

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: P853594

Luminaire Tested: SQ2-BBN-050U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853594
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-050U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

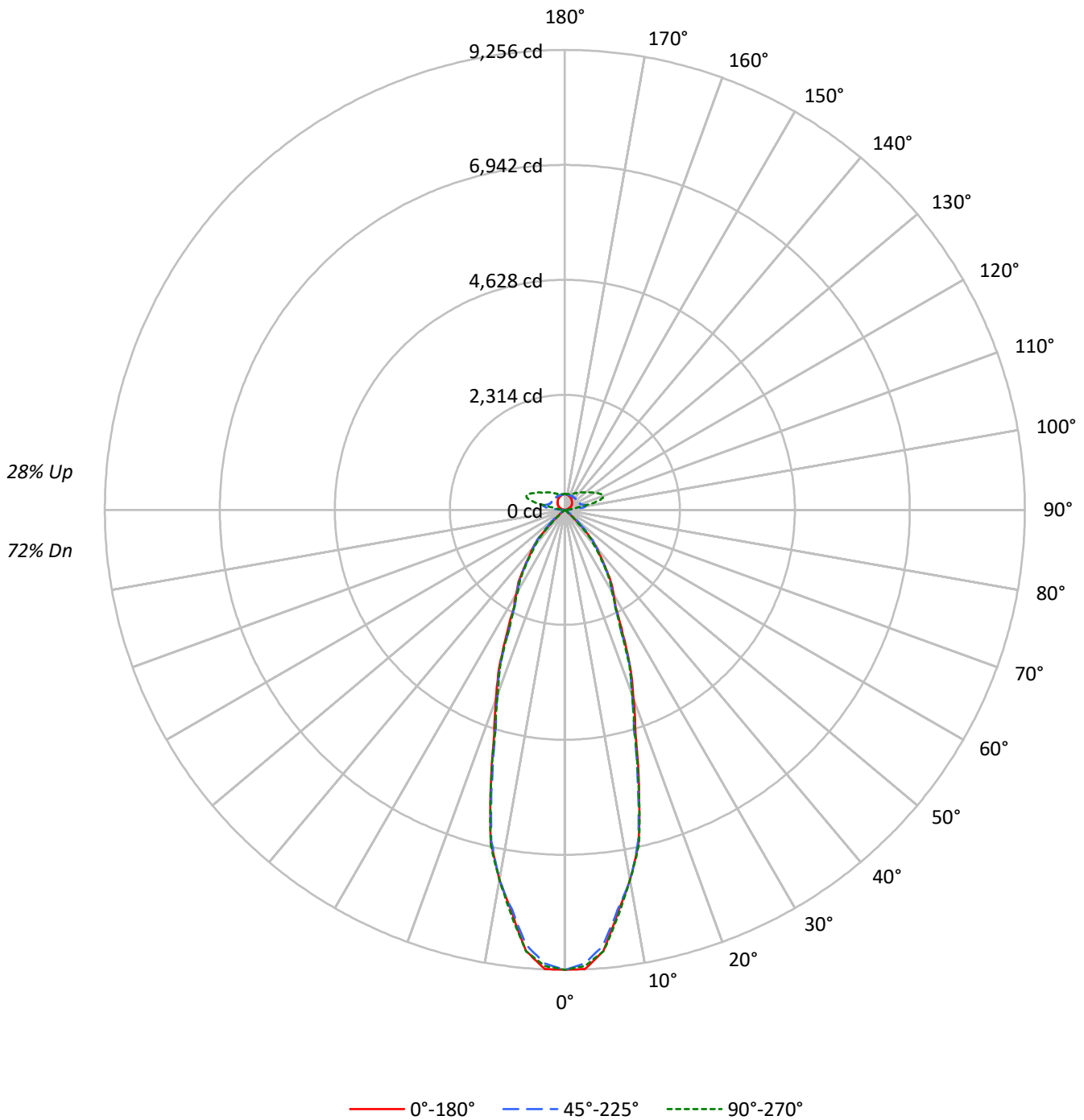
Lumens per Lamp: N/A
Luminaire Lumens: 6953.9 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.6
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	112	112	112	112	106	106	106	106	96	96	96	86	86	86	76	76	76	72
1	106	103	100	98	101	98	96	94	89	87	86	81	79	78	73	72	71	68
2	100	95	91	87	95	91	87	84	83	80	78	76	74	72	69	68	67	63
3	94	88	82	78	90	84	80	76	78	74	71	71	69	67	66	64	62	59
4	89	81	75	71	85	78	73	69	73	69	65	67	64	62	62	60	58	56
5	84	76	70	65	81	73	68	64	68	64	60	63	60	57	59	57	54	52
6	80	71	64	60	76	68	63	59	64	60	56	60	56	54	56	53	51	49
7	76	66	60	56	73	64	59	55	60	56	52	57	53	50	53	50	48	46
8	72	62	56	52	69	60	55	51	57	52	49	54	50	47	51	48	46	44
9	68	59	53	49	66	57	52	48	54	49	46	51	47	45	48	45	43	42
10	65	55	50	46	63	54	49	45	51	47	44	49	45	42	46	43	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	149452	149452	149452
5°	144453	142668	144534
10°	123972	124054	123972
15°	96226	94691	96002
20°	69446	68013	67957
25°	49242	47281	47370
30°	36635	35703	35359
35°	28507	27784	27191
40°	21096	20567	19266
45°	10780	13216	8684
50°	2346	7292	1718
55°	659	2959	515
60°	107	591	55
65°	0	65	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: 13216 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	800.4	11.5
10°-20°	1578.0	22.7
20°-30°	1273.0	18.3
30°-40°	884.3	12.7
40°-50°	408.5	5.9
50°-60°	57.4	0.8
60°-70°	2.0	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	125.1	1.8
100°-110°	396.7	5.7
110°-120°	389.0	5.6
120°-130°	316.5	4.6
130°-140°	258.1	3.7
140°-150°	201.2	2.9
150°-160°	145.0	2.1
160°-170°	88.6	1.3
170°-180°	29.9	0.4
0°-30°	3651.4	52.5
0°-40°	4535.7	65.2
0°-60°	5001.6	71.9
0°-90°	5004.0	72.0
90°-120°	910.7	13.1
90°-150°	1686.5	24.3
90°-180°	1950.0	28.0
0°-180°	6953.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9256	9256	9256	9256	9256	
5°	8913	8865	8803	8911	8918	801
15°	5757	5830	5665	5745	5743	1585
25°	2764	2702	2654	2693	2659	1294
35°	1446	1446	1410	1384	1380	905
45°	472	563	579	526	380	381
55°	23	36	105	30	18	30
65°	0	0	2	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	3	3	1
95°	17	51	227	84	54	19
105°	69	97	391	745	714	73
115°	123	147	316	656	772	122
125°	171	191	311	515	606	152
135°	206	227	309	443	499	159
145°	241	259	309	382	416	151
155°	274	284	310	341	354	127
165°	299	302	311	323	326	84
175°	313	312	313	315	314	30
180°	314	314	314	314	314	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9256.4	9256.4	9256.4	9256.4	9256.4
2.5°	9251.0	9217.1	9136.2	9209.1	9187.0
5°	8912.7	8865.4	8802.6	8911.2	8917.7
7.5°	8166.1	8181.4	8123.0	8242.9	8230.1
10°	7561.6	7573.0	7566.6	7605.6	7561.6
12.5°	6860.9	6906.3	6820.6	6881.0	6899.6
15°	5756.7	5830.1	5664.9	5744.9	5743.3
17.5°	4721.1	4713.6	4628.3	4643.2	4638.4
20°	4041.8	4030.4	3958.4	3946.9	3955.1
22.5°	3460.0	3440.8	3415.3	3386.5	3397.3
25°	2764.1	2702.1	2654.0	2693.2	2659.0
27.5°	2218.6	2217.6	2177.9	2182.4	2188.9
30°	1965.0	1953.6	1915.0	1916.2	1896.6
32.5°	1739.5	1747.7	1700.1	1690.7	1671.1
35°	1446.3	1446.3	1409.6	1384.4	1379.5
37.5°	1174.4	1171.4	1145.3	1109.7	1097.0
40°	1000.9	992.7	975.8	932.1	914.1
42.5°	803.4	825.2	809.0	765.0	738.0
45°	472.1	563.4	578.8	525.5	380.3
47.5°	202.8	303.3	386.3	251.8	131.1
50°	93.4	171.7	290.3	123.8	68.4
52.5°	54.7	93.9	215.5	72.4	43.0
55°	23.4	36.4	105.1	29.8	18.3
57.5°	8.7	15.9	39.7	12.9	7.0
60°	3.3	6.6	18.3	4.9	1.7
62.5°	0.7	2.6	9.0	2.3	0.3
65°	0.0	0.0	1.7	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°	0.0	0.2	0.6	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	21.9	70.1	23.3	16.4
95°	16.8	50.6	227.1	84.2	54.3
97.5°	31.2	65.6	384.7	240.4	147.5
100°	41.5	74.3	438.4	399.7	259.7
102.5°	52.5	83.8	428.9	587.0	449.3
105°	69.1	97.1	391.0	744.8	713.9
107.5°	85.7	111.6	354.9	761.3	803.0
110°	96.8	121.9	336.7	742.3	819.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	131.4	326.4	709.6	807.7
115°	123.4	146.6	316.0	656.3	772.2
117.5°	138.6	160.6	311.8	605.0	721.8
120°	148.1	169.4	311.0	573.3	686.3
122.5°	157.6	178.1	311.0	547.8	653.1
125°	170.8	191.1	311.0	514.6	606.3
127.5°	182.5	202.0	311.0	488.8	567.0
130°	189.6	209.9	311.0	473.6	544.1
132.5°	196.7	217.0	310.3	461.6	525.1
135°	206.4	226.6	309.1	442.7	498.7
137.5°	215.9	237.1	308.9	424.5	474.6
140°	222.2	243.4	308.1	411.8	457.2
142.5°	230.1	250.5	308.9	399.1	441.4
145°	240.9	259.3	309.1	381.9	415.7
147.5°	251.8	267.4	309.3	366.8	394.4
150°	259.7	272.2	310.1	358.0	380.2
152.5°	266.0	277.0	310.1	350.8	369.1
155°	274.5	284.2	310.1	341.0	354.5
157.5°	283.6	290.2	311.0	335.0	344.2
160°	288.3	294.1	311.0	331.0	338.7
162.5°	293.1	297.3	311.0	327.8	333.2
165°	299.2	302.1	311.0	323.0	325.9
167.5°	304.9	305.7	312.0	319.6	322.1
170°	308.1	308.1	312.0	318.0	318.9
172.5°	309.7	310.4	312.0	316.4	316.6
175°	313.0	312.1	313.0	315.0	314.0
177.5°	314.0	313.2	313.2	314.8	313.2
180°	314.0	314.0	314.0	314.0	314.0



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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