

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: P854184

Luminaire Tested: SQ2-PR1-075U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854184  
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-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

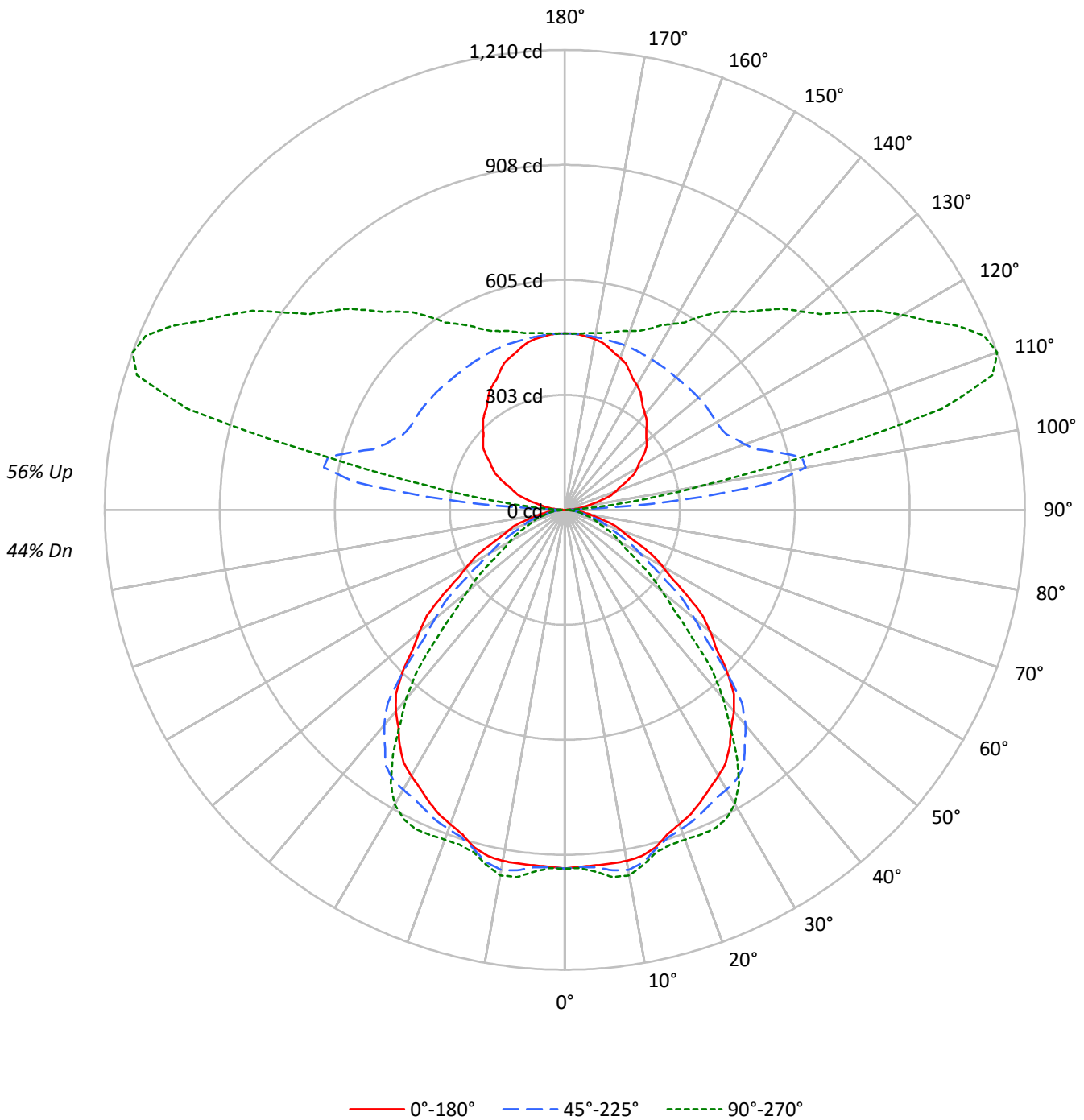
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5146.1 lumens  
Efficiency: N/A  
Efficacy: 125.2 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°	15234	15234	15234
5°	15214	15308	15494
10°	15375	15769	16005
15°	15370	15450	15579
20°	15122	15352	15864
25°	15079	15506	16518
30°	15062	15851	16677
35°	14919	16190	15526
40°	14575	15588	13664
45°	13792	13682	10805
50°	12539	11185	8382
55°	11020	9205	6525
60°	9536	7359	5373
65°	8229	6101	4703
70°	7402	5405	4178
75°	6781	4679	3843
80°	5904	3756	3756
85°	4279	3390	1778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 14908 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.1	1.8
10°-20°	263.8	5.1
20°-30°	407.7	7.9
30°-40°	490.4	9.5
40°-50°	440.3	8.6
50°-60°	295.0	5.7
60°-70°	171.6	3.3
70°-80°	88.1	1.7
80°-90°	22.2	0.4
90°-100°	175.7	3.4
100°-110°	582.3	11.3
110°-120°	578.0	11.2
120°-130°	470.8	9.1
130°-140°	382.6	7.4
140°-150°	297.1	5.8
150°-160°	214.1	4.2
160°-170°	131.1	2.5
170°-180°	44.3	0.9
0°-30°	762.6	14.8
0°-40°	1253.0	24.3
0°-60°	1988.3	38.6
0°-90°	2270.3	44.1
90°-120°	1336.0	26.0
90°-150°	2486.4	48.3
90°-180°	2876.0	55.9
0°-180°	5146.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	939	955	944	947	956	90
15°	920	957	924	927	932	258
25°	846	880	870	903	927	390
35°	757	764	821	806	788	472
45°	604	653	599	505	473	462
55°	392	406	327	252	232	352
65°	215	220	160	130	123	218
75°	109	106	75	63	62	115
85°	23	18	18	12	10	29
90°	0	1	3	4	4	2
95°	25	74	318	114	76	29
105°	102	145	583	1100	1028	107
115°	182	218	469	977	1142	180
125°	254	282	461	768	905	226
135°	304	335	457	659	743	235
145°	353	379	456	567	620	221
155°	403	417	459	506	525	186
165°	442	447	461	479	484	125
175°	463	463	464	466	466	44
180°	464	464	464	464	464	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	943.5	943.5	943.5	943.5	943.5
2.5°	939.7	951.0	940.5	941.3	943.5
5°	938.7	954.7	944.5	946.6	956.0
7.5°	938.5	961.3	956.4	962.3	974.7
10°	937.8	965.0	961.8	963.1	976.2
12.5°	933.1	964.9	950.3	949.1	956.2
15°	919.5	957.1	924.3	927.3	932.0
17.5°	895.4	934.8	903.5	914.1	923.3
20°	880.1	918.6	893.5	907.3	923.3
22.5°	866.2	904.8	884.3	903.6	925.6
25°	846.4	880.2	870.4	902.7	927.2
27.5°	825.6	845.6	857.2	900.4	917.6
30°	807.9	821.1	850.2	887.9	894.5
32.5°	788.7	796.6	841.0	860.6	852.2
35°	756.9	763.5	821.4	805.6	787.7
37.5°	719.2	732.8	777.3	731.9	711.4
40°	691.5	714.1	739.6	671.8	648.3
42.5°	657.7	693.8	689.6	603.2	574.4
45°	604.0	652.9	599.2	505.2	473.2
47.5°	540.7	590.9	503.0	419.1	389.1
50°	499.2	539.6	445.3	366.7	333.7
52.5°	456.9	486.0	396.1	317.5	287.6
55°	391.5	406.5	327.0	252.5	231.8
57.5°	331.4	341.0	267.2	203.9	188.7
60°	295.3	301.9	227.9	178.6	166.4
62.5°	262.2	267.3	196.4	157.1	147.9
65°	215.4	220.1	159.7	129.7	123.1
67.5°	178.3	180.8	131.4	107.8	101.6
70°	156.8	157.7	114.5	93.2	88.5
72.5°	137.5	136.2	98.3	80.9	77.7
75°	108.7	105.9	75.0	63.4	61.6
77.5°	81.2	78.2	52.7	48.9	48.9
80°	63.5	59.7	40.4	40.4	40.4
82.5°	47.3	42.1	31.2	31.1	30.4
85°	23.1	18.4	18.3	12.4	9.6
87.5°	6.2	6.3	2.9	3.1	3.1
90°	0.0	0.9	2.9	3.8	3.8
92.5°	7.7	29.7	87.5	28.4	23.8
95°	25.0	73.9	318.3	113.6	76.0
97.5°	46.0	97.1	555.7	324.1	204.8
100°	60.6	109.5	643.4	552.6	366.4
102.5°	76.7	124.1	638.0	844.5	638.0
105°	101.9	145.2	582.8	1099.5	1028.0
107.5°	127.7	166.3	529.9	1125.4	1179.8
110°	142.3	180.9	503.0	1099.8	1209.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	157.7	195.5	486.8	1054.3	1194.4
115°	181.8	217.5	469.3	977.0	1142.5
117.5°	205.6	237.4	463.0	903.1	1076.7
120°	220.2	251.3	460.6	856.8	1025.1
122.5°	233.3	263.6	460.6	818.8	974.4
125°	253.9	282.1	460.6	767.7	904.9
127.5°	270.8	298.5	459.5	728.9	846.3
130°	280.8	310.0	458.7	706.3	811.7
132.5°	290.0	319.9	458.0	687.6	782.4
135°	303.9	334.9	456.8	658.7	743.4
137.5°	318.9	348.8	455.6	630.8	705.5
140°	328.9	358.0	454.9	612.2	680.9
142.5°	338.1	366.5	455.6	593.6	654.7
145°	352.9	379.3	455.8	566.7	620.3
147.5°	368.9	390.9	456.0	543.9	583.7
150°	378.9	398.6	456.8	530.7	564.5
152.5°	388.1	407.1	457.6	519.7	546.8
155°	402.9	417.0	458.7	506.3	525.1
157.5°	417.4	428.3	459.9	496.7	510.1
160°	425.1	434.5	460.6	489.7	500.1
162.5°	432.8	439.9	460.6	485.1	493.1
165°	442.4	447.1	460.6	479.0	483.7
167.5°	451.2	453.7	461.6	473.6	476.0
170°	455.8	456.8	461.6	471.2	472.2
172.5°	458.9	459.9	462.4	468.9	469.1
175°	462.6	462.6	463.5	466.4	465.5
177.5°	464.5	464.5	463.7	465.2	463.7
180°	464.5	464.5	464.5	464.5	464.5

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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	15.67	16.44	16.68	17.46	18.82	12.39	13.17	13.40	14.19	15.54
	3H	16.89	17.59	17.92	18.61	19.99	13.45	14.14	14.48	15.17	16.55
	4H	17.34	18.00	18.38	19.03	20.41	13.85	14.50	14.88	15.53	16.92
	6H	17.65	18.26	18.70	19.29	20.69	14.17	14.78	15.22	15.81	17.21
	8H	17.73	18.31	18.79	19.36	20.75	14.26	14.83	15.31	15.88	17.27
	12H	17.76	18.31	18.82	19.35	20.76	14.26	14.81	15.32	15.85	17.27
4H	2H	15.73	16.39	16.78	17.42	18.80	12.95	13.60	13.99	14.63	16.02
	3H	17.20	17.74	18.25	18.80	20.20	14.21	14.75	15.26	15.81	17.21
	4H	17.79	18.29	18.85	19.34	20.76	14.71	15.21	15.77	16.26	17.68
	6H	18.24	18.66	19.31	19.74	21.15	15.14	15.57	16.21	16.64	18.06
	8H	18.37	18.77	19.44	19.83	21.26	15.26	15.66	16.33	16.73	18.16
	12H	18.42	18.78	19.50	19.86	21.29	15.28	15.64	16.37	16.72	18.15
8H	4H	17.81	18.21	18.88	19.27	20.70	15.01	15.41	16.08	16.47	17.90
	6H	18.36	18.68	19.45	19.79	21.22	15.54	15.87	16.63	16.98	18.41
	8H	18.55	18.84	19.65	19.93	21.38	15.73	16.02	16.83	17.11	18.55
	12H	18.66	18.91	19.76	19.99	21.48	15.79	16.04	16.89	17.13	18.61
12H	4H	17.76	18.12	18.85	19.20	20.64	15.02	15.38	16.11	16.46	17.90
	6H	18.34	18.63	19.44	19.72	21.17	15.60	15.89	16.70	16.98	18.43
	8H	18.55	18.81	19.65	19.89	21.38	15.81	16.06	16.91	17.15	18.63