

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: P853644

Luminaire Tested: SQ2-BBN-150U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853644  
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-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

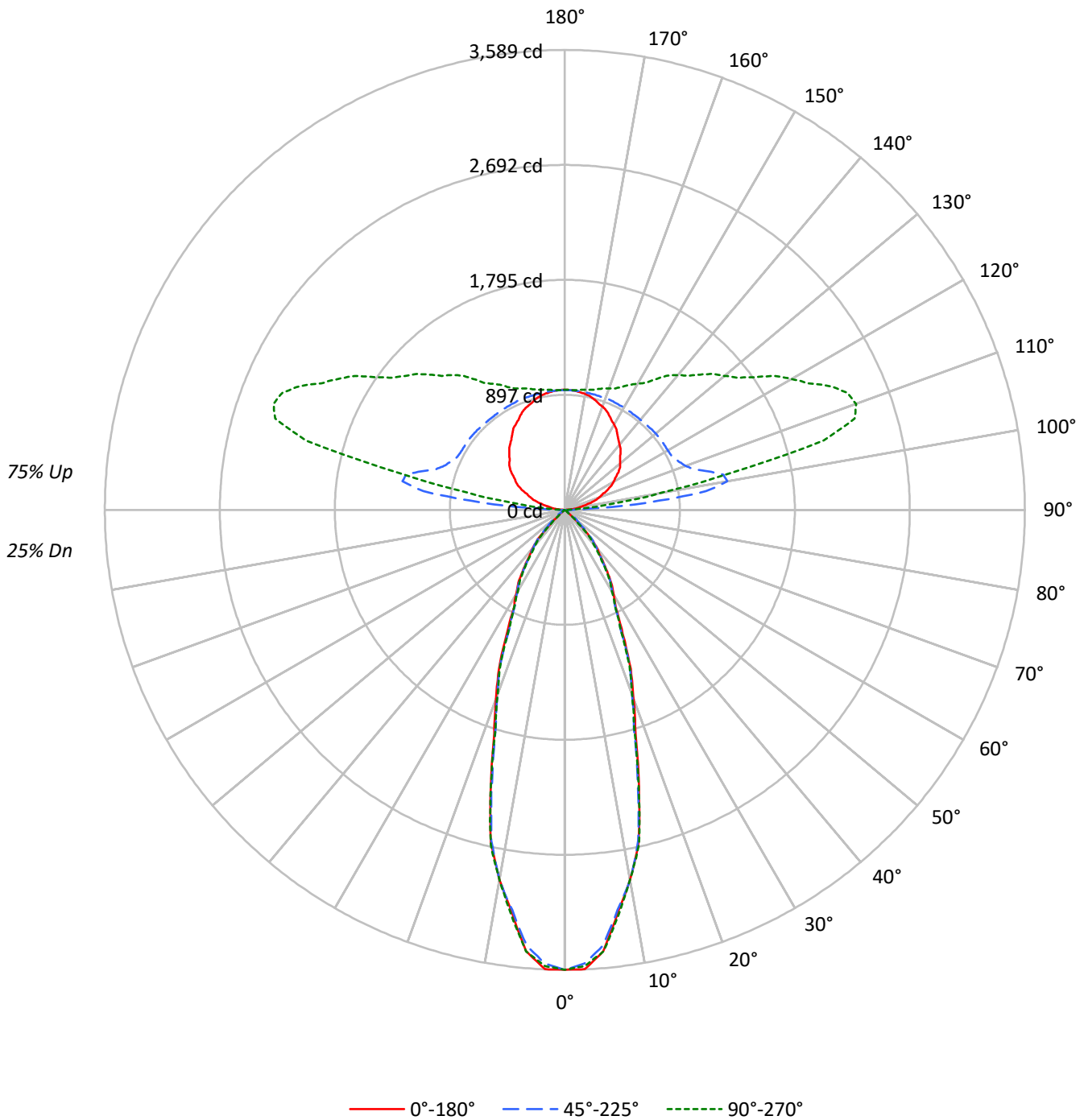
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7716.9 lumens  
Efficiency: N/A  
Efficacy: 103.3 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: Semi-Indirect  
  
Input Watts (W): 74.7  
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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	33	33	33	25
1	93	90	86	84	83	80	78	75	63	61	59	46	45	44	31	31	30	24
2	86	80	75	71	77	72	68	64	57	54	51	42	41	39	29	29	28	22
3	80	72	66	61	71	65	59	55	51	48	45	39	37	35	27	26	26	21
4	74	65	58	53	66	58	53	48	47	43	40	36	34	32	26	25	24	19
5	68	58	52	46	61	53	47	43	43	39	36	33	31	29	24	23	22	18
6	64	53	46	41	57	48	42	38	39	35	32	31	28	26	23	21	20	17
7	59	49	42	37	53	44	38	34	36	32	29	29	26	24	22	20	19	16
8	55	45	38	33	50	41	35	31	34	29	27	27	24	22	20	19	18	15
9	52	41	35	30	47	38	32	28	31	27	24	25	22	21	19	18	17	15
10	49	38	32	28	44	35	30	26	29	25	23	24	21	19	18	17	16	14

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

	0°	45°	90°
0°	57952	57952	57952
5°	56013	55321	56046
10°	48072	48103	48072
15°	37312	36717	37225
20°	26929	26373	26350
25°	19094	18333	18369
30°	14206	13845	13711
35°	11054	10774	10543
40°	8180	7975	7472
45°	4181	5126	3368
50°	909	2826	666
55°	256	1148	200
60°	42	229	19
65°	0	23	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: 5126 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	310.4	4.0
10°-20°	611.9	7.9
20°-30°	493.6	6.4
30°-40°	342.9	4.4
40°-50°	158.4	2.1
50°-60°	22.2	0.3
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	1.3	0.0
90°-100°	356.5	4.6
100°-110°	1167.5	15.1
110°-120°	1154.2	15.0
120°-130°	943.5	12.2
130°-140°	770.0	10.0
140°-150°	599.2	7.8
150°-160°	431.5	5.6
160°-170°	264.0	3.4
170°-180°	89.2	1.2
0°-30°	1415.9	18.3
0°-40°	1758.8	22.8
0°-60°	1939.4	25.1
0°-90°	1941.5	25.2
90°-120°	2678.3	34.7
90°-150°	4991.1	64.7
90°-180°	5776.0	74.8
0°-180°	7716.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3589	3589	3589	3589	3589	
5°	3456	3438	3413	3455	3458	311
15°	2232	2261	2197	2228	2227	614
25°	1072	1048	1029	1044	1031	502
35°	561	561	547	537	535	351
45°	183	218	224	204	148	148
55°	9	14	41	12	7	11
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°	50	145	648	231	150	57
105°	203	289	1159	2202	2092	214
115°	366	437	942	1946	2284	361
125°	509	567	928	1534	1802	453
135°	613	678	920	1323	1492	474
145°	716	769	918	1138	1247	449
155°	816	844	924	1018	1058	376
165°	892	900	928	964	974	251
175°	932	932	933	940	938	88
180°	936	936	936	936	936	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3589.3	3589.3	3589.3	3589.3	3589.3
2.5°	3587.2	3574.0	3542.7	3571.0	3562.4
5°	3456.0	3437.7	3413.3	3455.4	3458.0
7.5°	3166.5	3172.4	3149.8	3196.3	3191.3
10°	2932.1	2936.5	2934.0	2949.2	2932.1
12.5°	2660.4	2678.0	2644.8	2668.2	2675.4
15°	2232.2	2260.7	2196.6	2227.7	2227.0
17.5°	1830.7	1827.8	1794.7	1800.5	1798.6
20°	1567.3	1562.8	1534.9	1530.5	1533.6
22.5°	1341.7	1334.2	1324.3	1313.2	1317.3
25°	1071.8	1047.8	1029.1	1044.3	1031.1
27.5°	860.3	859.9	844.5	846.2	848.8
30°	762.0	757.5	742.6	743.0	735.4
32.5°	674.5	677.7	659.3	655.6	648.0
35°	560.8	560.8	546.6	536.8	534.9
37.5°	455.4	454.2	444.1	430.3	425.4
40°	388.1	384.9	378.4	361.4	354.5
42.5°	311.5	320.0	313.7	296.7	286.2
45°	183.1	218.5	224.5	203.8	147.5
47.5°	78.7	117.6	149.8	97.6	50.8
50°	36.2	66.6	112.5	48.0	26.5
52.5°	21.2	36.4	83.6	28.1	16.7
55°	9.1	14.1	40.8	11.5	7.1
57.5°	3.4	6.1	15.4	5.0	2.7
60°	1.3	2.6	7.1	1.9	0.6
62.5°	0.3	1.0	3.5	0.9	0.1
65°	0.0	0.0	0.6	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	1.5	1.4	1.5
90°	1.0	2.8	7.7	6.8	7.7
92.5°	16.3	59.6	183.1	59.6	47.7
95°	50.0	145.0	648.2	230.9	150.0
97.5°	90.8	191.2	1112.1	672.8	417.0
100°	119.3	215.2	1286.8	1149.1	761.7
102.5°	151.6	245.2	1267.6	1693.2	1312.6
105°	202.9	289.4	1158.9	2201.8	2091.8
107.5°	253.5	332.9	1052.9	2249.3	2370.3
110°	286.6	363.7	1002.1	2194.0	2418.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	318.1	393.0	971.3	2097.7	2385.7
115°	365.5	436.9	941.5	1945.6	2284.1
117.5°	411.4	478.2	930.2	1796.0	2139.8
120°	441.4	504.4	927.1	1708.9	2043.7
122.5°	468.4	529.9	927.1	1633.7	1944.4
125°	508.8	567.1	928.1	1534.3	1802.3
127.5°	543.0	602.4	926.9	1461.0	1694.2
130°	564.5	624.7	926.1	1416.6	1627.2
132.5°	583.8	645.5	923.8	1378.5	1569.5
135°	612.6	677.5	920.4	1323.3	1491.6
137.5°	643.0	707.3	918.3	1265.8	1418.0
140°	664.6	726.6	917.5	1229.5	1373.3
142.5°	686.1	744.4	917.5	1190.7	1321.0
145°	716.5	769.1	918.4	1138.3	1247.4
147.5°	748.4	792.2	919.8	1092.7	1175.0
150°	768.4	807.0	921.3	1066.2	1135.8
152.5°	788.4	822.5	922.1	1044.4	1101.9
155°	816.5	843.8	924.2	1018.4	1057.9
157.5°	841.7	861.5	926.3	998.0	1026.5
160°	857.9	873.8	927.1	986.3	1008.9
162.5°	871.7	884.7	927.1	976.9	993.5
165°	891.5	900.0	928.1	963.9	974.2
167.5°	908.3	912.4	929.2	953.8	959.4
170°	917.5	919.4	930.0	948.3	950.2
172.5°	924.4	925.5	932.3	944.4	944.8
175°	931.9	931.9	932.9	939.6	937.7
177.5°	935.8	935.0	934.2	938.8	935.8
180°	935.8	935.8	935.8	935.8	935.8

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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