

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: P853891

Luminaire Tested: SQ2-FB-125U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853891
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-125U-100D-935-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

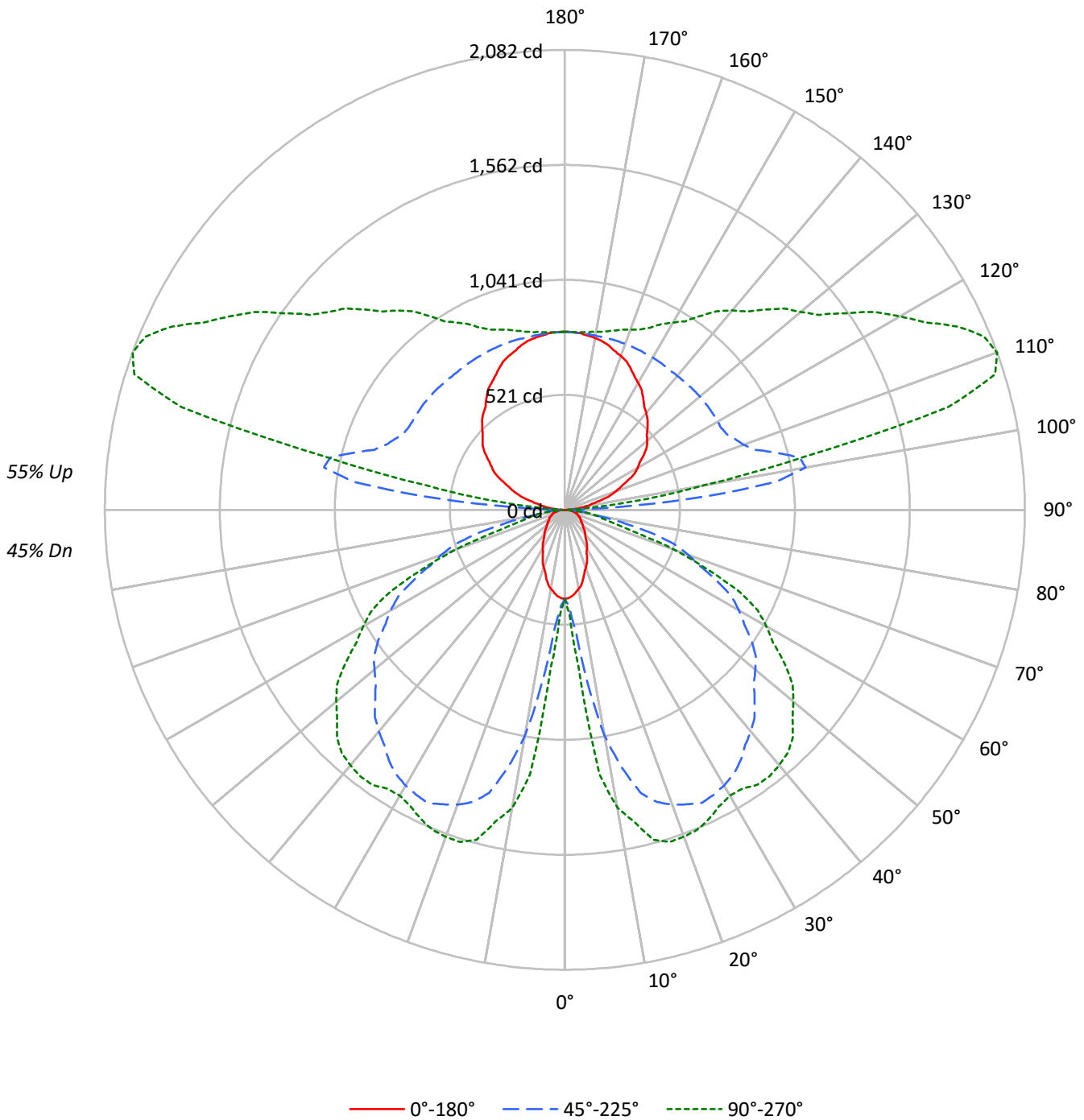
Lumens per Lamp: N/A
Luminaire Lumens: 8957.5 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37
2	87	80	74	69	80	73	68	63	61	57	54	50	47	44	39	37	36	31
3	80	70	62	57	72	64	58	52	53	49	45	43	40	37	34	32	30	25
4	72	61	53	47	66	57	49	44	47	42	38	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	40	34	55	45	37	32	37	32	28	31	26	23	24	21	19	16
7	56	44	35	30	51	40	33	28	34	28	24	28	23	20	22	19	16	14
8	52	39	31	26	47	36	29	24	30	25	21	25	21	18	20	17	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	25	20	41	30	24	19	25	20	17	21	17	14	17	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6513	6513	6513
5°	6350	8802	11537
10°	5946	17044	22450
15°	5382	22176	25839
20°	4766	24395	27060
25°	4215	26088	27505
30°	3725	26867	27844
35°	3325	27334	29934
40°	3025	27594	31805
45°	2790	27725	33305
50°	2630	28256	33907
55°	2567	28991	34179
60°	2632	29376	34010
65°	2743	28974	33047
70°	2837	28018	24996
75°	3144	25165	13793
80°	3245	12980	12803
85°	3242	8985	5391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 34487 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.6	0.8
10°-20°	308.5	3.4
20°-30°	542.8	6.1
30°-40°	702.6	7.8
40°-50°	774.9	8.7
50°-60°	723.5	8.1
60°-70°	559.2	6.2
70°-80°	257.9	2.9
80°-90°	50.1	0.6
90°-100°	308.2	3.4
100°-110°	1003.2	11.2
110°-120°	992.4	11.1
120°-130°	811.0	9.1
130°-140°	662.8	7.4
140°-150°	516.3	5.8
150°-160°	372.1	4.2
160°-170°	227.4	2.5
170°-180°	76.7	0.9
0°-30°	918.9	10.3
0°-40°	1621.6	18.1
0°-60°	3120.1	34.8
0°-90°	3987.3	44.5
90°-120°	2303.8	25.7
90°-150°	4293.8	47.9
90°-180°	4970.0	55.5
0°-180°	8957.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	403	403	403	403	403	
5°	392	449	543	662	712	36
15°	322	635	1327	1485	1546	90
25°	237	853	1464	1529	1544	109
35°	169	823	1387	1435	1519	106
45°	122	630	1214	1394	1459	95
55°	91	376	1030	1184	1214	82
65°	72	212	758	850	865	70
75°	50	130	403	217	221	52
85°	18	38	48	33	29	18
90°	0	3	7	6	6	3
95°	42	127	565	201	124	48
105°	170	246	994	1898	1797	182
115°	315	376	810	1668	1963	312
125°	438	488	799	1317	1553	390
135°	529	584	795	1137	1282	409
145°	618	664	793	979	1072	387
155°	706	729	798	877	910	325
165°	770	777	800	830	839	217
175°	803	803	803	808	806	76
180°	806	806	806	806	806	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	403.4	403.4	403.4	403.4	403.4
2.5°	400.3	417.0	436.0	457.9	467.0
5°	391.8	448.7	543.1	662.5	711.8
7.5°	376.7	492.3	789.8	1109.3	1208.0
10°	362.7	523.9	1039.6	1316.2	1369.3
12.5°	347.2	566.0	1196.3	1390.7	1445.4
15°	322.0	634.9	1326.7	1485.1	1545.8
17.5°	296.0	712.4	1387.2	1543.5	1576.5
20°	277.4	766.6	1419.8	1554.1	1574.9
22.5°	260.3	807.2	1443.0	1544.8	1567.2
25°	236.6	853.0	1464.4	1528.7	1543.9
27.5°	213.7	865.0	1455.1	1497.3	1512.1
30°	199.8	861.6	1441.1	1472.6	1493.5
32.5°	187.4	852.3	1420.9	1451.4	1496.6
35°	168.7	823.0	1386.8	1435.2	1518.7
37.5°	152.8	776.0	1341.8	1441.0	1521.4
40°	143.5	740.9	1309.2	1440.7	1509.0
42.5°	134.2	699.7	1272.0	1425.2	1493.5
45°	122.2	630.4	1214.2	1394.1	1458.6
47.5°	110.9	552.4	1160.6	1351.0	1398.0
50°	104.7	499.2	1124.9	1312.0	1349.9
52.5°	98.5	447.5	1089.3	1265.4	1300.3
55°	91.2	375.6	1029.9	1183.8	1214.2
57.5°	84.6	314.0	962.4	1093.7	1118.4
60°	81.5	280.6	909.7	1028.5	1053.2
62.5°	76.8	250.1	850.7	960.2	983.4
65°	71.8	212.1	758.4	849.9	865.0
67.5°	64.8	183.9	660.2	716.2	687.8
70°	60.1	170.1	593.5	611.0	529.5
72.5°	57.0	154.9	520.6	474.4	320.0
75°	50.4	130.1	403.4	217.3	221.1
77.5°	41.1	100.7	265.3	166.9	170.3
80°	34.9	82.3	139.6	135.8	137.7
82.5°	28.7	64.0	96.2	100.0	97.4
85°	17.5	38.3	48.5	32.9	29.1
87.5°	6.2	14.4	9.1	8.9	8.9
90°	0.0	2.9	6.9	5.9	5.9
92.5°	14.3	51.3	163.9	54.0	41.6
95°	41.6	126.9	564.8	201.4	123.9
97.5°	78.3	165.1	958.5	583.8	356.3
100°	102.1	187.3	1106.8	986.9	640.1
102.5°	129.0	211.2	1088.5	1460.1	1110.1
105°	170.4	246.0	993.8	1898.2	1797.4
107.5°	215.2	286.3	903.9	1936.2	2042.9
110°	247.7	312.6	861.0	1889.0	2081.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	274.7	338.8	834.1	1803.8	2052.4
115°	315.1	376.1	809.5	1668.3	1962.9
117.5°	356.7	411.7	800.0	1544.3	1837.4
120°	380.5	434.7	797.6	1468.0	1751.8
122.5°	403.5	457.0	798.4	1401.7	1666.2
125°	438.0	488.3	798.6	1317.2	1552.7
127.5°	467.5	519.0	798.4	1253.9	1450.2
130°	486.5	538.8	797.6	1217.8	1393.1
132.5°	503.2	557.8	796.8	1184.2	1348.7
135°	529.1	584.3	794.7	1136.8	1282.2
137.5°	554.5	610.1	792.5	1088.7	1217.8
140°	572.7	626.0	791.7	1056.0	1178.1
142.5°	590.1	641.1	791.7	1024.8	1133.7
145°	618.3	663.8	792.7	979.1	1072.1
147.5°	645.6	685.2	794.1	940.2	1012.1
150°	663.9	698.7	795.7	916.9	978.0
152.5°	682.1	710.8	796.4	899.2	947.8
155°	705.5	728.7	797.6	876.7	909.6
157.5°	727.7	744.3	798.8	860.0	883.0
160°	741.2	754.7	799.6	849.6	868.0
162.5°	753.0	763.5	799.6	840.7	854.5
165°	769.9	776.7	799.6	829.6	839.2
167.5°	781.8	786.0	799.8	821.1	826.2
170°	789.7	791.6	800.6	815.5	817.4
172.5°	795.3	796.4	802.2	812.3	811.9
175°	802.6	802.6	802.6	808.5	806.5
177.5°	805.6	804.8	804.0	807.9	804.8
180°	805.6	805.6	805.6	805.6	805.6



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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	13.05	13.89	14.05	14.90	16.24	21.79	22.62	22.78	23.64	24.98
	3H	13.78	14.53	14.79	15.55	16.92	23.41	24.16	24.41	25.18	26.54
	4H	14.08	14.79	15.10	15.81	17.19	23.59	24.30	24.61	25.32	26.69
	6H	14.29	14.95	15.32	15.98	17.36	23.67	24.32	24.70	25.35	26.74
	8H	14.35	14.97	15.39	16.02	17.40	23.67	24.30	24.71	25.34	26.72
	12H	14.38	14.97	15.42	16.01	17.42	23.64	24.24	24.69	25.28	26.68
4H	2H	17.45	18.16	18.47	19.18	20.55	22.23	22.94	23.25	23.96	25.33
	3H	18.38	18.97	19.41	20.02	21.41	24.05	24.64	25.09	25.69	27.08
	4H	18.66	19.20	19.70	20.24	21.65	24.29	24.83	25.33	25.87	27.28
	6H	18.79	19.25	19.84	20.32	21.73	24.43	24.90	25.48	25.96	27.37
	8H	18.81	19.24	19.86	20.30	21.72	24.45	24.89	25.51	25.95	27.37
	12H	18.80	19.19	19.87	20.27	21.69	24.43	24.82	25.50	25.89	27.32
8H	4H	19.83	20.27	20.89	21.33	22.75	24.40	24.84	25.46	25.90	27.32
	6H	20.07	20.43	21.15	21.53	22.95	24.61	24.96	25.69	26.07	27.49
	8H	20.14	20.45	21.22	21.54	22.98	24.67	24.98	25.75	26.07	27.50
	12H	20.16	20.44	21.25	21.52	23.00	24.66	24.94	25.75	26.02	27.49
12H	4H	19.85	20.24	20.92	21.31	22.74	24.35	24.75	25.43	25.82	27.25
	6H	20.16	20.48	21.25	21.56	23.00	24.59	24.90	25.67	25.99	27.43
	8H	20.26	20.54	21.35	21.62	23.10	24.65	24.93	25.75	26.01	27.49