

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: P855092

Luminaire Tested: SQ2-PR1-150U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855092  
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-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: -

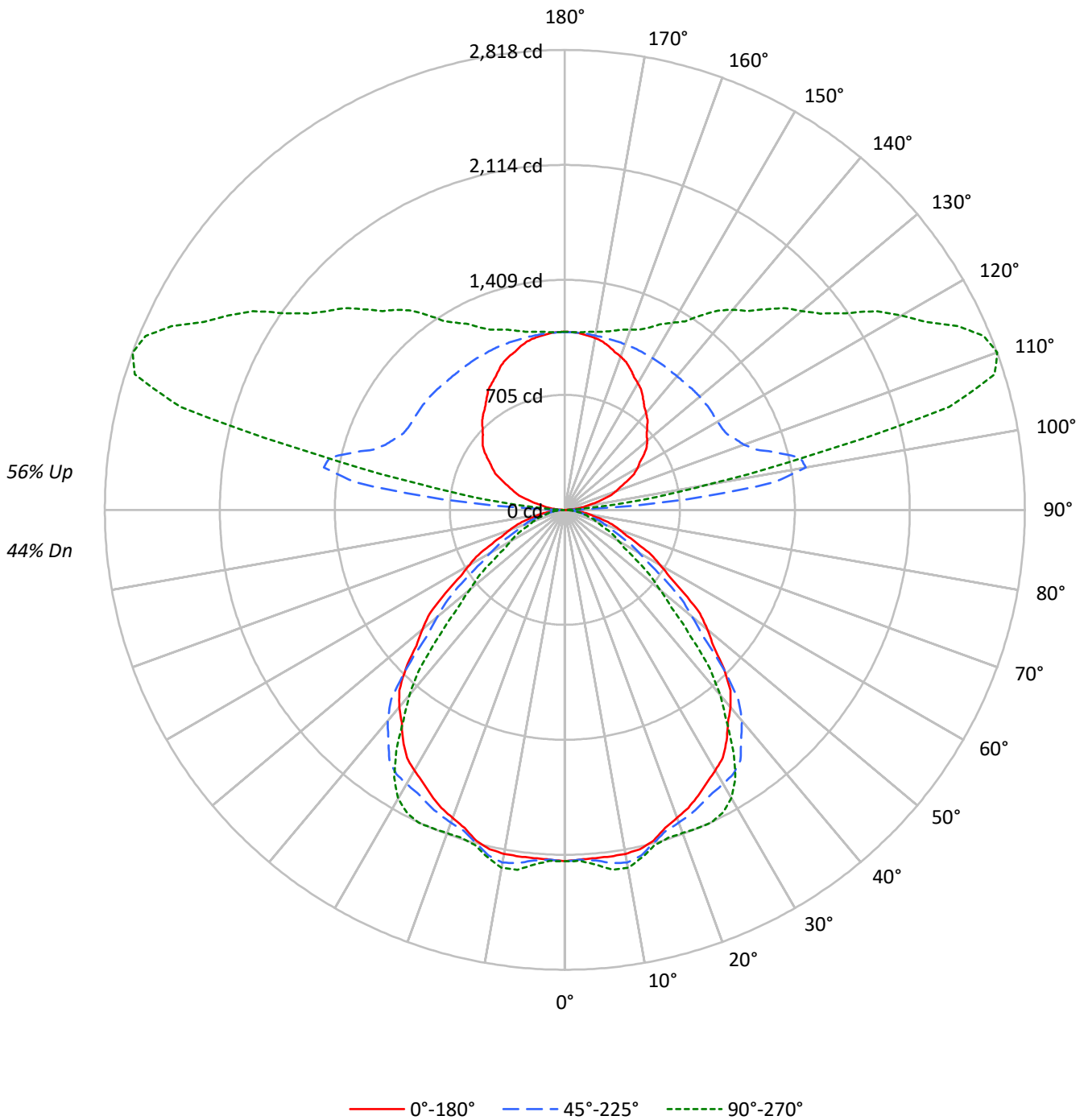
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11909.8 lumens  
Efficiency: N/A  
Efficacy: 126.4 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	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°	34765	34765	34765
5°	34720	34935	35360
10°	35087	35987	36526
15°	35074	35258	35550
20°	34508	35036	36206
25°	34410	35388	37695
30°	34373	36176	38057
35°	34048	36947	35431
40°	33261	35576	31181
45°	31474	31223	24658
50°	28612	25525	19130
55°	25146	21008	14888
60°	21758	16798	12261
65°	18785	13922	10735
70°	16886	12331	9531
75°	15477	10680	8759
80°	13473	8573	8573
85°	9744	7744	4076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 34024 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.9	1.7
10°-20°	601.9	5.1
20°-30°	930.5	7.8
30°-40°	1119.2	9.4
40°-50°	1004.9	8.4
50°-60°	673.2	5.7
60°-70°	391.6	3.3
70°-80°	201.1	1.7
80°-90°	50.8	0.4
90°-100°	415.4	3.5
100°-110°	1360.2	11.4
110°-120°	1344.7	11.3
120°-130°	1099.2	9.2
130°-140°	897.0	7.5
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°	1740.3	14.6
0°-40°	2859.5	24.0
0°-60°	4537.6	38.1
0°-90°	5181.1	43.5
90°-120°	3120.3	26.2
90°-150°	5814.7	48.8
90°-180°	6729.0	56.5
0°-180°	11909.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2153	2153	2153	2153	2153	
5°	2142	2179	2156	2160	2182	204
15°	2098	2184	2109	2116	2127	589
25°	1932	2009	1986	2060	2116	891
35°	1727	1742	1874	1838	1798	1077
45°	1378	1490	1367	1153	1080	1054
55°	893	928	746	576	529	803
65°	492	502	364	296	281	497
75°	248	242	171	145	140	263
85°	53	42	42	28	22	65
90°	1	3	9	8	9	5
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°	2153.2	2153.2	2153.2	2153.2	2153.2
2.5°	2144.5	2170.2	2146.2	2148.1	2153.2
5°	2142.2	2178.8	2155.5	2160.3	2181.7
7.5°	2141.8	2193.7	2182.6	2196.0	2224.4
10°	2140.1	2202.3	2195.0	2197.8	2227.9
12.5°	2129.6	2202.1	2168.6	2165.9	2182.2
15°	2098.3	2184.2	2109.3	2116.2	2126.8
17.5°	2043.4	2133.2	2061.9	2086.1	2107.2
20°	2008.4	2096.4	2039.1	2070.6	2107.2
22.5°	1976.8	2064.7	2018.0	2062.2	2112.4
25°	1931.5	2008.8	1986.4	2060.1	2115.9
27.5°	1884.1	1929.6	1956.1	2054.9	2093.9
30°	1843.7	1873.8	1940.4	2026.2	2041.3
32.5°	1799.8	1817.9	1919.3	1964.0	1944.8
35°	1727.4	1742.4	1874.5	1838.4	1797.6
37.5°	1641.4	1672.3	1774.0	1670.1	1623.4
40°	1578.1	1629.7	1687.9	1533.1	1479.4
42.5°	1500.9	1583.3	1573.8	1376.4	1310.8
45°	1378.4	1490.1	1367.4	1152.8	1079.9
47.5°	1234.0	1348.6	1148.0	956.4	888.0
50°	1139.1	1231.5	1016.2	836.8	761.6
52.5°	1042.6	1109.1	903.9	724.5	656.3
55°	893.3	927.6	746.3	576.2	528.9
57.5°	756.4	778.2	609.7	465.5	430.6
60°	673.8	688.8	520.2	407.6	379.7
62.5°	598.3	610.0	448.3	358.6	337.6
65°	491.7	502.3	364.4	295.9	281.0
67.5°	406.9	412.5	299.8	245.9	231.8
70°	357.7	359.9	261.2	212.6	201.9
72.5°	313.9	310.9	224.3	184.7	177.3
75°	248.1	241.6	171.2	144.7	140.4
77.5°	185.3	178.4	120.3	111.5	111.5
80°	144.9	136.3	92.2	92.2	92.2
82.5°	108.0	96.0	71.1	71.1	69.4
85°	52.6	42.0	41.8	28.4	22.0
87.5°	14.3	14.7	7.0	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	18.47	19.24	19.49	20.26	21.63	15.19	15.97	16.21	16.99	18.35
	3H	19.70	20.38	20.73	21.42	22.80	16.25	16.94	17.28	17.97	19.36
	4H	20.14	20.80	21.19	21.83	23.22	16.65	17.30	17.69	18.33	19.73
	6H	20.46	21.06	21.51	22.09	23.50	16.98	17.57	18.03	18.61	20.02
	8H	20.54	21.11	21.59	22.16	23.56	17.06	17.63	18.12	18.68	20.08
	12H	20.56	21.10	21.62	22.15	23.57	17.06	17.61	18.13	18.65	20.08
4H	2H	18.54	19.19	19.58	20.22	21.61	15.75	16.40	16.80	17.44	18.83
	3H	20.00	20.54	21.06	21.60	23.01	17.01	17.55	18.07	18.61	20.02
	4H	20.59	21.09	21.65	22.14	23.57	17.51	18.01	18.57	19.06	20.49
	6H	21.04	21.46	22.11	22.54	23.96	17.94	18.37	19.02	19.44	20.87
	8H	21.17	21.57	22.24	22.64	24.07	18.07	18.46	19.14	19.53	20.97
	12H	21.22	21.58	22.31	22.66	24.10	18.08	18.44	19.17	19.52	20.96
8H	4H	20.61	21.01	21.68	22.08	23.51	17.81	18.21	18.88	19.28	20.71
	6H	21.16	21.48	22.25	22.60	24.03	18.34	18.67	19.44	19.78	21.22
	8H	21.36	21.64	22.46	22.74	24.19	18.53	18.82	19.63	19.91	21.36
	12H	21.46	21.71	22.56	22.80	24.29	18.59	18.84	19.69	19.93	21.42
12H	4H	20.57	20.92	21.65	22.01	23.45	17.82	18.18	18.91	19.27	20.71
	6H	21.14	21.43	22.24	22.52	23.98	18.40	18.69	19.51	19.79	21.24
	8H	21.35	21.61	22.46	22.69	24.19	18.61	18.86	19.71	19.95	21.44