

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: P855064

Luminaire Tested: SQ2-PW1-150U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855064
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-150U-100D-835-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

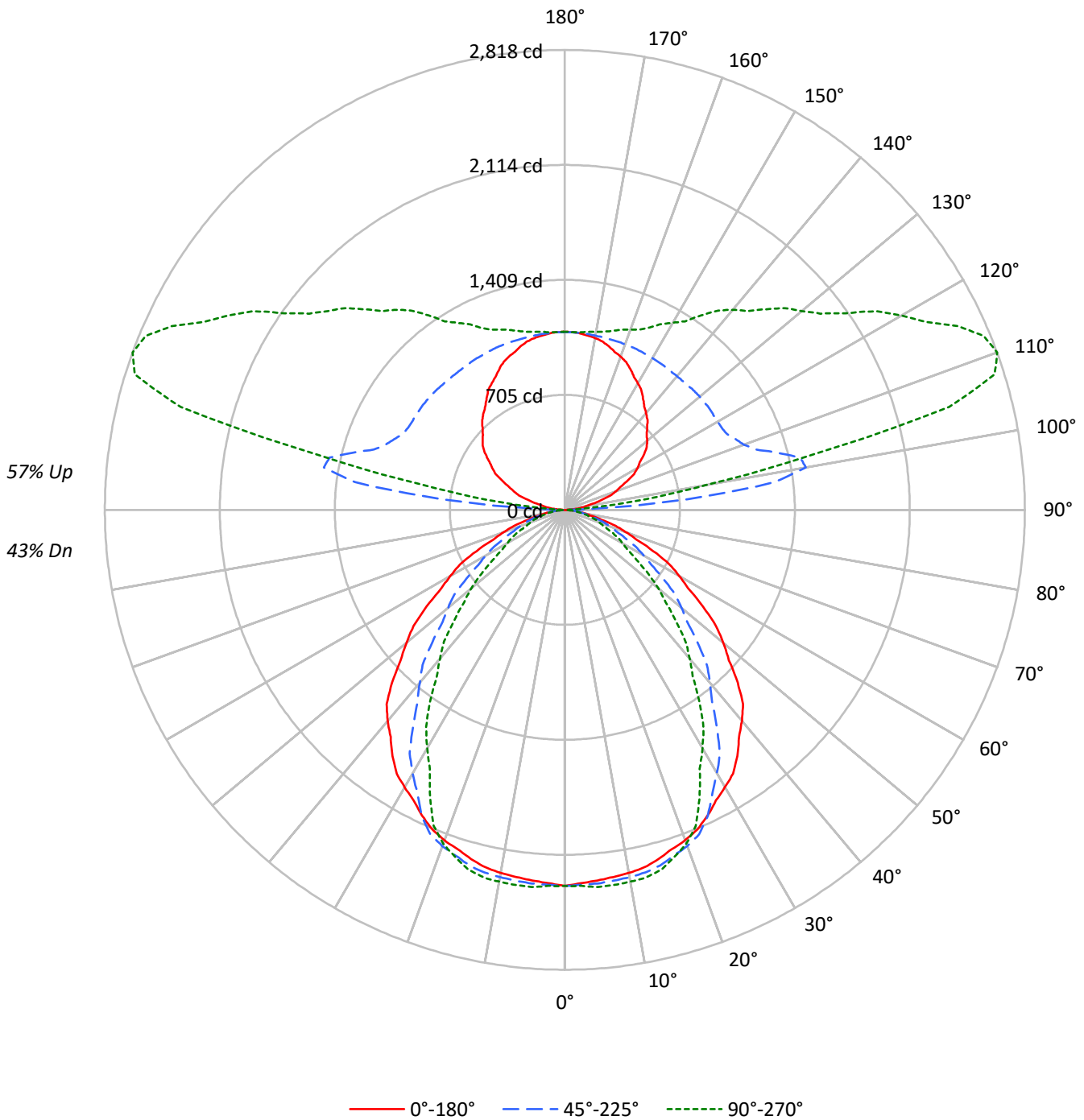
Lumens per Lamp: N/A
Luminaire Lumens: 11843.7 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	50	30	10	0	
RCR																						
0	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43				43
1	97	93	89	86	88	85	82	79	70	68	66	57	56	54	45	44	43	37				37
2	88	81	76	71	81	75	70	66	62	59	56	51	48	46	40	38	37	32				32
3	81	72	65	60	74	66	60	55	55	51	47	45	42	40	36	34	32	28				28
4	74	64	56	51	68	59	52	47	49	45	41	41	37	34	32	30	28	24				24
5	68	57	49	44	62	53	46	41	44	39	35	37	33	30	29	27	25	21				21
6	63	51	44	38	58	48	41	36	40	35	31	33	29	26	27	24	22	19				19
7	58	47	39	33	53	43	36	31	37	31	27	30	26	24	25	22	20	17				17
8	54	42	35	30	50	39	33	28	33	28	24	28	24	21	23	20	18	15				15
9	50	39	31	27	46	36	29	25	31	26	22	26	22	19	21	18	16	14				14
10	47	35	28	24	43	33	27	22	28	23	20	24	20	17	19	17	15	13				13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37210	37210	37210
5°	36961	37246	37601
10°	37030	37461	37930
15°	37020	37717	38158
20°	37036	37675	37412
25°	36836	36873	34762
30°	36584	34742	31428
35°	36299	31970	28381
40°	35576	29145	25073
45°	34182	26213	21902
50°	31810	23431	18746
55°	29101	20701	15198
60°	26085	18006	13110
65°	22812	15511	11656
70°	18652	13785	10565
75°	14516	11909	9719
80°	10814	10209	8573
85°	7317	7744	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 34182 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.5	1.9
10°-20°	635.9	5.4
20°-30°	935.7	7.9
30°-40°	1023.1	8.6
40°-50°	917.8	7.7
50°-60°	684.6	5.8
60°-70°	432.7	3.7
70°-80°	214.3	1.8
80°-90°	51.4	0.4
90°-100°	415.4	3.5
100°-110°	1360.2	11.5
110°-120°	1344.7	11.4
120°-130°	1099.2	9.3
130°-140°	897.0	7.6
140°-150°	698.1	5.9
150°-160°	502.7	4.2
160°-170°	307.5	2.6
170°-180°	103.9	0.9
0°-30°	1791.1	15.1
0°-40°	2814.1	23.8
0°-60°	4416.5	37.3
0°-90°	5114.9	43.2
90°-120°	3120.3	26.3
90°-150°	5814.7	49.1
90°-180°	6729.0	56.8
0°-180°	11843.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2280	2317	2298	2301	2320	217
15°	2215	2258	2256	2272	2283	625
25°	2068	2113	2070	1984	1951	952
35°	1842	1822	1622	1481	1440	1149
45°	1497	1377	1148	1004	959	1148
55°	1034	935	735	576	540	923
65°	597	548	406	327	305	592
75°	233	250	191	160	156	256
85°	40	50	42	28	26	50
90°	1	3	9	8	9	4
95°	58	169	755	269	175	66
105°	236	337	1350	2565	2437	249
115°	426	509	1097	2267	2661	421
125°	593	661	1081	1788	2100	527
135°	714	789	1072	1542	1738	552
145°	835	896	1070	1326	1453	523
155°	951	983	1077	1186	1232	438
165°	1039	1048	1081	1123	1135	293
175°	1086	1086	1087	1095	1092	103
180°	1090	1090	1090	1090	1090	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2304.6	2304.6	2304.6	2304.6	2304.6
2.5°	2288.9	2318.1	2299.4	2301.4	2306.4
5°	2280.5	2317.1	2298.1	2300.8	2320.0
7.5°	2269.1	2306.0	2292.0	2299.9	2318.8
10°	2258.6	2297.3	2284.9	2296.3	2313.5
12.5°	2244.5	2284.9	2276.1	2289.2	2306.4
15°	2214.7	2257.7	2256.4	2272.0	2282.8
17.5°	2180.0	2222.9	2220.9	2225.0	2230.1
20°	2155.5	2198.4	2192.7	2177.4	2177.4
22.5°	2120.3	2166.7	2152.3	2110.3	2096.6
25°	2067.7	2112.7	2069.8	1983.5	1951.3
27.5°	2006.2	2042.7	1956.5	1834.0	1789.3
30°	1962.3	1990.1	1863.5	1728.6	1685.7
32.5°	1916.6	1927.3	1768.7	1628.5	1582.1
35°	1841.6	1822.2	1622.0	1480.7	1439.9
37.5°	1752.8	1695.3	1481.1	1333.1	1287.9
40°	1687.9	1606.4	1382.8	1234.8	1189.6
42.5°	1615.9	1513.7	1289.8	1141.6	1094.9
45°	1497.0	1376.8	1148.0	1004.2	959.2
47.5°	1363.1	1243.7	1015.3	876.2	837.5
50°	1266.4	1150.6	932.8	793.5	746.3
52.5°	1168.1	1064.3	852.0	708.9	644.5
55°	1033.8	935.1	735.4	576.5	539.9
57.5°	895.5	810.2	629.5	485.3	455.3
60°	807.8	732.6	557.6	436.1	406.0
62.5°	723.5	656.9	487.3	390.5	365.6
65°	597.1	547.6	406.0	326.6	305.1
67.5°	474.1	446.7	337.6	267.9	253.7
70°	395.1	386.5	292.0	234.6	223.8
72.5°	326.6	330.0	248.1	203.1	195.8
75°	232.7	249.9	190.9	160.1	155.8
77.5°	158.4	184.2	141.3	118.5	115.0
80°	116.3	142.1	109.8	92.2	92.2
82.5°	81.3	101.8	78.1	69.4	69.4
85°	39.5	50.2	41.8	28.5	26.4
87.5°	10.8	16.3	8.8	6.8	7.0
90°	1.1	3.3	8.9	7.9	8.9
92.5°	19.0	69.5	213.3	69.4	55.6
95°	58.3	169.0	755.2	269.0	174.8
97.5°	105.8	222.8	1295.6	783.8	485.8
100°	139.0	250.7	1499.1	1338.8	887.3
102.5°	176.5	285.7	1476.7	1972.6	1529.2
105°	236.4	337.2	1350.1	2565.1	2436.9
107.5°	295.4	387.8	1226.6	2620.5	2761.4
110°	333.8	423.7	1167.5	2556.1	2817.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	370.6	457.9	1131.7	2443.8	2779.4
115°	425.7	509.0	1096.9	2266.6	2661.0
117.5°	479.4	557.1	1083.7	2092.4	2492.9
120°	514.2	587.7	1080.1	1990.9	2380.9
122.5°	545.7	617.3	1080.1	1903.3	2265.3
125°	592.7	660.7	1081.2	1787.5	2099.7
127.5°	632.6	701.9	1079.8	1702.0	1973.7
130°	657.7	727.8	1078.9	1650.4	1895.8
132.5°	680.1	752.0	1076.3	1605.9	1828.5
135°	713.7	789.3	1072.3	1541.7	1737.8
137.5°	749.2	824.1	1069.8	1474.7	1652.0
140°	774.2	846.5	1068.9	1432.3	1599.9
142.5°	799.3	867.2	1068.9	1387.2	1539.1
145°	834.7	896.1	1070.0	1326.1	1453.2
147.5°	871.9	923.0	1071.6	1273.0	1369.0
150°	895.3	940.2	1073.4	1242.1	1323.3
152.5°	918.6	958.2	1074.3	1216.8	1283.8
155°	951.3	983.0	1076.8	1186.4	1232.5
157.5°	980.6	1003.6	1079.2	1162.7	1195.9
160°	999.4	1018.0	1080.1	1149.1	1175.3
162.5°	1015.6	1030.7	1080.1	1138.1	1157.4
165°	1038.6	1048.5	1081.2	1122.9	1134.9
167.5°	1058.1	1063.0	1082.5	1111.2	1117.7
170°	1068.9	1071.1	1083.5	1104.8	1107.0
172.5°	1077.0	1078.2	1086.2	1100.3	1100.7
175°	1085.7	1085.7	1086.8	1094.7	1092.4
177.5°	1090.1	1089.3	1088.4	1093.6	1090.1
180°	1090.1	1090.1	1090.1	1090.1	1090.1

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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	18.95	19.72	19.97	20.74	22.11	15.43	16.21	16.46	17.23	18.60
	3H	20.26	20.95	21.29	21.99	23.37	16.63	17.32	17.66	18.36	19.74
	4H	20.63	21.29	21.68	22.32	23.72	17.08	17.73	18.12	18.76	20.16
	6H	20.83	21.43	21.89	22.47	23.88	17.39	17.99	18.44	19.03	20.44
	8H	20.86	21.43	21.92	22.49	23.89	17.46	18.03	18.52	19.09	20.49
	12H	20.86	21.40	21.92	22.45	23.87	17.47	18.01	18.53	19.06	20.49
4H	2H	19.04	19.69	20.09	20.73	22.12	16.11	16.76	17.16	17.79	19.19
	3H	20.58	21.12	21.64	22.18	23.59	17.49	18.03	18.54	19.09	20.50
	4H	21.08	21.58	22.15	22.63	24.06	18.03	18.52	19.09	19.58	21.01
	6H	21.41	21.83	22.48	22.91	24.34	18.43	18.85	19.50	19.93	21.36
	8H	21.49	21.88	22.56	22.95	24.39	18.53	18.93	19.60	20.00	21.44
	12H	21.50	21.86	22.59	22.94	24.39	18.55	18.91	19.64	19.99	21.44
8H	4H	21.11	21.51	22.19	22.58	24.02	18.35	18.75	19.42	19.82	21.26
	6H	21.55	21.87	22.64	22.99	24.43	18.85	19.18	19.95	20.29	21.73
	8H	21.69	21.98	22.80	23.08	24.53	19.01	19.30	20.12	20.40	21.85
	12H	21.76	22.01	22.86	23.10	24.60	19.07	19.32	20.18	20.41	21.91
12H	4H	21.07	21.43	22.16	22.51	23.96	18.36	18.72	19.45	19.80	21.25
	6H	21.54	21.83	22.64	22.92	24.38	18.92	19.20	20.02	20.30	21.76
	8H	21.70	21.95	22.80	23.04	24.54	19.10	19.35	20.20	20.44	21.94