

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: P854238

Luminaire Tested: SQ2-PR1-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854238  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-150U-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: -

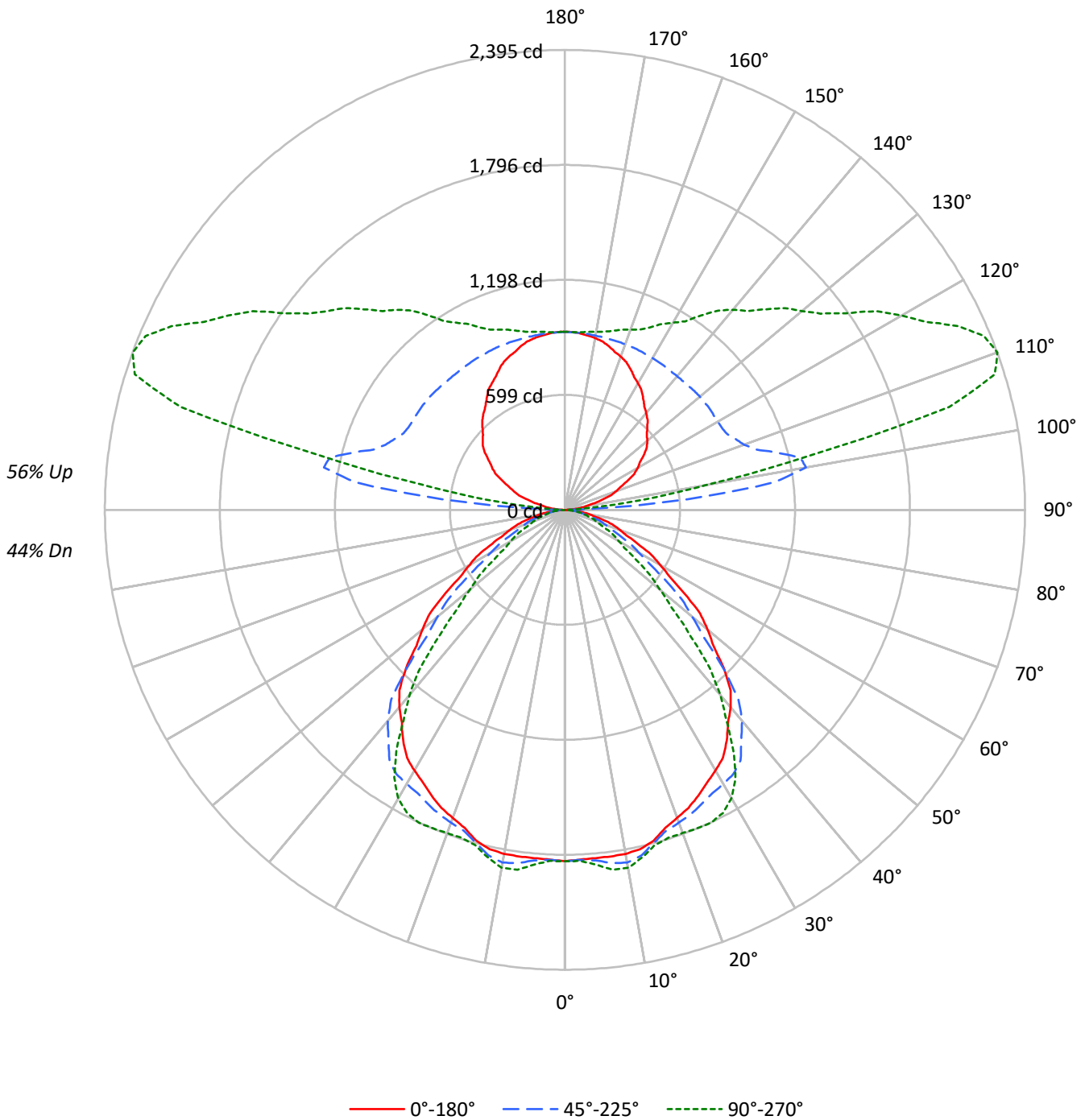
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10122.1 lumens  
Efficiency: N/A  
Efficacy: 107.5 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44
1	97	93	89	86	89	85	82	79	71	69	67	57	56	55	45	44	43	38
2	89	82	76	71	81	75	70	66	63	59	56	51	49	46	40	39	37	32
3	81	72	65	60	74	66	60	56	56	51	48	46	42	40	36	34	32	28
4	74	64	57	51	68	59	53	47	50	45	41	41	37	35	33	30	28	25
5	68	57	50	44	62	53	46	41	45	39	36	37	33	30	30	27	25	22
6	63	52	44	38	58	48	41	36	40	35	31	33	30	27	27	24	22	19
7	58	47	39	33	53	43	36	31	37	31	27	30	27	24	25	22	20	17
8	54	42	35	30	50	39	33	28	33	28	24	28	24	21	23	20	18	15
9	50	39	31	26	46	36	29	25	31	25	22	26	22	19	21	18	16	14
10	47	35	28	24	43	33	27	22	28	23	20	24	20	17	19	17	15	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	29547	29547	29547
5°	29509	29691	30054
10°	29819	30585	31044
15°	29810	29966	30215
20°	29328	29776	30771
25°	29245	30077	32037
30°	29215	30745	32345
35°	28937	31401	30114
40°	28270	30235	26500
45°	26750	26537	20957
50°	24320	21695	16259
55°	21371	17855	12656
60°	18493	14276	10421
65°	15966	11832	9123
70°	14356	10480	8101
75°	13150	9077	7448
80°	11446	7280	7280
85°	8299	6558	3464

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 28917 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.7	1.7
10°-20°	511.6	5.1
20°-30°	790.8	7.8
30°-40°	951.2	9.4
40°-50°	854.1	8.4
50°-60°	572.2	5.7
60°-70°	332.8	3.3
70°-80°	170.9	1.7
80°-90°	43.2	0.4
90°-100°	353.0	3.5
100°-110°	1156.0	11.4
110°-120°	1142.9	11.3
120°-130°	934.2	9.2
130°-140°	762.4	7.5
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°	1479.1	14.6
0°-40°	2430.3	24.0
0°-60°	3856.5	38.1
0°-90°	4403.4	43.5
90°-120°	2651.9	26.2
90°-150°	4941.9	48.8
90°-180°	5719.0	56.5
0°-180°	10122.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1830	1830	1830	1830	1830	
5°	1821	1852	1832	1836	1854	174
15°	1783	1856	1793	1798	1808	501
25°	1642	1707	1688	1751	1798	757
35°	1468	1481	1593	1562	1528	915
45°	1172	1266	1162	980	918	896
55°	759	788	634	490	450	682
65°	418	427	310	252	239	423
75°	211	205	146	123	119	224
85°	45	36	35	24	19	56
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°	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	1822.6	1844.5	1824.1	1825.6	1830.0
5°	1820.7	1851.7	1831.9	1836.0	1854.3
7.5°	1820.3	1864.5	1855.0	1866.4	1890.5
10°	1818.8	1871.7	1865.5	1867.9	1893.5
12.5°	1809.9	1871.5	1843.1	1840.8	1854.7
15°	1783.4	1856.3	1792.7	1798.5	1807.6
17.5°	1736.8	1813.0	1752.4	1773.0	1790.9
20°	1706.9	1781.7	1733.0	1759.8	1790.9
22.5°	1680.0	1754.8	1715.1	1752.6	1795.3
25°	1641.6	1707.3	1688.3	1750.9	1798.3
27.5°	1601.3	1640.0	1662.5	1746.5	1779.7
30°	1567.0	1592.5	1649.1	1722.1	1734.9
32.5°	1529.7	1545.0	1631.2	1669.2	1652.8
35°	1468.1	1480.9	1593.1	1562.5	1527.8
37.5°	1395.0	1421.3	1507.7	1419.5	1379.7
40°	1341.3	1385.0	1434.5	1302.9	1257.3
42.5°	1275.6	1345.7	1337.5	1169.9	1114.1
45°	1171.5	1266.4	1162.2	979.8	917.8
47.5°	1048.8	1146.2	975.6	812.8	754.8
50°	968.2	1046.6	863.7	711.2	647.3
52.5°	886.1	942.6	768.2	615.8	557.8
55°	759.2	788.4	634.3	489.7	449.6
57.5°	642.8	661.4	518.2	395.6	366.0
60°	572.7	585.5	442.1	346.4	322.7
62.5°	508.5	518.4	380.9	304.8	286.9
65°	417.9	427.0	309.7	251.5	238.8
67.5°	345.9	350.6	254.8	209.0	197.0
70°	304.1	305.9	222.0	180.7	171.6
72.5°	266.8	264.2	190.7	156.9	150.7
75°	210.8	205.3	145.5	123.0	119.4
77.5°	157.4	151.6	102.2	94.8	94.8
80°	123.1	115.8	78.3	78.3	78.3
82.5°	91.8	81.6	60.4	60.4	58.9
85°	44.8	35.7	35.4	24.1	18.7
87.5°	12.1	12.5	6.0	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	17.90	18.68	18.92	19.70	21.06	14.63	15.40	15.65	16.42	17.79
	3H	19.13	19.82	20.16	20.85	22.24	15.69	16.38	16.72	17.41	18.79
	4H	19.58	20.23	20.62	21.26	22.66	16.08	16.74	17.13	17.77	19.16
	6H	19.89	20.49	20.94	21.53	22.93	16.41	17.01	17.46	18.05	19.45
	8H	19.97	20.54	21.03	21.60	22.99	16.49	17.06	17.55	18.12	19.52
	12H	20.00	20.54	21.06	21.59	23.01	16.50	17.04	17.56	18.09	19.51
4H	2H	17.97	18.62	19.02	19.66	21.05	15.19	15.84	16.24	16.87	18.26
	3H	19.44	19.98	20.49	21.04	22.44	16.45	16.99	17.50	18.05	19.45
	4H	20.03	20.52	21.09	21.57	23.00	16.95	17.44	18.01	18.50	19.92
	6H	20.47	20.90	21.55	21.98	23.40	17.38	17.80	18.45	18.88	20.30
	8H	20.61	21.00	21.68	22.07	23.51	17.50	17.90	18.57	18.96	20.40
	12H	20.66	21.01	21.74	22.10	23.54	17.52	17.87	18.61	18.96	20.40
8H	4H	20.05	20.44	21.12	21.51	22.95	17.25	17.64	18.32	18.71	20.15
	6H	20.59	20.92	21.69	22.03	23.46	17.78	18.11	18.87	19.22	20.65
	8H	20.79	21.08	21.89	22.17	23.63	17.96	18.25	19.06	19.34	20.80
	12H	20.89	21.14	22.00	22.23	23.73	18.02	18.28	19.13	19.36	20.86
12H	4H	20.00	20.36	21.09	21.44	22.88	17.26	17.62	18.35	18.70	20.14
	6H	20.58	20.87	21.68	21.96	23.41	17.84	18.13	18.94	19.22	20.67
	8H	20.79	21.04	21.89	22.13	23.62	18.04	18.30	19.15	19.38	20.88