

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: P853647

Luminaire Tested: SQ2-BBN-150U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853647  
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-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

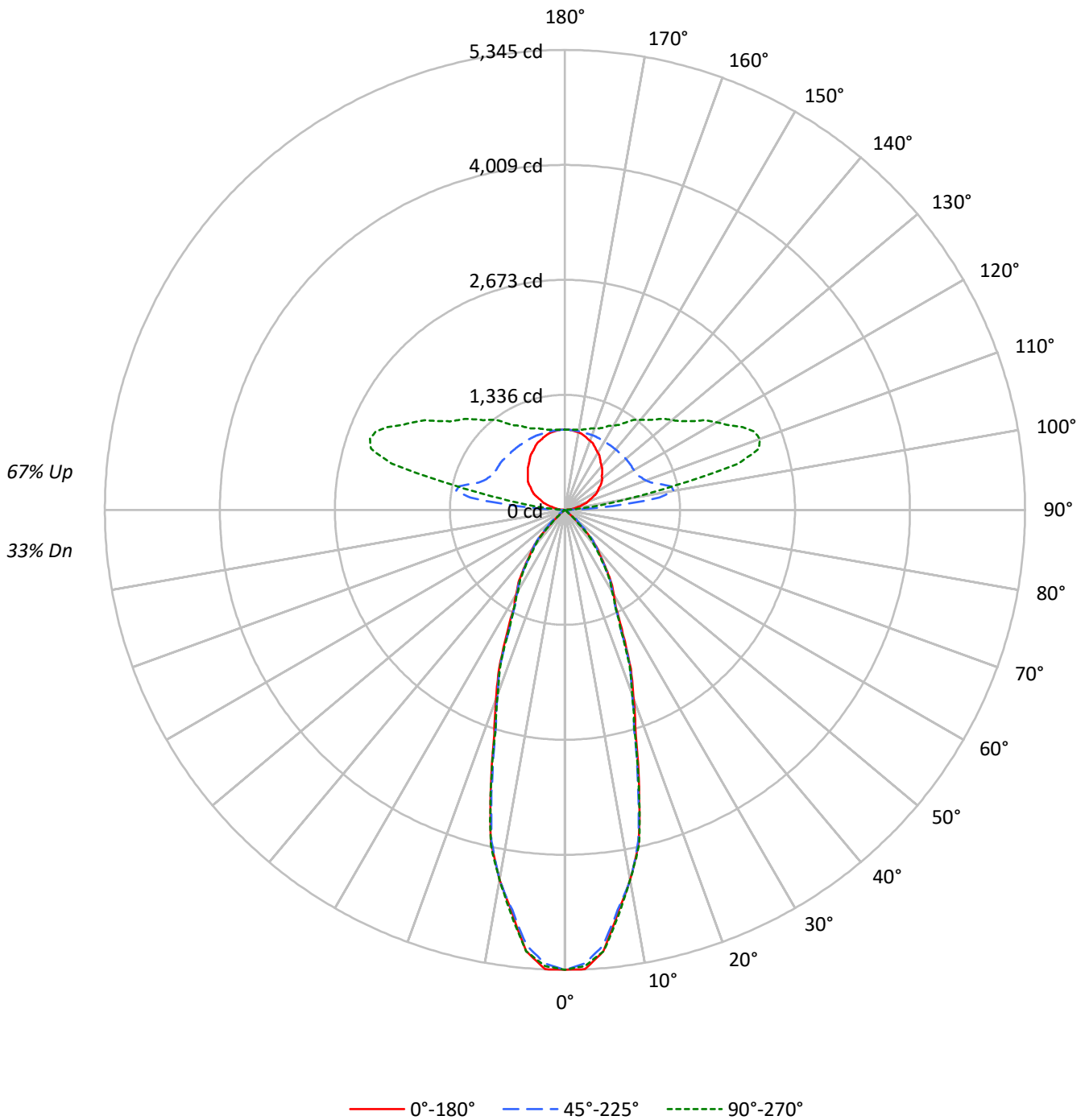
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8646.6 lumens  
Efficiency: N/A  
Efficacy: 102.8 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): 84.1  
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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33				
1	96	92	89	86	86	83	81	78	67	66	64	52	51	50	39	38	38	31				
2	89	83	78	73	80	75	71	67	61	58	56	48	47	45	36	35	35	29				
3	82	75	69	64	75	68	63	59	56	52	50	45	43	41	34	33	32	28				
4	76	68	61	56	69	62	56	52	51	47	44	41	39	37	32	31	30	26				
5	71	61	55	50	65	57	51	46	47	43	40	38	36	34	30	29	28	24				
6	66	56	49	45	60	52	46	42	44	39	36	36	33	31	29	27	26	23				
7	62	52	45	40	57	48	42	38	40	36	33	34	31	29	27	25	24	22				
8	58	48	41	37	53	44	39	35	38	34	31	32	29	27	26	24	23	20				
9	55	44	38	34	50	41	36	32	35	31	28	30	27	25	24	23	21	19				
10	52	41	35	31	47	38	33	29	33	29	26	28	25	23	23	21	20	18				

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

	0°	45°	90°
0°	86306	86306	86306
5°	83418	82389	83465
10°	71592	71639	71592
15°	55569	54683	55440
20°	40105	39276	39244
25°	28436	27303	27355
30°	21157	20618	20420
35°	16462	16044	15703
40°	12182	11877	11126
45°	6224	7633	5014
50°	1354	4210	992
55°	380	1709	298
60°	61	342	32
65°	0	38	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: 7633 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	462.2	5.3
10°-20°	911.3	10.5
20°-30°	735.1	8.5
30°-40°	510.7	5.9
40°-50°	235.9	2.7
50°-60°	33.1	0.4
60°-70°	1.1	0.0
70°-80°	0.0	0.0
80°-90°	1.3	0.0
90°-100°	355.3	4.1
100°-110°	1163.6	13.5
110°-120°	1150.4	13.3
120°-130°	940.4	10.9
130°-140°	767.4	8.9
140°-150°	597.2	6.9
150°-160°	430.0	5.0
160°-170°	263.1	3.0
170°-180°	88.9	1.0
0°-30°	2108.6	24.4
0°-40°	2619.3	30.3
0°-60°	2888.3	33.4
0°-90°	2890.8	33.4
90°-120°	2669.3	30.9
90°-150°	4974.2	57.5
90°-180°	5756.0	66.6
0°-180°	8646.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5345	5345	5345	5345	5345	
5°	5147	5120	5083	5146	5150	463
15°	3324	3367	3271	3318	3317	915
25°	1596	1560	1533	1555	1536	747
35°	835	835	814	800	797	523
45°	273	325	334	304	220	220
55°	14	21	61	17	11	17
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	144	646	230	150	57
105°	202	288	1155	2194	2085	213
115°	364	435	938	1939	2276	360
125°	507	565	925	1529	1796	451
135°	611	675	917	1319	1487	472
145°	714	766	915	1134	1243	447
155°	814	841	921	1015	1054	375
165°	888	897	925	961	971	250
175°	929	929	930	936	934	88
180°	933	933	933	933	933	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5345.4	5345.4	5345.4	5345.4	5345.4
2.5°	5342.3	5322.7	5276.0	5318.1	5305.3
5°	5146.9	5119.6	5083.4	5146.1	5149.8
7.5°	4715.8	4724.6	4690.9	4760.1	4752.8
10°	4366.7	4373.3	4369.6	4392.1	4366.7
12.5°	3962.1	3988.3	3938.8	3973.7	3984.4
15°	3324.4	3366.8	3271.4	3317.6	3316.7
17.5°	2726.3	2722.0	2672.8	2681.4	2678.6
20°	2334.1	2327.5	2285.9	2279.3	2284.0
22.5°	1998.1	1987.0	1972.3	1955.7	1961.9
25°	1596.2	1560.4	1532.6	1555.3	1535.5
27.5°	1281.2	1280.6	1257.7	1260.3	1264.0
30°	1134.8	1128.2	1105.9	1106.6	1095.3
32.5°	1004.5	1009.2	981.8	976.3	965.0
35°	835.2	835.2	814.0	799.5	796.7
37.5°	678.2	676.5	661.4	640.8	633.5
40°	578.0	573.3	563.5	538.3	527.9
42.5°	463.9	476.5	467.2	441.8	426.2
45°	272.6	325.4	334.3	303.5	219.6
47.5°	117.1	175.2	223.1	145.4	75.7
50°	53.9	99.2	167.6	71.5	39.5
52.5°	31.6	54.2	124.5	41.8	24.9
55°	13.5	21.0	60.7	17.2	10.6
57.5°	5.0	9.2	22.9	7.4	4.0
60°	1.9	3.8	10.6	2.8	1.0
62.5°	0.4	1.5	5.2	1.3	0.2
65°	0.0	0.0	1.0	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	1.3	1.5
90°	1.0	2.8	7.7	6.7	7.7
92.5°	16.3	59.4	182.5	59.3	47.5
95°	49.8	144.5	646.0	230.1	149.5
97.5°	90.5	190.6	1108.4	670.5	415.6
100°	118.9	214.4	1282.4	1145.2	759.1
102.5°	151.1	244.4	1263.3	1687.5	1308.1
105°	202.2	288.5	1155.0	2194.3	2084.7
107.5°	252.7	331.8	1049.3	2241.7	2362.3
110°	285.6	362.5	998.7	2186.6	2410.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	317.1	391.7	968.1	2090.6	2377.6
115°	364.2	435.4	938.4	1939.0	2276.4
117.5°	410.0	476.6	927.0	1790.0	2132.6
120°	439.9	502.7	924.0	1703.1	2036.8
122.5°	466.8	528.1	924.0	1628.2	1937.9
125°	507.0	565.1	924.9	1529.1	1796.2
127.5°	541.2	600.4	923.8	1456.0	1688.5
130°	562.6	622.6	923.0	1411.8	1621.7
132.5°	581.8	643.3	920.7	1373.8	1564.2
135°	610.6	675.2	917.3	1318.8	1486.6
137.5°	640.8	704.9	915.2	1261.5	1413.2
140°	662.3	724.2	914.4	1225.3	1368.7
142.5°	683.8	741.9	914.4	1186.7	1316.6
145°	714.1	766.5	915.3	1134.4	1243.1
147.5°	745.9	789.6	916.7	1089.0	1171.1
150°	765.8	804.2	918.2	1062.6	1132.0
152.5°	785.8	819.7	919.0	1040.9	1098.2
155°	813.7	840.9	921.1	1015.0	1054.3
157.5°	838.9	858.5	923.2	994.6	1023.1
160°	855.0	870.9	924.0	983.0	1005.4
162.5°	868.8	881.7	924.0	973.6	990.1
165°	888.5	896.9	924.9	960.6	970.9
167.5°	905.2	909.3	926.1	950.6	956.2
170°	914.4	916.3	926.8	945.1	947.0
172.5°	921.3	922.4	929.1	941.2	941.6
175°	928.8	928.8	929.7	936.4	934.5
177.5°	932.6	931.8	931.1	935.6	932.6
180°	932.6	932.6	932.6	932.6	932.6



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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