	1721
55°	659	2964	518
60°	107	594	55
65°	0	65	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: 13244 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	802.1	7.4
10°-20°	1581.3	14.5
20°-30°	1275.6	11.7
30°-40°	886.2	8.1
40°-50°	409.4	3.8
50°-60°	57.5	0.5
60°-70°	2.0	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	363.9	3.3
100°-110°	1191.6	10.9
110°-120°	1178.0	10.8
120°-130°	963.0	8.8
130°-140°	785.9	7.2
140°-150°	611.6	5.6
150°-160°	440.4	4.0
160°-170°	269.4	2.5
170°-180°	91.0	0.8
0°-30°	3658.9	33.5
0°-40°	4545.1	41.7
0°-60°	5012.0	45.9
0°-90°	5015.3	46.0
90°-120°	2733.5	25.1
90°-150°	5093.9	46.7
90°-180°	5895.0	54.0
0°-180°	10909.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9276	9276	9276	9276	9276	
5°	8931	8884	8821	8930	8936	803
15°	5769	5842	5677	5757	5755	1588
25°	2770	2708	2660	2699	2664	1297
35°	1449	1449	1412	1387	1382	907
45°	473	565	580	527	381	382
55°	23	36	105	30	18	30
65°	0	0	2	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	1	3	8	7	8	3
95°	51	148	662	236	153	58
105°	207	295	1183	2247	2135	218
115°	373	446	961	1986	2331	368
125°	519	579	947	1566	1839	462
135°	625	692	939	1351	1522	484
145°	731	785	937	1162	1273	458
155°	833	861	943	1039	1080	384
165°	910	918	947	984	994	256
175°	951	951	952	959	957	90
180°	955	955	955	955	955	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9275.6	9275.6	9275.6	9275.6	9275.6
2.5°	9270.2	9236.2	9155.2	9228.3	9206.0
5°	8931.2	8883.8	8820.9	8929.7	8936.2
7.5°	8183.0	8198.4	8139.9	8260.0	8247.2
10°	7577.2	7588.7	7582.3	7621.4	7577.2
12.5°	6875.2	6920.6	6834.7	6895.3	6914.0
15°	5768.6	5842.2	5676.7	5756.9	5755.2
17.5°	4730.9	4723.4	4637.9	4652.9	4648.0
20°	4050.2	4038.8	3966.6	3955.1	3963.3
22.5°	3467.2	3447.9	3422.4	3393.5	3404.3
25°	2769.8	2707.7	2659.5	2698.8	2664.5
27.5°	2223.2	2222.2	2182.4	2186.9	2193.4
30°	1969.1	1957.7	1919.0	1920.2	1900.6
32.5°	1743.1	1751.3	1703.7	1694.2	1674.6
35°	1449.3	1449.3	1412.5	1387.3	1382.4
37.5°	1176.8	1173.8	1147.7	1112.0	1099.2
40°	1002.9	994.8	977.9	934.0	916.0
42.5°	805.0	826.9	810.7	766.6	739.5
45°	473.1	564.6	580.0	526.6	381.1
47.5°	203.3	303.9	387.1	252.3	131.4
50°	93.6	172.1	290.9	124.1	68.5
52.5°	54.8	94.1	216.0	72.5	43.1
55°	23.4	36.5	105.3	29.8	18.4
57.5°	8.7	15.9	39.8	12.9	7.0
60°	3.3	6.6	18.4	4.9	1.7
62.5°	0.7	2.6	9.0	2.3	0.3
65°	0.0	0.0	1.7	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	6.9	7.9
92.5°	16.7	60.8	186.9	60.8	48.7
95°	51.0	148.0	661.6	235.7	153.1
97.5°	92.7	195.2	1135.1	686.6	425.6
100°	121.7	219.6	1313.3	1172.8	777.4
102.5°	154.7	250.3	1293.7	1728.1	1339.6
105°	207.1	295.4	1182.8	2247.2	2134.9
107.5°	258.7	339.7	1074.6	2295.7	2419.1
110°	292.5	371.2	1022.8	2239.2	2468.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	324.7	401.1	991.4	2141.0	2434.8
115°	373.0	445.9	960.9	1985.7	2331.2
117.5°	419.9	488.0	949.4	1833.1	2183.9
120°	450.5	514.8	946.2	1744.1	2085.8
122.5°	478.0	540.8	946.2	1667.4	1984.5
125°	519.2	578.7	947.2	1565.9	1839.4
127.5°	554.2	614.8	946.0	1491.1	1729.1
130°	576.2	637.6	945.2	1445.8	1660.8
132.5°	595.8	658.8	942.9	1406.9	1601.9
135°	625.2	691.5	939.3	1350.6	1522.4
137.5°	656.3	721.9	937.2	1291.9	1447.2
140°	678.3	741.6	936.4	1254.8	1401.7
142.5°	700.2	759.7	936.4	1215.2	1348.3
145°	731.3	785.0	937.4	1161.7	1273.1
147.5°	763.8	808.6	938.8	1115.2	1199.3
150°	784.3	823.6	940.3	1088.2	1159.2
152.5°	804.7	839.4	941.1	1065.9	1124.7
155°	833.3	861.2	943.3	1039.4	1079.7
157.5°	859.1	879.2	945.4	1018.5	1047.7
160°	875.5	891.9	946.2	1006.6	1029.6
162.5°	889.7	902.9	946.2	997.0	1013.9
165°	909.9	918.5	947.2	983.8	994.3
167.5°	927.0	931.2	948.4	973.4	979.2
170°	936.4	938.3	949.2	967.9	969.8
172.5°	943.5	944.6	951.5	963.9	964.3
175°	951.1	951.1	952.1	958.9	957.0
177.5°	955.0	954.3	953.5	958.1	955.0
180°	955.0	955.0	955.0	955.0	955.0

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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