

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: P853885

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853885
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-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

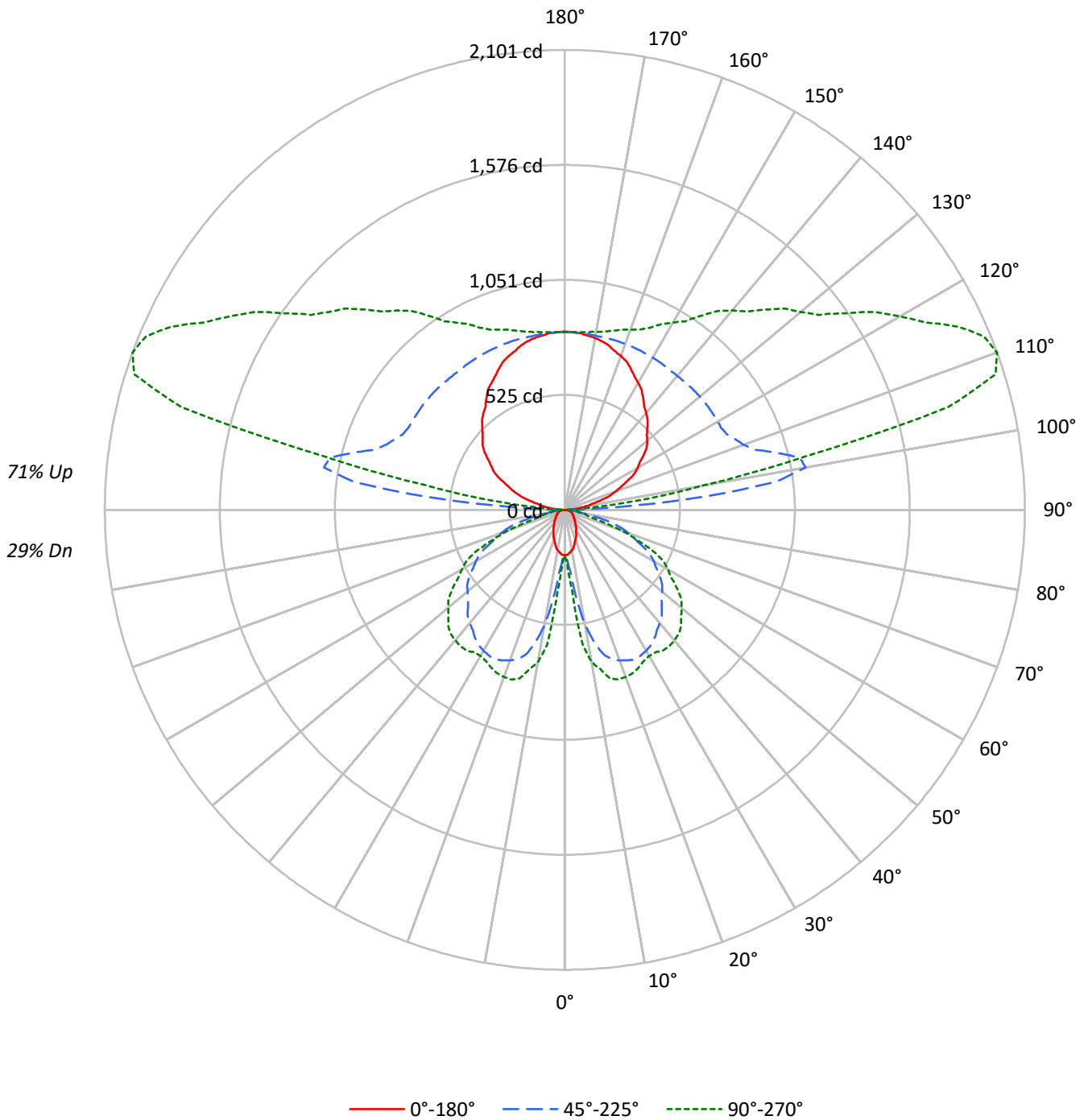
Lumens per Lamp: N/A
Luminaire Lumens: 7071.8 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 61.7
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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	37	37	37	29
1	93	89	85	82	83	80	76	74	63	60	58	47	46	44	32	32	31	24
2	84	77	71	66	75	69	64	60	55	51	48	41	39	37	28	27	26	20
3	77	68	60	55	68	61	55	50	48	43	40	36	33	31	25	23	22	17
4	70	59	52	46	62	53	47	42	42	37	34	32	28	26	22	20	18	14
5	64	53	45	39	57	47	41	35	37	32	29	28	25	22	19	17	16	12
6	59	47	39	33	52	42	35	30	33	28	25	25	22	19	17	15	13	10
7	54	42	34	29	48	38	31	26	30	25	21	23	19	17	16	14	12	9
8	50	38	30	25	45	34	28	23	27	22	19	21	17	15	14	12	10	8
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9	7
10	43	31	24	20	39	28	22	18	23	18	15	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3358	3358	3358
5°	3274	4538	5948
10°	3066	8788	11575
15°	2775	11433	13322
20°	2457	12577	13952
25°	2173	13450	14181
30°	1920	13852	14356
35°	1715	14093	15433
40°	1560	14227	16398
45°	1439	14294	17171
50°	1356	14569	17482
55°	1323	14947	17622
60°	1356	15145	17534
65°	1414	14938	17039
70°	1463	14445	12888
75°	1622	12976	7112
80°	1674	6695	6602
85°	1667	4631	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 17781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	0.5
10°-20°	159.1	2.2
20°-30°	279.9	4.0
30°-40°	362.3	5.1
40°-50°	399.5	5.6
50°-60°	373.0	5.3
60°-70°	288.3	4.1
70°-80°	133.0	1.9
80°-90°	26.3	0.4
90°-100°	311.0	4.4
100°-110°	1012.4	14.3
110°-120°	1001.4	14.2
120°-130°	818.4	11.6
130°-140°	668.9	9.5
140°-150°	521.0	7.4
150°-160°	375.5	5.3
160°-170°	229.5	3.2
170°-180°	77.4	1.1
0°-30°	473.8	6.7
0°-40°	836.1	11.8
0°-60°	1608.6	22.7
0°-90°	2056.3	29.1
90°-120°	2324.8	32.9
90°-150°	4333.0	61.3
90°-180°	5015.0	70.9
0°-180°	7071.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	208	208	208	208	208	
5°	202	231	280	342	367	19
15°	166	327	684	766	797	46
25°	122	440	755	788	796	56
35°	87	424	715	740	783	55
45°	63	325	626	719	752	49
55°	47	194	531	610	626	42
65°	37	109	391	438	446	36
75°	26	67	208	112	114	27
85°	9	20	25	17	15	9
90°	0	3	7	6	6	2
95°	42	128	570	203	125	49
105°	172	248	1003	1916	1814	183
115°	318	380	817	1684	1981	315
125°	442	493	806	1329	1567	393
135°	534	590	802	1147	1294	412
145°	624	670	800	988	1082	391
155°	712	735	805	885	918	328
165°	777	784	807	837	847	219
175°	810	810	810	816	814	77
180°	813	813	813	813	813	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	208.0	208.0	208.0	208.0	208.0
2.5°	206.4	215.0	224.8	236.1	240.8
5°	202.0	231.3	280.0	341.6	367.0
7.5°	194.2	253.8	407.2	572.0	622.8
10°	187.0	270.1	536.0	678.6	706.0
12.5°	179.0	291.8	616.8	717.0	745.2
15°	166.0	327.3	684.0	765.7	797.0
17.5°	152.6	367.3	715.2	795.8	812.8
20°	143.0	395.3	732.0	801.3	812.0
22.5°	134.2	416.2	744.0	796.5	808.0
25°	122.0	439.8	755.0	788.2	796.0
27.5°	110.2	446.0	750.2	772.0	779.6
30°	103.0	444.2	743.0	759.3	770.0
32.5°	96.6	439.4	732.6	748.3	771.6
35°	87.0	424.3	715.0	740.0	783.0
37.5°	78.8	400.1	691.8	742.9	784.4
40°	74.0	382.0	675.0	742.8	778.0
42.5°	69.2	360.8	655.8	734.8	770.0
45°	63.0	325.0	626.0	718.8	752.0
47.5°	57.2	284.8	598.4	696.6	720.8
50°	54.0	257.4	580.0	676.4	696.0
52.5°	50.8	230.7	561.6	652.4	670.4
55°	47.0	193.7	531.0	610.4	626.0
57.5°	43.6	161.9	496.2	563.9	576.6
60°	42.0	144.7	469.0	530.3	543.0
62.5°	39.6	129.0	438.6	495.1	507.0
65°	37.0	109.4	391.0	438.2	446.0
67.5°	33.4	94.8	340.4	369.3	354.6
70°	31.0	87.7	306.0	315.0	273.0
72.5°	29.4	79.9	268.4	244.6	165.0
75°	26.0	67.1	208.0	112.0	114.0
77.5°	21.2	51.9	136.8	86.0	87.8
80°	18.0	42.4	72.0	70.0	71.0
82.5°	14.8	33.0	49.6	51.6	50.2
85°	9.0	19.8	25.0	17.0	15.0
87.5°	3.2	7.7	5.4	5.2	5.2
90°	0.0	2.9	7.0	6.0	6.0
92.5°	14.4	51.7	165.4	54.5	42.0
95°	42.0	128.0	569.9	203.2	125.0
97.5°	79.0	166.6	967.3	589.1	359.6
100°	103.0	189.0	1116.9	995.9	645.9
102.5°	130.2	213.1	1098.5	1473.4	1120.3
105°	172.0	248.2	1002.9	1915.5	1813.8
107.5°	217.2	288.9	912.1	1953.8	2061.6
110°	250.0	315.5	868.9	1906.2	2100.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	277.2	341.9	841.7	1820.3	2071.2
115°	318.0	379.6	816.9	1683.6	1980.8
117.5°	360.0	415.5	807.3	1558.3	1854.2
120°	384.0	438.7	804.9	1481.3	1767.8
122.5°	407.2	461.1	805.7	1414.5	1681.4
125°	441.9	492.8	805.9	1329.2	1566.8
127.5°	471.7	523.8	805.7	1265.4	1463.4
130°	490.9	543.7	804.9	1228.9	1405.8
132.5°	507.7	562.9	804.1	1195.0	1361.0
135°	533.9	589.7	801.9	1147.2	1293.9
137.5°	559.5	615.7	799.7	1098.6	1228.9
140°	577.9	631.7	798.9	1065.7	1188.9
142.5°	595.5	647.0	798.9	1034.2	1144.1
145°	623.9	669.9	799.9	988.0	1081.9
147.5°	651.5	691.4	801.3	948.7	1021.3
150°	669.9	705.1	802.9	925.3	986.9
152.5°	688.3	717.3	803.7	907.4	956.5
155°	711.9	735.4	804.9	884.7	917.9
157.5°	734.3	751.1	806.1	867.8	891.1
160°	747.9	761.6	806.9	857.3	875.9
162.5°	759.9	770.5	806.9	848.4	862.3
165°	776.9	783.8	806.9	837.1	846.9
167.5°	788.9	793.2	807.1	828.6	833.7
170°	796.9	798.9	807.9	823.0	824.9
172.5°	802.5	803.7	809.5	819.7	819.3
175°	809.9	809.9	809.9	815.9	813.9
177.5°	812.9	812.1	811.3	815.2	812.1
180°	812.9	812.9	812.9	812.9	812.9



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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	8.95	9.66	10.06	10.77	12.32	17.69	18.40	18.80	19.51	21.05
	3H	9.67	10.31	10.79	11.43	12.98	19.30	19.94	20.42	21.05	22.61
	4H	9.96	10.57	11.09	11.69	13.25	19.47	20.08	20.60	21.20	22.76
	6H	10.17	10.73	11.31	11.85	13.42	19.55	20.10	20.69	21.23	22.80
	8H	10.22	10.75	11.37	11.89	13.46	19.55	20.08	20.69	21.22	22.78
	12H	10.25	10.75	11.40	11.88	13.47	19.51	20.02	20.66	21.15	22.74
4H	2H	13.33	13.94	14.47	15.06	16.62	18.11	18.72	19.25	19.84	21.40
	3H	14.25	14.75	15.39	15.90	17.47	19.92	20.43	21.07	21.57	23.15
	4H	14.52	14.99	15.67	16.12	17.72	20.15	20.62	21.30	21.75	23.35
	6H	14.65	15.04	15.80	16.20	17.79	20.29	20.69	21.44	21.84	23.43
	8H	14.66	15.03	15.82	16.18	17.79	20.31	20.68	21.46	21.83	23.43
	12H	14.65	14.98	15.82	16.15	17.75	20.27	20.61	21.45	21.77	23.38
8H	4H	15.69	16.06	16.84	17.21	18.81	20.26	20.63	21.41	21.78	23.38
	6H	15.92	16.22	17.09	17.41	19.01	20.45	20.76	21.63	21.95	23.55
	8H	15.98	16.25	17.17	17.42	19.04	20.51	20.78	21.69	21.95	23.57
	12H	16.00	16.24	17.19	17.41	19.06	20.50	20.73	21.69	21.90	23.55
12H	4H	15.70	16.03	16.87	17.19	18.80	20.20	20.54	21.37	21.70	23.31
	6H	16.01	16.27	17.19	17.45	19.06	20.44	20.70	21.62	21.87	23.49
	8H	16.10	16.34	17.29	17.51	19.16	20.50	20.73	21.68	21.90	23.55