

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: P853648

Luminaire Tested: SQ2-BBN-150U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853648
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-935-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

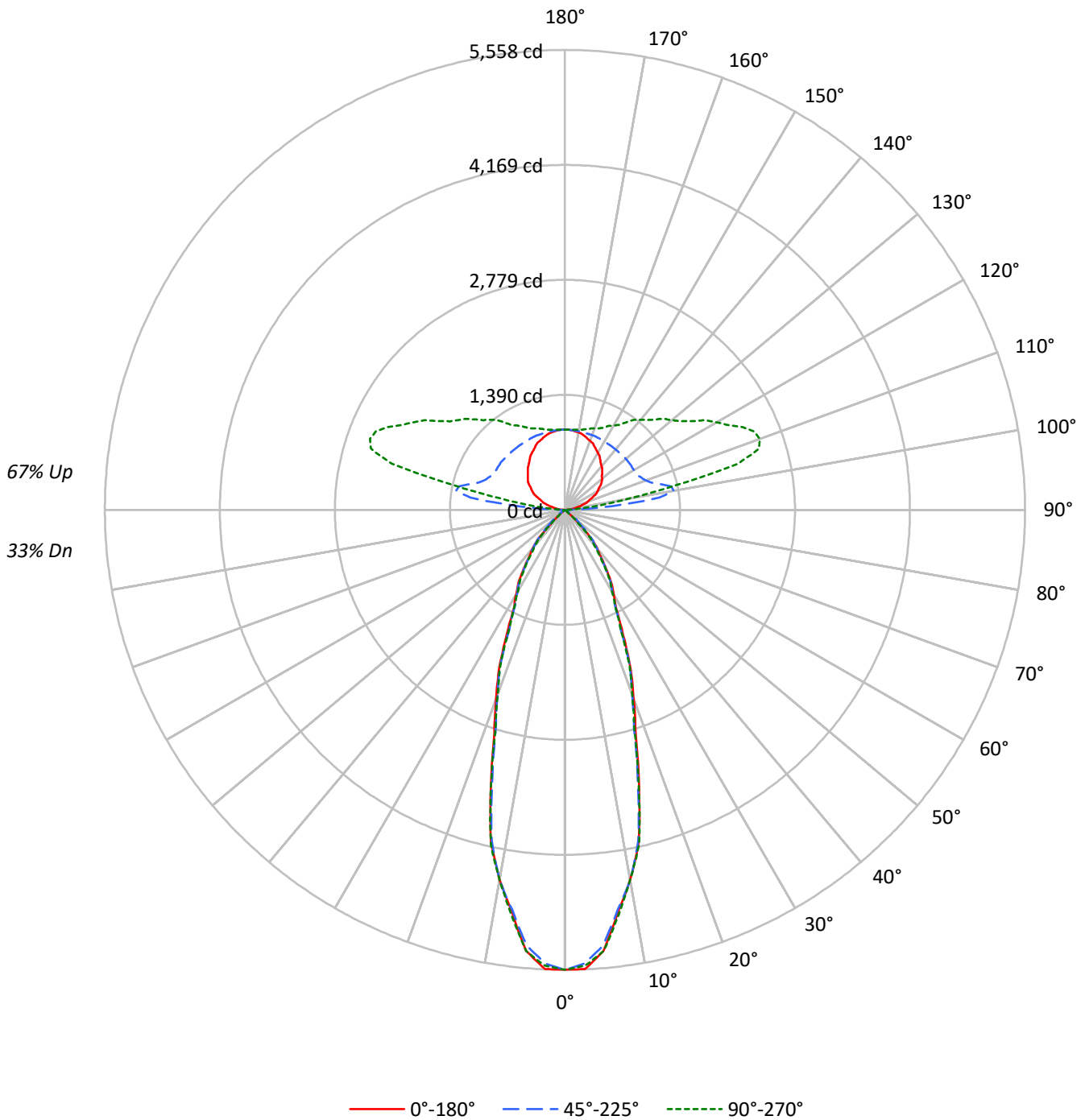
Lumens per Lamp: N/A
Luminaire Lumens: 8990.1 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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

TEST NUMBER: P853648

CATALOG NUMBER: SQ2-BBN-150U-075D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853648

CATALOG NUMBER: SQ2-BBN-150U-075D-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	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°	89734	89734	89734
5°	86733	85662	86782
10°	74435	74484	74435
15°	57775	56854	57641
20°	41697	40837	40802
25°	29566	28388	28442
30°	21996	21436	21231
35°	17117	16681	16326
40°	12665	12349	11569
45°	6471	7935	5215
50°	1409	4378	1032
55°	394	1776	310
60°	65	355	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: 7935 cd/sqm



TEST NUMBER: P853648

CATALOG NUMBER: SQ2-BBN-150U-075D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.6	5.3
10°-20°	947.5	10.5
20°-30°	764.3	8.5
30°-40°	531.0	5.9
40°-50°	245.3	2.7
50°-60°	34.4	0.4
60°-70°	1.2	0.0
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	369.5	4.1
100°-110°	1209.8	13.5
110°-120°	1196.0	13.3
120°-130°	977.7	10.9
130°-140°	797.9	8.9
140°-150°	620.9	6.9
150°-160°	447.1	5.0
160°-170°	273.5	3.0
170°-180°	92.4	1.0
0°-30°	2192.4	24.4
0°-40°	2723.3	30.3
0°-60°	3003.0	33.4
0°-90°	3005.6	33.4
90°-120°	2775.3	30.9
90°-150°	5171.8	57.5
90°-180°	5985.0	66.6
0°-180°	8990.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5558	5558	5558	5558	5558	
5°	5351	5323	5285	5350	5354	481
15°	3456	3500	3401	3449	3448	951
25°	1660	1622	1594	1617	1596	777
35°	868	868	846	831	828	543
45°	283	338	348	316	228	229
55°	14	22	63	18	11	18
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	150	672	239	156	59
105°	210	300	1201	2282	2168	222
115°	379	453	976	2016	2367	374
125°	527	588	962	1590	1868	469
135°	635	702	954	1371	1546	491
145°	742	797	952	1180	1292	465
155°	846	874	958	1055	1096	390
165°	924	933	962	999	1010	260
175°	966	966	967	974	972	92
180°	970	970	970	970	970	



TEST NUMBER: P853648

CATALOG NUMBER: SQ2-BBN-150U-075D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5557.7	5557.7	5557.7	5557.7	5557.7
2.5°	5554.5	5534.1	5485.6	5529.4	5516.0
5°	5351.4	5323.0	5285.3	5350.5	5354.4
7.5°	4903.1	4912.3	4877.2	4949.2	4941.5
10°	4540.1	4547.0	4543.1	4566.5	4540.1
12.5°	4119.4	4146.7	4095.2	4131.5	4142.7
15°	3456.4	3500.5	3401.3	3449.4	3448.4
17.5°	2834.6	2830.1	2779.0	2787.9	2785.0
20°	2426.8	2419.9	2376.7	2369.8	2374.7
22.5°	2077.5	2065.9	2050.6	2033.3	2039.8
25°	1659.6	1622.4	1593.5	1617.1	1596.5
27.5°	1332.1	1331.5	1307.6	1310.3	1314.3
30°	1179.8	1173.0	1149.8	1150.5	1138.8
32.5°	1044.4	1049.3	1020.8	1015.1	1003.4
35°	868.4	868.4	846.3	831.2	828.3
37.5°	705.1	703.3	687.7	666.3	658.6
40°	600.9	596.0	585.9	559.6	548.9
42.5°	482.4	495.5	485.8	459.4	443.1
45°	283.4	338.3	347.5	315.5	228.4
47.5°	121.8	182.1	232.0	151.2	78.7
50°	56.1	103.1	174.3	74.4	41.1
52.5°	32.9	56.4	129.4	43.5	25.8
55°	14.0	21.9	63.1	17.9	11.0
57.5°	5.2	9.5	23.8	7.7	4.2
60°	2.0	4.0	11.0	3.0	1.0
62.5°	0.4	1.6	5.4	1.4	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	1.6	1.4	1.6
90°	1.0	2.9	8.0	7.0	8.0
92.5°	16.9	61.8	189.7	61.7	49.4
95°	51.8	150.2	671.7	239.3	155.5
97.5°	94.1	198.1	1152.4	697.1	432.1
100°	123.6	223.0	1333.4	1190.7	789.3
102.5°	157.1	254.1	1313.5	1754.5	1360.1
105°	210.3	299.9	1200.8	2281.5	2167.5
107.5°	262.7	344.9	1091.0	2330.8	2456.1
110°	297.0	376.9	1038.4	2273.4	2506.3



TEST NUMBER: P853648

CATALOG NUMBER: SQ2-BBN-150U-075D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	329.7	407.2	1006.5	2173.7	2472.0
115°	378.7	452.7	975.6	2016.0	2366.8
117.5°	426.3	495.5	963.9	1861.1	2217.3
120°	457.4	522.7	960.7	1770.8	2117.7
122.5°	485.3	549.0	960.7	1692.9	2014.8
125°	527.2	587.6	961.7	1589.8	1867.5
127.5°	562.7	624.2	960.5	1513.9	1755.5
130°	585.0	647.3	959.7	1467.9	1686.2
132.5°	604.9	668.8	957.3	1428.4	1626.4
135°	634.8	702.0	953.7	1371.2	1545.6
137.5°	666.3	732.9	951.5	1311.7	1469.3
140°	688.6	752.9	950.7	1274.0	1423.1
142.5°	710.9	771.4	950.7	1233.8	1368.9
145°	742.4	797.0	951.7	1179.5	1292.5
147.5°	775.5	820.9	953.1	1132.2	1217.6
150°	796.2	836.2	954.7	1104.8	1176.9
152.5°	817.0	852.2	955.5	1082.2	1141.8
155°	846.1	874.3	957.7	1055.3	1096.2
157.5°	872.2	892.6	959.9	1034.1	1063.7
160°	888.9	905.5	960.7	1022.0	1045.4
162.5°	903.3	916.7	960.7	1012.3	1029.4
165°	923.8	932.6	961.7	998.8	1009.5
167.5°	941.1	945.4	962.9	988.3	994.2
170°	950.7	952.7	963.7	982.6	984.6
172.5°	957.9	959.1	966.1	978.6	979.0
175°	965.7	965.7	966.7	973.6	971.6
177.5°	969.6	968.9	968.0	972.8	969.6
180°	969.6	969.6	969.6	969.6	969.6



TEST NUMBER: P853648

CATALOG NUMBER: SQ2-BBN-150U-075D-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