

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: P855079

Luminaire Tested: SQ2-PW1-075U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855079  
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-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

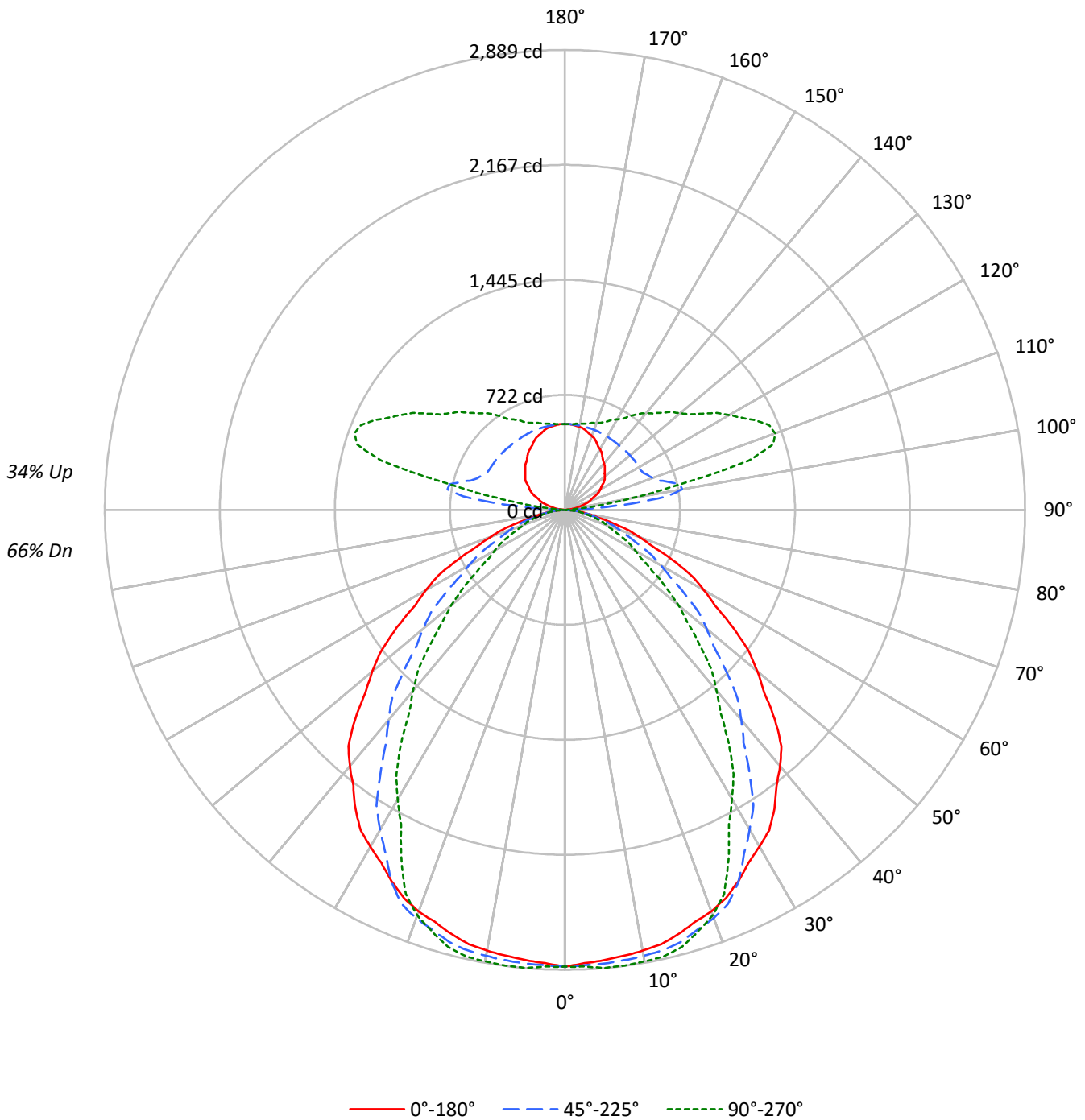
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9709.4 lumens  
Efficiency: N/A  
Efficacy: 133.9 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: Semi-Direct  
  
Input Watts (W): 72.5  
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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66				
1	102	98	94	91	96	92	89	86	82	80	77	72	71	69	63	62	61	57				
2	94	86	80	76	88	82	76	72	73	69	65	64	61	59	57	55	53	49				
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	42				
4	79	68	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37				
5	73	61	53	47	68	58	51	46	52	47	42	47	42	39	42	38	35	32				
6	67	55	47	42	63	53	45	40	48	42	37	43	38	34	38	34	31	29				
7	62	50	42	37	59	48	41	36	43	37	33	39	34	31	35	31	28	26				
8	58	46	38	33	55	44	37	32	40	34	30	36	31	28	32	28	25	23				
9	54	42	35	30	51	40	33	29	37	31	27	33	28	25	30	26	23	21				
10	51	39	32	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19				

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

	0°	45°	90°
0°	46334	46334	46334
5°	46024	46378	46820
10°	46107	46645	47229
15°	46094	46964	47512
20°	46115	46912	46582
25°	45865	45915	43285
30°	45554	43261	39133
35°	45196	39809	35339
40°	44297	36290	31221
45°	42562	32638	27273
50°	39612	29175	23340
55°	36237	25771	18925
60°	32476	22417	16327
65°	28401	19316	14514
70°	23221	17160	13157
75°	18072	14835	12108
80°	13473	12710	10674
85°	9114	9615	6076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 42562 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	273.2	2.8
10°-20°	791.7	8.2
20°-30°	1165.1	12.0
30°-40°	1273.9	13.1
40°-50°	1142.8	11.8
50°-60°	852.5	8.8
60°-70°	538.7	5.5
70°-80°	266.9	2.7
80°-90°	63.0	0.6
90°-100°	204.1	2.1
100°-110°	676.6	7.0
110°-120°	671.6	6.9
120°-130°	547.0	5.6
130°-140°	444.6	4.6
140°-150°	345.2	3.6
150°-160°	248.7	2.6
160°-170°	152.3	1.6
170°-180°	51.5	0.5
0°-30°	2230.1	23.0
0°-40°	3504.0	36.1
0°-60°	5499.3	56.6
0°-90°	6367.9	65.6
90°-120°	1552.3	16.0
90°-150°	2889.0	29.8
90°-180°	3342.0	34.4
0°-180°	9709.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2840	2885	2862	2865	2889	270
15°	2758	2811	2810	2829	2842	779
25°	2574	2631	2577	2470	2430	1186
35°	2293	2269	2020	1844	1793	1430
45°	1864	1714	1429	1250	1194	1429
55°	1287	1164	916	718	672	1149
65°	743	682	506	407	380	737
75°	290	311	238	199	194	319
85°	49	63	52	35	33	62
90°	0	1	3	4	4	3
95°	29	86	370	132	88	33
105°	118	169	677	1278	1194	125
115°	211	253	545	1135	1327	209
125°	295	328	535	892	1051	262
135°	353	389	531	766	864	273
145°	410	441	530	658	721	257
155°	468	485	533	588	610	216
165°	514	519	535	557	562	145
175°	537	537	539	542	541	51
180°	540	540	540	540	540	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2869.7	2869.7	2869.7	2869.7	2869.7
2.5°	2850.0	2886.3	2863.1	2865.5	2871.8
5°	2839.7	2885.1	2861.5	2864.8	2888.8
7.5°	2825.4	2871.4	2853.8	2863.7	2887.2
10°	2812.3	2860.4	2845.1	2859.3	2880.7
12.5°	2794.8	2845.0	2834.1	2850.5	2871.8
15°	2757.6	2811.1	2809.6	2829.0	2842.4
17.5°	2714.4	2767.9	2765.3	2770.3	2776.8
20°	2683.9	2737.3	2730.3	2711.1	2711.1
22.5°	2640.2	2697.9	2680.0	2627.7	2610.6
25°	2574.5	2630.7	2577.3	2469.7	2429.7
27.5°	2498.0	2543.4	2436.2	2283.6	2228.0
30°	2443.4	2478.1	2320.4	2152.4	2099.0
32.5°	2386.5	2399.8	2202.3	2027.7	1970.0
35°	2293.0	2269.0	2019.7	1843.6	1792.9
37.5°	2182.6	2111.0	1844.3	1659.8	1603.8
40°	2101.7	2000.2	1721.8	1537.5	1481.3
42.5°	2012.1	1884.9	1605.9	1421.5	1363.2
45°	1864.0	1714.2	1429.4	1250.5	1194.4
47.5°	1697.3	1548.7	1264.3	1091.0	1042.9
50°	1577.0	1432.7	1161.5	988.1	929.2
52.5°	1454.5	1325.2	1060.9	882.6	802.5
55°	1287.3	1164.4	915.5	717.7	672.3
57.5°	1115.0	1008.8	783.8	604.2	566.9
60°	1005.7	912.2	694.2	543.0	505.6
62.5°	900.8	818.0	606.7	486.3	455.3
65°	743.4	681.9	505.6	406.6	379.9
67.5°	590.4	556.1	420.3	333.6	316.0
70°	491.9	481.3	363.5	292.1	278.7
72.5°	406.7	410.9	308.8	252.9	243.8
75°	289.7	311.1	237.8	199.4	194.1
77.5°	197.4	229.4	176.0	147.5	143.2
80°	144.9	176.9	136.7	114.8	114.8
82.5°	101.2	126.7	97.3	86.3	86.3
85°	49.2	62.6	51.9	35.4	32.8
87.5°	13.1	19.8	9.4	7.5	7.5
90°	0.0	1.1	3.4	4.4	4.4
92.5°	8.9	34.5	101.7	32.9	27.7
95°	29.1	85.9	369.8	132.0	88.3
97.5°	53.4	112.8	645.6	376.5	238.0
100°	70.4	127.2	747.6	642.1	425.7
102.5°	89.2	144.3	741.2	981.3	741.2
105°	118.5	168.7	677.2	1277.5	1194.5
107.5°	148.4	193.2	615.7	1307.6	1370.8
110°	165.3	210.1	584.4	1277.9	1405.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	183.2	227.1	565.6	1225.0	1387.9
115°	211.2	252.7	545.3	1135.2	1327.4
117.5°	238.9	275.8	537.9	1049.4	1251.1
120°	255.9	292.0	535.3	995.6	1191.2
122.5°	271.0	306.2	535.3	951.4	1132.1
125°	295.0	327.7	535.3	892.0	1051.4
127.5°	314.7	346.7	533.9	846.9	983.3
130°	326.3	360.2	533.0	820.7	943.1
132.5°	337.0	371.8	532.1	799.0	909.1
135°	353.1	389.2	530.8	765.5	863.8
137.5°	370.5	405.2	529.4	733.0	819.8
140°	382.2	416.0	528.5	711.4	791.1
142.5°	392.9	425.8	529.4	689.7	760.7
145°	410.1	440.7	529.6	658.4	720.8
147.5°	428.7	454.2	529.8	631.9	678.3
150°	440.2	463.2	530.8	616.5	655.9
152.5°	451.0	473.0	531.7	603.9	635.3
155°	468.2	484.6	533.0	588.2	610.1
157.5°	484.9	497.6	534.4	577.1	592.7
160°	493.9	504.8	535.3	569.0	581.0
162.5°	502.8	511.2	535.3	563.6	573.0
165°	514.0	519.4	535.3	556.6	562.1
167.5°	524.3	527.1	536.4	550.3	553.2
170°	529.6	530.8	536.4	547.5	548.6
172.5°	533.2	534.4	537.2	544.9	545.1
175°	537.4	537.4	538.6	542.0	540.8
177.5°	539.7	539.7	538.8	540.6	538.8
180°	539.7	539.7	539.7	539.7	539.7

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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	21.73	22.69	22.55	23.53	24.56	18.21	19.18	19.03	20.02	21.05
	3H	23.06	23.92	23.89	24.77	25.83	19.43	20.29	20.26	21.14	22.20
	4H	23.44	24.25	24.29	25.10	26.18	19.88	20.69	20.73	21.55	22.62
	6H	23.65	24.40	24.51	25.26	26.34	20.20	20.95	21.06	21.81	22.90
	8H	23.68	24.39	24.55	25.27	26.36	20.28	20.99	21.15	21.87	22.96
	12H	23.68	24.36	24.56	25.23	26.34	20.30	20.97	21.17	21.84	22.96
4H	2H	21.84	22.66	22.70	23.51	24.58	18.91	19.72	19.76	20.58	21.65
	3H	23.40	24.07	24.27	24.96	26.05	20.31	20.98	21.17	21.87	22.96
	4H	23.91	24.52	24.79	25.41	26.52	20.86	21.47	21.74	22.35	23.47
	6H	24.25	24.78	25.14	25.68	26.80	21.27	21.80	22.16	22.70	23.82
	8H	24.33	24.82	25.23	25.72	26.85	21.38	21.87	22.27	22.77	23.90
	12H	24.35	24.79	25.26	25.71	26.85	21.40	21.85	22.32	22.77	23.90
8H	4H	23.96	24.45	24.85	25.35	26.48	21.19	21.69	22.09	22.59	23.72
	6H	24.40	24.80	25.32	25.75	26.88	21.70	22.11	22.62	23.05	24.18
	8H	24.54	24.90	25.48	25.84	26.99	21.87	22.23	22.80	23.16	24.31
	12H	24.61	24.93	25.55	25.86	27.06	21.93	22.25	22.86	23.17	24.37
12H	4H	23.92	24.37	24.84	25.29	26.42	21.21	21.66	22.13	22.58	23.71
	6H	24.39	24.75	25.32	25.69	26.83	21.77	22.13	22.70	23.06	24.21
	8H	24.56	24.87	25.49	25.80	27.00	21.96	22.28	22.89	23.20	24.40