

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: P853649

Luminaire Tested: SQ2-BBN-150U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853649
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-940-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

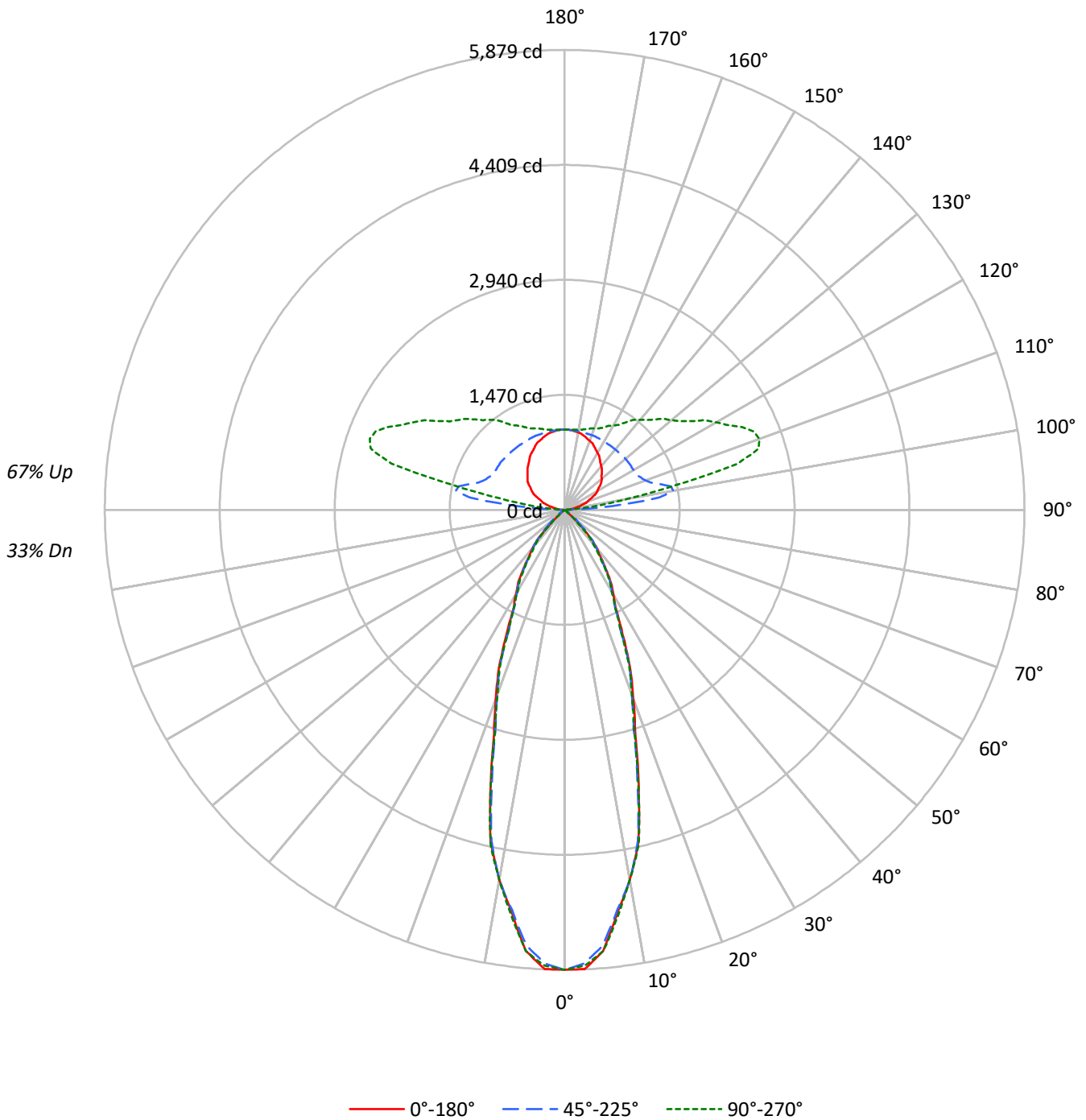
Lumens per Lamp: N/A
Luminaire Lumens: 9509.4 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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	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°	94918	94918	94918
5°	91743	90610	91795
10°	78735	78787	78735
15°	61113	60139	60971
20°	44106	43196	43160
25°	31274	30027	30084
30°	23267	22674	22458
35°	18104	17645	17268
40°	13399	13063	12237
45°	6846	8394	5514
50°	1490	4629	1090
55°	417	1878	329
60°	68	378	36
65°	0	42	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: 8394 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	508.3	5.3
10°-20°	1002.2	10.5
20°-30°	808.5	8.5
30°-40°	561.6	5.9
40°-50°	259.5	2.7
50°-60°	36.4	0.4
60°-70°	1.2	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	390.8	4.1
100°-110°	1279.7	13.5
110°-120°	1265.1	13.3
120°-130°	1034.2	10.9
130°-140°	843.9	8.9
140°-150°	656.8	6.9
150°-160°	472.9	5.0
160°-170°	289.3	3.0
170°-180°	97.8	1.0
0°-30°	2319.0	24.4
0°-40°	2880.6	30.3
0°-60°	3176.5	33.4
0°-90°	3179.2	33.4
90°-120°	2935.6	30.9
90°-150°	5470.5	57.5
90°-180°	6330.0	66.6
0°-180°	9509.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5879	5879	5879	5879	5879	
5°	5660	5630	5591	5660	5664	509
15°	3656	3703	3598	3649	3648	1006
25°	1756	1716	1686	1710	1689	822
35°	918	918	895	879	876	575
45°	300	358	368	334	242	242
55°	15	23	67	19	12	19
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°	55	159	710	253	164	62
105°	222	317	1270	2413	2293	234
115°	401	479	1032	2132	2504	396
125°	558	622	1017	1682	1975	496
135°	672	743	1009	1450	1635	520
145°	785	843	1007	1248	1367	492
155°	895	925	1013	1116	1160	412
165°	977	986	1017	1056	1068	275
175°	1021	1021	1022	1030	1028	97
180°	1026	1026	1026	1026	1026	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5878.8	5878.8	5878.8	5878.8	5878.8
2.5°	5875.4	5853.8	5802.5	5848.8	5834.7
5°	5660.5	5630.5	5590.6	5659.5	5663.7
7.5°	5186.3	5196.0	5159.0	5235.1	5227.0
10°	4802.4	4809.6	4805.6	4830.3	4802.4
12.5°	4357.4	4386.2	4331.8	4370.2	4382.0
15°	3656.1	3702.7	3597.8	3648.6	3647.6
17.5°	2998.4	2993.6	2939.5	2948.9	2945.8
20°	2567.0	2559.7	2514.0	2506.7	2511.9
22.5°	2197.5	2185.2	2169.1	2150.8	2157.6
25°	1755.5	1716.1	1685.5	1710.5	1688.7
27.5°	1409.0	1408.4	1383.2	1386.0	1390.2
30°	1248.0	1240.8	1216.2	1217.0	1204.6
32.5°	1104.8	1109.9	1079.8	1073.8	1061.3
35°	918.5	918.5	895.2	879.3	876.1
37.5°	745.8	744.0	727.4	704.8	696.7
40°	635.7	630.5	619.8	592.0	580.6
42.5°	510.2	524.1	513.8	485.9	468.7
45°	299.8	357.8	367.6	333.7	241.5
47.5°	128.8	192.6	245.4	159.9	83.3
50°	59.3	109.1	184.3	78.7	43.4
52.5°	34.7	59.6	136.9	46.0	27.3
55°	14.8	23.1	66.7	18.9	11.7
57.5°	5.5	10.1	25.2	8.2	4.4
60°	2.1	4.2	11.7	3.1	1.1
62.5°	0.4	1.7	5.7	1.5	0.2
65°	0.0	0.0	1.1	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	1.7	1.5	1.7
90°	1.1	3.1	8.4	7.4	8.4
92.5°	17.9	65.3	200.7	65.3	52.3
95°	54.8	158.9	710.5	253.1	164.4
97.5°	99.5	209.6	1219.0	737.4	457.1
100°	130.7	235.8	1410.4	1259.5	834.9
102.5°	166.1	268.8	1389.3	1855.9	1438.7
105°	222.4	317.2	1270.2	2413.3	2292.7
107.5°	277.9	364.9	1154.0	2465.4	2598.0
110°	314.1	398.6	1098.4	2404.8	2651.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	348.7	430.7	1064.7	2299.2	2614.8
115°	400.6	478.9	1032.0	2132.5	2503.5
117.5°	451.0	524.1	1019.5	1968.6	2345.4
120°	483.8	552.9	1016.2	1873.1	2240.0
122.5°	513.4	580.8	1016.2	1790.7	2131.2
125°	557.6	621.5	1017.2	1681.7	1975.4
127.5°	595.2	660.3	1016.0	1601.3	1856.9
130°	618.8	684.7	1015.1	1552.7	1783.6
132.5°	639.8	707.5	1012.6	1510.9	1720.3
135°	671.5	742.6	1008.8	1450.4	1634.9
137.5°	704.8	775.3	1006.5	1387.4	1554.2
140°	728.4	796.4	1005.6	1347.6	1505.3
142.5°	752.0	815.9	1005.6	1305.1	1447.9
145°	785.3	843.0	1006.7	1247.6	1367.2
147.5°	820.3	868.3	1008.2	1197.6	1287.9
150°	842.2	884.5	1009.8	1168.6	1244.9
152.5°	864.2	901.5	1010.7	1144.7	1207.8
155°	894.9	924.8	1013.0	1116.2	1159.5
157.5°	922.6	944.2	1015.3	1093.8	1125.2
160°	940.3	957.8	1016.2	1081.0	1105.8
162.5°	955.5	969.7	1016.2	1070.8	1088.9
165°	977.2	986.4	1017.2	1056.5	1067.8
167.5°	995.5	1000.0	1018.5	1045.4	1051.6
170°	1005.6	1007.7	1019.3	1039.4	1041.5
172.5°	1013.2	1014.5	1021.9	1035.2	1035.6
175°	1021.4	1021.4	1022.5	1029.8	1027.8
177.5°	1025.7	1024.8	1024.0	1029.0	1025.7
180°	1025.7	1025.7	1025.7	1025.7	1025.7



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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