

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: P853729

Luminaire Tested: SQ2-F-150U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853729
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-150U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

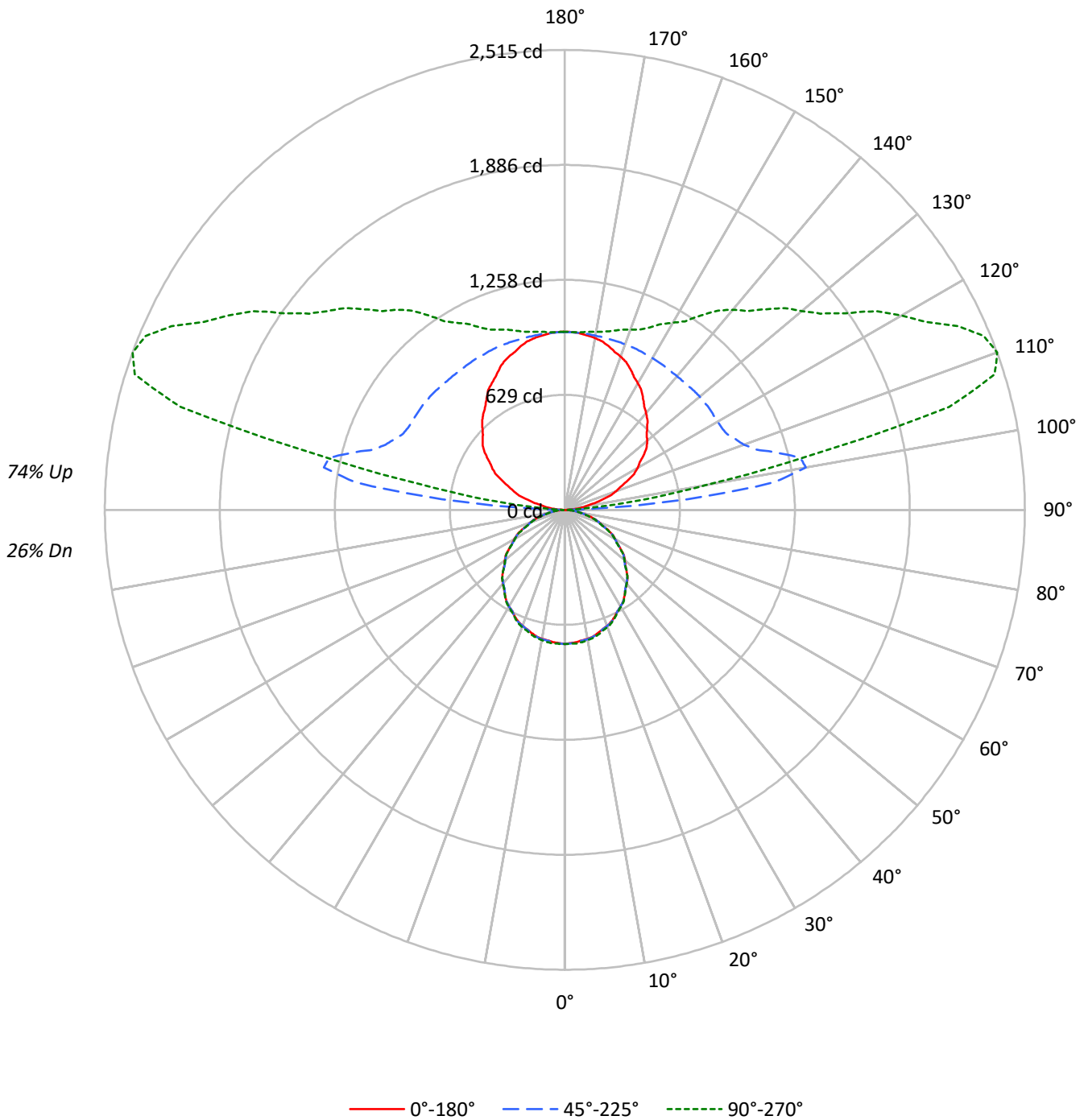
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8066.6 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.4
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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26				26
1	92	88	84	81	82	79	75	73	61	59	57	45	43	42	30	29	28	21				21
2	84	77	71	66	74	69	64	59	53	50	47	39	37	35	26	25	24	18				18
3	76	67	60	55	68	60	54	49	47	43	39	34	32	29	23	21	20	15				15
4	70	59	52	46	62	53	47	42	41	37	33	31	28	25	20	19	17	13				13
5	64	53	45	39	57	47	41	36	37	32	28	27	24	22	18	16	15	11				11
6	59	47	39	34	52	42	36	31	33	28	25	25	21	19	17	15	13	10				10
7	54	42	35	29	48	38	31	27	30	25	22	22	19	16	15	13	11	9				9
8	50	38	31	26	44	34	28	23	27	22	19	20	17	15	14	12	10	8				8
9	46	35	28	23	41	31	25	21	25	20	17	19	15	13	13	11	9	7				7
10	43	32	25	20	39	29	22	18	23	18	15	17	14	12	12	10	8	6				6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11851	11851	11851
5°	11767	11799	11896
10°	11739	11772	11854
15°	11667	11701	11818
20°	11598	11615	11718
25°	11491	11491	11562
30°	11373	11373	11410
35°	11235	11196	11274
40°	11086	11044	11086
45°	10914	10869	10914
50°	10751	10650	10675
55°	10500	10472	10415
60°	10236	10172	10107
65°	9933	9819	9704
70°	9347	9300	9111
75°	8796	8609	8359
80°	7810	7624	7345
85°	6299	5743	5372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 10981 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	0.9
10°-20°	198.2	2.5
20°-30°	298.3	3.7
30°-40°	356.9	4.4
40°-50°	368.2	4.6
50°-60°	332.2	4.1
60°-70°	253.5	3.1
70°-80°	145.7	1.8
80°-90°	39.1	0.5
90°-100°	370.7	4.6
100°-110°	1213.9	15.0
110°-120°	1200.1	14.9
120°-130°	981.0	12.2
130°-140°	800.6	9.9
140°-150°	623.0	7.7
150°-160°	448.6	5.6
160°-170°	274.4	3.4
170°-180°	92.7	1.1
0°-30°	565.9	7.0
0°-40°	922.8	11.4
0°-60°	1623.2	20.1
0°-90°	2061.6	25.6
90°-120°	2784.7	34.5
90°-150°	5189.3	64.3
90°-180°	6005.0	74.4
0°-180°	8066.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	726	736	728	729	734	69
15°	698	707	700	703	707	197
25°	645	652	645	646	649	297
35°	570	574	568	570	572	356
45°	478	481	476	477	478	369
55°	373	375	372	370	370	333
65°	260	259	257	255	254	256
75°	141	140	138	135	134	149
85°	34	32	31	28	29	39
90°	1	3	8	7	8	4
95°	52	151	674	240	156	59
105°	211	301	1205	2289	2175	222
115°	380	454	979	2023	2375	375
125°	529	590	965	1595	1874	471
135°	637	704	957	1376	1551	493
145°	745	800	955	1184	1297	467
155°	849	877	961	1059	1100	391
165°	927	936	965	1002	1013	261
175°	969	969	970	977	975	92
180°	973	973	973	973	973	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	734.0	734.0	734.0	734.0	734.0
2.5°	729.2	737.8	730.8	732.4	733.2
5°	726.0	735.8	728.0	729.1	734.0
7.5°	720.0	730.6	722.0	723.9	729.4
10°	716.0	725.8	718.0	719.1	723.0
12.5°	709.6	719.4	711.6	713.5	717.4
15°	698.0	706.8	700.0	703.1	707.0
17.5°	684.6	694.0	686.4	689.1	692.4
20°	675.0	682.8	676.0	677.1	682.0
22.5°	663.0	670.8	664.8	665.1	669.2
25°	645.0	651.8	645.0	646.1	649.0
27.5°	624.4	630.3	624.4	625.5	628.0
30°	610.0	615.9	610.0	611.0	612.0
32.5°	594.0	599.1	593.2	594.3	596.8
35°	570.0	573.9	568.0	570.0	572.0
37.5°	544.4	547.3	542.4	543.4	545.2
40°	526.0	528.9	524.0	525.0	526.0
42.5°	507.6	509.8	504.8	505.8	507.6
45°	478.0	480.9	476.0	477.0	478.0
47.5°	448.0	449.8	445.6	444.8	446.6
50°	428.0	429.0	424.0	424.0	425.0
52.5°	406.4	407.4	404.0	402.4	403.4
55°	373.0	375.0	372.0	370.0	370.0
57.5°	339.4	341.2	337.4	336.4	336.2
60°	317.0	318.0	315.0	314.0	313.0
62.5°	294.6	294.8	291.8	290.8	289.8
65°	260.0	259.0	257.0	255.0	254.0
67.5°	221.2	222.2	220.2	217.0	217.0
70°	198.0	199.0	197.0	193.0	193.0
72.5°	175.6	175.0	173.8	170.6	169.0
75°	141.0	140.0	138.0	135.0	134.0
77.5°	106.4	105.4	104.4	100.6	101.4
80°	84.0	83.0	82.0	79.0	79.0
82.5°	64.0	62.2	61.2	58.2	58.2
85°	34.0	32.0	31.0	28.0	29.0
87.5°	9.8	9.4	9.6	7.8	8.0
90°	1.0	3.0	8.0	7.0	8.0
92.5°	17.0	62.0	190.4	61.9	49.6
95°	52.0	150.7	674.0	240.1	156.0
97.5°	94.4	198.8	1156.3	699.5	433.6
100°	124.0	223.7	1337.9	1194.8	791.9
102.5°	157.6	255.0	1317.9	1760.5	1364.7
105°	211.0	300.9	1204.9	2289.2	2174.8
107.5°	263.6	346.1	1094.7	2338.7	2464.4
110°	298.0	378.2	1041.9	2281.1	2514.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	330.8	408.6	1009.9	2181.0	2480.4
115°	380.0	454.3	978.9	2022.9	2374.8
117.5°	427.8	497.2	967.1	1867.4	2224.8
120°	459.0	524.5	963.9	1776.8	2124.8
122.5°	487.0	550.9	963.9	1698.6	2021.7
125°	529.0	589.6	964.9	1595.2	1873.9
127.5°	564.6	626.3	963.7	1519.0	1761.5
130°	587.0	649.5	962.9	1472.9	1691.9
132.5°	607.0	671.1	960.5	1433.2	1631.9
135°	637.0	704.4	956.9	1375.9	1550.9
137.5°	668.6	735.4	954.7	1316.1	1474.3
140°	690.9	755.5	953.9	1278.3	1427.9
142.5°	713.3	774.0	953.9	1238.0	1373.5
145°	744.9	799.7	954.9	1183.5	1296.9
147.5°	778.1	823.7	956.3	1136.1	1221.7
150°	798.9	839.0	957.9	1108.6	1180.9
152.5°	819.7	855.1	958.7	1085.9	1145.7
155°	848.9	877.3	960.9	1058.9	1099.9
157.5°	875.1	895.7	963.1	1037.6	1067.3
160°	891.9	908.6	963.9	1025.5	1048.9
162.5°	906.3	919.8	963.9	1015.7	1032.9
165°	926.9	935.7	964.9	1002.2	1012.9
167.5°	944.3	948.6	966.1	991.7	997.5
170°	953.9	955.9	966.9	986.0	987.9
172.5°	961.1	962.3	969.3	981.9	982.3
175°	968.9	968.9	969.9	976.9	974.9
177.5°	972.9	972.1	971.3	976.1	972.9
180°	972.9	972.9	972.9	972.9	972.9



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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	13.71	14.39	14.85	15.52	17.10	13.63	14.31	14.77	15.44	17.02
	3H	15.47	16.08	16.62	17.22	18.82	15.35	15.96	16.50	17.10	18.70
	4H	16.12	16.71	17.28	17.85	19.45	15.97	16.55	17.13	17.69	19.29
	6H	16.58	17.12	17.75	18.26	19.87	16.40	16.93	17.56	18.08	19.69
	8H	16.72	17.23	17.88	18.38	19.99	16.51	17.02	17.68	18.18	19.79
	12H	16.78	17.27	17.96	18.42	20.05	16.56	17.04	17.73	18.19	19.82
4H	2H	14.24	14.82	15.40	15.96	17.56	14.17	14.75	15.34	15.89	17.50
	3H	16.21	16.69	17.38	17.86	19.47	16.10	16.58	17.27	17.75	19.36
	4H	16.99	17.44	18.16	18.59	20.22	16.85	17.29	18.02	18.45	20.08
	6H	17.57	17.95	18.74	19.13	20.75	17.39	17.77	18.57	18.95	20.57
	8H	17.75	18.11	18.93	19.28	20.92	17.55	17.91	18.73	19.07	20.71
	12H	17.84	18.17	19.04	19.35	20.99	17.62	17.94	18.81	19.12	20.76
8H	4H	17.22	17.58	18.40	18.75	20.39	17.09	17.45	18.27	18.62	20.26
	6H	17.93	18.22	19.13	19.43	21.07	17.76	18.06	18.96	19.27	20.91
	8H	18.20	18.45	19.40	19.64	21.30	18.00	18.26	19.20	19.45	21.10
	12H	18.35	18.58	19.56	19.77	21.45	18.13	18.35	19.33	19.54	21.23
12H	4H	17.21	17.53	18.40	18.71	20.35	17.08	17.41	18.28	18.59	20.23
	6H	17.97	18.23	19.17	19.42	21.07	17.81	18.07	19.01	19.26	20.91
	8H	18.26	18.48	19.46	19.67	21.35	18.07	18.29	19.27	19.48	21.17