

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: P855072

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855072
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-100U-100D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

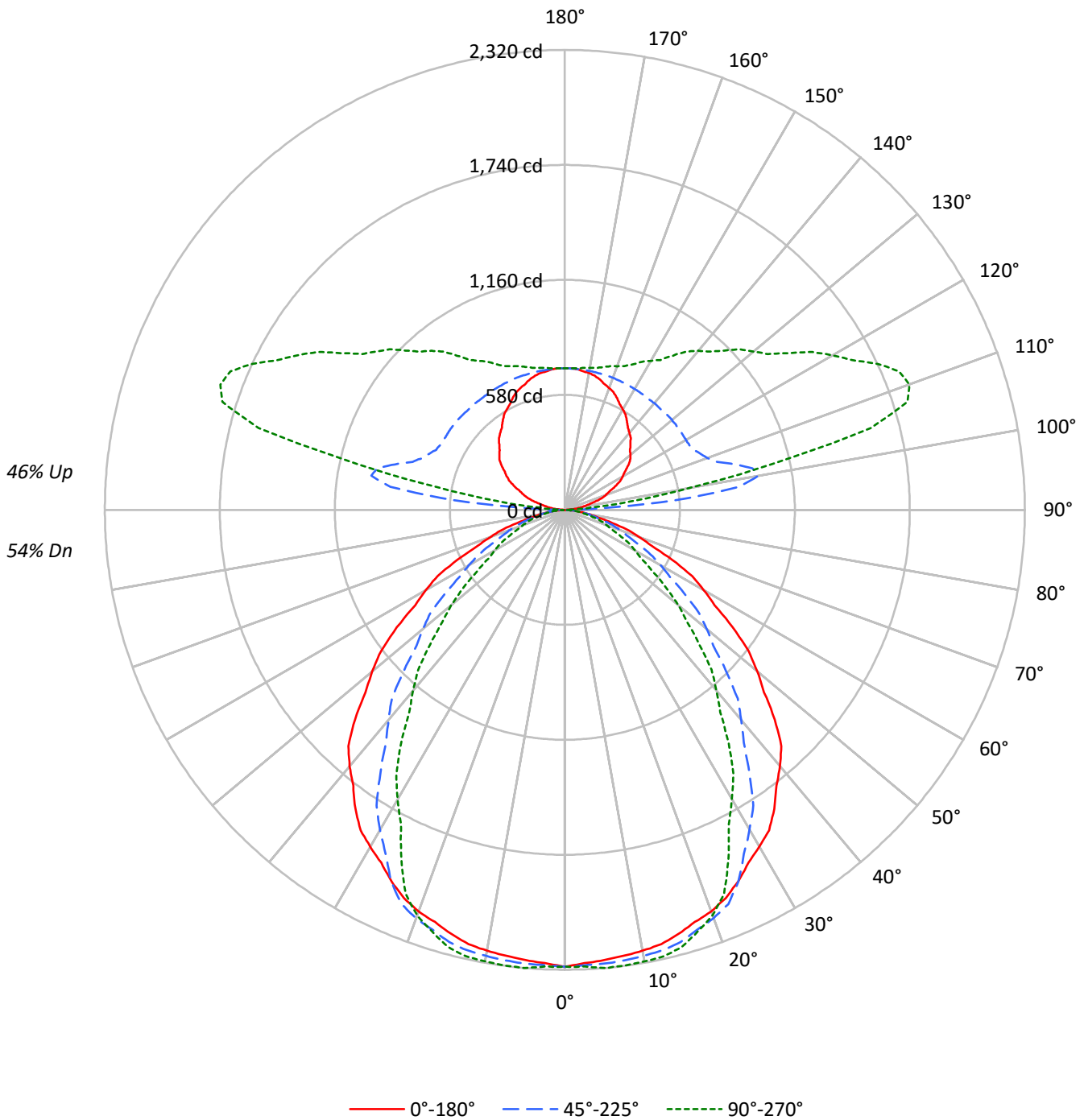
Lumens per Lamp: N/A
Luminaire Lumens: 9559.7 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.2
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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	54				
1	99	95	91	88	92	88	85	82	76	73	71	64	63	61	53	52	51	46				
2	91	84	78	73	84	78	73	69	67	63	60	57	54	52	48	46	44	40				
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	40	38	34				
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	39	36	33	30				
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	30	26				
6	65	53	45	40	60	50	43	38	44	38	34	38	33	30	32	29	26	23				
7	60	48	41	35	56	45	38	33	40	34	30	34	30	27	29	26	24	21				
8	56	44	36	31	52	41	34	30	36	31	27	32	27	24	27	24	21	19				
9	52	40	33	28	49	38	31	27	33	28	24	29	25	22	25	22	19	17				
10	49	37	30	25	45	35	28	24	31	26	22	27	23	20	23	20	18	16				

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	2.3
10°-20°	635.9	6.7
20°-30°	935.7	9.8
30°-40°	1023.1	10.7
40°-50°	917.8	9.6
50°-60°	684.6	7.2
60°-70°	432.7	4.5
70°-80°	214.3	2.2
80°-90°	51.4	0.5
90°-100°	298.3	3.1
100°-110°	902.1	9.4
110°-120°	880.6	9.2
120°-130°	719.6	7.5
130°-140°	587.4	6.1
140°-150°	457.2	4.8
150°-160°	329.6	3.4
160°-170°	201.8	2.1
170°-180°	68.1	0.7
0°-30°	1791.1	18.7
0°-40°	2814.1	29.4
0°-60°	4416.5	46.2
0°-90°	5115.0	53.5
90°-120°	2081.0	21.8
90°-150°	3845.2	40.2
90°-180°	4445.0	46.5
0°-180°	9559.7	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°	0	2	14	8	7	3
95°	37	117	563	208	131	44
105°	157	221	886	1682	1599	165
115°	279	333	716	1482	1741	276
125°	390	433	706	1171	1378	347
135°	468	517	702	1010	1136	362
145°	546	586	702	868	950	342
155°	622	643	706	779	808	286
165°	681	688	710	737	746	192
175°	712	712	713	719	716	68
180°	714	714	714	714	714	



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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°	10.5	16.1	9.7	6.8	6.6
90°	0.0	2.2	13.5	7.8	6.7
92.5°	12.6	50.7	182.1	60.4	43.5
95°	37.0	117.0	562.8	207.9	131.2
97.5°	71.5	148.9	887.0	587.0	357.4
100°	93.0	168.7	991.1	958.2	643.6
102.5°	117.2	190.2	969.6	1343.9	1071.3
105°	157.0	220.6	885.8	1682.1	1598.7
107.5°	194.6	255.3	805.0	1715.5	1812.0
110°	219.8	277.8	764.7	1673.4	1848.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	244.0	300.3	740.4	1602.7	1824.6
115°	279.2	332.8	716.5	1482.4	1741.2
117.5°	314.1	365.0	707.9	1369.8	1634.6
120°	337.5	385.7	705.1	1304.0	1558.4
122.5°	359.0	404.6	705.1	1246.2	1481.2
125°	390.2	432.9	706.3	1170.7	1377.9
127.5°	415.5	459.8	705.1	1113.7	1290.4
130°	431.6	477.7	705.1	1081.1	1241.1
132.5°	446.0	493.0	704.3	1051.2	1199.0
135°	467.5	516.8	701.9	1009.7	1135.7
137.5°	491.5	538.4	701.9	965.3	1082.1
140°	506.8	552.8	701.9	936.5	1047.1
142.5°	522.0	566.3	701.0	910.1	1006.7
145°	546.0	586.5	701.9	868.4	949.6
147.5°	570.0	604.4	703.2	834.1	896.5
150°	585.2	617.0	704.1	815.1	867.8
152.5°	599.6	627.8	704.9	798.7	841.7
155°	622.2	643.0	706.3	778.7	808.3
157.5°	642.0	658.9	707.6	764.0	784.6
160°	653.6	667.9	708.5	754.8	770.2
162.5°	665.3	676.1	709.4	746.8	759.5
165°	680.6	688.2	709.7	736.8	745.5
167.5°	693.5	697.4	711.0	729.0	732.8
170°	700.7	702.9	711.9	725.4	726.5
172.5°	705.1	706.5	711.9	721.8	722.0
175°	711.9	711.9	713.1	718.6	716.5
177.5°	715.1	714.2	713.3	715.9	714.2
180°	714.2	714.2	714.2	714.2	714.2



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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	19.94	20.79	20.88	21.74	22.96	16.43	17.28	17.36	18.23	19.45
	3H	21.26	22.03	22.21	22.98	24.23	17.63	18.39	18.58	19.35	20.60
	4H	21.64	22.36	22.60	23.32	24.57	18.08	18.80	19.04	19.76	21.01
	6H	21.84	22.50	22.81	23.47	24.74	18.40	19.06	19.37	20.02	21.29
	8H	21.87	22.50	22.85	23.48	24.75	18.47	19.10	19.45	20.08	21.35
	12H	21.87	22.47	22.85	23.44	24.73	18.48	19.08	19.47	20.06	21.35
4H	2H	20.04	20.76	21.01	21.72	22.98	17.11	17.83	18.08	18.79	20.05
	3H	21.59	22.19	22.56	23.18	24.45	18.50	19.09	19.47	20.08	21.35
	4H	22.10	22.64	23.08	23.62	24.92	19.04	19.59	20.03	20.57	21.86
	6H	22.43	22.90	23.43	23.90	25.20	19.45	19.91	20.44	20.92	22.21
	8H	22.51	22.94	23.50	23.94	25.25	19.55	19.99	20.55	20.99	22.30
	12H	22.52	22.91	23.54	23.93	25.24	19.57	19.97	20.59	20.98	22.30
8H	4H	22.14	22.57	23.13	23.57	24.88	19.37	19.81	20.37	20.81	22.11
	6H	22.57	22.93	23.59	23.97	25.28	19.87	20.23	20.90	21.28	22.58
	8H	22.72	23.03	23.75	24.06	25.39	20.04	20.35	21.07	21.38	22.71
	12H	22.78	23.06	23.82	24.08	25.45	20.10	20.38	21.13	21.40	22.77
12H	4H	22.09	22.49	23.11	23.50	24.82	19.38	19.78	20.40	20.79	22.11
	6H	22.56	22.88	23.59	23.91	25.23	19.94	20.26	20.97	21.29	22.61
	8H	22.72	23.00	23.76	24.03	25.39	20.13	20.40	21.16	21.43	22.80