

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: P853900

Luminaire Tested: SQ2-FB-150U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853900
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-150U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

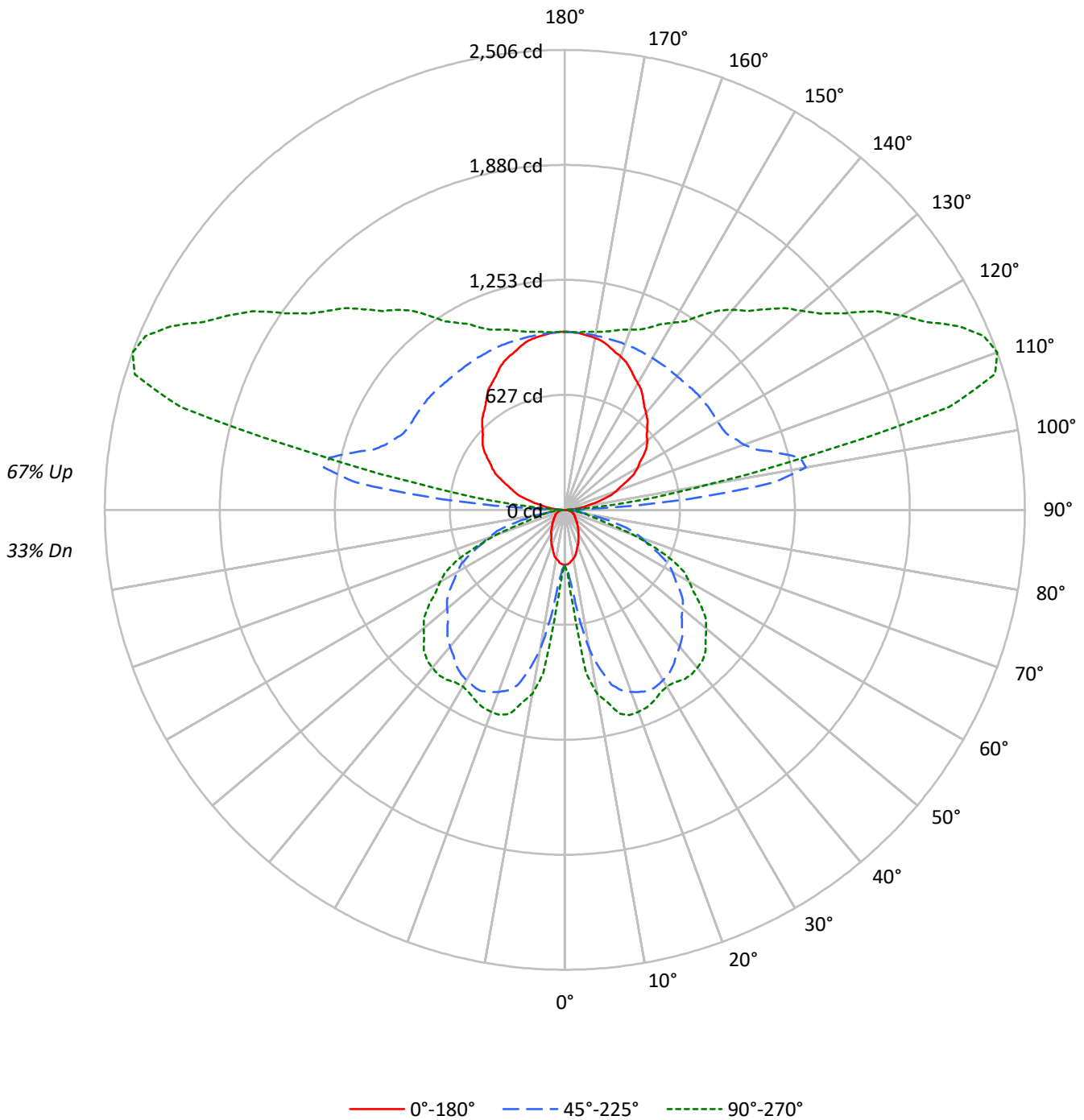
Lumens per Lamp: N/A
Luminaire Lumens: 8950.9 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 83.3
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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	82	84	81	78	75	65	62	60	50	48	47	36	35	34	28
2	85	78	72	67	77	70	65	61	56	53	50	43	41	39	31	30	28	23
3	78	68	61	55	70	62	55	50	49	45	41	38	35	32	27	25	24	19
4	71	60	52	46	63	54	48	42	43	39	35	33	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	30	30	26	23	21	19	17	14
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	22	18	23	19	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4845	4845	4845
5°	4723	6546	8580
10°	4423	12677	16698
15°	4003	16493	19218
20°	3545	18144	20127
25°	3135	19402	20457
30°	2770	19982	20709
35°	2474	20329	22263
40°	2251	20523	23655
45°	2076	20621	24770
50°	1957	21017	25219
55°	1909	21562	25422
60°	1957	21849	25294
65°	2040	21547	24581
70°	2110	20837	18590
75°	2339	18721	10262
80°	2417	9661	9521
85°	2408	6688	4001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 25650 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.3	0.6
10°-20°	229.5	2.6
20°-30°	403.7	4.5
30°-40°	522.6	5.8
40°-50°	576.4	6.4
50°-60°	538.2	6.0
60°-70°	415.9	4.6
70°-80°	191.8	2.1
80°-90°	37.7	0.4
90°-100°	369.5	4.1
100°-110°	1209.8	13.5
110°-120°	1196.0	13.4
120°-130°	977.7	10.9
130°-140°	797.9	8.9
140°-150°	620.9	6.9
150°-160°	447.1	5.0
160°-170°	273.5	3.1
170°-180°	92.4	1.0
0°-30°	683.5	7.6
0°-40°	1206.1	13.5
0°-60°	2320.6	25.9
0°-90°	2966.1	33.1
90°-120°	2775.3	31.0
90°-150°	5171.8	57.8
90°-180°	5985.0	66.9
0°-180°	8950.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	291	334	404	493	529	27
15°	240	472	987	1105	1150	67
25°	176	634	1089	1137	1148	81
35°	126	612	1031	1068	1130	79
45°	91	469	903	1037	1085	70
55°	68	279	766	880	903	61
65°	53	158	564	632	643	52
75°	38	97	300	162	164	38
85°	13	28	36	24	22	14
90°	1	3	8	7	8	3
95°	52	150	672	239	156	59
105°	210	300	1201	2282	2168	222
115°	379	453	976	2016	2367	374
125°	527	588	962	1590	1868	469
135°	635	702	954	1371	1546	491
145°	742	797	952	1180	1292	465
155°	846	874	958	1055	1096	390
165°	924	933	962	999	1010	260
175°	966	966	967	974	972	92
180°	970	970	970	970	970	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	300.1	300.1	300.1	300.1	300.1
2.5°	297.7	310.2	324.3	340.6	347.4
5°	291.4	333.7	403.9	492.8	529.4
7.5°	280.1	366.2	587.4	825.1	898.4
10°	269.8	389.7	773.2	979.0	1018.5
12.5°	258.2	421.0	889.8	1034.4	1075.0
15°	239.5	472.2	986.7	1104.6	1149.7
17.5°	220.1	529.9	1031.7	1148.0	1172.5
20°	206.3	570.2	1056.0	1155.9	1171.4
22.5°	193.6	600.4	1073.3	1149.0	1165.6
25°	176.0	634.4	1089.1	1137.0	1148.3
27.5°	159.0	643.3	1082.2	1113.6	1124.6
30°	148.6	640.9	1071.8	1095.3	1110.8
32.5°	139.4	633.9	1056.8	1079.5	1113.1
35°	125.5	612.1	1031.4	1067.5	1129.5
37.5°	113.7	577.2	998.0	1071.8	1131.6
40°	106.8	551.1	973.7	1071.5	1122.3
42.5°	99.8	520.4	946.0	1060.0	1110.8
45°	90.9	468.9	903.1	1036.9	1084.8
47.5°	82.5	410.9	863.2	1004.8	1039.8
50°	77.9	371.3	836.7	975.8	1004.0
52.5°	73.3	332.8	810.2	941.2	967.1
55°	67.8	279.4	766.0	880.5	903.1
57.5°	62.9	233.6	715.8	813.5	831.8
60°	60.6	208.7	676.6	765.0	783.3
62.5°	57.1	186.0	632.7	714.2	731.4
65°	53.4	157.8	564.0	632.1	643.4
67.5°	48.2	136.8	491.1	532.7	511.5
70°	44.7	126.5	441.4	454.5	393.8
72.5°	42.4	115.2	387.2	352.8	238.0
75°	37.5	96.7	300.1	161.6	164.5
77.5°	30.6	74.9	197.3	124.1	126.7
80°	26.0	61.2	103.9	101.0	102.4
82.5°	21.4	47.6	71.6	74.4	72.4
85°	13.0	28.5	36.1	24.5	21.6
87.5°	4.8	10.8	7.4	7.2	7.4
90°	1.0	2.9	8.0	7.0	8.0
92.5°	16.9	61.8	189.7	61.7	49.4
95°	51.8	150.2	671.7	239.3	155.5
97.5°	94.1	198.1	1152.4	697.1	432.1
100°	123.6	223.0	1333.4	1190.7	789.3
102.5°	157.1	254.1	1313.5	1754.5	1360.1
105°	210.3	299.9	1200.8	2281.5	2167.5
107.5°	262.7	344.9	1091.0	2330.8	2456.1
110°	297.0	376.9	1038.4	2273.4	2506.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	329.7	407.2	1006.5	2173.7	2472.0
115°	378.7	452.7	975.6	2016.0	2366.8
117.5°	426.3	495.5	963.9	1861.1	2217.3
120°	457.4	522.7	960.7	1770.8	2117.7
122.5°	485.3	549.0	960.7	1692.9	2014.8
125°	527.2	587.6	961.7	1589.8	1867.5
127.5°	562.7	624.2	960.5	1513.9	1755.5
130°	585.0	647.3	959.7	1467.9	1686.2
132.5°	604.9	668.8	957.3	1428.4	1626.4
135°	634.8	702.0	953.7	1371.2	1545.6
137.5°	666.3	732.9	951.5	1311.7	1469.3
140°	688.6	752.9	950.7	1274.0	1423.1
142.5°	710.9	771.4	950.7	1233.8	1368.9
145°	742.4	797.0	951.7	1179.5	1292.5
147.5°	775.5	820.9	953.1	1132.2	1217.6
150°	796.2	836.2	954.7	1104.8	1176.9
152.5°	817.0	852.2	955.5	1082.2	1141.8
155°	846.1	874.3	957.7	1055.3	1096.2
157.5°	872.2	892.6	959.9	1034.1	1063.7
160°	888.9	905.5	960.7	1022.0	1045.4
162.5°	903.3	916.7	960.7	1012.3	1029.4
165°	923.8	932.6	961.7	998.8	1009.5
167.5°	941.1	945.4	962.9	988.3	994.2
170°	950.7	952.7	963.7	982.6	984.6
172.5°	957.9	959.1	966.1	978.6	979.0
175°	965.7	965.7	966.7	973.6	971.6
177.5°	969.6	968.9	968.0	972.8	969.6
180°	969.6	969.6	969.6	969.6	969.6



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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	10.76	11.50	11.84	12.59	14.08	19.49	20.24	20.58	21.33	22.82
	3H	11.48	12.14	12.57	13.24	14.75	21.11	21.77	22.20	22.87	24.38
	4H	11.77	12.41	12.88	13.50	15.02	21.28	21.91	22.39	23.01	24.53
	6H	11.98	12.56	13.10	13.66	15.19	21.36	21.94	22.48	23.04	24.57
	8H	12.04	12.59	13.16	13.71	15.23	21.36	21.92	22.48	23.03	24.55
	12H	12.06	12.59	13.18	13.70	15.24	21.33	21.85	22.45	22.96	24.51
4H	2H	15.14	15.77	16.25	16.87	18.38	19.92	20.55	21.03	21.65	23.17
	3H	16.06	16.59	17.18	17.71	19.24	21.74	22.26	22.85	23.39	24.91
	4H	16.34	16.82	17.46	17.94	19.48	21.97	22.45	23.09	23.57	25.11
	6H	16.46	16.88	17.59	18.01	19.55	22.11	22.52	23.24	23.66	25.20
	8H	16.48	16.87	17.61	18.00	19.55	22.13	22.52	23.26	23.64	25.20
	12H	16.47	16.82	17.62	17.96	19.52	22.10	22.45	23.24	23.59	25.15
8H	4H	17.50	17.89	18.64	19.02	20.58	22.08	22.46	23.21	23.59	25.15
	6H	17.74	18.05	18.89	19.23	20.78	22.28	22.59	23.43	23.76	25.32
	8H	17.81	18.08	18.96	19.23	20.81	22.34	22.61	23.49	23.76	25.34
	12H	17.83	18.07	18.99	19.22	20.83	22.32	22.57	23.48	23.71	25.32
12H	4H	17.52	17.87	18.66	19.01	20.57	22.02	22.37	23.17	23.51	25.07
	6H	17.83	18.11	18.99	19.26	20.83	22.26	22.54	23.41	23.69	25.26
	8H	17.93	18.17	19.09	19.32	20.93	22.32	22.56	23.48	23.71	25.32