

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: P854859

Luminaire Tested: SQ2-PW1-150U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854859  
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-050D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

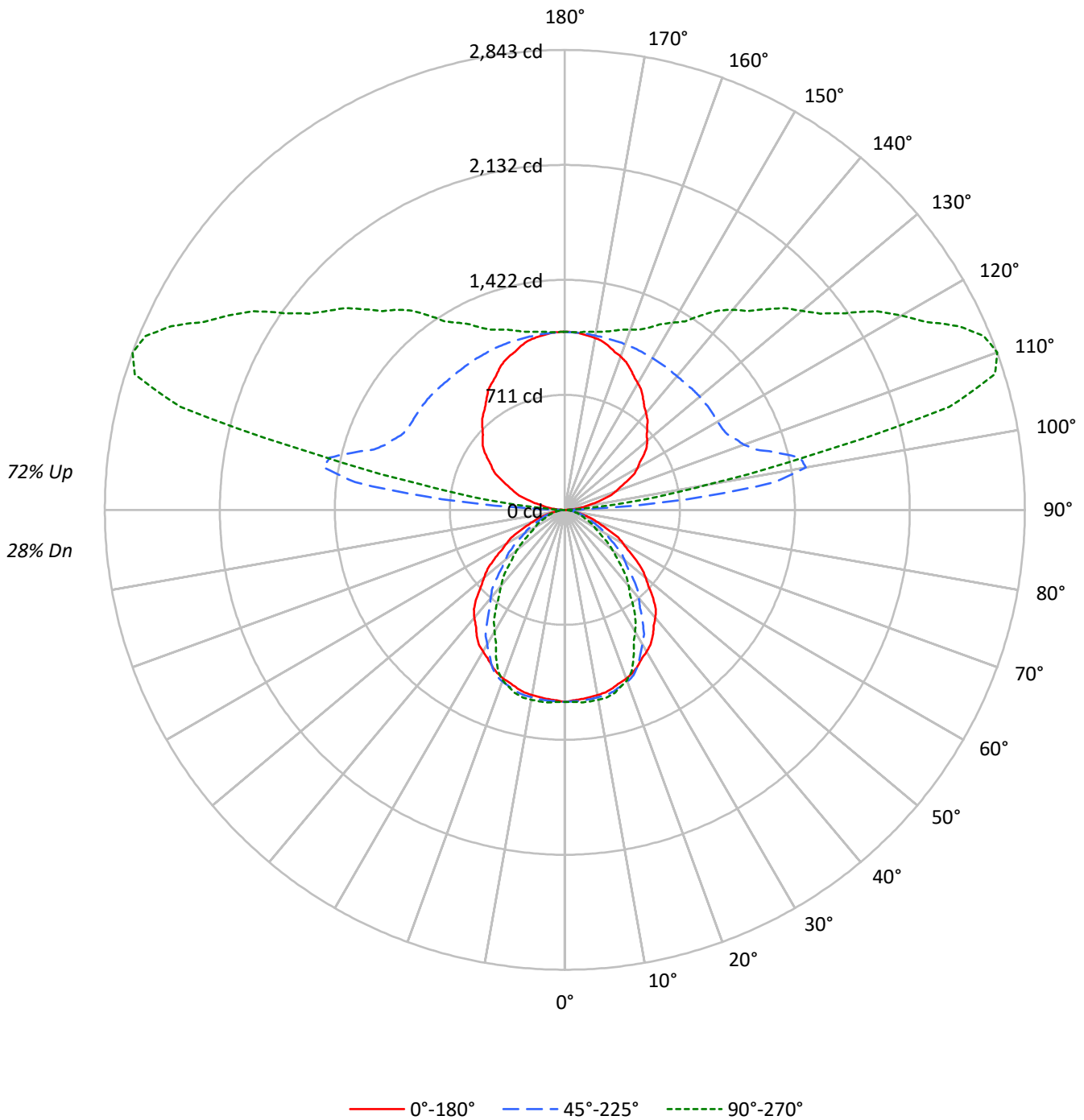
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9424.9 lumens  
Efficiency: N/A  
Efficacy: 126.7 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): 74.4  
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28
1	93	89	85	82	83	80	77	74	63	61	59	47	46	44	32	32	31	24
2	85	78	72	68	76	70	65	61	55	52	49	41	39	38	29	28	26	21
3	78	69	62	57	69	62	56	52	49	45	42	37	34	32	26	24	23	18
4	71	61	54	48	64	55	49	44	44	39	36	33	30	28	23	21	20	16
5	65	54	47	41	58	49	43	38	39	34	31	30	27	24	21	19	18	14
6	60	49	41	36	54	44	37	33	35	30	27	27	24	21	19	17	16	12
7	56	44	36	31	50	40	33	29	32	27	24	24	21	19	17	15	14	11
8	51	40	32	27	46	36	30	25	29	24	21	22	19	17	16	14	12	10
9	48	36	29	24	43	33	27	22	27	22	19	21	17	15	15	13	11	9
10	45	33	26	22	40	30	24	20	24	20	17	19	16	14	14	12	10	8

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

	0°	45°	90°
0°	19168	19168	19168
5°	19039	19186	19370
10°	19074	19297	19538
15°	19069	19428	19656
20°	19077	19407	19271
25°	18975	18994	17906
30°	18845	17896	16188
35°	18697	16468	14619
40°	18326	15013	12916
45°	17607	13502	11282
50°	16387	12069	9656
55°	14990	10663	7828
60°	13437	9274	6755
65°	11748	7992	6006
70°	9607	7100	5443
75°	7473	6138	5009
80°	5570	5253	4417
85°	3779	3983	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17607 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.0	1.2
10°-20°	327.5	3.5
20°-30°	482.0	5.1
30°-40°	527.0	5.6
40°-50°	472.8	5.0
50°-60°	352.7	3.7
60°-70°	222.9	2.4
70°-80°	110.4	1.2
80°-90°	27.1	0.3
90°-100°	419.2	4.4
100°-110°	1372.5	14.6
110°-120°	1356.9	14.4
120°-130°	1109.2	11.8
130°-140°	905.1	9.6
140°-150°	704.4	7.5
150°-160°	507.2	5.4
160°-170°	310.3	3.3
170°-180°	104.8	1.1
0°-30°	922.6	9.8
0°-40°	1449.6	15.4
0°-60°	2275.0	24.1
0°-90°	2635.4	28.0
90°-120°	3148.5	33.4
90°-150°	5867.2	62.3
90°-180°	6790.0	72.0
0°-180°	9424.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1175	1194	1184	1185	1195	112
15°	1141	1163	1162	1170	1176	322
25°	1065	1088	1066	1022	1005	490
35°	949	939	836	763	742	592
45°	771	709	591	517	494	591
55°	532	482	379	297	278	476
65°	308	282	209	168	157	305
75°	120	129	98	82	80	132
85°	20	26	22	15	14	26
90°	1	3	9	8	9	4
95°	59	170	762	272	176	67
105°	239	340	1362	2588	2459	251
115°	430	514	1107	2287	2685	424
125°	598	667	1091	1804	2119	532
135°	720	796	1082	1556	1754	557
145°	842	904	1080	1338	1466	528
155°	960	992	1086	1197	1244	442
165°	1048	1058	1091	1133	1145	295
175°	1096	1096	1097	1104	1102	104
180°	1100	1100	1100	1100	1100	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1179.0	1194.1	1184.5	1185.5	1188.1
5°	1174.7	1193.5	1183.8	1185.1	1195.1
7.5°	1168.9	1187.9	1180.6	1184.7	1194.4
10°	1163.4	1183.3	1177.0	1182.9	1191.7
12.5°	1156.2	1177.0	1172.5	1179.3	1188.1
15°	1140.8	1163.0	1162.3	1170.3	1175.9
17.5°	1123.0	1145.1	1144.0	1146.1	1148.7
20°	1110.3	1132.5	1129.5	1121.6	1121.6
22.5°	1092.2	1116.1	1108.7	1087.1	1080.0
25°	1065.1	1088.2	1066.2	1021.8	1005.1
27.5°	1033.4	1052.2	1007.9	944.7	921.7
30°	1010.8	1025.2	959.9	890.5	868.3
32.5°	987.3	992.8	911.1	838.8	815.0
35°	948.6	938.7	835.5	762.7	741.7
37.5°	902.9	873.3	763.0	686.6	663.5
40°	869.5	827.5	712.3	636.0	612.8
42.5°	832.4	779.8	664.4	588.0	564.0
45°	771.1	709.3	591.3	517.3	494.1
47.5°	702.1	640.6	523.0	451.4	431.5
50°	652.4	592.7	480.5	408.7	384.4
52.5°	601.7	548.2	438.9	365.1	332.0
55°	532.5	481.7	378.8	296.9	278.1
57.5°	461.3	417.3	324.3	250.0	234.5
60°	416.1	377.4	287.2	224.7	209.2
62.5°	372.7	338.4	251.0	201.1	188.4
65°	307.5	282.1	209.2	168.2	157.2
67.5°	244.2	230.1	173.9	138.1	130.7
70°	203.5	199.1	150.4	120.9	115.3
72.5°	168.2	170.0	127.8	104.6	100.9
75°	119.8	128.7	98.4	82.5	80.3
77.5°	81.6	94.9	72.8	61.1	59.2
80°	59.9	73.2	56.5	47.5	47.5
82.5°	41.8	52.5	40.3	35.7	35.7
85°	20.4	25.9	21.5	14.7	13.6
87.5°	5.7	8.7	5.4	4.3	4.5
90°	1.1	3.4	9.0	7.9	9.0
92.5°	19.2	70.1	215.3	70.0	56.1
95°	58.8	170.4	762.1	271.5	176.4
97.5°	106.7	224.8	1307.4	790.9	490.2
100°	140.2	252.9	1512.7	1350.9	895.4
102.5°	178.2	288.3	1490.1	1990.5	1543.0
105°	238.6	340.2	1362.3	2588.3	2458.9
107.5°	298.0	391.3	1237.7	2644.2	2786.4
110°	336.9	427.6	1178.0	2579.1	2843.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	374.0	462.0	1141.8	2465.9	2804.4
115°	429.6	513.7	1106.8	2287.2	2685.1
117.5°	483.7	562.2	1093.4	2111.4	2515.5
120°	519.0	593.0	1089.8	2008.9	2402.4
122.5°	550.6	622.9	1089.8	1920.5	2285.8
125°	598.1	666.6	1091.0	1803.6	2118.7
127.5°	638.4	708.1	1089.6	1717.4	1991.6
130°	663.7	734.4	1088.7	1665.3	1912.9
132.5°	686.3	758.8	1086.0	1620.4	1845.1
135°	720.2	796.4	1081.9	1555.7	1753.5
137.5°	755.9	831.5	1079.4	1488.0	1666.9
140°	781.2	854.2	1078.5	1445.3	1614.4
142.5°	806.5	875.1	1078.5	1399.7	1552.9
145°	842.2	904.2	1079.7	1338.1	1466.3
147.5°	879.8	931.3	1081.2	1284.5	1381.3
150°	903.3	948.6	1083.0	1253.4	1335.2
152.5°	926.8	966.8	1083.9	1227.8	1295.4
155°	959.8	991.9	1086.4	1197.2	1243.6
157.5°	989.4	1012.7	1088.9	1173.2	1206.7
160°	1008.4	1027.3	1089.8	1159.5	1185.9
162.5°	1024.7	1040.0	1089.8	1148.4	1167.8
165°	1048.0	1057.9	1091.0	1133.1	1145.2
167.5°	1067.7	1072.5	1092.3	1121.3	1127.8
170°	1078.5	1080.8	1093.2	1114.8	1117.0
172.5°	1086.7	1088.0	1095.9	1110.2	1110.6
175°	1095.5	1095.5	1096.6	1104.5	1102.3
177.5°	1100.0	1099.1	1098.2	1103.6	1100.0
180°	1100.0	1100.0	1100.0	1100.0	1100.0



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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	14.79	15.47	15.93	16.59	18.14	11.28	11.95	12.41	13.07	14.63
	3H	16.10	16.70	17.24	17.83	19.40	12.47	13.07	13.61	14.20	15.77
	4H	16.47	17.04	17.61	18.17	19.74	12.91	13.48	14.06	14.61	16.19
	6H	16.66	17.19	17.82	18.32	19.90	13.22	13.74	14.37	14.87	16.46
	8H	16.69	17.19	17.85	18.33	19.91	13.29	13.79	14.45	14.93	16.51
	12H	16.68	17.15	17.84	18.29	19.90	13.29	13.77	14.46	14.91	16.51
4H	2H	14.87	15.45	16.03	16.57	18.15	11.94	12.51	13.10	13.64	15.22
	3H	16.40	16.88	17.56	18.03	19.62	13.31	13.79	14.47	14.94	16.53
	4H	16.90	17.34	18.07	18.48	20.09	13.85	14.29	15.01	15.43	17.04
	6H	17.22	17.60	18.39	18.76	20.36	14.24	14.62	15.41	15.78	17.38
	8H	17.30	17.65	18.47	18.80	20.42	14.35	14.69	15.51	15.85	17.47
	12H	17.31	17.62	18.49	18.79	20.41	14.36	14.68	15.54	15.84	17.46
8H	4H	16.93	17.28	18.10	18.43	20.05	14.16	14.51	15.33	15.67	17.28
	6H	17.36	17.64	18.54	18.84	20.46	14.66	14.95	15.85	16.15	17.76
	8H	17.50	17.75	18.69	18.93	20.56	14.83	15.08	16.02	16.25	17.89
	12H	17.56	17.78	18.76	18.95	20.62	14.88	15.10	16.07	16.27	17.94
12H	4H	16.88	17.19	18.06	18.36	19.98	14.17	14.49	15.35	15.65	17.27
	6H	17.35	17.60	18.54	18.78	20.41	14.73	14.98	15.92	16.15	17.79
	8H	17.50	17.72	18.70	18.90	20.56	14.90	15.12	16.10	16.30	17.97