

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: P853638

Luminaire Tested: SQ2-BBN-125U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853638
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-125U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

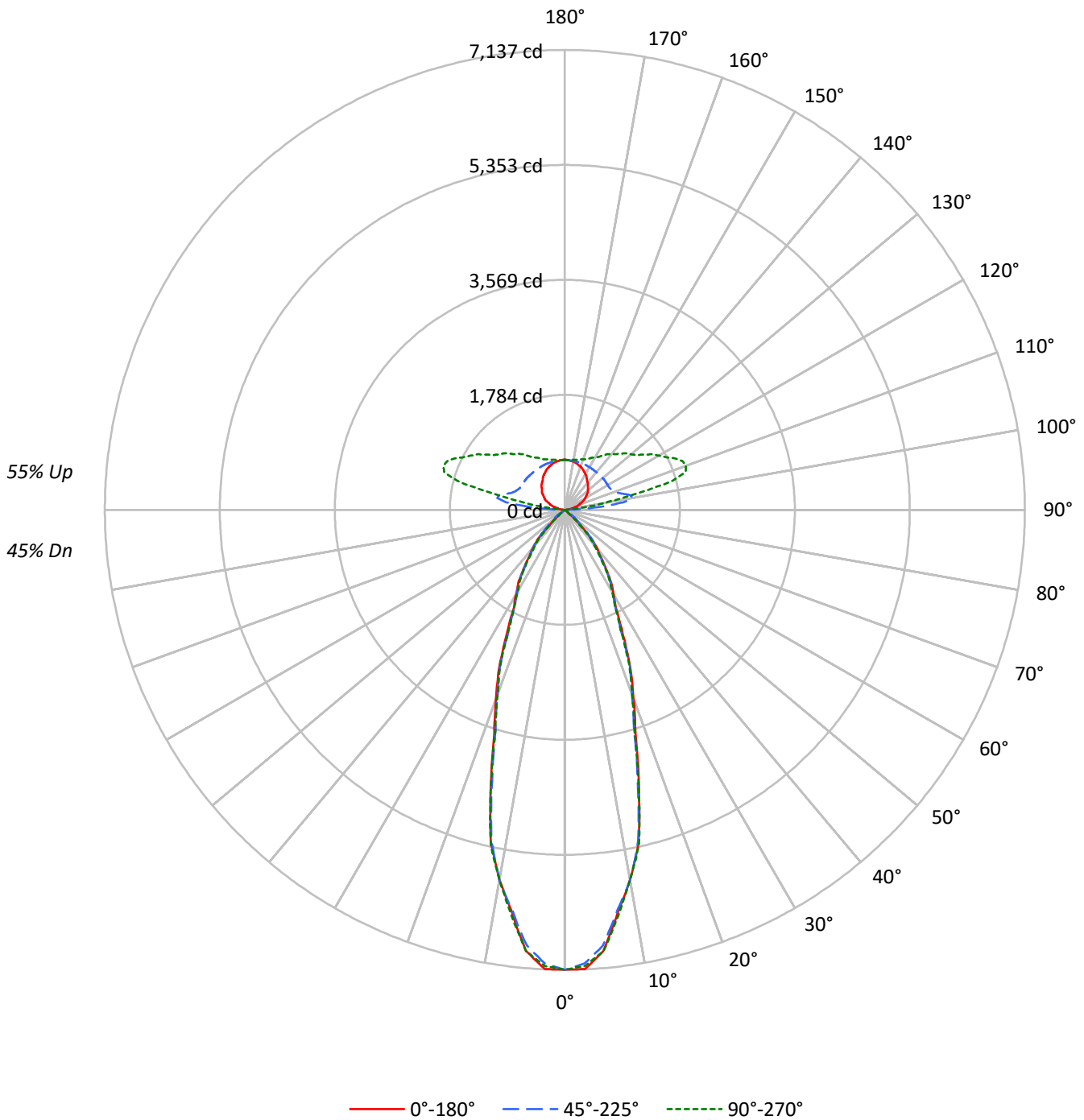
Lumens per Lamp: N/A
Luminaire Lumens: 8639.2 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 82
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45				
1	99	95	92	90	91	88	85	83	74	72	70	61	60	59	49	48	47	42				
2	92	86	81	77	85	80	76	72	68	65	62	56	55	53	46	45	44	39				
3	86	78	73	68	79	73	68	64	62	59	56	52	50	48	43	42	41	37				
4	80	72	65	60	74	67	61	57	57	54	51	49	46	44	41	39	38	35				
5	75	66	59	54	69	61	56	51	53	49	46	46	43	41	39	37	35	32				
6	70	60	54	49	65	57	51	47	50	45	42	43	40	38	37	35	33	30				
7	66	56	49	45	61	53	47	43	46	42	39	40	37	35	35	33	31	29				
8	62	52	46	41	58	49	43	39	43	39	36	38	35	33	33	31	29	27				
9	59	48	42	38	55	46	40	36	41	36	34	36	33	31	31	29	28	26				
10	56	45	39	35	52	43	38	34	38	34	31	34	31	29	30	28	26	24				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	115239	115239	115239
5°	111385	110009	111446
10°	95591	95654	95591
15°	74196	73015	74024
20°	53550	52445	52400
25°	37969	36457	36526
30°	28249	27529	27266
35°	21981	21423	20966
40°	16265	15860	14857
45°	8311	10191	6697
50°	1809	5622	1324
55°	507	2280	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: 10191 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	617.2	7.1
10°-20°	1216.8	14.1
20°-30°	981.5	11.4
30°-40°	681.9	7.9
40°-50°	315.0	3.6
50°-60°	44.2	0.5
60°-70°	1.5	0.0
70°-80°	0.0	0.0
80°-90°	1.1	0.0
90°-100°	296.4	3.4
100°-110°	964.9	11.2
110°-120°	954.5	11.0
120°-130°	780.0	9.0
130°-140°	637.5	7.4
140°-150°	496.5	5.7
150°-160°	357.9	4.1
160°-170°	218.8	2.5
170°-180°	73.8	0.9
0°-30°	2815.5	32.6
0°-40°	3497.4	40.5
0°-60°	3856.6	44.6
0°-90°	3859.2	44.7
90°-120°	2215.8	25.6
90°-150°	4129.8	47.8
90°-180°	4780.0	55.3
0°-180°	8639.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7137	7137	7137	7137	7137	
5°	6872	6836	6788	6871	6876	618
15°	4439	4495	4368	4430	4428	1222
25°	2131	2084	2046	2077	2050	998
35°	1115	1115	1087	1068	1064	698
45°	364	434	446	405	293	294
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°	0	3	7	6	6	2
95°	40	122	543	194	119	47
105°	164	237	956	1826	1729	175
115°	303	362	779	1605	1888	300
125°	421	470	768	1267	1493	375
135°	509	562	764	1093	1233	393
145°	595	638	762	942	1031	372
155°	678	701	767	843	875	313
165°	740	747	769	798	807	209
175°	772	772	772	778	776	73
180°	775	775	775	775	775	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7137.4	7137.4	7137.4	7137.4	7137.4
2.5°	7133.2	7107.1	7044.7	7100.9	7083.8
5°	6872.4	6835.9	6787.5	6871.2	6876.2
7.5°	6296.7	6308.5	6263.5	6355.9	6346.1
10°	5830.5	5839.3	5834.4	5864.5	5830.5
12.5°	5290.3	5325.3	5259.2	5305.8	5320.2
15°	4438.8	4495.4	4368.1	4429.8	4428.5
17.5°	3640.3	3634.5	3568.8	3580.3	3576.5
20°	3116.6	3107.8	3052.3	3043.4	3049.7
22.5°	2667.9	2653.1	2633.5	2611.3	2619.6
25°	2131.3	2083.5	2046.4	2076.7	2050.3
27.5°	1710.7	1709.9	1679.3	1682.8	1687.8
30°	1515.2	1506.4	1476.6	1477.5	1462.5
32.5°	1341.3	1347.6	1310.9	1303.6	1288.6
35°	1115.2	1115.2	1086.9	1067.5	1063.7
37.5°	905.5	903.3	883.1	855.6	845.8
40°	771.7	765.5	752.5	718.7	704.9
42.5°	619.5	636.3	623.8	589.9	569.0
45°	364.0	434.4	446.3	405.2	293.3
47.5°	156.4	233.9	297.9	194.2	101.1
50°	72.0	132.4	223.8	95.5	52.7
52.5°	42.2	72.4	166.2	55.8	33.2
55°	18.0	28.1	81.0	23.0	14.1
57.5°	6.7	12.2	30.6	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°	0.0	0.6	1.3	1.1	1.1
90°	0.0	2.8	6.7	5.7	5.7
92.5°	13.7	49.3	157.6	52.0	40.0
95°	40.0	122.0	543.2	193.7	119.1
97.5°	75.3	158.8	921.9	561.5	342.7
100°	98.2	180.2	1064.5	949.2	615.6
102.5°	124.1	203.1	1047.0	1404.3	1067.7
105°	163.9	236.6	955.9	1825.6	1728.7
107.5°	207.0	275.4	869.3	1862.2	1964.9
110°	238.2	300.7	828.2	1816.8	2002.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	264.2	325.9	802.2	1734.9	1974.0
115°	303.1	361.8	778.6	1604.6	1887.9
117.5°	343.1	396.0	769.4	1485.3	1767.2
120°	365.9	418.1	767.2	1411.9	1684.9
122.5°	388.1	439.5	767.9	1348.2	1602.6
125°	421.2	469.7	768.1	1266.9	1493.3
127.5°	449.6	499.2	767.9	1206.0	1394.8
130°	467.9	518.2	767.2	1171.3	1339.9
132.5°	483.9	536.5	766.4	1139.0	1297.2
135°	508.9	562.0	764.3	1093.4	1233.2
137.5°	533.3	586.8	762.2	1047.1	1171.2
140°	550.8	602.1	761.4	1015.7	1133.1
142.5°	567.6	616.6	761.4	985.7	1090.4
145°	594.7	638.5	762.4	941.7	1031.1
147.5°	621.0	659.0	763.7	904.2	973.4
150°	638.5	672.1	765.3	881.9	940.6
152.5°	656.0	683.6	766.0	864.9	911.6
155°	678.5	700.9	767.2	843.2	874.8
157.5°	699.9	715.9	768.3	827.1	849.3
160°	712.8	725.9	769.1	817.1	834.8
162.5°	724.3	734.3	769.1	808.6	821.9
165°	740.5	747.0	769.1	797.9	807.2
167.5°	751.9	756.0	769.3	789.8	794.6
170°	759.5	761.4	770.0	784.4	786.2
172.5°	764.9	766.0	771.5	781.3	780.9
175°	771.9	771.9	771.9	777.6	775.7
177.5°	774.8	774.0	773.3	777.0	774.0
180°	774.8	774.8	774.8	774.8	774.8



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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