

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: P853890

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853890
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-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

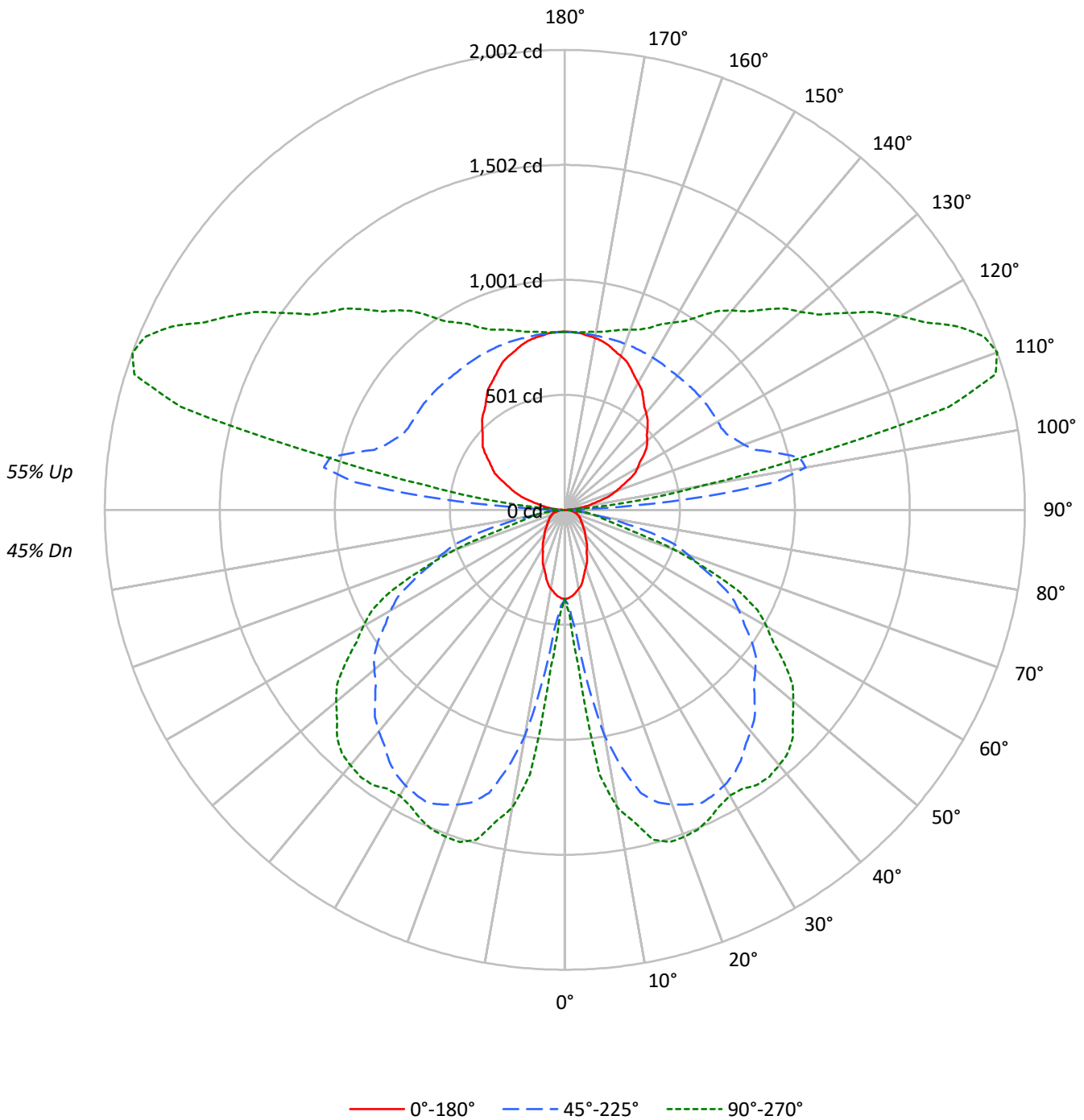
Lumens per Lamp: N/A
Luminaire Lumens: 8615.3 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	6265	6265	6265
5°	6107	8465	11096
10°	5719	16393	21592
15°	5177	21329	24852
20°	4584	23462	26027
25°	4055	25091	26453
30°	3581	25840	26780
35°	3199	26290	28791
40°	2909	26540	30589
45°	2683	26665	32031
50°	2529	27178	32614
55°	2469	27885	32873
60°	2528	28252	32708
65°	2636	27866	31786
70°	2729	26946	24043
75°	3026	24205	13269
80°	3124	12487	12311
85°	3112	8633	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 33169 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	0.8
10°-20°	296.7	3.4
20°-30°	522.1	6.1
30°-40°	675.8	7.8
40°-50°	745.3	8.7
50°-60°	695.9	8.1
60°-70°	537.9	6.2
70°-80°	248.1	2.9
80°-90°	48.2	0.6
90°-100°	296.4	3.4
100°-110°	964.9	11.2
110°-120°	954.5	11.1
120°-130°	780.0	9.1
130°-140°	637.5	7.4
140°-150°	496.5	5.8
150°-160°	357.9	4.2
160°-170°	218.8	2.5
170°-180°	73.8	0.9
0°-30°	883.8	10.3
0°-40°	1559.6	18.1
0°-60°	3000.8	34.8
0°-90°	3835.0	44.5
90°-120°	2215.8	25.7
90°-150°	4129.8	47.9
90°-180°	4780.0	55.5
0°-180°	8615.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	388	388	388	388	388	
5°	377	432	522	637	685	35
15°	310	611	1276	1428	1487	86
25°	228	820	1408	1470	1485	105
35°	162	792	1334	1380	1461	102
45°	118	606	1168	1341	1403	91
55°	88	361	991	1139	1168	79
65°	69	204	729	817	832	68
75°	48	125	388	209	213	50
85°	17	37	47	32	28	17
90°	0	3	7	6	6	3
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°	388.0	388.0	388.0	388.0	388.0
2.5°	385.0	401.1	419.4	440.4	449.2
5°	376.8	431.5	522.3	637.2	684.6
7.5°	362.3	473.5	759.6	1067.0	1161.8
10°	348.8	503.9	999.9	1265.9	1317.0
12.5°	333.9	544.4	1150.6	1337.6	1390.1
15°	309.7	610.6	1276.0	1428.4	1486.8
17.5°	284.7	685.2	1334.2	1484.5	1516.3
20°	266.8	737.4	1365.5	1494.7	1514.8
22.5°	250.3	776.4	1387.9	1485.8	1507.3
25°	227.6	820.4	1408.4	1470.3	1484.9
27.5°	205.6	831.9	1399.5	1440.1	1454.3
30°	192.1	828.7	1386.0	1416.3	1436.4
32.5°	180.2	819.7	1366.6	1396.0	1439.4
35°	162.3	791.6	1333.8	1380.4	1460.7
37.5°	147.0	746.4	1290.5	1385.9	1463.3
40°	138.0	712.6	1259.2	1385.7	1451.3
42.5°	129.1	673.0	1223.4	1370.7	1436.4
45°	117.5	606.4	1167.8	1340.8	1402.8
47.5°	106.7	531.3	1116.3	1299.4	1344.6
50°	100.7	480.1	1082.0	1261.9	1298.4
52.5°	94.8	430.4	1047.6	1217.0	1250.6
55°	87.7	361.3	990.6	1138.6	1167.8
57.5°	81.3	302.0	925.6	1051.9	1075.6
60°	78.3	269.9	874.9	989.2	1012.9
62.5°	73.9	240.6	818.2	923.5	945.8
65°	69.0	204.0	729.4	817.4	832.0
67.5°	62.3	176.9	635.0	688.9	661.5
70°	57.8	163.6	570.8	587.7	509.3
72.5°	54.8	149.0	500.7	456.3	307.8
75°	48.5	125.1	388.0	209.0	212.7
77.5°	39.5	96.8	255.2	160.5	163.8
80°	33.6	79.2	134.3	130.6	132.4
82.5°	27.6	61.5	92.5	96.2	93.6
85°	16.8	36.9	46.6	31.6	28.0
87.5°	6.0	13.8	8.8	8.6	8.6
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	12.91	13.75	13.91	14.76	16.11	21.65	22.49	22.65	23.50	24.85
	3H	13.64	14.39	14.65	15.41	16.78	23.27	24.02	24.28	25.04	26.41
	4H	13.94	14.65	14.96	15.68	17.05	23.45	24.16	24.47	25.19	26.56
	6H	14.16	14.81	15.19	15.84	17.23	23.53	24.19	24.57	25.22	26.60
	8H	14.21	14.84	15.25	15.88	17.27	23.54	24.16	24.58	25.21	26.59
	12H	14.24	14.83	15.28	15.87	17.28	23.51	24.10	24.55	25.14	26.55
4H	2H	17.31	18.02	18.34	19.05	20.42	22.09	22.80	23.12	23.83	25.20
	3H	18.24	18.83	19.28	19.89	21.27	23.91	24.51	24.95	25.56	26.95
	4H	18.52	19.06	19.57	20.11	21.52	24.15	24.69	25.19	25.74	27.15
	6H	18.65	19.12	19.71	20.19	21.59	24.29	24.76	25.35	25.83	27.23
	8H	18.67	19.11	19.73	20.17	21.59	24.32	24.75	25.37	25.81	27.24
	12H	18.66	19.06	19.74	20.13	21.56	24.29	24.68	25.36	25.76	27.19
8H	4H	19.70	20.13	20.75	21.19	22.61	24.27	24.70	25.32	25.76	27.18
	6H	19.93	20.29	21.01	21.39	22.81	24.47	24.83	25.55	25.93	27.35
	8H	20.00	20.32	21.09	21.40	22.84	24.53	24.85	25.62	25.93	27.37
	12H	20.03	20.30	21.12	21.39	22.86	24.52	24.80	25.61	25.88	27.36
12H	4H	19.71	20.10	20.79	21.18	22.61	24.22	24.61	25.29	25.68	27.11
	6H	20.03	20.34	21.11	21.43	22.86	24.45	24.77	25.54	25.85	27.29
	8H	20.13	20.40	21.22	21.49	22.96	24.52	24.80	25.61	25.88	27.35