

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: P854322

Luminaire Tested: SQ2-PW1-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854322
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-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

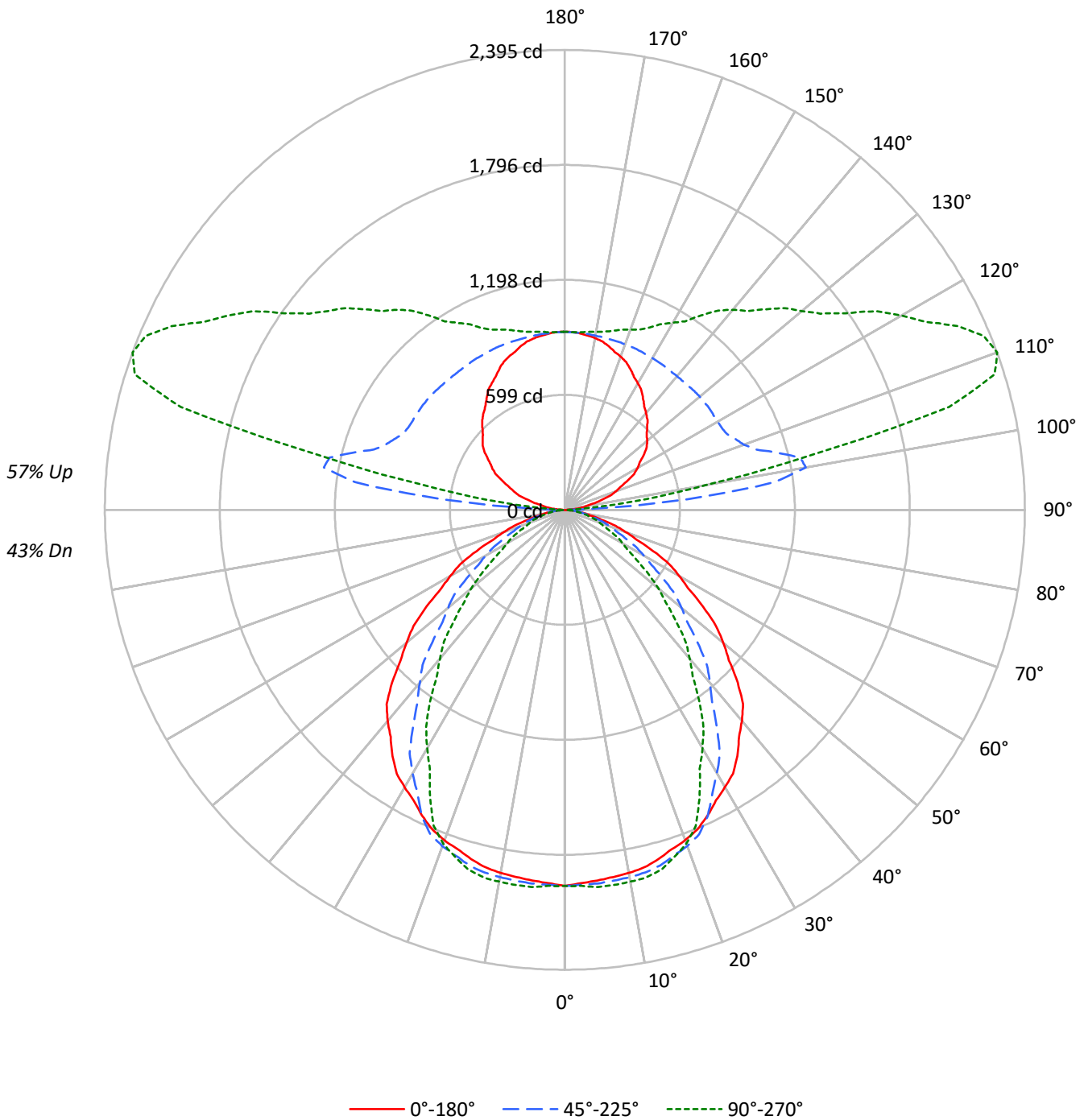
Lumens per Lamp: N/A
Luminaire Lumens: 10065.9 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	31625	31625	31625
5°	31413	31657	31958
10°	31472	31839	32236
15°	31463	32055	32430
20°	31476	32020	31797
25°	31306	31338	29544
30°	31092	29528	26711
35°	30849	27173	24122
40°	30237	24770	21311
45°	29051	22277	18614
50°	27038	19914	15933
55°	24732	17591	12918
60°	22168	15300	11144
65°	19385	13184	9906
70°	15852	11712	8984
75°	12333	10125	8259
80°	9196	8675	7280
85°	6224	6558	4150

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29051 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.5	1.9
10°-20°	540.4	5.4
20°-30°	795.3	7.9
30°-40°	869.5	8.6
40°-50°	780.0	7.7
50°-60°	581.8	5.8
60°-70°	367.7	3.7
70°-80°	182.2	1.8
80°-90°	43.6	0.4
90°-100°	353.0	3.5
100°-110°	1156.0	11.5
110°-120°	1142.9	11.4
120°-130°	934.2	9.3
130°-140°	762.4	7.6
140°-150°	593.3	5.9
150°-160°	427.2	4.2
160°-170°	261.4	2.6
170°-180°	88.3	0.9
0°-30°	1522.2	15.1
0°-40°	2391.7	23.8
0°-60°	3753.6	37.3
0°-90°	4347.1	43.2
90°-120°	2651.9	26.3
90°-150°	4941.9	49.1
90°-180°	5719.0	56.8
0°-180°	10065.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1959	1959	1959	1959	1959	
5°	1938	1969	1953	1955	1972	184
15°	1882	1919	1918	1931	1940	531
25°	1757	1796	1759	1686	1658	809
35°	1565	1549	1379	1258	1224	976
45°	1272	1170	976	854	815	976
55°	879	795	625	490	459	785
65°	507	466	345	278	259	503
75°	198	212	162	136	132	218
85°	34	43	35	24	22	43
90°	1	3	8	7	8	4
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°	1958.7	1958.7	1958.7	1958.7	1958.7
2.5°	1945.3	1970.1	1954.3	1955.9	1960.2
5°	1938.2	1969.2	1953.2	1955.4	1971.8
7.5°	1928.5	1959.9	1947.9	1954.6	1970.7
10°	1919.6	1952.4	1942.0	1951.6	1966.2
12.5°	1907.6	1941.9	1934.5	1945.6	1960.2
15°	1882.3	1918.7	1917.7	1931.0	1940.1
17.5°	1852.8	1889.3	1887.5	1890.9	1895.3
20°	1831.9	1868.4	1863.6	1850.6	1850.6
22.5°	1802.0	1841.4	1829.3	1793.6	1781.9
25°	1757.3	1795.6	1759.1	1685.8	1658.4
27.5°	1705.0	1736.1	1662.9	1558.7	1520.7
30°	1667.7	1691.4	1583.8	1469.2	1432.7
32.5°	1628.9	1638.1	1503.2	1384.0	1344.6
35°	1565.1	1548.7	1378.6	1258.4	1223.8
37.5°	1489.8	1440.9	1258.8	1133.0	1094.7
40°	1434.6	1365.2	1175.2	1049.4	1011.1
42.5°	1373.4	1286.5	1096.2	970.3	930.5
45°	1272.3	1170.1	975.6	853.5	815.2
47.5°	1158.5	1057.0	863.0	744.7	711.9
50°	1076.4	977.9	792.8	674.4	634.3
52.5°	992.8	904.5	724.2	602.4	547.7
55°	878.6	794.7	624.9	489.9	458.9
57.5°	761.1	688.5	535.0	412.4	386.9
60°	686.5	622.7	473.8	370.6	345.1
62.5°	614.9	558.3	414.1	331.9	310.8
65°	507.4	465.5	345.1	277.5	259.3
67.5°	402.9	379.6	286.9	227.7	215.6
70°	335.8	328.5	248.1	199.4	190.3
72.5°	277.6	280.5	210.8	172.6	166.4
75°	197.7	212.3	162.3	136.1	132.4
77.5°	134.7	156.6	120.1	100.7	97.8
80°	98.9	120.8	93.3	78.3	78.3
82.5°	69.0	86.5	66.4	58.9	58.9
85°	33.6	42.7	35.4	24.2	22.4
87.5°	9.1	13.9	7.5	5.8	6.0
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	18.38	19.15	19.40	20.18	21.55	14.87	15.64	15.89	16.66	18.03
	3H	19.70	20.39	20.73	21.42	22.81	16.07	16.76	17.10	17.79	19.18
	4H	20.07	20.72	21.11	21.76	23.15	16.51	17.16	17.55	18.20	19.59
	6H	20.27	20.87	21.32	21.91	23.31	16.82	17.42	17.88	18.46	19.87
	8H	20.30	20.87	21.36	21.92	23.33	16.89	17.47	17.95	18.52	19.92
	12H	20.29	20.83	21.35	21.88	23.31	16.90	17.45	17.97	18.50	19.92
4H	2H	18.48	19.13	19.53	20.16	21.56	15.54	16.19	16.59	17.23	18.63
	3H	20.01	20.55	21.07	21.62	23.03	16.92	17.46	17.98	18.53	19.94
	4H	20.52	21.01	21.58	22.07	23.50	17.46	17.96	18.53	19.01	20.45
	6H	20.84	21.27	21.92	22.35	23.77	17.86	18.29	18.94	19.37	20.79
	8H	20.92	21.32	21.99	22.39	23.83	17.97	18.36	19.04	19.43	20.87
	12H	20.93	21.29	22.02	22.38	23.82	17.98	18.34	19.07	19.43	20.87
8H	4H	20.55	20.95	21.62	22.02	23.46	17.78	18.18	18.86	19.25	20.69
	6H	20.98	21.31	22.08	22.42	23.86	18.29	18.61	19.38	19.73	21.16
	8H	21.13	21.41	22.23	22.51	23.97	18.45	18.74	19.55	19.83	21.29
	12H	21.19	21.44	22.30	22.53	24.03	18.51	18.76	19.61	19.85	21.35
12H	4H	20.50	20.86	21.59	21.95	23.39	17.80	18.15	18.89	19.24	20.68
	6H	20.97	21.26	22.08	22.36	23.81	18.35	18.64	19.45	19.73	21.19
	8H	21.13	21.38	22.24	22.47	23.97	18.53	18.79	19.64	19.88	21.37