

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: P855356

Luminaire Tested: SQ2-PH1-150U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

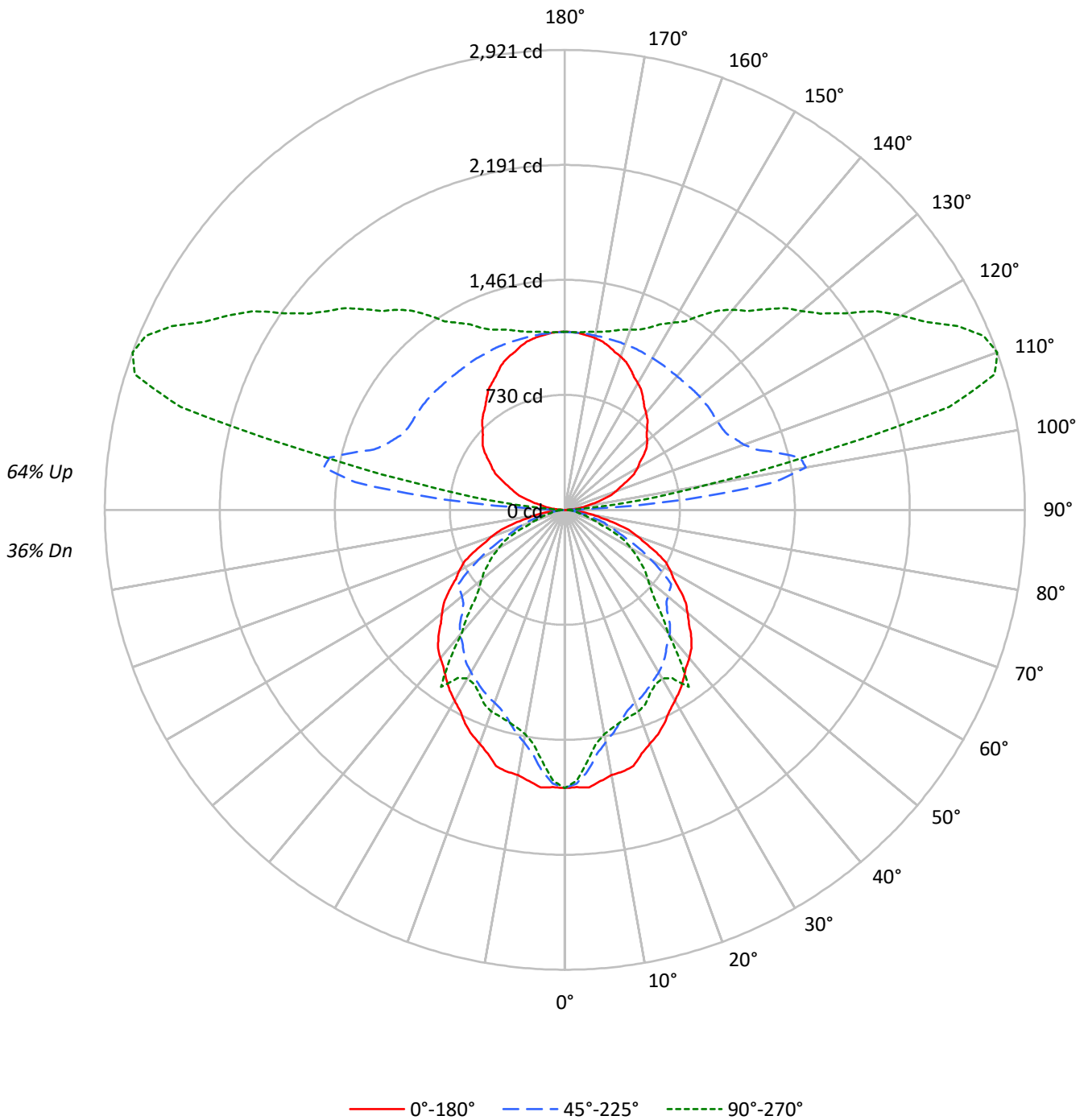
Test Method: LM-79-2019  
Report Number: P855356  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-150U-075D-840-UNV-STD-W-4  
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: 10884.2 lumens  
Efficiency: N/A  
Efficacy: 130.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
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	82	79	76	66	64	62	52	50	49	38	38	37	31
2	86	79	73	68	78	72	67	63	58	55	52	46	43	41	34	32	31	26
3	79	70	63	57	71	63	57	52	51	47	43	40	37	35	30	28	27	22
4	72	62	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	36	55	45	38	33	37	32	28	29	25	23	22	20	18	14
7	56	44	36	31	51	40	34	29	33	28	24	26	23	20	20	18	16	13
8	52	40	33	27	47	37	30	25	30	25	22	24	20	18	18	16	14	11
9	48	36	29	24	44	33	27	23	28	23	19	22	18	16	17	14	13	10
10	45	33	26	22	41	31	24	20	25	21	17	20	17	14	16	13	11	9

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

	0°	45°	90°
0°	28530	28530	28530
5°	28691	26976	26075
10°	28032	24558	23704
15°	28159	23099	23239
20°	27153	22386	23426
25°	26657	22283	22882
30°	26077	22223	23068
35°	25882	21969	27039
40°	25901	21827	21439
45°	25912	20998	18466
50°	25551	21411	17314
55°	25225	23237	16608
60°	24974	20360	15581
65°	24539	16504	13551
70°	23174	14044	9682
75°	20661	10593	7342
80°	16885	6881	6881
85°	10578	6243	4668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25912 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.5	1.4
10°-20°	409.0	3.8
20°-30°	599.6	5.5
30°-40°	726.2	6.7
40°-50°	714.1	6.6
50°-60°	621.7	5.7
60°-70°	432.2	4.0
70°-80°	204.9	1.9
80°-90°	46.4	0.4
90°-100°	430.6	4.0
100°-110°	1409.9	13.0
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°	1164.1	10.7
0°-40°	1890.2	17.4
0°-60°	3226.0	29.6
0°-90°	3909.5	35.9
90°-120°	3234.3	29.7
90°-150°	6027.2	55.4
90°-180°	6975.0	64.1
0°-180°	10884.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1767	1767	1767	1767	1767	
5°	1770	1769	1664	1612	1609	166
15°	1685	1500	1382	1372	1390	470
25°	1496	1273	1251	1289	1284	688
35°	1313	1061	1115	1211	1372	822
45°	1135	841	920	952	809	872
55°	896	654	826	595	590	801
65°	642	450	432	355	355	631
75°	331	229	170	121	118	351
85°	57	37	34	27	25	77
90°	1	3	9	8	9	5
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°	1767.0	1767.0	1767.0	1767.0	1767.0
2.5°	1762.9	1781.3	1740.1	1723.9	1721.2
5°	1770.2	1768.6	1664.4	1612.2	1608.8
7.5°	1738.0	1687.0	1562.5	1504.9	1502.3
10°	1709.8	1632.5	1497.9	1445.8	1445.8
12.5°	1703.0	1581.1	1445.4	1407.0	1414.9
15°	1684.6	1500.5	1381.9	1372.3	1390.3
17.5°	1623.4	1425.1	1332.5	1354.5	1375.5
20°	1580.3	1384.7	1302.9	1343.7	1363.4
22.5°	1544.0	1345.8	1281.4	1326.0	1336.6
25°	1496.3	1272.7	1250.8	1289.4	1284.4
27.5°	1439.0	1205.7	1220.2	1243.8	1246.7
30°	1398.7	1165.3	1192.0	1216.0	1237.3
32.5°	1359.8	1118.4	1161.0	1218.0	1266.9
35°	1313.1	1061.4	1114.6	1210.7	1371.8
37.5°	1263.9	994.3	1067.9	1148.7	1200.0
40°	1228.9	946.2	1035.6	1135.5	1017.2
42.5°	1191.3	908.5	987.2	1116.1	916.2
45°	1134.8	840.6	919.6	951.7	808.7
47.5°	1068.2	787.8	873.9	793.6	737.7
50°	1017.2	752.5	852.4	725.5	689.3
52.5°	967.4	715.9	837.6	669.2	644.9
55°	896.1	654.4	825.5	595.1	590.0
57.5°	820.4	591.9	730.0	530.5	539.0
60°	773.4	551.5	630.5	492.4	482.5
62.5°	723.6	512.2	537.6	443.9	434.1
65°	642.3	449.8	432.0	354.7	354.7
67.5°	552.7	385.0	350.0	290.3	250.8
70°	490.9	343.0	297.5	231.4	205.1
72.5°	425.0	298.1	243.8	189.6	159.4
75°	331.2	229.2	169.8	121.0	117.7
77.5°	239.4	165.1	114.3	89.7	90.1
80°	181.6	125.6	74.0	72.4	74.0
82.5°	127.7	86.4	55.1	57.5	57.8
85°	57.1	37.4	33.7	26.8	25.2
87.5°	12.4	11.4	8.6	8.4	8.6
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	17.51	18.25	18.58	19.32	20.78	16.18	16.92	17.25	17.99	19.45
	3H	19.52	20.19	20.60	21.27	22.74	17.20	17.87	18.28	18.95	20.42
	4H	20.25	20.88	21.34	21.96	23.44	17.41	18.04	18.50	19.12	20.61
	6H	20.73	21.30	21.83	22.39	23.89	17.55	18.13	18.65	19.21	20.71
	8H	20.85	21.40	21.95	22.50	23.99	17.58	18.13	18.68	19.23	20.72
	12H	20.89	21.41	22.00	22.50	24.02	17.57	18.10	18.68	19.19	20.70
4H	2H	17.87	18.50	18.96	19.58	21.06	16.80	17.43	17.90	18.52	20.00
	3H	19.96	20.48	21.07	21.59	23.09	17.97	18.50	19.08	19.61	21.10
	4H	20.77	21.25	21.88	22.35	23.87	18.24	18.72	19.35	19.82	21.34
	6H	21.35	21.76	22.47	22.88	24.39	18.44	18.86	19.56	19.98	21.49
	8H	21.52	21.90	22.63	23.01	24.54	18.50	18.88	19.62	20.00	21.52
	12H	21.58	21.93	22.71	23.05	24.58	18.50	18.85	19.63	19.97	21.51
8H	4H	20.78	21.16	21.90	22.28	23.80	18.45	18.83	19.57	19.95	21.47
	6H	21.42	21.74	22.56	22.90	24.42	18.72	19.03	19.86	20.19	21.71
	8H	21.65	21.93	22.79	23.06	24.61	18.82	19.10	19.96	20.23	21.78
	12H	21.76	22.00	22.91	23.13	24.71	18.86	19.10	20.01	20.23	21.81
12H	4H	20.72	21.07	21.86	22.20	23.73	18.44	18.79	19.57	19.91	21.45
	6H	21.40	21.67	22.54	22.81	24.35	18.75	19.02	19.89	20.16	21.70
	8H	21.62	21.87	22.77	23.00	24.58	18.86	19.10	20.01	20.23	21.81