

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: P855007

Luminaire Tested: SQ2-FB-150U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855007
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-050D-830-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

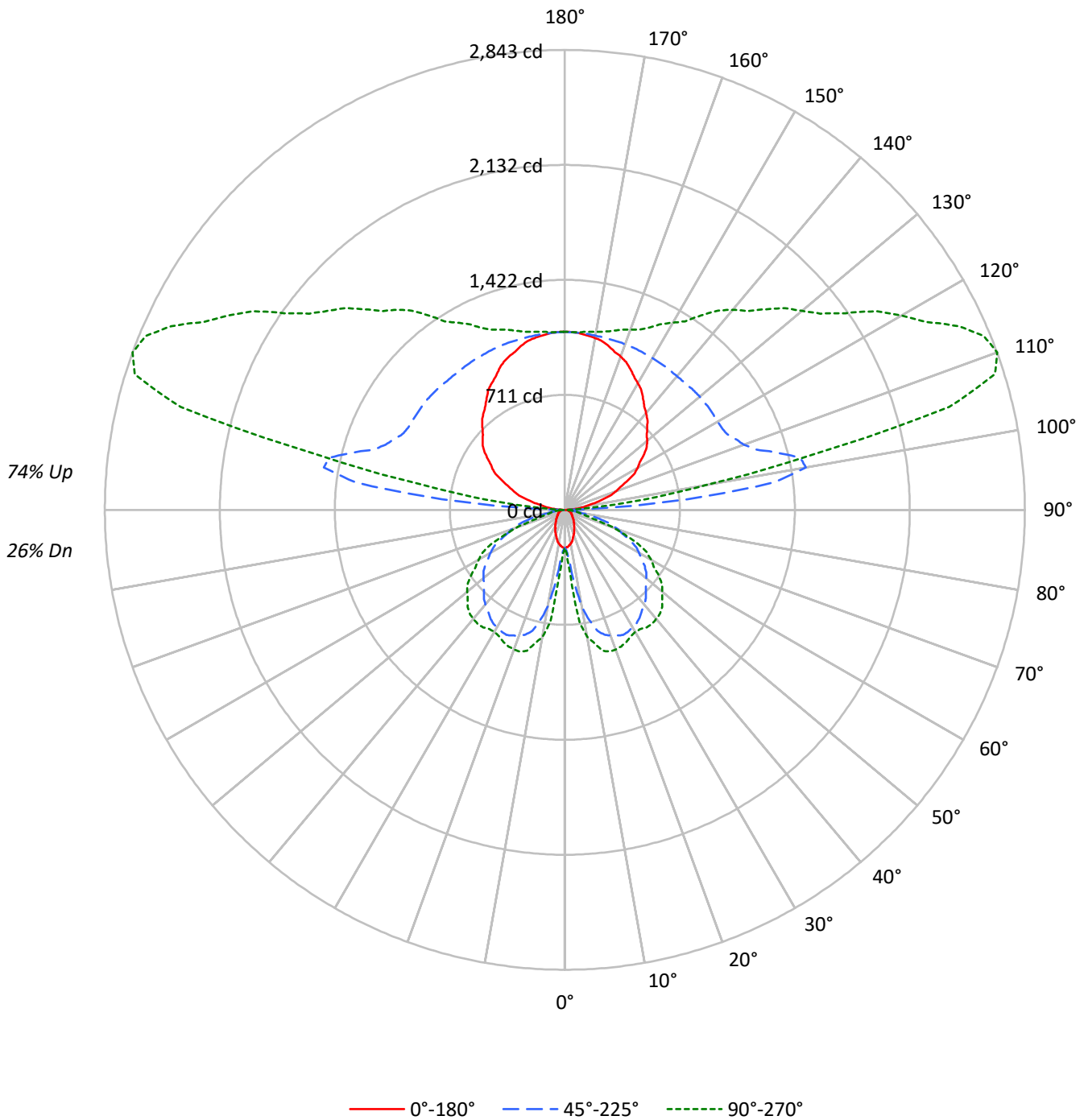
Lumens per Lamp: N/A
Luminaire Lumens: 9114.7 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 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	0
RCR																		
0	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	88	84	81	82	79	75	73	61	59	57	45	43	42	30	29	28	21
2	84	77	71	66	74	68	63	59	53	50	47	39	37	35	26	24	23	18
3	76	67	60	54	68	60	54	49	46	42	39	34	31	29	23	21	20	15
4	69	59	51	45	62	53	46	41	41	36	33	30	27	25	20	18	17	12
5	63	52	44	39	56	47	40	35	36	32	28	27	24	21	18	16	14	10
6	58	47	39	33	52	42	35	30	33	28	24	24	21	18	16	14	12	9
7	54	42	34	29	48	37	31	26	29	24	21	22	18	16	14	12	11	8
8	50	38	30	25	44	34	27	23	26	22	18	20	16	14	13	11	9	7
9	46	34	27	22	41	31	24	20	24	19	16	18	15	12	12	10	8	6
10	43	31	24	19	38	28	22	18	22	17	14	16	13	11	11	9	8	5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3798	3798	3798
5°	3702	5131	6724
10°	3466	9935	13086
15°	3137	12928	15062
20°	2778	14220	15775
25°	2457	15207	16033
30°	2172	15662	16231
35°	1940	15934	17450
40°	1764	16086	18539
45°	1626	16162	19413
50°	1535	16473	19766
55°	1495	16901	19924
60°	1534	17124	19824
65°	1597	16890	19266
70°	1652	16334	14573
75°	1834	14672	8041
80°	1897	7569	7466
85°	1890	5243	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 20104 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	0.4
10°-20°	179.9	2.0
20°-30°	316.4	3.5
30°-40°	409.6	4.5
40°-50°	451.7	5.0
50°-60°	421.8	4.6
60°-70°	326.0	3.6
70°-80°	150.4	1.6
80°-90°	29.9	0.3
90°-100°	419.2	4.6
100°-110°	1372.5	15.1
110°-120°	1356.9	14.9
120°-130°	1109.2	12.2
130°-140°	905.1	9.9
140°-150°	704.4	7.7
150°-160°	507.2	5.6
160°-170°	310.3	3.4
170°-180°	104.8	1.2
0°-30°	535.7	5.9
0°-40°	945.3	10.4
0°-60°	1818.8	20.0
0°-90°	2325.1	25.5
90°-120°	3148.5	34.5
90°-150°	5867.2	64.4
90°-180°	6790.0	74.5
0°-180°	9114.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	235	235	235	235	235	
5°	228	262	317	386	415	21
15°	188	370	773	866	901	52
25°	138	497	854	891	900	63
35°	98	480	808	837	885	62
45°	71	368	708	813	850	55
55°	53	219	600	690	708	48
65°	42	124	442	495	504	41
75°	29	76	235	127	129	30
85°	10	22	28	19	17	11
90°	1	3	9	8	9	3
95°	59	170	762	272	176	67
105°	239	340	1362	2588	2459	251
115°	430	514	1107	2287	2685	424
125°	598	667	1091	1804	2119	532
135°	720	796	1082	1556	1754	557
145°	842	904	1080	1338	1466	528
155°	960	992	1086	1197	1244	442
165°	1048	1058	1091	1133	1145	295
175°	1096	1096	1097	1104	1102	104
180°	1100	1100	1100	1100	1100	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	235.2	235.2	235.2	235.2	235.2
2.5°	233.4	243.1	254.2	266.9	272.3
5°	228.4	261.5	316.6	386.2	414.9
7.5°	219.6	287.0	460.4	646.7	704.2
10°	211.4	305.4	606.0	767.3	798.2
12.5°	202.4	329.9	697.4	810.7	842.6
15°	187.7	370.1	773.4	865.7	901.1
17.5°	172.5	415.3	808.6	899.8	919.0
20°	161.7	446.9	827.6	906.0	918.1
22.5°	151.7	470.6	841.2	900.6	913.6
25°	137.9	497.3	853.6	891.2	900.0
27.5°	124.6	504.3	848.2	872.9	881.4
30°	116.5	502.2	840.1	858.5	870.6
32.5°	109.2	496.8	828.3	846.1	872.4
35°	98.4	479.7	808.4	836.7	885.3
37.5°	89.1	452.4	782.2	840.0	886.9
40°	83.7	431.9	763.2	839.8	879.6
42.5°	78.2	407.9	741.5	830.8	870.6
45°	71.2	367.5	707.8	812.7	850.2
47.5°	64.7	322.0	676.6	787.6	815.0
50°	61.1	291.0	655.8	764.8	786.9
52.5°	57.4	260.8	635.0	737.6	758.0
55°	53.1	219.0	600.4	690.1	707.8
57.5°	49.3	183.1	561.0	637.6	651.9
60°	47.5	163.6	530.3	599.6	613.9
62.5°	44.8	145.9	495.9	559.8	573.2
65°	41.8	123.7	442.1	495.4	504.3
67.5°	37.8	107.2	384.9	417.5	400.9
70°	35.0	99.2	346.0	356.2	308.7
72.5°	33.2	90.3	303.5	276.6	186.6
75°	29.4	75.9	235.2	126.6	128.9
77.5°	24.0	58.7	154.7	97.2	99.3
80°	20.4	47.9	81.4	79.1	80.3
82.5°	16.7	37.3	56.1	58.3	56.8
85°	10.2	22.4	28.3	19.2	17.0
87.5°	3.8	8.7	6.3	6.1	6.3
90°	1.1	3.4	9.0	7.9	9.0
92.5°	19.2	70.1	215.3	70.0	56.1
95°	58.8	170.4	762.1	271.5	176.4
97.5°	106.7	224.8	1307.4	790.9	490.2
100°	140.2	252.9	1512.7	1350.9	895.4
102.5°	178.2	288.3	1490.1	1990.5	1543.0
105°	238.6	340.2	1362.3	2588.3	2458.9
107.5°	298.0	391.3	1237.7	2644.2	2786.4
110°	336.9	427.6	1178.0	2579.1	2843.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	374.0	462.0	1141.8	2465.9	2804.4
115°	429.6	513.7	1106.8	2287.2	2685.1
117.5°	483.7	562.2	1093.4	2111.4	2515.5
120°	519.0	593.0	1089.8	2008.9	2402.4
122.5°	550.6	622.9	1089.8	1920.5	2285.8
125°	598.1	666.6	1091.0	1803.6	2118.7
127.5°	638.4	708.1	1089.6	1717.4	1991.6
130°	663.7	734.4	1088.7	1665.3	1912.9
132.5°	686.3	758.8	1086.0	1620.4	1845.1
135°	720.2	796.4	1081.9	1555.7	1753.5
137.5°	755.9	831.5	1079.4	1488.0	1666.9
140°	781.2	854.2	1078.5	1445.3	1614.4
142.5°	806.5	875.1	1078.5	1399.7	1552.9
145°	842.2	904.2	1079.7	1338.1	1466.3
147.5°	879.8	931.3	1081.2	1284.5	1381.3
150°	903.3	948.6	1083.0	1253.4	1335.2
152.5°	926.8	966.8	1083.9	1227.8	1295.4
155°	959.8	991.9	1086.4	1197.2	1243.6
157.5°	989.4	1012.7	1088.9	1173.2	1206.7
160°	1008.4	1027.3	1089.8	1159.5	1185.9
162.5°	1024.7	1040.0	1089.8	1148.4	1167.8
165°	1048.0	1057.9	1091.0	1133.1	1145.2
167.5°	1067.7	1072.5	1092.3	1121.3	1127.8
170°	1078.5	1080.8	1093.2	1114.8	1117.0
172.5°	1086.7	1088.0	1095.9	1110.2	1110.6
175°	1095.5	1095.5	1096.6	1104.5	1102.3
177.5°	1100.0	1099.1	1098.2	1103.6	1100.0
180°	1100.0	1100.0	1100.0	1100.0	1100.0



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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	8.85	9.54	9.99	10.67	12.25	17.59	18.28	18.73	19.41	20.99
	3H	9.57	10.18	10.71	11.32	12.92	19.20	19.81	20.34	20.95	22.55
	4H	9.86	10.45	11.02	11.59	13.19	19.37	19.95	20.52	21.09	22.70
	6H	10.07	10.61	11.23	11.75	13.36	19.44	19.98	20.61	21.12	22.74
	8H	10.12	10.63	11.29	11.79	13.40	19.44	19.96	20.61	21.11	22.72
	12H	10.14	10.63	11.31	11.78	13.41	19.41	19.89	20.58	21.05	22.67
4H	2H	13.23	13.81	14.39	14.95	16.56	18.01	18.59	19.17	19.73	21.34
	3H	14.14	14.63	15.31	15.80	17.41	19.82	20.30	20.99	21.47	23.08
	4H	14.42	14.87	15.59	16.02	17.66	20.05	20.50	21.22	21.65	23.28
	6H	14.54	14.92	15.72	16.10	17.72	20.18	20.57	21.36	21.74	23.36
	8H	14.56	14.91	15.73	16.08	17.72	20.20	20.56	21.38	21.73	23.37
	12H	14.54	14.86	15.73	16.04	17.69	20.17	20.49	21.36	21.67	23.32
8H	4H	15.58	15.94	16.75	17.11	18.75	20.15	20.51	21.32	21.68	23.32
	6H	15.81	16.10	17.00	17.31	18.95	20.35	20.64	21.54	21.85	23.49
	8H	15.88	16.13	17.08	17.32	18.98	20.40	20.66	21.61	21.85	23.51
	12H	15.89	16.12	17.10	17.31	18.99	20.39	20.62	21.59	21.80	23.49
12H	4H	15.59	15.91	16.78	17.09	18.74	20.09	20.42	21.28	21.60	23.24
	6H	15.90	16.16	17.10	17.34	19.00	20.33	20.58	21.53	21.77	23.43
	8H	15.99	16.22	17.20	17.41	19.09	20.39	20.61	21.59	21.80	23.49