

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: P854066

Luminaire Tested: SQ2-PH1-150U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854066  
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-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

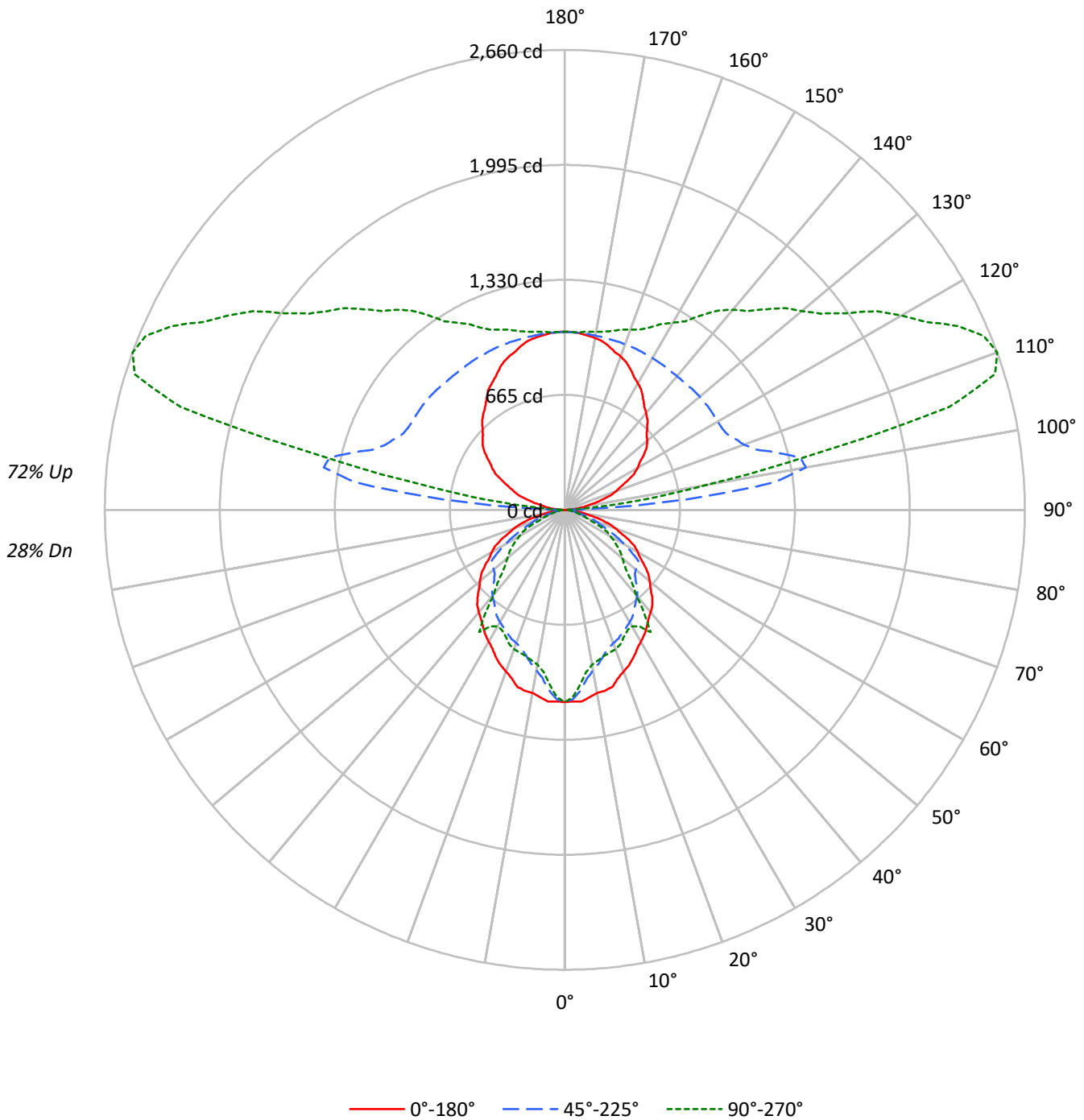
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8812.1 lumens  
Efficiency: N/A  
Efficacy: 118.4 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): 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	62	60	58	46	45	44	32	31	30	24
2	85	78	72	67	76	70	65	61	55	51	48	41	39	37	28	27	26	20
3	77	68	61	56	69	61	55	51	48	44	41	36	33	31	25	23	22	17
4	71	60	53	47	63	54	48	43	43	38	35	32	29	27	22	20	19	15
5	65	54	46	40	58	48	42	37	38	33	30	29	26	23	20	18	16	13
6	59	48	40	35	53	43	36	32	34	29	26	26	23	20	18	16	14	11
7	55	43	35	30	49	39	32	28	31	26	23	24	20	18	17	14	13	10
8	51	39	32	26	45	35	29	24	28	23	20	21	18	16	15	13	11	9
9	47	35	28	23	42	32	26	22	26	21	18	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7

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

	0°	45°	90°
0°	17949	17949	17949
5°	18052	16973	16407
10°	17638	15452	14914
15°	17717	14534	14623
20°	17084	14086	14740
25°	16771	14020	14396
30°	16408	13983	14514
35°	16283	13823	17012
40°	16297	13734	13489
45°	16303	13212	11618
50°	16076	13471	10894
55°	15871	14621	10452
60°	15713	12810	9804
65°	15438	10384	8527
70°	14582	8837	6090
75°	13001	6662	4616
80°	10618	4324	4324
85°	6669	3927	2946

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16303 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.8	1.1
10°-20°	257.3	2.9
20°-30°	377.3	4.3
30°-40°	456.9	5.2
40°-50°	449.3	5.1
50°-60°	391.1	4.4
60°-70°	271.9	3.1
70°-80°	128.9	1.5
80°-90°	29.6	0.3
90°-100°	392.1	4.4
100°-110°	1284.0	14.6
110°-120°	1269.4	14.4
120°-130°	1037.7	11.8
130°-140°	846.8	9.6
140°-150°	659.0	7.5
150°-160°	474.5	5.4
160°-170°	290.3	3.3
170°-180°	98.1	1.1
0°-30°	732.4	8.3
0°-40°	1189.3	13.5
0°-60°	2029.8	23.0
0°-90°	2460.2	27.9
90°-120°	2945.6	33.4
90°-150°	5489.1	62.3
90°-180°	6352.0	72.1
0°-180°	8812.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1114	1113	1047	1014	1012	105
15°	1060	944	870	863	875	295
25°	941	801	787	811	808	433
35°	826	668	701	762	863	517
45°	714	529	579	599	509	549
55°	564	412	519	374	371	504
65°	404	283	272	223	223	397
75°	208	144	107	76	74	221
85°	36	24	21	17	16	48
90°	1	3	8	7	8	4
95°	55	160	713	254	165	62
105°	223	318	1274	2422	2300	235
115°	402	480	1036	2140	2512	397
125°	560	624	1021	1687	1982	498
135°	674	745	1012	1455	1640	521
145°	788	846	1010	1252	1372	494
155°	898	928	1016	1120	1164	413
165°	980	990	1021	1060	1071	276
175°	1025	1025	1026	1033	1031	97
180°	1029	1029	1029	1029	1029	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1111.7	1111.7	1111.7	1111.7	1111.7
2.5°	1109.2	1120.8	1094.8	1084.6	1083.0
5°	1113.8	1112.8	1047.2	1014.4	1012.3
7.5°	1093.5	1061.5	983.1	946.9	945.2
10°	1075.8	1027.1	942.5	909.7	909.7
12.5°	1071.5	994.8	909.5	885.3	890.2
15°	1059.9	944.1	869.5	863.4	874.8
17.5°	1021.4	896.7	838.4	852.2	865.5
20°	994.3	871.2	819.8	845.4	857.9
22.5°	971.5	846.7	806.2	834.3	840.9
25°	941.4	800.8	787.0	811.2	808.1
27.5°	905.5	758.6	767.7	782.6	784.4
30°	880.1	733.2	750.0	765.1	778.5
32.5°	855.5	703.7	730.5	766.3	797.1
35°	826.1	667.9	701.3	761.8	863.1
37.5°	795.2	625.6	671.9	722.8	755.0
40°	773.2	595.3	651.6	714.4	640.0
42.5°	749.5	571.6	621.1	702.3	576.5
45°	714.0	528.9	578.6	598.8	508.8
47.5°	672.1	495.7	549.8	499.3	464.2
50°	640.0	473.4	536.3	456.4	433.7
52.5°	608.6	450.4	527.0	421.1	405.8
55°	563.8	411.8	519.4	374.4	371.3
57.5°	516.2	372.4	459.3	333.7	339.1
60°	486.6	347.0	396.7	309.8	303.6
62.5°	455.3	322.3	338.3	279.3	273.1
65°	404.1	283.1	271.8	223.2	223.2
67.5°	347.8	242.3	220.2	182.6	157.8
70°	308.9	215.8	187.2	145.6	129.0
72.5°	267.4	187.6	153.4	119.3	100.3
75°	208.4	144.3	106.8	76.1	74.0
77.5°	150.6	103.9	71.9	56.5	56.7
80°	114.2	79.1	46.5	45.5	46.5
82.5°	80.4	54.3	34.7	36.2	36.4
85°	36.0	23.6	21.2	16.9	15.9
87.5°	7.8	7.4	5.9	5.7	5.9
90°	1.1	3.1	8.5	7.4	8.5
92.5°	18.0	65.6	201.4	65.5	52.5
95°	55.0	159.5	712.9	253.9	165.0
97.5°	99.8	210.3	1223.1	739.9	458.6
100°	131.2	236.6	1415.2	1263.8	837.7
102.5°	166.7	269.7	1394.0	1862.2	1443.5
105°	223.2	318.3	1274.5	2421.5	2300.5
107.5°	278.8	366.1	1158.0	2473.8	2606.8
110°	315.2	400.0	1102.1	2412.9	2660.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	349.9	432.2	1068.3	2307.0	2623.7
115°	401.9	480.5	1035.5	2139.7	2512.0
117.5°	452.5	525.9	1023.0	1975.3	2353.4
120°	485.5	554.8	1019.6	1879.4	2247.6
122.5°	515.1	582.7	1019.6	1796.7	2138.4
125°	559.5	623.6	1020.7	1687.4	1982.1
127.5°	597.2	662.5	1019.4	1606.7	1863.2
130°	620.9	687.1	1018.6	1558.0	1789.6
132.5°	642.0	709.9	1016.0	1516.0	1726.1
135°	673.7	745.1	1012.2	1455.4	1640.5
137.5°	707.2	777.9	1009.9	1392.1	1559.5
140°	730.9	799.1	1009.0	1352.2	1510.4
142.5°	754.6	818.7	1009.0	1309.5	1452.8
145°	788.0	845.9	1010.1	1251.9	1371.8
147.5°	823.1	871.3	1011.6	1201.7	1292.3
150°	845.1	887.5	1013.3	1172.6	1249.1
152.5°	867.1	904.5	1014.1	1148.6	1211.9
155°	898.0	928.0	1016.4	1120.0	1163.5
157.5°	925.7	947.4	1018.8	1097.5	1129.0
160°	943.5	961.0	1019.6	1084.7	1109.5
162.5°	958.7	973.0	1019.6	1074.4	1092.6
165°	980.5	989.8	1020.7	1060.1	1071.4
167.5°	998.9	1003.4	1021.9	1048.9	1055.2
170°	1009.0	1011.1	1022.8	1042.9	1045.0
172.5°	1016.7	1017.9	1025.3	1038.7	1039.1
175°	1024.9	1024.9	1026.0	1033.3	1031.2
177.5°	1029.1	1028.3	1027.4	1032.4	1029.1
180°	1029.1	1029.1	1029.1	1029.1	1029.1

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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	14.85	15.54	15.98	16.66	18.22	13.53	14.21	14.65	15.33	16.89
	3H	16.86	17.48	18.00	18.61	20.18	14.55	15.16	15.68	16.29	17.86
	4H	17.59	18.17	18.73	19.30	20.88	14.75	15.34	15.90	16.46	18.04
	6H	18.06	18.60	19.22	19.73	21.32	14.89	15.42	16.04	16.55	18.14
	8H	18.18	18.69	19.34	19.84	21.42	14.91	15.42	16.07	16.57	18.15
	12H	18.22	18.71	19.38	19.85	21.45	14.90	15.39	16.06	16.53	18.13
4H	2H	15.21	15.79	16.36	16.92	18.49	14.14	14.73	15.30	15.86	17.43
	3H	17.30	17.78	18.45	18.94	20.52	15.31	15.79	16.46	16.95	18.54
	4H	18.10	18.55	19.26	19.69	21.30	15.58	16.02	16.74	17.17	18.77
	6H	18.68	19.06	19.84	20.23	21.82	15.77	16.16	16.94	17.32	18.92
	8H	18.84	19.20	20.01	20.36	21.97	15.83	16.18	16.99	17.34	18.95
	12H	18.90	19.23	20.08	20.40	22.02	15.82	16.15	17.01	17.32	18.94
8H	4H	18.11	18.46	19.27	19.62	21.24	15.78	16.13	16.94	17.29	18.91
	6H	18.75	19.05	19.94	20.24	21.86	16.04	16.34	17.23	17.53	19.15
	8H	18.98	19.23	20.17	20.41	22.04	16.14	16.40	17.33	17.58	19.21
	12H	19.08	19.31	20.28	20.48	22.15	16.18	16.40	17.37	17.58	19.24
12H	4H	18.05	18.37	19.23	19.54	21.16	15.77	16.09	16.95	17.26	18.88
	6H	18.72	18.98	19.91	20.16	21.79	16.07	16.33	17.26	17.50	19.14
	8H	18.95	19.17	20.14	20.35	22.01	16.18	16.40	17.37	17.58	19.24