

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: P853902

Luminaire Tested: SQ2-FB-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853902
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

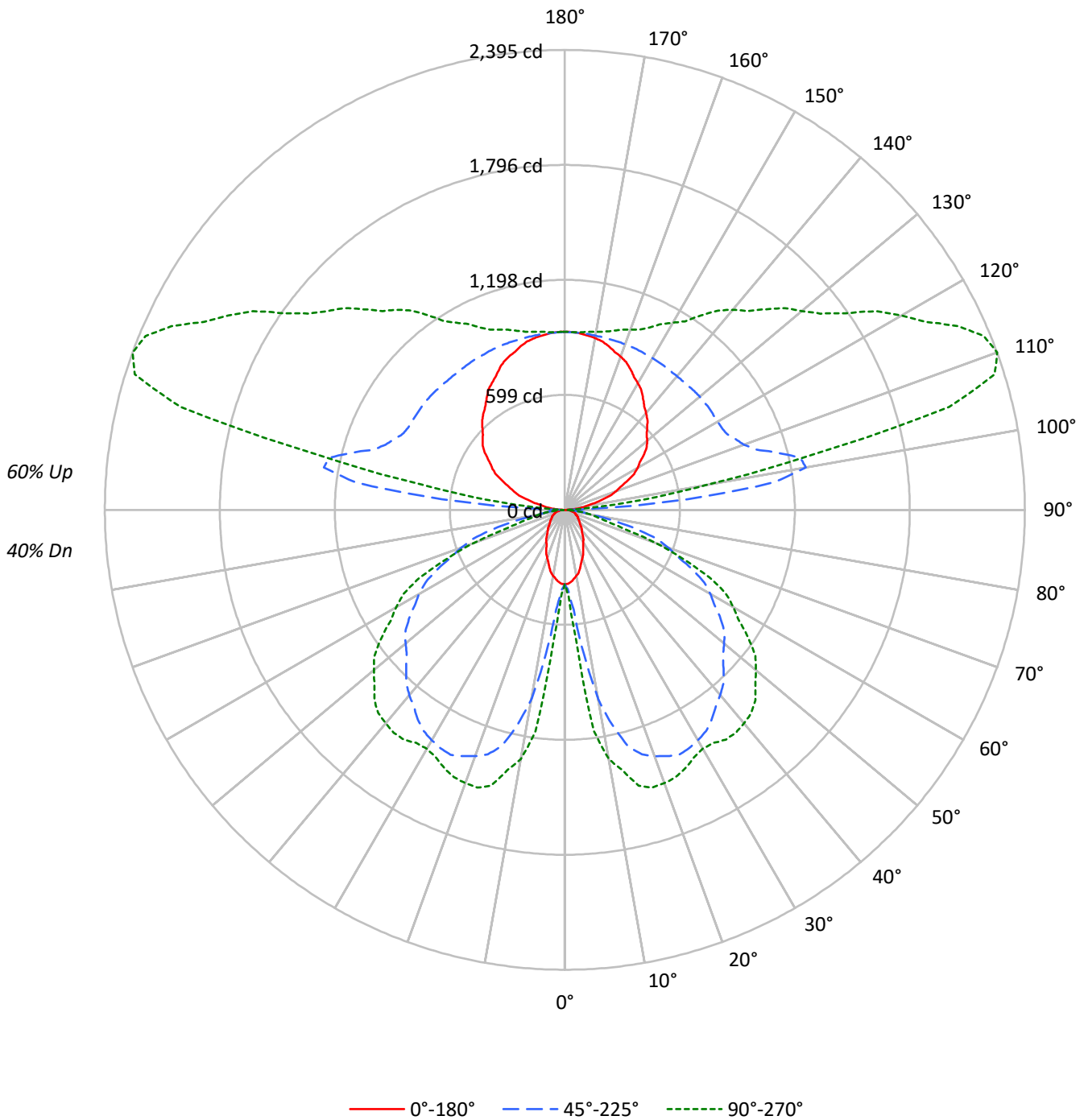
Lumens per Lamp: N/A
Luminaire Lumens: 9553.9 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.2
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	84	87	83	80	77	68	66	64	54	53	51	41	40	39	34
2	87	79	73	68	79	72	67	62	59	55	52	47	45	42	36	34	33	28
3	79	69	62	56	71	63	57	52	52	47	43	41	38	35	32	29	27	23
4	72	61	53	47	65	56	49	43	46	41	36	36	33	30	28	25	23	19
5	66	54	46	40	59	49	42	37	41	35	31	32	28	25	25	22	20	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	55	43	35	30	50	40	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	32	26	21	27	22	18	22	18	15	17	14	12	10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6265	6265	6265
5°	6107	8465	11096
10°	5719	16393	21592
15°	5177	21329	24852
20°	4584	23462	26027
25°	4055	25091	26453
30°	3581	25840	26780
35°	3199	26290	28791
40°	2909	26540	30589
45°	2683	26665	32031
50°	2529	27178	32614
55°	2469	27885	32873
60°	2528	28252	32708
65°	2636	27866	31786
70°	2729	26946	24043
75°	3026	24205	13269
80°	3124	12487	12311
85°	3112	8633	5187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 33169 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	0.7
10°-20°	296.7	3.1
20°-30°	522.1	5.5
30°-40°	675.8	7.1
40°-50°	745.3	7.8
50°-60°	695.9	7.3
60°-70°	537.9	5.6
70°-80°	248.1	2.6
80°-90°	48.4	0.5
90°-100°	353.0	3.7
100°-110°	1156.0	12.1
110°-120°	1142.9	12.0
120°-130°	934.2	9.8
130°-140°	762.4	8.0
140°-150°	593.3	6.2
150°-160°	427.2	4.5
160°-170°	261.4	2.7
170°-180°	88.3	0.9
0°-30°	883.8	9.3
0°-40°	1559.6	16.3
0°-60°	3000.8	31.4
0°-90°	3835.2	40.1
90°-120°	2651.9	27.8
90°-150°	4941.9	51.7
90°-180°	5719.0	59.9
0°-180°	9553.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	388	388	388	388	388	
5°	377	432	522	637	685	35
15°	310	611	1276	1428	1487	86
25°	228	820	1408	1470	1485	105
35°	162	792	1334	1380	1461	102
45°	118	606	1168	1341	1403	91
55°	88	361	991	1139	1168	79
65°	69	204	729	817	832	68
75°	48	125	388	209	213	50
85°	17	37	47	32	28	17
90°	1	3	8	7	8	3
95°	50	144	642	229	149	56
105°	201	287	1148	2180	2071	212
115°	362	433	932	1926	2262	357
125°	504	562	919	1519	1784	448
135°	607	671	911	1310	1477	469
145°	709	762	909	1127	1235	445
155°	808	836	915	1008	1048	372
165°	883	891	919	954	965	249
175°	923	923	924	930	928	88
180°	926	926	926	926	926	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	388.0	388.0	388.0	388.0	388.0
2.5°	385.0	401.1	419.4	440.4	449.2
5°	376.8	431.5	522.3	637.2	684.6
7.5°	362.3	473.5	759.6	1067.0	1161.8
10°	348.8	503.9	999.9	1265.9	1317.0
12.5°	333.9	544.4	1150.6	1337.6	1390.1
15°	309.7	610.6	1276.0	1428.4	1486.8
17.5°	284.7	685.2	1334.2	1484.5	1516.3
20°	266.8	737.4	1365.5	1494.7	1514.8
22.5°	250.3	776.4	1387.9	1485.8	1507.3
25°	227.6	820.4	1408.4	1470.3	1484.9
27.5°	205.6	831.9	1399.5	1440.1	1454.3
30°	192.1	828.7	1386.0	1416.3	1436.4
32.5°	180.2	819.7	1366.6	1396.0	1439.4
35°	162.3	791.6	1333.8	1380.4	1460.7
37.5°	147.0	746.4	1290.5	1385.9	1463.3
40°	138.0	712.6	1259.2	1385.7	1451.3
42.5°	129.1	673.0	1223.4	1370.7	1436.4
45°	117.5	606.4	1167.8	1340.8	1402.8
47.5°	106.7	531.3	1116.3	1299.4	1344.6
50°	100.7	480.1	1082.0	1261.9	1298.4
52.5°	94.8	430.4	1047.6	1217.0	1250.6
55°	87.7	361.3	990.6	1138.6	1167.8
57.5°	81.3	302.0	925.6	1051.9	1075.6
60°	78.3	269.9	874.9	989.2	1012.9
62.5°	73.9	240.6	818.2	923.5	945.8
65°	69.0	204.0	729.4	817.4	832.0
67.5°	62.3	176.9	635.0	688.9	661.5
70°	57.8	163.6	570.8	587.7	509.3
72.5°	54.8	149.0	500.7	456.3	307.8
75°	48.5	125.1	388.0	209.0	212.7
77.5°	39.5	96.8	255.2	160.5	163.8
80°	33.6	79.2	134.3	130.6	132.4
82.5°	27.6	61.5	92.5	96.2	93.6
85°	16.8	36.9	46.6	31.6	28.0
87.5°	6.2	13.8	9.0	8.8	9.0
90°	1.0	2.8	7.6	6.7	7.6
92.5°	16.2	59.0	181.3	59.0	47.2
95°	49.5	143.6	641.8	228.6	148.6
97.5°	89.9	189.3	1101.2	666.2	412.9
100°	118.1	213.0	1274.1	1137.8	754.2
102.5°	150.1	242.8	1255.1	1676.5	1299.6
105°	200.9	286.6	1147.5	2180.1	2071.1
107.5°	251.0	329.6	1042.5	2227.2	2346.9
110°	283.8	360.1	992.2	2172.4	2394.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	315.0	389.1	961.8	2077.0	2362.1
115°	361.9	432.6	932.3	1926.4	2261.6
117.5°	407.4	473.5	921.0	1778.3	2118.8
120°	437.1	499.5	918.0	1692.1	2023.5
122.5°	463.7	524.6	918.0	1617.6	1925.3
125°	503.7	561.5	918.9	1519.2	1784.5
127.5°	537.6	596.5	917.8	1446.6	1677.5
130°	559.0	618.6	917.0	1402.6	1611.2
132.5°	578.0	639.1	914.7	1364.9	1554.1
135°	606.6	670.8	911.3	1310.3	1476.9
137.5°	636.7	700.4	909.2	1253.3	1404.0
140°	658.0	719.5	908.4	1217.4	1359.8
142.5°	679.3	737.1	908.4	1179.0	1308.0
145°	709.4	761.6	909.4	1127.1	1235.1
147.5°	741.0	784.4	910.7	1081.9	1163.5
150°	760.8	799.0	912.3	1055.7	1124.6
152.5°	780.7	814.4	913.0	1034.1	1091.1
155°	808.5	835.5	915.1	1008.4	1047.5
157.5°	833.4	853.0	917.2	988.1	1016.4
160°	849.4	865.2	918.0	976.6	998.9
162.5°	863.1	876.0	918.0	967.3	983.7
165°	882.7	891.1	918.9	954.4	964.6
167.5°	899.3	903.4	920.1	944.4	950.0
170°	908.4	910.3	920.8	939.0	940.8
172.5°	915.3	916.4	923.1	935.1	935.5
175°	922.7	922.7	923.7	930.3	928.4
177.5°	926.5	925.8	925.0	929.5	926.5
180°	926.5	926.5	926.5	926.5	926.5



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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	12.46	13.26	13.49	14.30	15.71	21.20	22.00	22.23	23.04	24.44
	3H	13.19	13.90	14.23	14.96	16.38	22.82	23.53	23.86	24.58	26.01
	4H	13.48	14.16	14.54	15.22	16.65	22.99	23.67	24.05	24.73	26.16
	6H	13.70	14.32	14.76	15.38	16.82	23.08	23.70	24.14	24.76	26.20
	8H	13.75	14.35	14.82	15.42	16.86	23.08	23.67	24.15	24.75	26.18
	12H	13.78	14.35	14.85	15.41	16.87	23.05	23.61	24.12	24.68	26.14
4H	2H	16.85	17.53	17.91	18.59	20.01	21.63	22.31	22.69	23.37	24.80
	3H	17.78	18.35	18.85	19.43	20.87	23.45	24.02	24.52	25.10	26.54
	4H	18.06	18.58	19.14	19.65	21.11	23.69	24.21	24.76	25.28	26.74
	6H	18.19	18.63	19.27	19.73	21.19	23.83	24.27	24.91	25.37	26.83
	8H	18.21	18.62	19.29	19.71	21.18	23.85	24.27	24.94	25.36	26.83
	12H	18.20	18.57	19.30	19.67	21.15	23.82	24.20	24.93	25.30	26.78
8H	4H	19.23	19.64	20.31	20.73	22.21	23.80	24.22	24.89	25.30	26.78
	6H	19.46	19.81	20.57	20.94	22.41	24.00	24.35	25.11	25.48	26.95
	8H	19.53	19.83	20.65	20.95	22.44	24.06	24.36	25.18	25.47	26.97
	12H	19.56	19.82	20.68	20.93	22.46	24.05	24.32	25.17	25.42	26.95
12H	4H	19.24	19.62	20.35	20.72	22.20	23.75	24.12	24.85	25.23	26.71
	6H	19.56	19.86	20.67	20.97	22.46	23.98	24.28	25.10	25.40	26.89
	8H	19.66	19.92	20.78	21.03	22.56	24.05	24.31	25.17	25.42	26.95