

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: P855417

Luminaire Tested: SQ2-FB-125U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855417
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-840-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

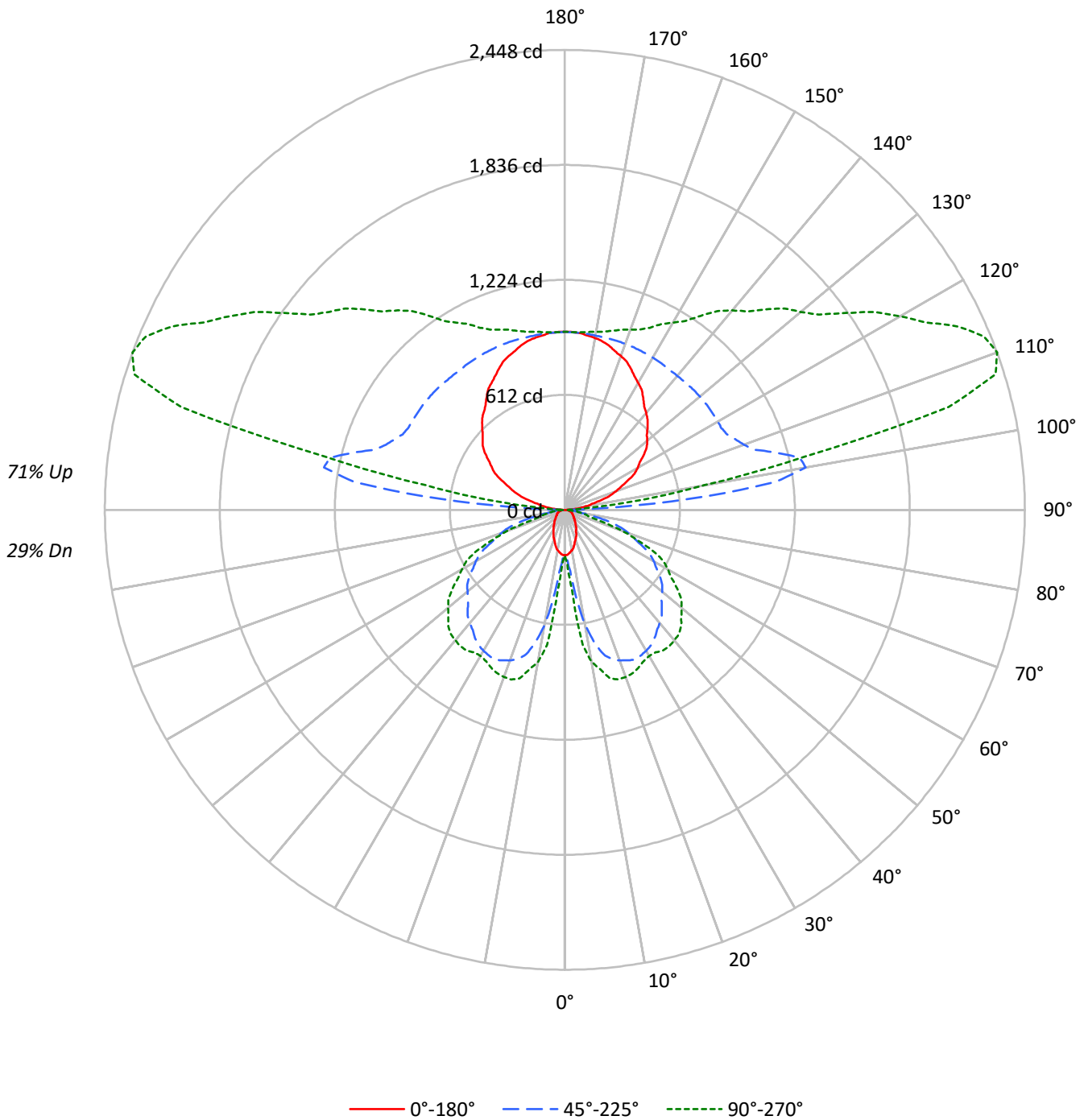
Lumens per Lamp: N/A
Luminaire Lumens: 8241.4 lumens
Efficiency: N/A
Efficacy: 133.6 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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°	3914	3914	3914
5°	3815	5289	6932
10°	3572	10242	13490
15°	3234	13324	15525
20°	2864	14658	16259
25°	2533	15675	16527
30°	2237	16144	16731
35°	1999	16425	17986
40°	1817	16579	19110
45°	1676	16657	20011
50°	1580	16978	20374
55°	1543	17419	20535
60°	1579	17651	20434
65°	1647	17410	19859
70°	1704	16834	15021
75°	1890	15122	8291
80°	1953	7801	7689
85°	1945	5391	3242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 20722 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.6	0.5
10°-20°	185.4	2.2
20°-30°	326.2	4.0
30°-40°	422.2	5.1
40°-50°	465.6	5.6
50°-60°	434.8	5.3
60°-70°	336.0	4.1
70°-80°	155.0	1.9
80°-90°	30.7	0.4
90°-100°	362.4	4.4
100°-110°	1179.8	14.3
110°-120°	1167.1	14.2
120°-130°	953.7	11.6
130°-140°	779.5	9.5
140°-150°	607.1	7.4
150°-160°	437.6	5.3
160°-170°	267.5	3.2
170°-180°	90.3	1.1
0°-30°	552.2	6.7
0°-40°	974.3	11.8
0°-60°	1874.7	22.7
0°-90°	2396.4	29.1
90°-120°	2709.3	32.9
90°-150°	5049.7	61.3
90°-180°	5845.0	70.9
0°-180°	8241.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	242	242	242	242	242	
5°	235	270	326	398	428	22
15°	194	381	797	892	929	54
25°	142	512	880	919	928	65
35°	101	494	833	862	912	64
45°	73	379	730	838	876	57
55°	55	226	619	711	730	49
65°	43	128	456	511	520	42
75°	30	78	242	130	133	31
85°	10	23	29	20	18	11
90°	0	3	8	7	7	3
95°	49	149	664	237	146	57
105°	200	289	1169	2232	2114	214
115°	371	442	952	1962	2308	367
125°	515	574	939	1549	1826	458
135°	622	687	934	1337	1508	481
145°	727	781	932	1151	1261	455
155°	830	857	938	1031	1070	382
165°	905	913	940	976	987	255
175°	944	944	944	951	948	90
180°	947	947	947	947	947	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	242.4	242.4	242.4	242.4	242.4
2.5°	240.5	250.6	262.0	275.2	280.6
5°	235.4	269.6	326.3	398.1	427.7
7.5°	226.3	295.8	474.6	666.6	725.8
10°	217.9	314.8	624.7	790.8	822.8
12.5°	208.6	340.1	718.8	835.6	868.5
15°	193.5	381.4	797.1	892.3	928.8
17.5°	177.8	428.1	833.5	927.4	947.2
20°	166.7	460.7	853.1	933.8	946.3
22.5°	156.4	485.0	867.1	928.2	941.6
25°	142.2	512.5	879.9	918.6	927.7
27.5°	128.4	519.8	874.3	899.7	908.5
30°	120.0	517.7	865.9	884.9	897.4
32.5°	112.6	512.1	853.8	872.1	899.2
35°	101.4	494.5	833.3	862.4	912.5
37.5°	91.8	466.3	806.2	865.8	914.1
40°	86.2	445.2	786.6	865.7	906.7
42.5°	80.6	420.5	764.3	856.3	897.4
45°	73.4	378.8	729.5	837.7	876.4
47.5°	66.7	331.9	697.4	811.8	840.0
50°	62.9	300.0	675.9	788.3	811.1
52.5°	59.2	268.9	654.5	760.3	781.3
55°	54.8	225.7	618.8	711.4	729.5
57.5°	50.8	188.7	578.3	657.2	672.0
60°	48.9	168.6	546.6	618.0	632.8
62.5°	46.1	150.3	511.1	577.0	590.9
65°	43.1	127.5	455.7	510.7	519.8
67.5°	38.9	110.5	396.7	430.4	413.3
70°	36.1	102.2	356.6	367.1	318.2
72.5°	34.3	93.1	312.8	285.1	192.3
75°	30.3	78.2	242.4	130.5	132.9
77.5°	24.7	60.5	159.4	100.2	102.3
80°	21.0	49.4	83.9	81.6	82.7
82.5°	17.2	38.5	57.8	60.1	58.5
85°	10.5	23.1	29.1	19.8	17.5
87.5°	3.7	9.0	6.3	6.1	6.1
90°	0.0	3.4	8.2	7.0	7.0
92.5°	16.8	60.3	192.8	63.5	48.9
95°	48.9	149.2	664.2	236.8	145.7
97.5°	92.1	194.2	1127.3	686.5	419.1
100°	120.0	220.3	1301.6	1160.6	752.7
102.5°	151.7	248.3	1280.2	1717.1	1305.6
105°	200.4	289.3	1168.8	2232.3	2113.8
107.5°	253.1	336.7	1063.0	2277.0	2402.6
110°	291.4	367.7	1012.6	2221.5	2448.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	323.0	398.5	980.9	2121.4	2413.8
115°	370.6	442.4	952.0	1962.1	2308.4
117.5°	419.5	484.2	940.8	1816.0	2160.9
120°	447.5	511.3	938.0	1726.3	2060.2
122.5°	474.6	537.4	939.0	1648.5	1959.5
125°	515.0	574.3	939.2	1549.1	1826.0
127.5°	549.7	610.4	939.0	1474.7	1705.4
130°	572.1	633.6	938.0	1432.2	1638.3
132.5°	591.7	656.0	937.1	1392.7	1586.1
135°	622.2	687.2	934.5	1336.9	1507.9
137.5°	652.0	717.5	932.0	1280.3	1432.2
140°	673.5	736.2	931.0	1242.0	1385.5
142.5°	694.0	754.0	931.0	1205.3	1333.3
145°	727.1	780.7	932.2	1151.4	1260.8
147.5°	759.3	805.8	933.8	1105.6	1190.2
150°	780.7	821.7	935.7	1078.3	1150.1
152.5°	802.1	835.9	936.6	1057.5	1114.7
155°	829.6	857.0	938.0	1031.0	1069.7
157.5°	855.8	875.3	939.4	1011.3	1038.5
160°	871.6	887.6	940.4	999.1	1020.8
162.5°	885.6	897.9	940.4	988.7	1004.9
165°	905.4	913.4	940.4	975.6	987.0
167.5°	919.4	924.4	940.6	965.7	971.6
170°	928.7	931.0	941.5	959.1	961.3
172.5°	935.2	936.6	943.4	955.3	954.8
175°	943.9	943.9	943.9	950.9	948.5
177.5°	947.4	946.4	945.5	950.0	946.4
180°	947.4	947.4	947.4	947.4	947.4



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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	9.48	10.19	10.59	11.31	12.85	18.22	18.93	19.33	20.04	21.58
	3H	10.20	10.84	11.32	11.96	13.51	19.83	20.47	20.95	21.59	23.14
	4H	10.49	11.10	11.63	12.22	13.78	20.00	20.61	21.13	21.73	23.29
	6H	10.70	11.26	11.84	12.38	13.96	20.08	20.64	21.22	21.76	23.33
	8H	10.75	11.29	11.90	12.42	13.99	20.08	20.61	21.22	21.75	23.31
	12H	10.78	11.28	11.93	12.41	14.00	20.04	20.55	21.19	21.68	23.27
4H	2H	13.86	14.47	15.00	15.59	17.15	18.64	19.25	19.78	20.37	21.93
	3H	14.78	15.29	15.93	16.43	18.01	20.45	20.96	21.60	22.10	23.68
	4H	15.06	15.52	16.20	16.66	18.25	20.68	21.15	21.83	22.28	23.88
	6H	15.18	15.58	16.33	16.73	18.32	20.82	21.22	21.98	22.38	23.96
	8H	15.19	15.57	16.35	16.72	18.32	20.84	21.21	22.00	22.36	23.96
	12H	15.18	15.52	16.35	16.68	18.28	20.81	21.14	21.98	22.30	23.91
8H	4H	16.22	16.59	17.37	17.74	19.34	20.79	21.16	21.94	22.31	23.91
	6H	16.45	16.75	17.62	17.95	19.54	20.99	21.29	22.16	22.48	24.08
	8H	16.52	16.78	17.70	17.95	19.57	21.05	21.31	22.23	22.48	24.10
	12H	16.54	16.77	17.72	17.94	19.59	21.03	21.27	22.22	22.43	24.09
12H	4H	16.23	16.56	17.40	17.73	19.33	20.73	21.07	21.90	22.23	23.84
	6H	16.54	16.81	17.72	17.98	19.60	20.97	21.23	22.15	22.40	24.02
	8H	16.64	16.87	17.82	18.04	19.69	21.03	21.26	22.21	22.43	24.08