

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: P853650

Luminaire Tested: SQ2-BBN-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853650
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

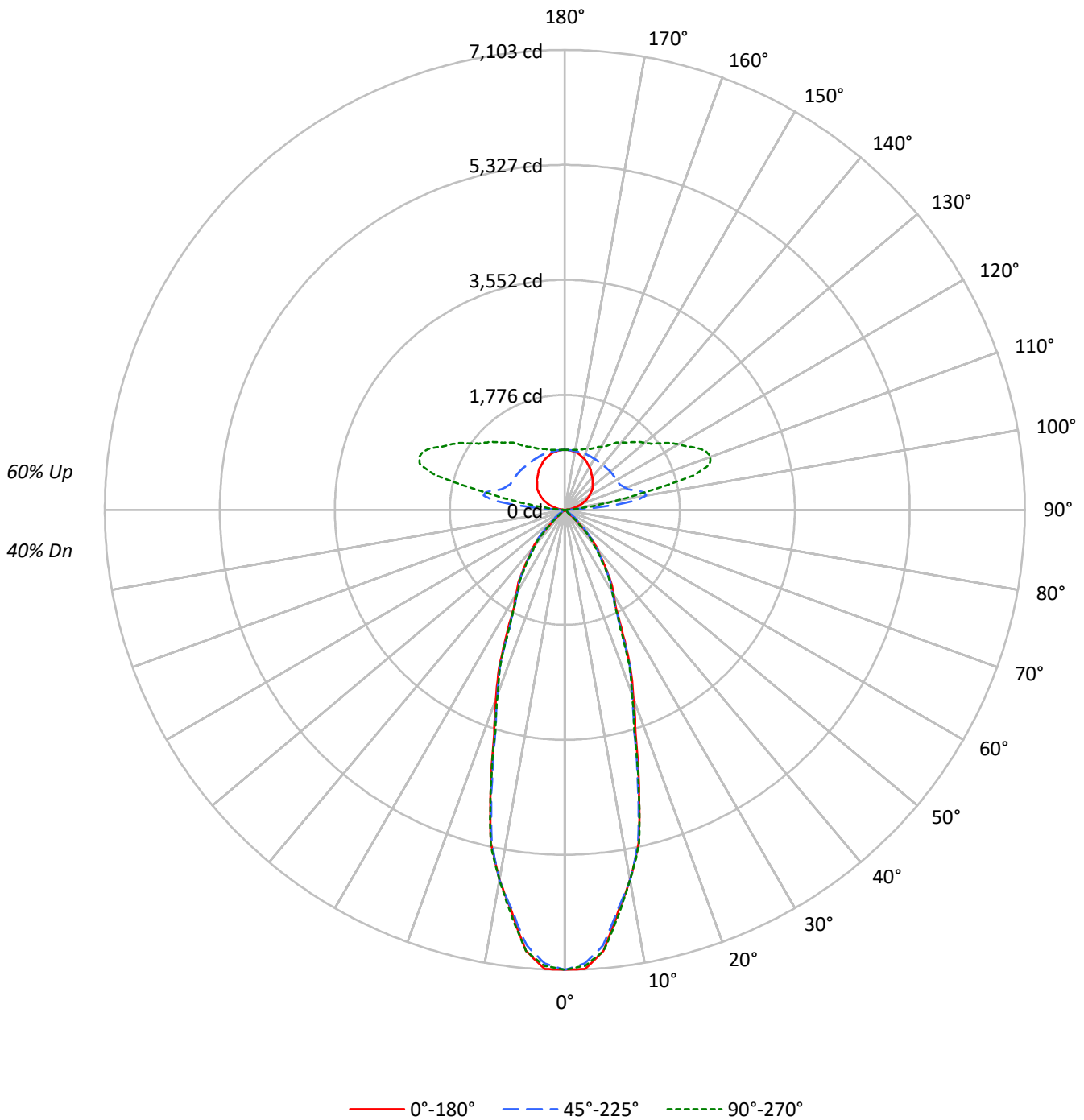
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9559.2 lumens
Efficiency: N/A
Efficacy: 101.4 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): 94.3
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	98	94	91	88	89	86	83	81	71	69	68	57	56	55	45	44	44	38
2	91	85	80	76	83	78	74	70	65	62	60	53	51	50	42	41	40	35
3	84	77	71	66	77	71	66	62	60	56	53	49	47	45	40	38	37	33
4	79	70	64	59	72	65	59	55	55	51	48	46	43	41	37	36	35	31
5	73	64	57	52	67	59	54	49	51	47	44	43	40	38	35	34	32	29
6	69	59	52	47	63	55	49	45	47	43	40	40	37	35	33	32	30	27
7	64	54	48	43	59	51	45	41	44	40	37	38	35	32	32	30	28	26
8	61	50	44	39	56	47	41	37	41	37	34	35	32	30	30	28	27	24
9	57	47	40	36	53	44	38	35	39	34	31	33	30	28	29	27	25	23
10	54	44	38	33	50	41	36	32	36	32	29	32	29	27	27	25	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	114681	114681	114681
5°	110846	109477	110908
10°	95128	95192	95128
15°	73839	72662	73666
20°	53290	52190	52146
25°	37786	36280	36350
30°	28113	27397	27134
35°	21875	21319	20865
40°	16187	15782	14785
45°	8270	10143	6663
50°	1801	5594	1319
55°	504	2269	397
60°	84	455	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: 10143 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	614.2	6.4
10°-20°	1210.9	12.7
20°-30°	976.8	10.2
30°-40°	678.6	7.1
40°-50°	313.5	3.3
50°-60°	44.0	0.5
60°-70°	1.5	0.0
70°-80°	0.0	0.0
80°-90°	1.3	0.0
90°-100°	353.0	3.7
100°-110°	1156.0	12.1
110°-120°	1142.9	12.0
120°-130°	934.2	9.8
130°-140°	762.4	8.0
140°-150°	593.3	6.2
150°-160°	427.2	4.5
160°-170°	261.4	2.7
170°-180°	88.3	0.9
0°-30°	2801.9	29.3
0°-40°	3480.4	36.4
0°-60°	3837.9	40.1
0°-90°	3840.8	40.2
90°-120°	2651.9	27.7
90°-150°	4941.9	51.7
90°-180°	5719.0	59.8
0°-180°	9559.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7103	7103	7103	7103	7103	
5°	6839	6803	6755	6838	6843	615
15°	4417	4474	4347	4408	4407	1216
25°	2121	2073	2036	2067	2040	993
35°	1110	1110	1082	1062	1059	694
45°	362	432	444	403	292	293
55°	18	28	81	23	14	23
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	642	229	149	56
105°	201	287	1148	2180	2071	212
115°	362	433	932	1926	2262	357
125°	504	562	919	1519	1784	448
135°	607	671	911	1310	1477	469
145°	709	762	909	1127	1235	445
155°	808	836	915	1008	1048	372
165°	883	891	919	954	965	249
175°	923	923	924	930	928	88
180°	926	926	926	926	926	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7102.8	7102.8	7102.8	7102.8	7102.8
2.5°	7098.7	7072.7	7010.7	7066.6	7049.6
5°	6839.2	6802.9	6754.7	6838.0	6843.0
7.5°	6266.2	6278.0	6233.2	6325.1	6315.4
10°	5802.3	5811.1	5806.2	5836.1	5802.3
12.5°	5264.7	5299.5	5233.8	5280.2	5294.4
15°	4417.4	4473.7	4347.0	4408.4	4407.1
17.5°	3622.7	3617.0	3551.5	3563.0	3559.2
20°	3101.5	3092.7	3037.5	3028.7	3034.9
22.5°	2655.0	2640.3	2620.7	2598.6	2606.9
25°	2121.0	2073.4	2036.5	2066.6	2040.4
27.5°	1702.4	1701.7	1671.2	1674.6	1679.6
30°	1507.9	1499.1	1469.5	1470.4	1455.4
32.5°	1334.8	1341.1	1304.6	1297.3	1282.3
35°	1109.8	1109.8	1081.6	1062.3	1058.6
37.5°	901.1	898.9	878.9	851.5	841.7
40°	768.0	761.8	748.8	715.2	701.5
42.5°	616.5	633.2	620.8	587.1	566.3
45°	362.2	432.3	444.2	403.2	291.8
47.5°	155.7	232.7	296.5	193.2	100.6
50°	71.7	131.8	222.7	95.0	52.5
52.5°	42.0	72.0	165.4	55.6	33.0
55°	17.9	27.9	80.6	22.8	14.1
57.5°	6.7	12.2	30.5	9.9	5.4
60°	2.6	5.1	14.1	3.8	1.3
62.5°	0.5	2.0	6.9	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°	0.2	0.6	1.5	1.3	1.5
90°	1.0	2.8	7.6	6.7	7.6
92.5°	16.2	59.0	181.3	59.0	47.2
95°	49.5	143.6	641.8	228.6	148.6
97.5°	89.9	189.3	1101.2	666.2	412.9
100°	118.1	213.0	1274.1	1137.8	754.2
102.5°	150.1	242.8	1255.1	1676.5	1299.6
105°	200.9	286.6	1147.5	2180.1	2071.1
107.5°	251.0	329.6	1042.5	2227.2	2346.9
110°	283.8	360.1	992.2	2172.4	2394.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	315.0	389.1	961.8	2077.0	2362.1
115°	361.9	432.6	932.3	1926.4	2261.6
117.5°	407.4	473.5	921.0	1778.3	2118.8
120°	437.1	499.5	918.0	1692.1	2023.5
122.5°	463.7	524.6	918.0	1617.6	1925.3
125°	503.7	561.5	918.9	1519.2	1784.5
127.5°	537.6	596.5	917.8	1446.6	1677.5
130°	559.0	618.6	917.0	1402.6	1611.2
132.5°	578.0	639.1	914.7	1364.9	1554.1
135°	606.6	670.8	911.3	1310.3	1476.9
137.5°	636.7	700.4	909.2	1253.3	1404.0
140°	658.0	719.5	908.4	1217.4	1359.8
142.5°	679.3	737.1	908.4	1179.0	1308.0
145°	709.4	761.6	909.4	1127.1	1235.1
147.5°	741.0	784.4	910.7	1081.9	1163.5
150°	760.8	799.0	912.3	1055.7	1124.6
152.5°	780.7	814.4	913.0	1034.1	1091.1
155°	808.5	835.5	915.1	1008.4	1047.5
157.5°	833.4	853.0	917.2	988.1	1016.4
160°	849.4	865.2	918.0	976.6	998.9
162.5°	863.1	876.0	918.0	967.3	983.7
165°	882.7	891.1	918.9	954.4	964.6
167.5°	899.3	903.4	920.1	944.4	950.0
170°	908.4	910.3	920.8	939.0	940.8
172.5°	915.3	916.4	923.1	935.1	935.5
175°	922.7	922.7	923.7	930.3	928.4
177.5°	926.5	925.8	925.0	929.5	926.5
180°	926.5	926.5	926.5	926.5	926.5



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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