

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: P855299

Luminaire Tested: SQ2-PR1-150U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855299  
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-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

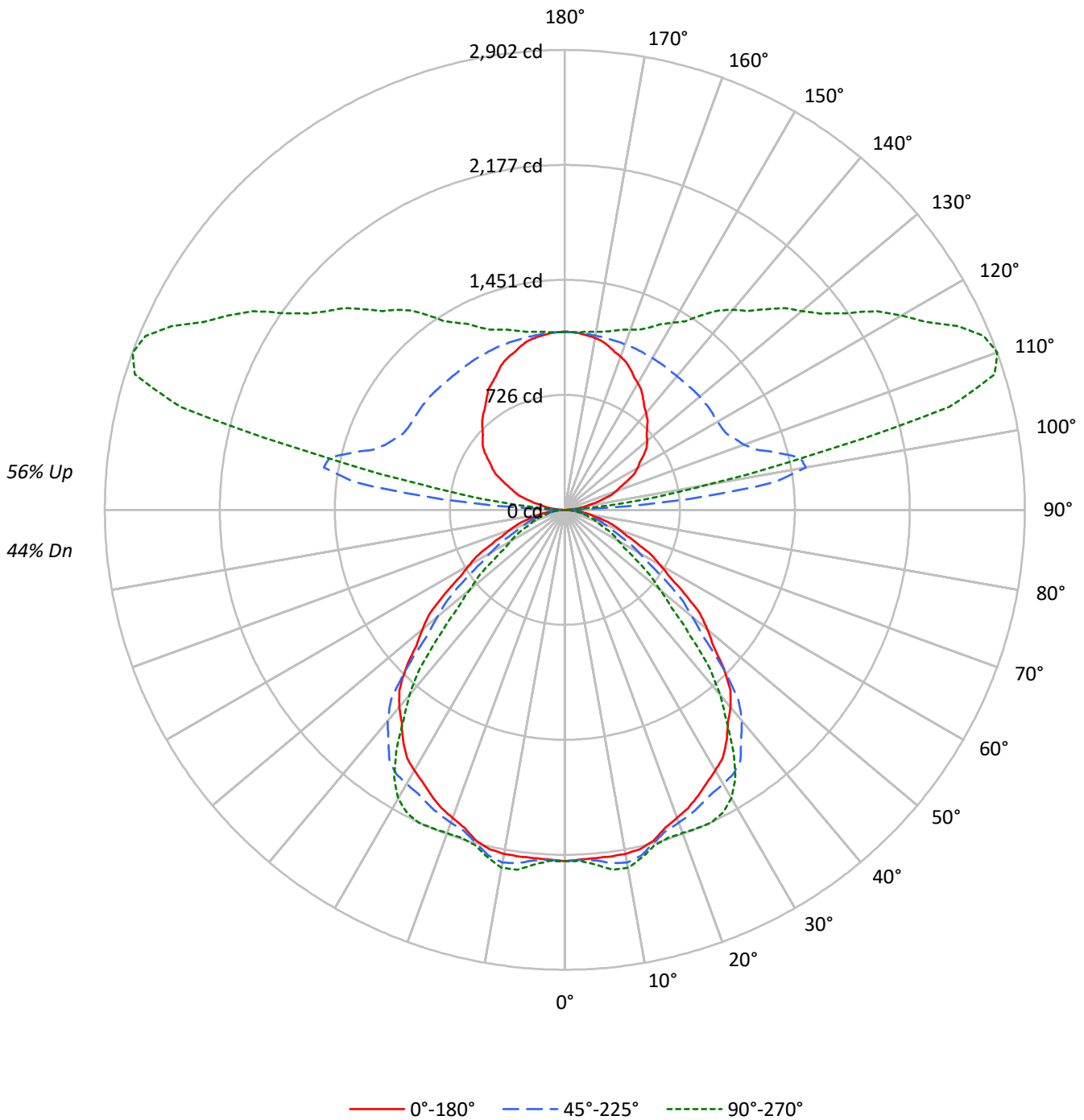
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12264.9 lumens  
Efficiency: N/A  
Efficacy: 130.2 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°	35802	35802	35802
5°	35755	35976	36415
10°	36133	37059	37615
15°	36120	36309	36612
20°	35536	36081	37285
25°	35436	36442	38819
30°	35399	37254	39193
35°	35063	38049	36488
40°	34254	36636	32111
45°	32412	32154	25393
50°	29466	26286	19700
55°	25897	21636	15333
60°	22407	17299	12626
65°	19347	14338	11056
70°	17391	12699	9814
75°	15939	10998	9021
80°	13873	8833	8833
85°	10041	7966	4187

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 35038 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.1	1.7
10°-20°	619.9	5.1
20°-30°	958.2	7.8
30°-40°	1152.5	9.4
40°-50°	1034.9	8.4
50°-60°	693.3	5.7
60°-70°	403.2	3.3
70°-80°	207.1	1.7
80°-90°	52.3	0.4
90°-100°	427.8	3.5
100°-110°	1400.7	11.4
110°-120°	1384.8	11.3
120°-130°	1132.0	9.2
130°-140°	923.8	7.5
140°-150°	718.9	5.9
150°-160°	517.6	4.2
160°-170°	316.7	2.6
170°-180°	107.0	0.9
0°-30°	1792.2	14.6
0°-40°	2944.7	24.0
0°-60°	4672.9	38.1
0°-90°	5335.5	43.5
90°-120°	3213.3	26.2
90°-150°	5988.0	48.8
90°-180°	6929.0	56.5
0°-180°	12264.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2217	2217	2217	2217	2217	
5°	2206	2244	2220	2225	2247	211
15°	2161	2249	2172	2179	2190	607
25°	1989	2069	2046	2122	2179	917
35°	1779	1794	1930	1893	1851	1109
45°	1420	1534	1408	1187	1112	1086
55°	920	955	769	593	545	827
65°	506	517	375	305	289	512
75°	256	249	176	149	145	271
85°	54	43	43	29	23	67
90°	1	3	9	8	9	5
95°	60	174	778	277	180	68
105°	244	347	1390	2642	2510	256
115°	438	524	1130	2334	2740	433
125°	610	680	1113	1841	2162	543
135°	735	813	1104	1588	1790	569
145°	860	923	1102	1366	1496	539
155°	980	1012	1109	1222	1269	451
165°	1070	1080	1113	1156	1169	301
175°	1118	1118	1119	1127	1125	106
180°	1123	1123	1123	1123	1123	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2217.4	2217.4	2217.4	2217.4	2217.4
2.5°	2208.4	2234.9	2210.2	2212.2	2217.4
5°	2206.1	2243.7	2219.7	2224.8	2246.8
7.5°	2205.6	2259.1	2247.7	2261.5	2290.7
10°	2203.9	2268.0	2260.4	2263.3	2294.3
12.5°	2193.1	2267.8	2233.3	2230.5	2247.2
15°	2160.9	2249.3	2172.2	2179.3	2190.3
17.5°	2104.4	2196.8	2123.4	2148.3	2170.0
20°	2068.2	2158.9	2099.9	2132.3	2170.0
22.5°	2035.7	2126.3	2078.1	2123.7	2175.3
25°	1989.1	2068.7	2045.6	2121.5	2179.0
27.5°	1940.3	1987.1	2014.4	2116.1	2156.3
30°	1898.7	1929.7	1998.2	2086.7	2102.2
32.5°	1853.5	1872.1	1976.5	2022.6	2002.7
35°	1778.9	1794.4	1930.4	1893.2	1851.2
37.5°	1690.3	1722.1	1826.9	1719.9	1671.8
40°	1625.2	1678.3	1738.2	1578.8	1523.5
42.5°	1545.7	1630.5	1620.7	1417.5	1349.9
45°	1419.5	1534.5	1408.2	1187.2	1112.1
47.5°	1270.8	1388.8	1182.2	984.9	914.5
50°	1173.1	1268.2	1046.5	861.7	784.3
52.5°	1073.7	1142.2	930.8	746.1	675.8
55°	920.0	955.3	768.6	593.4	544.7
57.5°	779.0	801.4	627.9	479.3	443.4
60°	693.9	709.4	535.7	419.8	391.0
62.5°	616.1	628.2	461.6	369.3	347.6
65°	506.4	517.3	375.3	304.8	289.4
67.5°	419.1	424.8	308.7	253.2	238.7
70°	368.4	370.6	269.0	219.0	207.9
72.5°	323.3	320.1	231.0	190.2	182.6
75°	255.5	248.8	176.3	149.1	144.6
77.5°	190.8	183.7	123.9	114.8	114.8
80°	149.2	140.3	95.0	95.0	95.0
82.5°	111.2	98.8	73.2	73.2	71.4
85°	54.2	43.2	43.0	29.3	22.6
87.5°	14.7	15.2	7.2	7.0	7.2
90°	1.2	3.4	9.2	8.2	9.2
92.5°	19.6	71.6	219.7	71.4	57.2
95°	60.0	174.0	777.7	277.0	180.1
97.5°	109.0	229.5	1334.3	807.2	500.3
100°	143.1	258.1	1543.8	1378.7	913.8
102.5°	181.8	294.3	1520.7	2031.4	1574.8
105°	243.5	347.3	1390.3	2641.6	2509.6
107.5°	304.2	399.4	1263.2	2698.6	2843.7
110°	343.8	436.3	1202.3	2632.3	2901.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	381.7	471.5	1165.4	2516.7	2862.2
115°	438.4	524.2	1129.6	2334.2	2740.3
117.5°	493.7	573.7	1116.0	2154.8	2567.3
120°	529.6	605.2	1112.3	2050.3	2451.9
122.5°	562.0	635.7	1112.3	1960.1	2332.8
125°	610.3	680.4	1113.4	1840.8	2162.3
127.5°	651.5	722.8	1112.0	1752.8	2032.6
130°	677.3	749.5	1111.1	1699.6	1952.3
132.5°	700.4	774.4	1108.4	1653.8	1883.1
135°	735.0	812.9	1104.2	1587.6	1789.6
137.5°	771.5	848.6	1101.7	1518.6	1701.3
140°	797.3	871.7	1100.7	1475.0	1647.6
142.5°	823.1	893.0	1100.7	1428.5	1584.9
145°	859.6	922.8	1101.9	1365.6	1496.5
147.5°	897.9	950.5	1103.5	1311.0	1409.8
150°	921.9	968.2	1105.4	1279.1	1362.7
152.5°	946.0	986.7	1106.3	1253.0	1322.0
155°	979.6	1012.3	1108.9	1221.8	1269.2
157.5°	1009.8	1033.5	1111.3	1197.3	1231.6
160°	1029.2	1048.4	1112.3	1183.3	1210.4
162.5°	1045.8	1061.4	1112.3	1172.0	1191.9
165°	1069.6	1079.7	1113.4	1156.4	1168.8
167.5°	1089.7	1094.7	1114.8	1144.3	1151.1
170°	1100.7	1103.1	1115.8	1137.8	1140.0
172.5°	1109.1	1110.4	1118.6	1133.1	1133.5
175°	1118.1	1118.1	1119.3	1127.3	1125.0
177.5°	1122.6	1121.8	1120.9	1126.2	1122.6
180°	1122.6	1122.6	1122.6	1122.6	1122.6



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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	18.57	19.34	19.59	20.37	21.73	15.30	16.07	16.32	17.09	18.46
	3H	19.80	20.49	20.83	21.52	22.90	16.36	17.04	17.39	18.08	19.46
	4H	20.25	20.90	21.29	21.93	23.32	16.75	17.40	17.79	18.44	19.83
	6H	20.56	21.16	21.61	22.20	23.60	17.08	17.68	18.13	18.72	20.12
	8H	20.64	21.21	21.70	22.26	23.66	17.16	17.73	18.22	18.79	20.18
	12H	20.66	21.21	21.73	22.25	23.68	17.17	17.71	18.23	18.76	20.18
4H	2H	18.64	19.29	19.69	20.32	21.72	15.85	16.51	16.90	17.54	18.93
	3H	20.10	20.64	21.16	21.71	23.11	17.11	17.65	18.17	18.72	20.12
	4H	20.69	21.19	21.76	22.24	23.67	17.62	18.11	18.68	19.16	20.59
	6H	21.14	21.57	22.21	22.64	24.07	18.05	18.47	19.12	19.55	20.97
	8H	21.27	21.67	22.34	22.74	24.17	18.17	18.56	19.24	19.63	21.07
	12H	21.32	21.68	22.41	22.76	24.20	18.19	18.54	19.27	19.63	21.07
8H	4H	20.71	21.11	21.79	22.18	23.62	17.92	18.31	18.99	19.38	20.82
	6H	21.26	21.59	22.35	22.70	24.13	18.45	18.77	19.54	19.89	21.32
	8H	21.46	21.74	22.56	22.84	24.29	18.63	18.92	19.73	20.01	21.47
	12H	21.56	21.81	22.66	22.90	24.39	18.69	18.95	19.80	20.03	21.53
12H	4H	20.67	21.03	21.76	22.11	23.55	17.93	18.28	19.02	19.37	20.81
	6H	21.25	21.53	22.35	22.63	24.08	18.51	18.79	19.61	19.89	21.34
	8H	21.45	21.71	22.56	22.80	24.29	18.71	18.96	19.82	20.05	21.55