

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: P853848

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853848  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-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: -

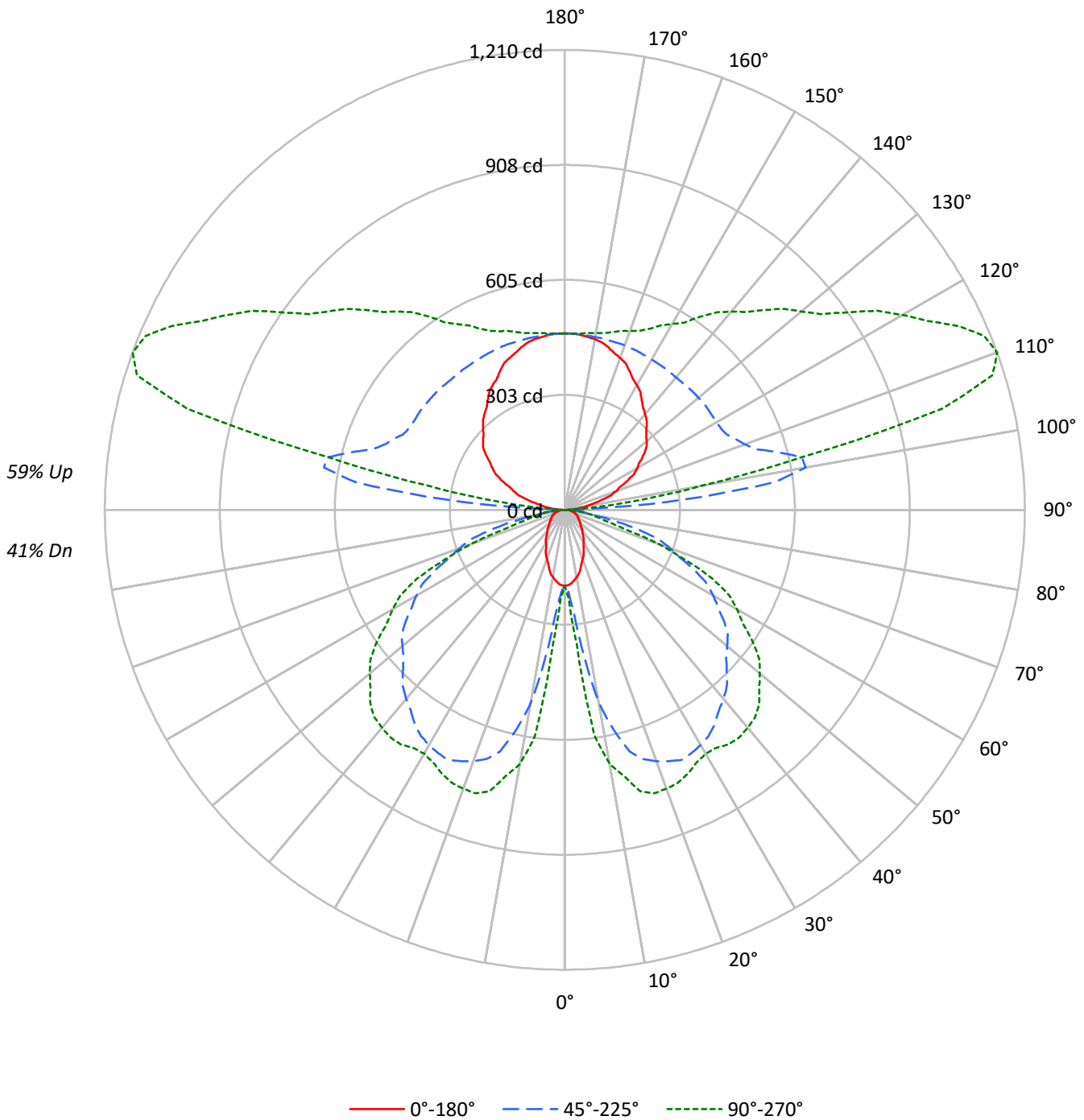
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4853.1 lumens  
Efficiency: N/A  
Efficacy: 118.1 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56  
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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41
1	96	91	87	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34
2	87	79	73	68	79	72	67	63	59	56	52	47	45	43	36	35	33	28
3	79	69	62	56	71	63	57	52	52	47	43	42	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	23	20
5	66	54	46	40	59	49	42	37	41	35	31	33	29	26	25	22	20	17
6	60	48	40	34	55	44	37	32	36	31	27	29	25	22	23	20	17	14
7	56	43	35	30	50	40	33	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	19	16	13	11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9

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

	0°	45°	90°
0°	3231	3231	3231
5°	3149	4365	5721
10°	2949	8452	11132
15°	2669	10997	12814
20°	2363	12096	13419
25°	2090	12937	13639
30°	1848	13323	13807
35°	1650	13555	14844
40°	1501	13683	15772
45°	1384	13748	16516
50°	1304	14011	16814
55°	1272	14376	16949
60°	1305	14567	16866
65°	1360	14369	16390
70°	1407	13893	12397
75°	1560	12483	6837
80°	1609	6434	6351
85°	1612	4446	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 17102 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.5	0.7
10°-20°	153.0	3.2
20°-30°	269.2	5.5
30°-40°	348.4	7.2
40°-50°	384.3	7.9
50°-60°	358.8	7.4
60°-70°	277.3	5.7
70°-80°	127.9	2.6
80°-90°	24.9	0.5
90°-100°	175.7	3.6
100°-110°	582.3	12.0
110°-120°	578.0	11.9
120°-130°	470.8	9.7
130°-140°	382.6	7.9
140°-150°	297.1	6.1
150°-160°	214.1	4.4
160°-170°	131.1	2.7
170°-180°	44.3	0.9
0°-30°	455.7	9.4
0°-40°	804.1	16.6
0°-60°	1547.2	31.9
0°-90°	1977.3	40.7
90°-120°	1336.0	27.5
90°-150°	2486.4	51.2
90°-180°	2876.0	59.3
0°-180°	4853.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	200	200	200	200	200	
5°	194	222	269	328	353	18
15°	160	315	658	736	767	45
25°	117	423	726	758	766	54
35°	84	408	688	712	753	53
45°	61	313	602	691	723	47
55°	45	186	511	587	602	41
65°	36	105	376	421	429	35
75°	25	64	200	108	110	26
85°	9	19	24	16	14	9
90°	0	1	3	4	4	1
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°	200.1	200.1	200.1	200.1	200.1
2.5°	198.5	206.8	216.2	227.1	231.6
5°	194.3	222.5	269.3	328.5	353.0
7.5°	186.8	244.1	391.6	550.1	599.0
10°	179.9	259.8	515.5	652.7	679.0
12.5°	172.2	280.7	593.2	689.7	716.7
15°	159.7	314.8	657.9	736.5	766.6
17.5°	146.8	353.3	687.9	765.4	781.8
20°	137.5	380.2	704.0	770.6	781.0
22.5°	129.1	400.3	715.6	766.0	777.1
25°	117.3	423.0	726.2	758.1	765.6
27.5°	106.0	428.9	721.5	742.5	749.8
30°	99.1	427.3	714.6	730.2	740.6
32.5°	92.9	422.6	704.6	719.7	742.1
35°	83.7	408.1	687.7	711.7	753.1
37.5°	75.8	384.8	665.4	714.6	754.4
40°	71.2	367.4	649.2	714.4	748.3
42.5°	66.6	347.0	630.8	706.7	740.6
45°	60.6	312.6	602.1	691.3	723.3
47.5°	55.0	273.9	575.5	669.9	693.3
50°	51.9	247.5	557.8	650.6	669.4
52.5°	48.9	221.9	540.1	627.5	644.8
55°	45.2	186.3	510.7	587.0	602.1
57.5°	41.9	155.7	477.2	542.4	554.6
60°	40.4	139.1	451.1	510.0	522.3
62.5°	38.1	124.0	421.8	476.2	487.6
65°	35.6	105.2	376.1	421.4	429.0
67.5°	32.1	91.2	327.4	355.2	341.1
70°	29.8	84.4	294.3	303.0	262.6
72.5°	28.3	76.8	258.1	235.2	158.7
75°	25.0	64.5	200.1	107.8	109.6
77.5°	20.4	49.9	131.6	82.8	84.4
80°	17.3	40.8	69.2	67.3	68.3
82.5°	14.2	31.7	47.7	49.6	48.3
85°	8.7	19.0	24.0	16.3	14.4
87.5°	3.1	7.0	4.4	4.6	4.6
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	10.22	11.03	11.25	12.07	13.46	18.96	19.76	19.99	20.80	22.20
	3H	10.95	11.67	11.99	12.72	14.13	20.58	21.30	21.62	22.35	23.76
	4H	11.25	11.93	12.30	12.98	14.40	20.76	21.44	21.81	22.49	23.91
	6H	11.46	12.09	12.52	13.14	14.58	20.84	21.47	21.90	22.52	23.96
	8H	11.52	12.12	12.58	13.19	14.62	20.84	21.44	21.91	22.51	23.94
	12H	11.54	12.11	12.61	13.18	14.63	20.81	21.38	21.88	22.44	23.90
4H	2H	14.62	15.30	15.67	16.35	17.77	19.40	20.08	20.45	21.13	22.55
	3H	15.54	16.11	16.61	17.19	18.63	21.22	21.79	22.28	22.86	24.30
	4H	15.82	16.35	16.90	17.41	18.87	21.45	21.97	22.52	23.04	24.50
	6H	15.95	16.40	17.03	17.49	18.94	21.59	22.04	22.67	23.13	24.58
	8H	15.97	16.39	17.05	17.47	18.94	21.62	22.04	22.70	23.12	24.59
	12H	15.96	16.34	17.06	17.44	18.91	21.59	21.97	22.69	23.06	24.54
8H	4H	16.99	17.41	18.08	18.50	19.96	21.56	21.98	22.65	23.07	24.53
	6H	17.23	17.57	18.33	18.70	20.16	21.77	22.11	22.87	23.24	24.70
	8H	17.30	17.60	18.41	18.71	20.19	21.83	22.13	22.94	23.24	24.72
	12H	17.32	17.59	18.44	18.69	20.21	21.82	22.08	22.93	23.19	24.71
12H	4H	17.01	17.39	18.11	18.48	19.96	21.51	21.89	22.61	22.99	24.46
	6H	17.32	17.62	18.43	18.73	20.22	21.75	22.05	22.86	23.16	24.64
	8H	17.42	17.69	18.54	18.79	20.32	21.81	22.08	22.93	23.18	24.71