

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: P853840

Luminaire Tested: SQ2-FB-050U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-050U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

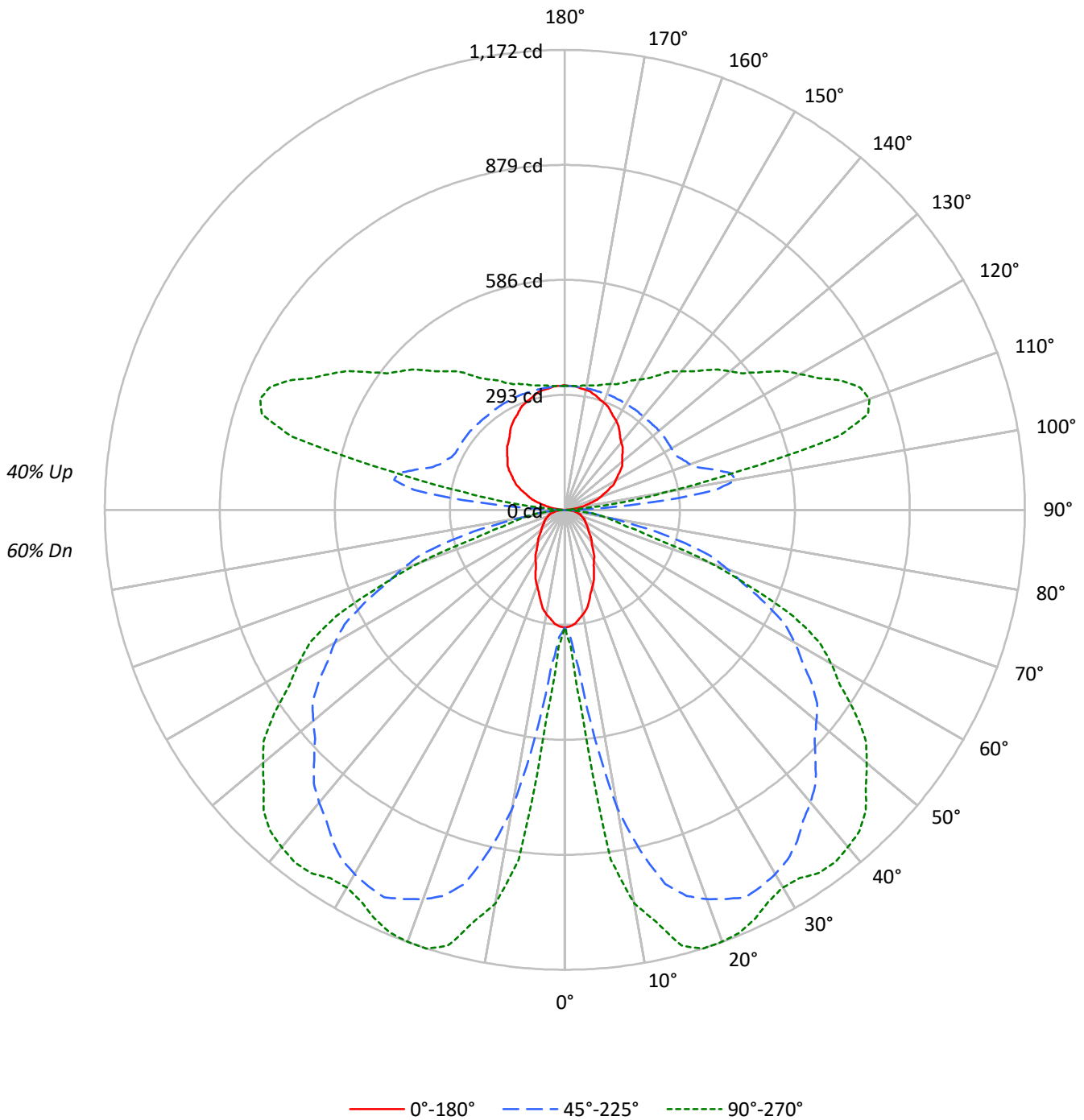
Lumens per Lamp: N/A
Luminaire Lumens: 4930.9 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.5
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																		
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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	60																
1	100	95	91	88	93	89	86	83	78	75	73	67	65	64	58	56	55	55	55	55	55	55	55	55	55	55	55	55	55	50																
2	91	83	76	71	84	78	72	67	68	63	60	59	55	52	50	48	46	46	46	46	46	46	46	46	46	46	46	46	46	41																
3	82	72	65	58	76	68	61	55	59	54	49	51	47	44	44	41	38	38	38	38	38	38	38	38	38	38	38	38	38	34																
4	75	64	55	49	70	60	52	46	52	46	42	45	41	37	39	35	32	32	32	32	32	32	32	32	32	32	32	32	32	29																
5	69	56	48	41	64	53	45	39	46	40	35	40	35	31	34	31	28	28	28	28	28	28	28	28	28	28	28	28	28	25																
6	63	50	42	36	58	47	39	34	41	35	30	36	31	27	31	27	24	24	24	24	24	24	24	24	24	24	24	24	24	21																
7	58	45	37	31	54	42	35	29	37	31	27	33	27	24	28	24	21	21	21	21	21	21	21	21	21	21	21	21	21	18																
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	21	18	18	18	18	18	18	18	18	18	18	18	18	18	16																
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	16	16	16	16	16	16	16	16	16	16	16	16	14																
10	46	34	26	21	43	32	25	20	28	22	18	25	20	17	22	18	15	15	15	15	15	15	15	15	15	15	15	15	15	13																

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	1.0
10°-20°	229.5	4.7
20°-30°	403.7	8.2
30°-40°	522.6	10.6
40°-50°	576.4	11.7
50°-60°	538.2	10.9
60°-70°	415.9	8.4
70°-80°	191.8	3.9
80°-90°	37.0	0.8
90°-100°	126.1	2.6
100°-110°	399.9	8.1
110°-120°	392.1	8.0
120°-130°	319.0	6.5
130°-140°	260.1	5.3
140°-150°	202.8	4.1
150°-160°	146.1	3.0
160°-170°	89.3	1.8
170°-180°	30.1	0.6
0°-30°	683.5	13.9
0°-40°	1206.1	24.5
0°-60°	2320.6	47.1
0°-90°	2965.4	60.1
90°-120°	918.0	18.6
90°-150°	1700.0	34.5
90°-180°	1966.0	39.9
0°-180°	4930.9	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°	0	1	3	3	3	1
95°	17	51	229	85	55	20
105°	70	98	394	751	720	73
115°	124	148	318	662	778	123
125°	172	193	314	519	611	153
135°	208	228	312	446	503	161
145°	243	261	312	385	419	152
155°	277	286	312	344	357	128
165°	302	304	314	326	328	85
175°	316	315	316	318	316	30
180°	316	316	316	316	316	



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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°	4.6	10.5	6.4	6.4	6.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.1	70.7	23.5	16.5
95°	16.9	51.0	228.9	84.9	54.7
97.5°	31.5	66.1	387.8	242.3	148.7
100°	41.8	74.9	441.9	402.9	261.8
102.5°	53.0	84.5	432.4	591.7	452.9
105°	69.7	97.9	394.2	750.8	719.6
107.5°	86.4	112.5	357.7	767.4	809.4
110°	97.5	122.8	339.4	748.3	826.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.7	132.4	329.1	715.3	814.2
115°	124.4	147.8	318.5	661.6	778.4
117.5°	139.7	161.9	314.3	609.8	727.6
120°	149.3	170.7	313.5	577.9	691.8
122.5°	158.9	179.5	313.5	552.2	658.3
125°	172.2	192.6	313.5	518.7	611.1
127.5°	183.9	203.6	313.5	492.7	571.5
130°	191.1	211.5	313.5	477.4	548.4
132.5°	198.3	218.7	312.7	465.3	529.3
135°	208.0	228.5	311.5	446.2	502.7
137.5°	217.6	239.0	311.3	428.0	478.4
140°	224.0	245.4	310.5	415.1	460.8
142.5°	231.9	252.5	311.3	402.3	444.9
145°	242.9	261.4	311.5	385.0	419.0
147.5°	253.8	269.6	311.7	369.7	397.5
150°	261.8	274.4	312.5	360.8	383.2
152.5°	268.1	279.2	312.5	353.6	372.1
155°	276.7	286.4	312.5	343.7	357.3
157.5°	285.9	292.5	313.5	337.6	347.0
160°	290.6	296.5	313.5	333.6	341.4
162.5°	295.4	299.7	313.5	330.4	335.8
165°	301.6	304.5	313.5	325.5	328.5
167.5°	307.4	308.1	314.5	322.2	324.7
170°	310.5	310.5	314.5	320.5	321.5
172.5°	312.1	312.9	314.5	318.9	319.1
175°	315.5	314.6	315.5	317.5	316.5
177.5°	316.5	315.7	315.7	317.3	315.7
180°	316.5	316.5	316.5	316.5	316.5



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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	13.42	14.42	14.28	15.30	16.42	22.16	23.15	23.02	24.04	25.15
	3H	14.16	15.06	15.03	15.95	17.09	23.79	24.68	24.66	25.58	26.72
	4H	14.47	15.31	15.36	16.21	17.37	23.98	24.82	24.87	25.72	26.88
	6H	14.69	15.47	15.59	16.38	17.54	24.07	24.85	24.97	25.76	26.92
	8H	14.76	15.50	15.66	16.42	17.59	24.08	24.82	24.99	25.75	26.91
	12H	14.79	15.49	15.70	16.41	17.61	24.06	24.76	24.97	25.68	26.87
4H	2H	17.84	18.68	18.73	19.58	20.73	22.62	23.46	23.51	24.36	25.51
	3H	18.78	19.49	19.69	20.42	21.59	24.46	25.16	25.36	26.09	27.26
	4H	19.07	19.71	19.99	20.64	21.83	24.70	25.34	25.62	26.27	27.46
	6H	19.21	19.77	20.14	20.72	21.91	24.85	25.41	25.79	26.36	27.55
	8H	19.24	19.75	20.17	20.70	21.91	24.88	25.40	25.82	26.35	27.55
	12H	19.23	19.70	20.19	20.66	21.88	24.86	25.33	25.82	26.29	27.51
8H	4H	20.26	20.78	21.19	21.72	22.93	24.83	25.35	25.76	26.29	27.50
	6H	20.50	20.93	21.46	21.92	23.12	25.04	25.47	26.00	26.46	27.66
	8H	20.58	20.95	21.55	21.93	23.15	25.11	25.48	26.07	26.46	27.68
	12H	20.61	20.94	21.58	21.91	23.18	25.10	25.44	26.08	26.41	27.68
12H	4H	20.28	20.75	21.24	21.71	22.93	24.79	25.25	25.74	26.22	27.43
	6H	20.60	20.98	21.57	21.95	23.18	25.03	25.40	26.00	26.38	27.61
	8H	20.71	21.04	21.68	22.01	23.28	25.10	25.43	26.07	26.40	27.68