

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: P853639

Luminaire Tested: SQ2-BBN-125U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853639  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBN-125U-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

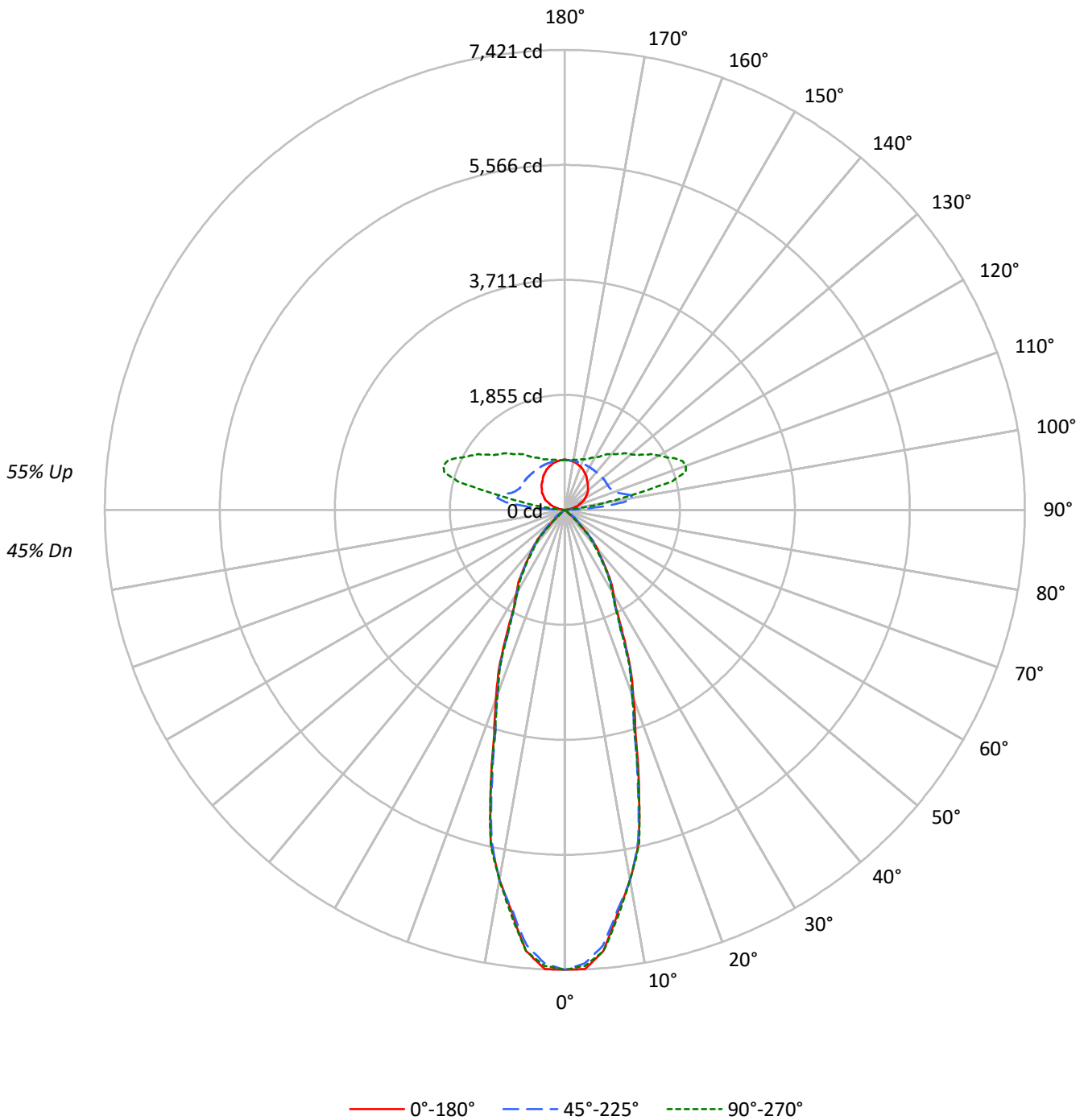
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8982.4 lumens  
Efficiency: N/A  
Efficacy: 109.5 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): 82  
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

TEST NUMBER: P853639

CATALOG NUMBER: SQ2-BBN-125U-100D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853639

CATALOG NUMBER: SQ2-BBN-125U-100D-935-UNV-STD-W-4

**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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	99	95	92	90	91	88	85	83	74	72	70	61	60	59	49	48	47	42
2	92	86	81	77	85	80	76	72	68	65	62	56	55	53	46	45	44	39
3	86	78	73	68	79	73	68	64	62	59	56	52	50	48	43	42	41	37
4	80	72	65	60	74	67	61	57	57	54	51	49	46	44	41	39	38	35
5	75	66	59	54	69	61	56	51	53	49	46	46	43	41	39	37	35	32
6	70	60	54	49	65	57	51	47	50	45	42	43	40	38	37	35	33	30
7	66	56	49	45	61	53	47	43	46	42	39	40	37	35	35	33	31	29
8	62	52	46	41	58	49	43	39	43	39	36	38	35	33	33	31	29	27
9	59	48	42	38	55	46	40	36	41	36	34	36	33	31	31	29	28	26
10	56	45	39	35	52	43	38	34	38	34	31	34	31	29	30	28	26	24

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

	0°	45°	90°
0°	119815	119815	119815
5°	115809	114378	115874
10°	99388	99453	99388
15°	77143	75915	76964
20°	55677	54527	54481
25°	39478	37905	37976
30°	29371	28624	28348
35°	22854	22273	21800
40°	16912	16488	15447
45°	8643	10597	6962
50°	1881	5845	1376
55°	526	2373	414
60°	87	475	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: 10597 cd/sqm



TEST NUMBER: P853639

CATALOG NUMBER: SQ2-BBN-125U-100D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	641.7	7.1
10°-20°	1265.1	14.1
20°-30°	1020.5	11.4
30°-40°	709.0	7.9
40°-50°	327.5	3.6
50°-60°	46.0	0.5
60°-70°	1.6	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	308.2	3.4
100°-110°	1003.2	11.2
110°-120°	992.4	11.0
120°-130°	811.0	9.0
130°-140°	662.8	7.4
140°-150°	516.3	5.7
150°-160°	372.1	4.1
160°-170°	227.4	2.5
170°-180°	76.7	0.9
0°-30°	2927.3	32.6
0°-40°	3636.3	40.5
0°-60°	4009.8	44.6
0°-90°	4012.5	44.7
90°-120°	2303.8	25.6
90°-150°	4293.8	47.8
90°-180°	4970.0	55.3
0°-180°	8982.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7421	7421	7421	7421	7421	
5°	7145	7107	7057	7144	7149	642
15°	4615	4674	4542	4606	4604	1270
25°	2216	2166	2128	2159	2132	1038
35°	1160	1160	1130	1110	1106	726
45°	378	452	464	421	305	306
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°	0	3	7	6	6	2
95°	42	127	565	201	124	48
105°	170	246	994	1898	1797	182
115°	315	376	810	1668	1963	312
125°	438	488	799	1317	1553	390
135°	529	584	795	1137	1282	409
145°	618	664	793	979	1072	387
155°	706	729	798	877	910	325
165°	770	777	800	830	839	217
175°	803	803	803	808	806	76
180°	806	806	806	806	806	



TEST NUMBER: P853639

CATALOG NUMBER: SQ2-BBN-125U-100D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7420.8	7420.8	7420.8	7420.8	7420.8
2.5°	7416.6	7389.4	7324.6	7383.0	7365.2
5°	7145.4	7107.4	7057.1	7144.1	7149.4
7.5°	6546.8	6559.1	6512.3	6608.3	6598.1
10°	6062.1	6071.3	6066.1	6097.4	6062.1
12.5°	5500.4	5536.8	5468.1	5516.6	5531.5
15°	4615.1	4674.0	4541.6	4605.7	4604.4
17.5°	3784.9	3778.9	3710.6	3722.5	3718.6
20°	3240.4	3231.2	3173.5	3164.3	3170.8
22.5°	2773.9	2758.5	2738.0	2715.0	2723.6
25°	2216.0	2166.3	2127.7	2159.2	2131.7
27.5°	1778.6	1777.9	1746.0	1749.6	1754.8
30°	1575.4	1566.2	1535.3	1536.2	1520.5
32.5°	1394.6	1401.1	1363.0	1355.4	1339.7
35°	1159.5	1159.5	1130.0	1109.9	1106.0
37.5°	941.5	939.1	918.2	889.6	879.4
40°	802.4	795.9	782.3	747.2	732.9
42.5°	644.1	661.6	648.6	613.3	591.6
45°	378.5	451.7	464.1	421.3	304.9
47.5°	162.6	243.2	309.7	201.9	105.1
50°	74.9	137.7	232.7	99.3	54.8
52.5°	43.9	75.2	172.8	58.0	34.5
55°	18.7	29.2	84.3	23.9	14.7
57.5°	7.0	12.7	31.8	10.3	5.6
60°	2.7	5.3	14.7	4.0	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°	0.0	0.6	1.4	1.2	1.2
90°	0.0	2.9	6.9	5.9	5.9
92.5°	14.3	51.3	163.9	54.0	41.6
95°	41.6	126.9	564.8	201.4	123.9
97.5°	78.3	165.1	958.5	583.8	356.3
100°	102.1	187.3	1106.8	986.9	640.1
102.5°	129.0	211.2	1088.5	1460.1	1110.1
105°	170.4	246.0	993.8	1898.2	1797.4
107.5°	215.2	286.3	903.9	1936.2	2042.9
110°	247.7	312.6	861.0	1889.0	2081.8



TEST NUMBER: P853639

CATALOG NUMBER: SQ2-BBN-125U-100D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	274.7	338.8	834.1	1803.8	2052.4
115°	315.1	376.1	809.5	1668.3	1962.9
117.5°	356.7	411.7	800.0	1544.3	1837.4
120°	380.5	434.7	797.6	1468.0	1751.8
122.5°	403.5	457.0	798.4	1401.7	1666.2
125°	438.0	488.3	798.6	1317.2	1552.7
127.5°	467.5	519.0	798.4	1253.9	1450.2
130°	486.5	538.8	797.6	1217.8	1393.1
132.5°	503.2	557.8	796.8	1184.2	1348.7
135°	529.1	584.3	794.7	1136.8	1282.2
137.5°	554.5	610.1	792.5	1088.7	1217.8
140°	572.7	626.0	791.7	1056.0	1178.1
142.5°	590.1	641.1	791.7	1024.8	1133.7
145°	618.3	663.8	792.7	979.1	1072.1
147.5°	645.6	685.2	794.1	940.2	1012.1
150°	663.9	698.7	795.7	916.9	978.0
152.5°	682.1	710.8	796.4	899.2	947.8
155°	705.5	728.7	797.6	876.7	909.6
157.5°	727.7	744.3	798.8	860.0	883.0
160°	741.2	754.7	799.6	849.6	868.0
162.5°	753.0	763.5	799.6	840.7	854.5
165°	769.9	776.7	799.6	829.6	839.2
167.5°	781.8	786.0	799.8	821.1	826.2
170°	789.7	791.6	800.6	815.5	817.4
172.5°	795.3	796.4	802.2	812.3	811.9
175°	802.6	802.6	802.6	808.5	806.5
177.5°	805.6	804.8	804.0	807.9	804.8
180°	805.6	805.6	805.6	805.6	805.6

-----



TEST NUMBER: P853639

CATALOG NUMBER: SQ2-BBN-125U-100D-935-UNV-STD-W-4

**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