

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: P855411

Luminaire Tested: SQ2-FB-150U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855411
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-840-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

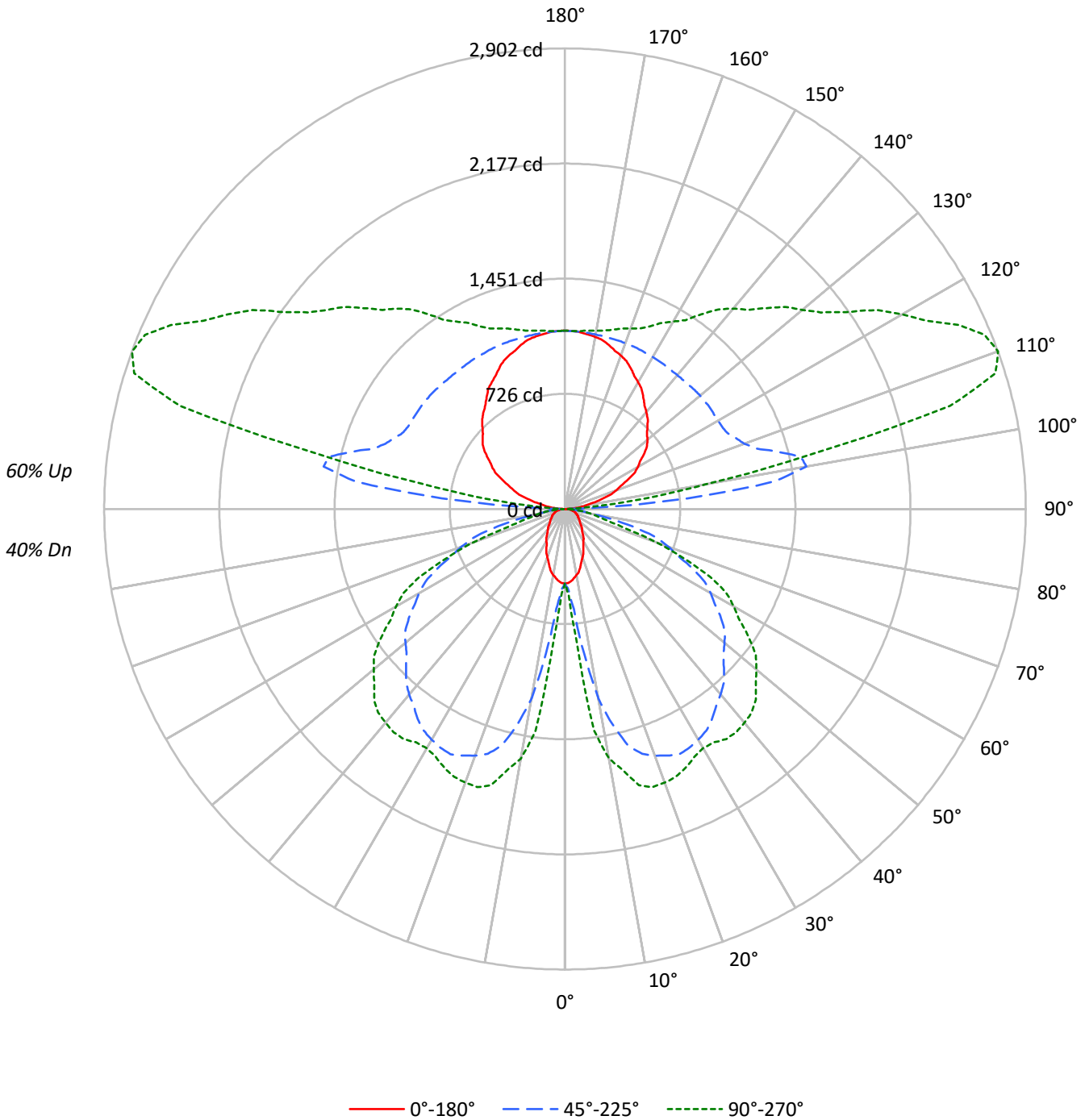
Lumens per Lamp: N/A
Luminaire Lumens: 11576.4 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	7590	7590	7590
5°	7400	10258	13444
10°	6930	19864	26163
15°	6273	25844	30113
20°	5555	28429	31536
25°	4912	30403	32054
30°	4340	31312	32449
35°	3875	31856	34885
40°	3524	32157	37066
45°	3252	32310	38815
50°	3064	32930	39516
55°	2992	33785	39831
60°	3068	34236	39635
65°	3198	33765	38514
70°	3305	32653	29132
75°	3662	29326	16076
80°	3784	15128	14923
85°	3779	10467	6280

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 40192 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.8	0.7
10°-20°	359.6	3.1
20°-30°	632.6	5.5
30°-40°	818.8	7.1
40°-50°	903.1	7.8
50°-60°	843.2	7.3
60°-70°	651.7	5.6
70°-80°	300.6	2.6
80°-90°	58.6	0.5
90°-100°	427.8	3.7
100°-110°	1400.7	12.1
110°-120°	1384.8	12.0
120°-130°	1132.0	9.8
130°-140°	923.8	8.0
140°-150°	718.9	6.2
150°-160°	517.6	4.5
160°-170°	316.7	2.7
170°-180°	107.0	0.9
0°-30°	1070.9	9.3
0°-40°	1889.8	16.3
0°-60°	3636.1	31.4
0°-90°	4647.0	40.1
90°-120°	3213.3	27.8
90°-150°	5988.0	51.7
90°-180°	6929.0	59.9
0°-180°	11576.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	457	523	633	772	830	42
15°	375	740	1546	1731	1802	105
25°	276	994	1707	1782	1799	127
35°	197	959	1616	1673	1770	124
45°	142	735	1415	1625	1700	110
55°	106	438	1200	1380	1415	96
65°	84	247	884	990	1008	82
75°	59	152	470	253	258	60
85°	20	45	56	38	34	21
90°	1	3	9	8	9	4
95°	60	174	778	277	180	68
105°	244	347	1390	2642	2510	256
115°	438	524	1130	2334	2740	433
125°	610	680	1113	1841	2162	543
135°	735	813	1104	1588	1790	569
145°	860	923	1102	1366	1496	539
155°	980	1012	1109	1222	1269	451
165°	1070	1080	1113	1156	1169	301
175°	1118	1118	1119	1127	1125	106
180°	1123	1123	1123	1123	1123	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	470.1	470.1	470.1	470.1	470.1
2.5°	466.5	486.0	508.1	533.6	544.2
5°	456.6	522.9	632.9	772.1	829.5
7.5°	439.0	573.7	920.4	1292.8	1407.8
10°	422.7	610.6	1211.6	1533.9	1595.8
12.5°	404.6	659.6	1394.2	1620.7	1684.5
15°	375.3	739.9	1546.1	1730.7	1801.5
17.5°	345.0	830.2	1616.6	1798.8	1837.3
20°	323.3	893.4	1654.6	1811.2	1835.4
22.5°	303.4	940.7	1681.7	1800.3	1826.4
25°	275.7	994.1	1706.6	1781.5	1799.3
27.5°	249.0	1008.1	1695.8	1745.0	1762.2
30°	232.8	1004.1	1679.5	1716.2	1740.5
32.5°	218.4	993.3	1655.9	1691.5	1744.1
35°	196.6	959.1	1616.2	1672.6	1769.9
37.5°	178.1	904.4	1563.7	1679.3	1773.0
40°	167.2	863.4	1525.7	1679.0	1758.6
42.5°	156.4	815.4	1482.4	1660.9	1740.5
45°	142.4	734.7	1415.0	1624.7	1699.9
47.5°	129.2	643.8	1352.6	1574.5	1629.2
50°	122.0	581.8	1311.0	1529.0	1573.2
52.5°	114.8	521.5	1269.5	1474.7	1515.4
55°	106.3	437.7	1200.2	1379.6	1415.0
57.5°	98.6	365.9	1121.6	1274.6	1303.4
60°	95.0	327.0	1060.2	1198.6	1227.4
62.5°	89.5	291.5	991.4	1119.0	1146.1
65°	83.7	247.2	883.8	990.5	1008.1
67.5°	75.5	214.3	769.4	834.7	801.6
70°	70.0	198.2	691.7	712.1	617.1
72.5°	66.4	180.5	606.7	552.9	372.9
75°	58.7	151.6	470.1	253.2	257.7
77.5°	47.9	117.4	309.2	194.5	198.5
80°	40.7	95.9	162.7	158.3	160.5
82.5°	33.4	74.6	112.1	116.5	113.5
85°	20.4	44.6	56.5	38.3	33.9
87.5°	7.5	16.8	10.8	10.6	10.8
90°	1.2	3.4	9.2	8.2	9.2
92.5°	19.6	71.6	219.7	71.4	57.2
95°	60.0	174.0	777.7	277.0	180.1
97.5°	109.0	229.5	1334.3	807.2	500.3
100°	143.1	258.1	1543.8	1378.7	913.8
102.5°	181.8	294.3	1520.7	2031.4	1574.8
105°	243.5	347.3	1390.3	2641.6	2509.6
107.5°	304.2	399.4	1263.2	2698.6	2843.7
110°	343.8	436.3	1202.3	2632.3	2901.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	381.7	471.5	1165.4	2516.7	2862.2
115°	438.4	524.2	1129.6	2334.2	2740.3
117.5°	493.7	573.7	1116.0	2154.8	2567.3
120°	529.6	605.2	1112.3	2050.3	2451.9
122.5°	562.0	635.7	1112.3	1960.1	2332.8
125°	610.3	680.4	1113.4	1840.8	2162.3
127.5°	651.5	722.8	1112.0	1752.8	2032.6
130°	677.3	749.5	1111.1	1699.6	1952.3
132.5°	700.4	774.4	1108.4	1653.8	1883.1
135°	735.0	812.9	1104.2	1587.6	1789.6
137.5°	771.5	848.6	1101.7	1518.6	1701.3
140°	797.3	871.7	1100.7	1475.0	1647.6
142.5°	823.1	893.0	1100.7	1428.5	1584.9
145°	859.6	922.8	1101.9	1365.6	1496.5
147.5°	897.9	950.5	1103.5	1311.0	1409.8
150°	921.9	968.2	1105.4	1279.1	1362.7
152.5°	946.0	986.7	1106.3	1253.0	1322.0
155°	979.6	1012.3	1108.9	1221.8	1269.2
157.5°	1009.8	1033.5	1111.3	1197.3	1231.6
160°	1029.2	1048.4	1112.3	1183.3	1210.4
162.5°	1045.8	1061.4	1112.3	1172.0	1191.9
165°	1069.6	1079.7	1113.4	1156.4	1168.8
167.5°	1089.7	1094.7	1114.8	1144.3	1151.1
170°	1100.7	1103.1	1115.8	1137.8	1140.0
172.5°	1109.1	1110.4	1118.6	1133.1	1133.5
175°	1118.1	1118.1	1119.3	1127.3	1125.0
177.5°	1122.6	1121.8	1120.9	1126.2	1122.6
180°	1122.6	1122.6	1122.6	1122.6	1122.6

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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	13.13	13.93	14.16	14.97	16.37	21.87	22.66	22.90	23.71	25.11
	3H	13.85	14.57	14.90	15.62	17.04	23.48	24.20	24.53	25.25	26.67
	4H	14.15	14.83	15.21	15.88	17.31	23.66	24.34	24.72	25.39	26.82
	6H	14.36	14.99	15.43	16.05	17.49	23.74	24.37	24.81	25.43	26.87
	8H	14.42	15.02	15.49	16.09	17.53	23.75	24.34	24.81	25.41	26.85
	12H	14.45	15.01	15.52	16.08	17.54	23.71	24.28	24.79	25.35	26.81
4H	2H	17.52	18.20	18.58	19.25	20.68	22.30	22.98	23.36	24.03	25.46
	3H	18.45	19.01	19.52	20.09	21.54	24.12	24.69	25.19	25.77	27.21
	4H	18.73	19.25	19.80	20.32	21.78	24.35	24.87	25.43	25.95	27.41
	6H	18.85	19.30	19.94	20.39	21.85	24.50	24.94	25.58	26.04	27.50
	8H	18.87	19.29	19.96	20.38	21.85	24.52	24.94	25.61	26.02	27.50
	12H	18.86	19.24	19.97	20.34	21.82	24.49	24.87	25.59	25.97	27.45
8H	4H	19.90	20.31	20.98	21.40	22.87	24.47	24.88	25.55	25.97	27.45
	6H	20.13	20.47	21.24	21.60	23.07	24.67	25.01	25.78	26.14	27.61
	8H	20.20	20.50	21.32	21.61	23.10	24.73	25.03	25.85	26.14	27.63
	12H	20.22	20.49	21.34	21.60	23.12	24.72	24.98	25.84	26.09	27.62
12H	4H	19.91	20.29	21.01	21.39	22.87	24.42	24.79	25.52	25.89	27.37
	6H	20.22	20.52	21.34	21.64	23.13	24.65	24.95	25.77	26.06	27.56
	8H	20.32	20.59	21.44	21.70	23.23	24.72	24.98	25.84	26.09	27.62