

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: P854186

Luminaire Tested: SQ2-PR1-075U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854186  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-075U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

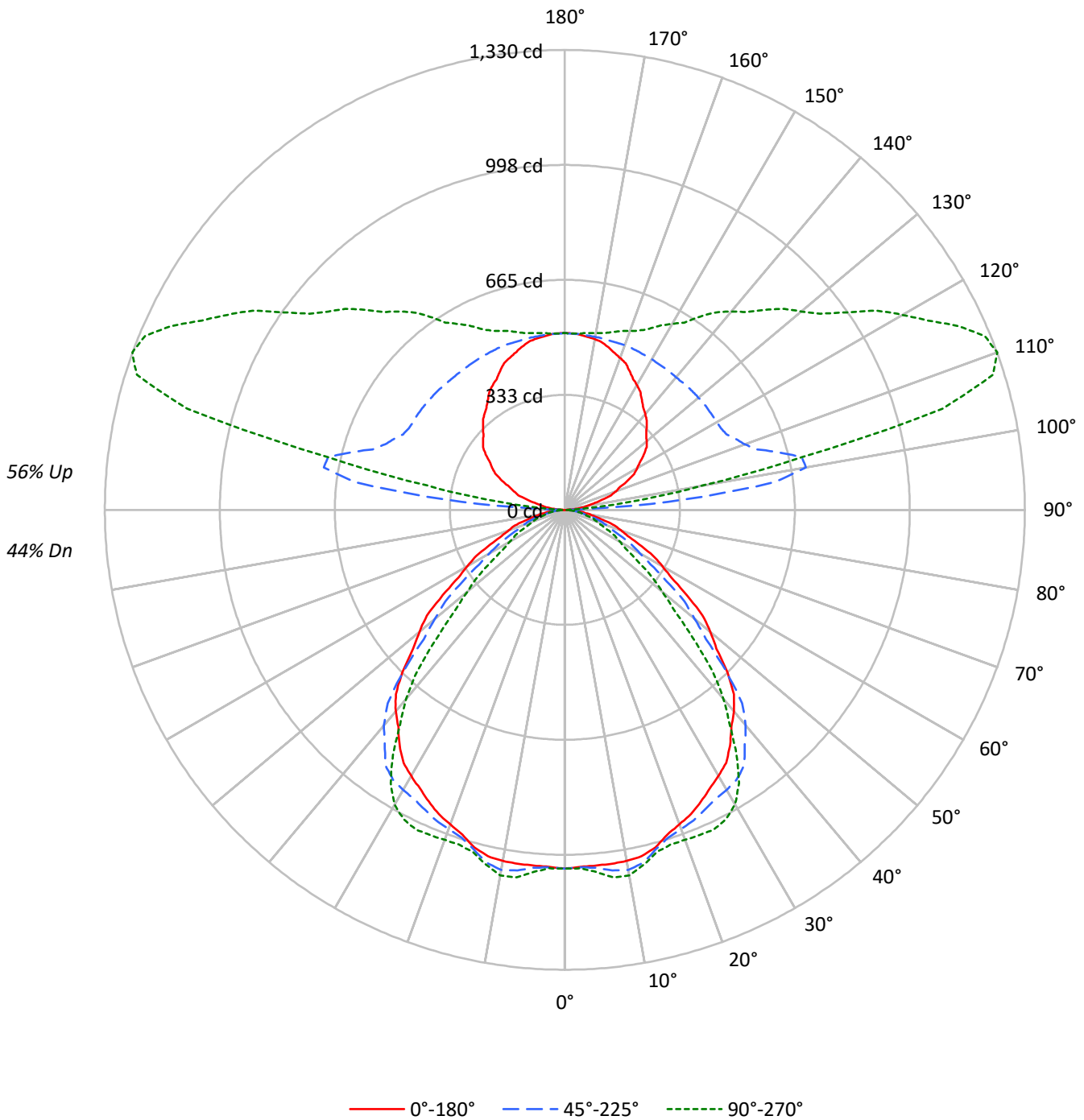
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5659.6 lumens  
Efficiency: N/A  
Efficacy: 137.7 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	97	93	89	86	89	85	82	79	71	69	67	58	56	55	46	45	44	38
2	89	82	76	71	81	75	70	66	63	59	56	51	49	47	41	39	38	33
3	81	72	65	60	74	67	61	56	56	51	48	46	43	40	37	35	33	28
4	75	64	57	51	68	59	53	48	50	45	41	41	38	35	33	31	29	25
5	69	57	50	44	63	53	46	41	45	40	36	37	33	30	30	27	25	22
6	63	52	44	38	58	48	41	36	40	35	31	34	30	27	27	25	22	19
7	59	47	39	34	54	43	36	32	37	31	28	31	27	24	25	22	20	17
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18	16
9	51	39	31	27	46	36	29	25	31	26	22	26	22	19	21	18	16	14
10	47	35	28	24	43	33	27	22	28	23	20	24	20	17	20	17	15	13

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

	0°	45°	90°
0°	16755	16755	16755
5°	16733	16835	17041
10°	16908	17343	17602
15°	16903	16991	17133
20°	16631	16885	17448
25°	16582	17054	18166
30°	16565	17434	18340
35°	16409	17804	17075
40°	16029	17144	15026
45°	15168	15047	11883
50°	13790	12303	9218
55°	12118	10123	7175
60°	10485	8096	5909
65°	9051	6709	5173
70°	8139	5943	4593
75°	7455	5147	4223
80°	6490	4128	4128
85°	4705	3724	1964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16397 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.8
10°-20°	290.1	5.1
20°-30°	448.4	7.9
30°-40°	539.3	9.5
40°-50°	484.3	8.6
50°-60°	324.4	5.7
60°-70°	188.7	3.3
70°-80°	96.9	1.7
80°-90°	24.4	0.4
90°-100°	193.2	3.4
100°-110°	640.4	11.3
110°-120°	635.6	11.2
120°-130°	517.7	9.1
130°-140°	420.8	7.4
140°-150°	326.8	5.8
150°-160°	235.4	4.2
160°-170°	144.2	2.5
170°-180°	48.7	0.9
0°-30°	838.7	14.8
0°-40°	1378.0	24.3
0°-60°	2186.7	38.6
0°-90°	2496.8	44.1
90°-120°	1469.2	26.0
90°-150°	2734.5	48.3
90°-180°	3163.0	55.9
0°-180°	5659.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1032	1050	1039	1041	1051	99
15°	1011	1053	1016	1020	1025	284
25°	931	968	957	993	1020	429
35°	832	840	903	886	866	519
45°	664	718	659	556	520	508
55°	430	447	360	278	255	387
65°	237	242	176	143	135	240
75°	120	116	82	70	68	127
85°	25	20	20	14	11	31
90°	0	1	3	4	4	2
95°	28	81	350	125	84	31
105°	112	160	641	1209	1131	118
115°	200	239	516	1074	1256	198
125°	279	310	507	844	995	248
135°	334	368	502	724	818	259
145°	388	417	501	623	682	243
155°	443	459	504	557	578	204
165°	486	492	507	527	532	137
175°	509	509	510	513	512	48
180°	511	511	511	511	511	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1037.7	1037.7	1037.7	1037.7	1037.7
2.5°	1033.4	1045.9	1034.3	1035.2	1037.7
5°	1032.4	1050.0	1038.7	1041.1	1051.4
7.5°	1032.2	1057.2	1051.9	1058.3	1071.9
10°	1031.3	1061.3	1057.8	1059.2	1073.6
12.5°	1026.3	1061.2	1045.1	1043.8	1051.6
15°	1011.2	1052.6	1016.5	1019.8	1025.0
17.5°	984.8	1028.0	993.7	1005.3	1015.5
20°	967.9	1010.3	982.7	997.9	1015.5
22.5°	952.6	995.0	972.5	993.8	1018.0
25°	930.8	968.1	957.3	992.8	1019.7
27.5°	908.0	929.9	942.7	990.3	1009.1
30°	888.5	903.0	935.1	976.5	983.7
32.5°	867.4	876.1	924.9	946.5	937.2
35°	832.5	839.7	903.3	886.0	866.3
37.5°	791.0	805.9	854.9	804.9	782.3
40°	760.5	785.4	813.4	738.8	712.9
42.5°	723.3	763.0	758.4	663.4	631.7
45°	664.3	718.1	659.0	555.6	520.4
47.5°	594.7	649.9	553.2	460.9	428.0
50°	549.0	593.5	489.8	403.2	367.0
52.5°	502.4	534.5	435.6	349.2	316.3
55°	430.5	447.1	359.6	277.7	254.9
57.5°	364.5	375.1	293.9	224.3	207.5
60°	324.7	332.0	250.7	196.4	183.0
62.5°	288.3	293.9	216.0	172.8	162.7
65°	236.9	242.1	175.6	142.6	135.4
67.5°	196.1	198.8	144.5	118.5	111.7
70°	172.4	173.5	125.9	102.5	97.3
72.5°	151.3	149.8	108.1	89.0	85.5
75°	119.5	116.4	82.5	69.8	67.7
77.5°	89.3	86.0	58.0	53.7	53.7
80°	69.8	65.7	44.4	44.4	44.4
82.5°	52.0	46.3	34.3	34.3	33.4
85°	25.4	20.2	20.1	13.7	10.6
87.5°	6.8	7.0	3.2	3.4	3.4
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.5	32.7	96.2	31.2	26.2
95°	27.5	81.3	350.1	124.9	83.6
97.5°	50.6	106.8	611.1	356.4	225.3
100°	66.6	120.4	707.6	607.7	403.0
102.5°	84.4	136.5	701.6	928.7	701.6
105°	112.1	159.7	640.9	1209.2	1130.6
107.5°	140.5	182.9	582.8	1237.7	1297.5
110°	156.5	198.9	553.1	1209.5	1330.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	173.5	215.0	535.4	1159.5	1313.6
115°	199.9	239.2	516.1	1074.5	1256.5
117.5°	226.1	261.1	509.1	993.2	1184.1
120°	242.2	276.3	506.6	942.3	1127.4
122.5°	256.6	289.9	506.6	900.6	1071.6
125°	279.2	310.2	506.6	844.3	995.2
127.5°	297.8	328.2	505.3	801.7	930.7
130°	308.8	340.9	504.5	776.8	892.6
132.5°	319.0	351.9	503.6	756.3	860.5
135°	334.2	368.3	502.4	724.5	817.6
137.5°	350.7	383.6	501.1	693.8	775.9
140°	361.7	393.8	500.3	673.3	748.8
142.5°	371.9	403.1	501.1	652.8	720.0
145°	388.2	417.1	501.3	623.2	682.2
147.5°	405.7	429.9	501.5	598.1	642.0
150°	416.7	438.4	502.4	583.6	620.8
152.5°	426.9	447.8	503.2	571.6	601.4
155°	443.1	458.7	504.5	556.8	577.5
157.5°	459.0	471.0	505.8	546.3	561.0
160°	467.5	477.8	506.6	538.6	550.0
162.5°	475.9	483.8	506.6	533.5	542.4
165°	486.5	491.7	506.6	526.8	532.0
167.5°	496.2	498.9	507.7	520.8	523.5
170°	501.3	502.4	507.7	518.3	519.3
172.5°	504.7	505.7	508.5	515.7	515.9
175°	508.7	508.7	509.8	512.9	511.9
177.5°	510.8	510.8	510.0	511.6	510.0
180°	510.8	510.8	510.8	510.8	510.8



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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	16.00	16.77	17.01	17.79	19.15	12.72	13.50	13.74	14.52	15.87
	3H	17.22	17.92	18.25	18.94	20.32	13.78	14.47	14.81	15.50	16.88
	4H	17.67	18.33	18.71	19.36	20.74	14.18	14.83	15.21	15.86	17.25
	6H	17.98	18.59	19.03	19.62	21.02	14.50	15.11	15.55	16.14	17.54
	8H	18.06	18.64	19.12	19.69	21.08	14.59	15.16	15.64	16.21	17.60
	12H	18.09	18.63	19.15	19.68	21.09	14.59	15.14	15.65	16.18	17.60
4H	2H	16.06	16.72	17.11	17.75	19.13	13.28	13.93	14.32	14.96	16.35
	3H	17.53	18.07	18.58	19.13	20.53	14.54	15.08	15.59	16.14	17.54
	4H	18.12	18.62	19.18	19.67	21.09	15.04	15.54	16.10	16.59	18.01
	6H	18.57	18.99	19.64	20.07	21.48	15.47	15.90	16.54	16.97	18.39
	8H	18.70	19.10	19.77	20.16	21.59	15.59	15.99	16.66	17.06	18.49
	12H	18.75	19.11	19.83	20.19	21.62	15.61	15.97	16.70	17.05	18.48
8H	4H	18.14	18.54	19.21	19.60	21.03	15.34	15.74	16.41	16.80	18.23
	6H	18.69	19.01	19.78	20.12	21.55	15.87	16.20	16.96	17.31	18.74
	8H	18.88	19.17	19.98	20.26	21.71	16.06	16.35	17.16	17.44	18.88
	12H	18.99	19.24	20.08	20.32	21.81	16.12	16.37	17.22	17.46	18.94
12H	4H	18.09	18.45	19.18	19.53	20.97	15.35	15.71	16.44	16.79	18.23
	6H	18.67	18.96	19.77	20.05	21.50	15.93	16.22	17.03	17.31	18.76
	8H	18.88	19.14	19.98	20.22	21.71	16.14	16.39	17.24	17.48	18.96