

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: P854875

Luminaire Tested: SQ2-PW1-075U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854875  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-075U-050D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

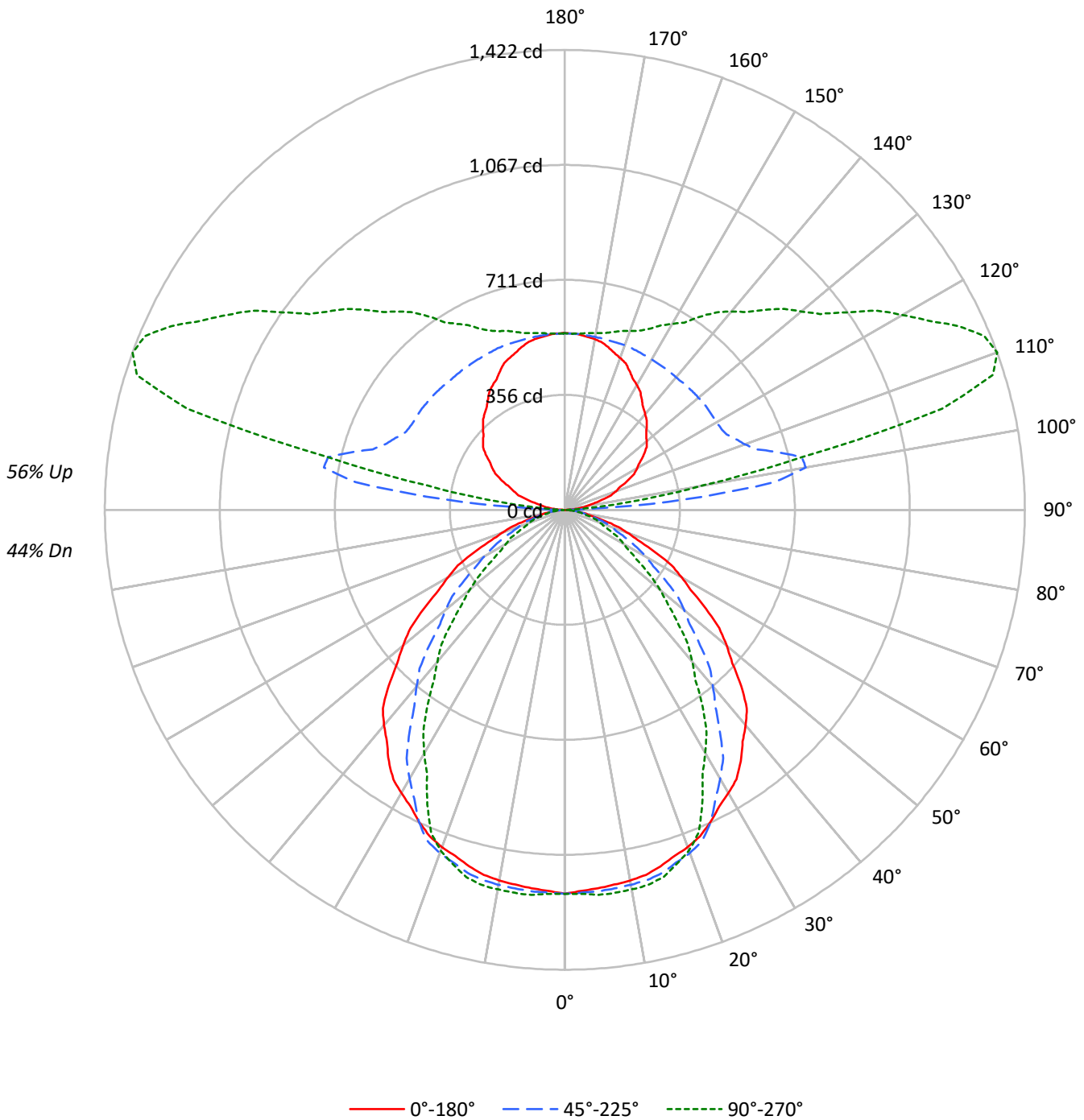
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6015.4 lumens  
Efficiency: N/A  
Efficacy: 146.4 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: General Diffuse  
  
Input Watts (W): 41.1  
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	65	65	65	50	50	50	44				44
1	97	93	89	86	89	85	82	79	71	69	67	58	56	55	45	44	44	38				38
2	89	82	76	71	81	75	70	66	63	59	56	51	49	46	41	39	37	33				33
3	81	72	65	60	74	66	60	56	56	51	48	46	42	40	36	34	32	28				28
4	74	64	57	51	68	59	53	47	50	45	41	41	37	35	33	30	28	25				25
5	68	57	50	44	63	53	46	41	45	39	36	37	33	30	30	27	25	22				22
6	63	52	44	38	58	48	41	36	40	35	31	34	30	27	27	24	22	19				19
7	58	47	39	34	54	43	36	32	37	31	28	31	27	24	25	22	20	17				17
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18	16				16
9	51	39	31	27	46	36	30	25	31	26	22	26	22	19	21	18	16	14				14
10	47	36	29	24	43	33	27	23	28	23	20	24	20	17	20	17	15	13				13

**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	1.9
10°-20°	327.5	5.4
20°-30°	482.0	8.0
30°-40°	527.0	8.8
40°-50°	472.8	7.9
50°-60°	352.7	5.9
60°-70°	222.9	3.7
70°-80°	110.4	1.8
80°-90°	26.4	0.4
90°-100°	206.5	3.4
100°-110°	684.6	11.4
110°-120°	679.4	11.3
120°-130°	553.4	9.2
130°-140°	449.8	7.5
140°-150°	349.3	5.8
150°-160°	251.7	4.2
160°-170°	154.1	2.6
170°-180°	52.1	0.9
0°-30°	922.6	15.3
0°-40°	1449.6	24.1
0°-60°	2275.0	37.8
0°-90°	2634.7	43.8
90°-120°	1570.5	26.1
90°-150°	2922.9	48.6
90°-180°	3381.0	56.2
0°-180°	6015.4	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°	0	1	3	4	4	2
95°	29	87	374	134	89	34
105°	120	171	685	1293	1208	126
115°	214	256	552	1148	1343	211
125°	298	332	542	902	1064	265
135°	357	394	537	774	874	277
145°	415	446	536	666	729	260
155°	474	490	539	595	617	218
165°	520	526	542	563	569	147
175°	544	544	545	548	547	52
180°	546	546	546	546	546	



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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°	5.4	8.3	4.3	3.6	3.6
90°	0.0	1.1	3.4	4.5	4.5
92.5°	9.0	34.9	102.9	33.4	28.0
95°	29.4	86.8	374.2	133.5	89.3
97.5°	54.0	114.2	653.2	380.9	240.8
100°	71.2	128.7	756.3	649.6	430.8
102.5°	90.2	146.0	750.0	992.7	750.0
105°	119.8	170.7	685.1	1292.6	1208.5
107.5°	150.1	195.5	622.9	1323.0	1386.8
110°	167.3	212.7	591.2	1292.9	1422.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	185.4	229.9	572.2	1239.4	1404.0
115°	213.7	255.6	551.6	1148.5	1343.1
117.5°	241.7	279.0	544.2	1061.7	1265.8
120°	258.9	295.3	541.5	1007.3	1205.2
122.5°	274.3	309.9	541.5	962.6	1145.5
125°	298.5	331.6	541.5	902.4	1063.8
127.5°	318.4	350.8	540.1	856.9	994.9
130°	330.1	364.4	539.2	830.3	954.1
132.5°	341.0	376.2	538.3	808.4	919.8
135°	357.3	393.7	536.9	774.4	873.9
137.5°	374.9	410.0	535.6	741.6	829.3
140°	386.7	420.9	534.7	719.7	800.4
142.5°	397.5	430.9	535.6	697.8	769.6
145°	414.9	445.8	535.8	666.2	729.2
147.5°	433.7	459.5	536.0	639.4	686.2
150°	445.5	468.7	536.9	623.8	663.6
152.5°	456.2	478.6	537.8	611.0	642.8
155°	473.6	490.2	539.2	595.2	617.2
157.5°	490.6	503.5	540.6	584.0	599.6
160°	499.6	510.7	541.5	575.7	587.8
162.5°	508.7	517.2	541.5	570.2	579.7
165°	520.0	525.5	541.5	563.1	568.6
167.5°	530.4	533.3	542.6	556.7	559.6
170°	535.8	536.9	542.6	554.0	555.0
172.5°	539.4	540.6	543.5	551.2	551.4
175°	543.7	543.7	544.9	548.2	547.1
177.5°	546.0	546.0	545.1	546.9	545.1
180°	546.0	546.0	546.0	546.0	546.0



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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	16.71	17.48	17.72	18.50	19.86	13.19	13.97	14.21	14.99	16.35
	3H	18.02	18.72	19.05	19.74	21.13	14.39	15.09	15.42	16.11	17.50
	4H	18.39	19.05	19.43	20.08	21.47	14.84	15.49	15.87	16.52	17.91
	6H	18.59	19.19	19.64	20.23	21.63	15.15	15.75	16.20	16.79	18.19
	8H	18.62	19.20	19.68	20.25	21.64	15.22	15.79	16.27	16.85	18.24
	12H	18.62	19.16	19.67	20.21	21.62	15.23	15.78	16.29	16.82	18.24
4H	2H	16.80	17.46	17.85	18.49	19.88	13.87	14.52	14.91	15.55	16.94
	3H	18.34	18.88	19.39	19.94	21.34	15.25	15.79	16.30	16.85	18.25
	4H	18.84	19.34	19.90	20.39	21.81	15.79	16.29	16.85	17.34	18.76
	6H	19.17	19.60	20.24	20.67	22.09	16.19	16.62	17.26	17.69	19.11
	8H	19.25	19.64	20.31	20.71	22.14	16.29	16.69	17.36	17.76	19.19
	12H	19.26	19.62	20.34	20.70	22.14	16.31	16.67	17.40	17.75	19.19
8H	4H	18.87	19.27	19.94	20.34	21.77	16.11	16.51	17.18	17.58	19.01
	6H	19.31	19.64	20.40	20.75	22.18	16.61	16.94	17.70	18.05	19.48
	8H	19.45	19.74	20.55	20.83	22.28	16.78	17.06	17.87	18.16	19.61
	12H	19.52	19.77	20.62	20.86	22.35	16.83	17.09	17.93	18.17	19.66
12H	4H	18.83	19.19	19.92	20.27	21.71	16.12	16.48	17.21	17.56	19.00
	6H	19.30	19.59	20.40	20.68	22.13	16.68	16.97	17.78	18.06	19.51
	8H	19.46	19.71	20.56	20.80	22.29	16.86	17.11	17.96	18.20	19.69