

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: P855272

Luminaire Tested: SQ2-PW1-150U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855272  
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-075D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

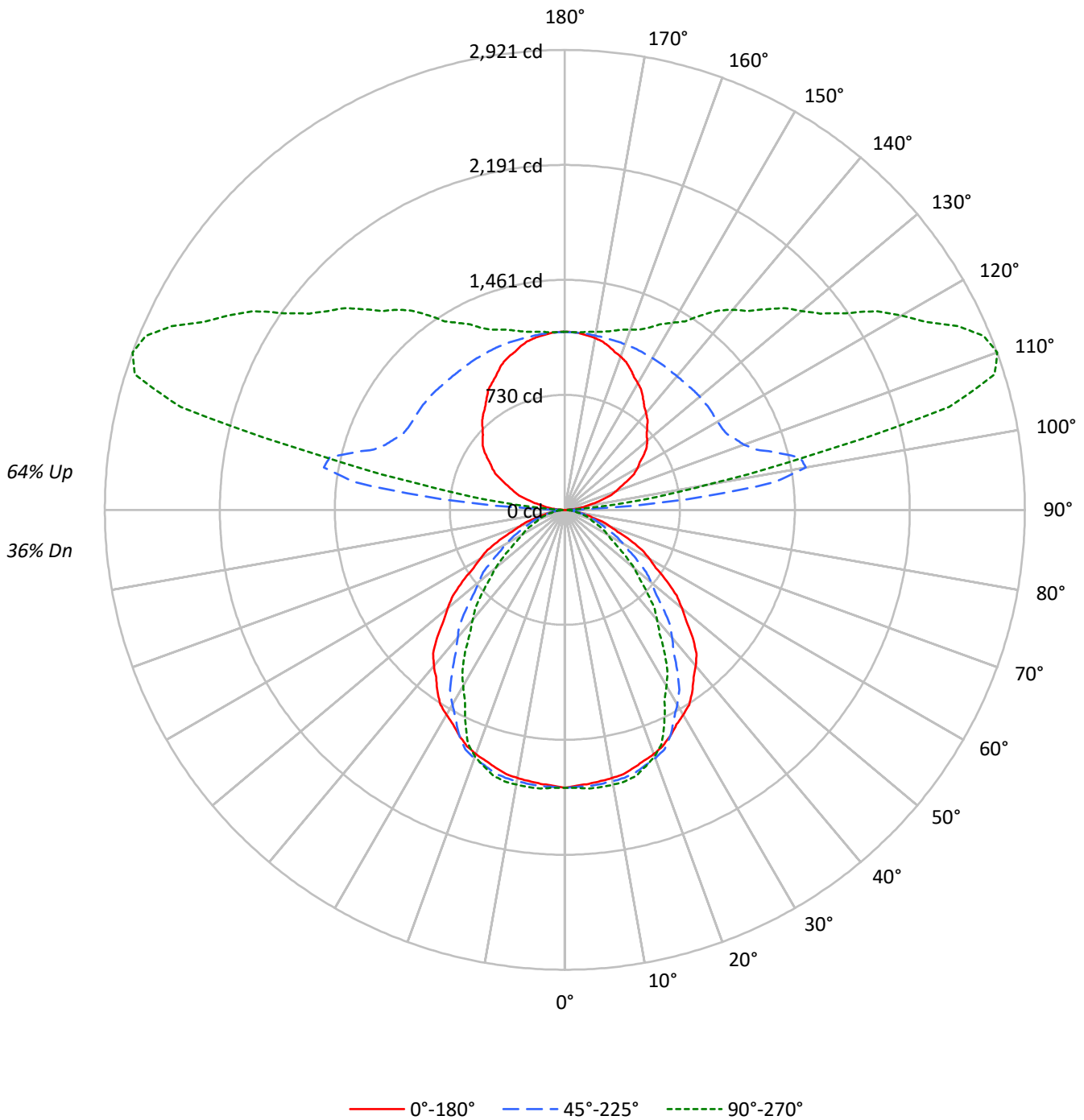
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10892.7 lumens  
Efficiency: N/A  
Efficacy: 130.8 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: Semi-Indirect  
  
Input Watts (W): 83.3  
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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	95	91	87	84	86	83	80	77	67	65	63	52	51	50	39	38	37	31
2	87	80	74	69	78	73	68	64	59	56	53	46	44	42	35	33	32	27
3	79	71	64	58	72	64	58	54	52	48	45	41	38	36	31	29	28	23
4	73	63	55	49	66	57	51	46	47	42	38	37	34	31	28	26	24	20
5	67	56	48	42	60	51	44	39	42	37	33	33	30	27	25	23	21	18
6	62	50	42	37	56	46	39	34	38	33	29	30	27	24	23	21	19	16
7	57	45	38	32	52	42	35	30	34	29	26	28	24	21	21	19	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	22	19	20	17	15	13
9	49	38	30	25	45	34	28	24	29	24	20	23	20	17	18	16	14	12
10	46	34	27	23	42	32	25	21	26	22	18	21	18	15	17	14	13	11

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

	0°	45°	90°
0°	28501	28501	28501
5°	28310	28528	28801
10°	28362	28693	29052
15°	28356	28889	29227
20°	28366	28857	28654
25°	28214	28244	26626
30°	28021	26612	24071
35°	27802	24488	21737
40°	27248	22323	19205
45°	26179	20078	16776
50°	24367	17947	14358
55°	22292	15854	11643
60°	19979	13789	10043
65°	17471	11882	8928
70°	14290	10556	8091
75°	11117	9127	7442
80°	8294	7810	6564
85°	5613	5910	3742

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 26179 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.1	1.5
10°-20°	487.0	4.5
20°-30°	716.7	6.6
30°-40°	783.6	7.2
40°-50°	703.0	6.5
50°-60°	524.4	4.8
60°-70°	331.4	3.0
70°-80°	164.2	1.5
80°-90°	39.7	0.4
90°-100°	430.6	4.0
100°-110°	1409.9	12.9
110°-120°	1393.9	12.8
120°-130°	1139.4	10.5
130°-140°	929.8	8.5
140°-150°	723.6	6.6
150°-160°	521.0	4.8
160°-170°	318.8	2.9
170°-180°	107.7	1.0
0°-30°	1371.8	12.6
0°-40°	2155.4	19.8
0°-60°	3382.8	31.1
0°-90°	3918.0	36.0
90°-120°	3234.3	29.7
90°-150°	6027.2	55.3
90°-180°	6975.0	64.0
0°-180°	10892.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1765	1765	1765	1765	1765	
5°	1747	1775	1760	1762	1777	166
15°	1696	1729	1728	1740	1748	479
25°	1584	1618	1585	1519	1495	729
35°	1410	1396	1242	1134	1103	880
45°	1146	1055	879	769	735	879
55°	792	716	563	442	414	707
65°	457	419	311	250	234	453
75°	178	191	146	123	119	196
85°	30	38	32	22	20	38
90°	1	3	9	8	9	4
95°	60	175	783	279	181	69
105°	245	350	1399	2659	2526	258
115°	441	528	1137	2349	2758	436
125°	614	685	1121	1853	2176	547
135°	740	818	1111	1598	1801	572
145°	865	929	1109	1375	1506	542
155°	986	1019	1116	1230	1278	454
165°	1077	1087	1121	1164	1176	303
175°	1125	1125	1127	1135	1132	107
180°	1130	1130	1130	1130	1130	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1765.2	1765.2	1765.2	1765.2	1765.2
2.5°	1753.1	1775.5	1761.3	1762.7	1766.6
5°	1746.7	1774.7	1760.2	1762.2	1777.0
7.5°	1738.0	1766.3	1755.4	1761.5	1776.0
10°	1729.9	1759.5	1750.1	1758.8	1772.0
12.5°	1719.2	1750.1	1743.4	1753.5	1766.6
15°	1696.4	1729.2	1728.3	1740.2	1748.5
17.5°	1669.8	1702.7	1701.0	1704.2	1708.1
20°	1650.9	1683.8	1679.5	1667.7	1667.7
22.5°	1624.0	1659.5	1648.6	1616.4	1605.9
25°	1583.7	1618.2	1585.4	1519.2	1494.6
27.5°	1536.6	1564.6	1498.6	1404.7	1370.5
30°	1503.0	1524.3	1427.4	1324.0	1291.1
32.5°	1468.1	1476.2	1354.7	1247.3	1211.8
35°	1410.5	1395.7	1242.4	1134.1	1102.8
37.5°	1342.5	1298.5	1134.5	1021.0	986.5
40°	1292.8	1230.3	1059.1	945.7	911.2
42.5°	1237.7	1159.5	987.9	874.4	838.6
45°	1146.5	1054.6	879.3	769.2	734.7
47.5°	1044.0	952.6	777.7	671.2	641.6
50°	970.1	881.3	714.5	607.8	571.6
52.5°	894.7	815.2	652.6	543.0	493.5
55°	791.9	716.3	563.2	441.6	413.6
57.5°	686.0	620.5	482.1	371.6	348.7
60°	618.7	561.1	427.0	334.0	311.0
62.5°	554.1	503.1	373.3	299.2	280.0
65°	457.3	419.4	311.0	250.1	233.7
67.5°	363.1	342.0	258.6	205.2	194.4
70°	302.7	296.0	223.6	179.7	171.4
72.5°	250.2	252.8	190.0	155.6	150.0
75°	178.2	191.4	146.3	122.6	119.3
77.5°	121.4	141.1	108.3	90.7	88.1
80°	89.2	108.8	84.0	70.6	70.6
82.5°	62.2	78.0	59.9	53.1	53.1
85°	30.3	38.5	31.9	21.8	20.2
87.5°	8.3	12.7	7.2	5.7	5.9
90°	1.2	3.4	9.3	8.2	9.3
92.5°	19.7	72.0	221.1	71.9	57.6
95°	60.4	175.0	782.8	278.9	181.2
97.5°	109.7	230.9	1343.0	812.4	503.6
100°	144.0	259.9	1553.9	1387.6	919.9
102.5°	183.1	296.1	1530.8	2044.7	1585.1
105°	245.1	349.5	1399.4	2658.9	2526.0
107.5°	306.2	401.9	1271.5	2716.3	2862.3
110°	346.1	439.2	1210.2	2649.4	2920.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	384.2	474.6	1173.0	2533.2	2880.9
115°	441.3	527.6	1137.0	2349.4	2758.3
117.5°	496.8	577.5	1123.3	2168.9	2584.0
120°	533.1	609.2	1119.6	2063.7	2468.0
122.5°	565.6	639.8	1119.6	1972.9	2348.1
125°	614.4	684.8	1120.8	1852.8	2176.4
127.5°	655.8	727.4	1119.4	1764.3	2045.9
130°	681.8	754.4	1118.4	1710.7	1965.1
132.5°	705.0	779.4	1115.6	1664.7	1895.4
135°	739.8	818.1	1111.4	1598.0	1801.2
137.5°	776.5	854.1	1108.9	1528.7	1712.3
140°	802.5	877.4	1107.9	1484.7	1658.5
142.5°	828.5	899.0	1107.9	1437.9	1595.3
145°	865.2	928.8	1109.1	1374.6	1506.3
147.5°	903.8	956.7	1110.7	1319.5	1419.0
150°	927.9	974.5	1112.6	1287.5	1371.6
152.5°	952.1	993.2	1113.5	1261.2	1330.7
155°	986.0	1018.9	1116.1	1229.8	1277.5
157.5°	1016.5	1040.2	1118.7	1205.1	1239.6
160°	1035.9	1055.3	1119.6	1191.0	1218.3
162.5°	1052.7	1068.3	1119.6	1179.7	1199.7
165°	1076.6	1086.9	1120.8	1164.0	1176.5
167.5°	1096.8	1101.8	1122.2	1151.8	1158.6
170°	1107.9	1110.3	1123.1	1145.1	1147.5
172.5°	1116.3	1117.7	1125.9	1140.5	1140.9
175°	1125.4	1125.4	1126.6	1134.6	1132.3
177.5°	1130.0	1129.2	1128.1	1133.7	1130.0
180°	1130.0	1130.0	1130.0	1130.0	1130.0



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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	17.22	17.94	18.30	19.02	20.48	13.71	14.43	14.78	15.50	16.96
	3H	18.53	19.18	19.62	20.26	21.74	14.90	15.55	15.99	16.63	18.11
	4H	18.90	19.51	20.00	20.59	22.08	15.34	15.95	16.44	17.04	18.52
	6H	19.10	19.66	20.20	20.74	22.24	15.65	16.21	16.76	17.30	18.80
	8H	19.13	19.66	20.23	20.76	22.25	15.72	16.26	16.83	17.36	18.85
	12H	19.12	19.63	20.23	20.72	22.23	15.73	16.24	16.84	17.33	18.85
4H	2H	17.31	17.92	18.41	19.00	20.49	14.37	14.99	15.48	16.07	17.55
	3H	18.84	19.35	19.95	20.46	21.96	15.75	16.26	16.86	17.37	18.86
	4H	19.34	19.81	20.46	20.91	22.43	16.29	16.75	17.40	17.85	19.37
	6H	19.67	20.07	20.79	21.19	22.70	16.68	17.08	17.81	18.21	19.72
	8H	19.74	20.12	20.86	21.23	22.76	16.79	17.16	17.91	18.27	19.80
	12H	19.75	20.09	20.89	21.22	22.75	16.80	17.14	17.94	18.27	19.80
8H	4H	19.37	19.74	20.49	20.86	22.39	16.61	16.98	17.73	18.09	19.62
	6H	19.80	20.11	20.94	21.27	22.79	17.11	17.41	18.25	18.57	20.09
	8H	19.95	20.22	21.10	21.35	22.90	17.27	17.54	18.42	18.67	20.22
	12H	20.01	20.24	21.16	21.38	22.96	17.32	17.56	18.47	18.69	20.27
12H	4H	19.32	19.66	20.46	20.79	22.32	16.61	16.95	17.75	18.08	19.61
	6H	19.79	20.06	20.94	21.20	22.74	17.17	17.44	18.32	18.58	20.12
	8H	19.95	20.19	21.10	21.32	22.90	17.35	17.59	18.50	18.72	20.30