

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: P855111

Luminaire Tested: SQ2-PR1-050U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855111  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-050U-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

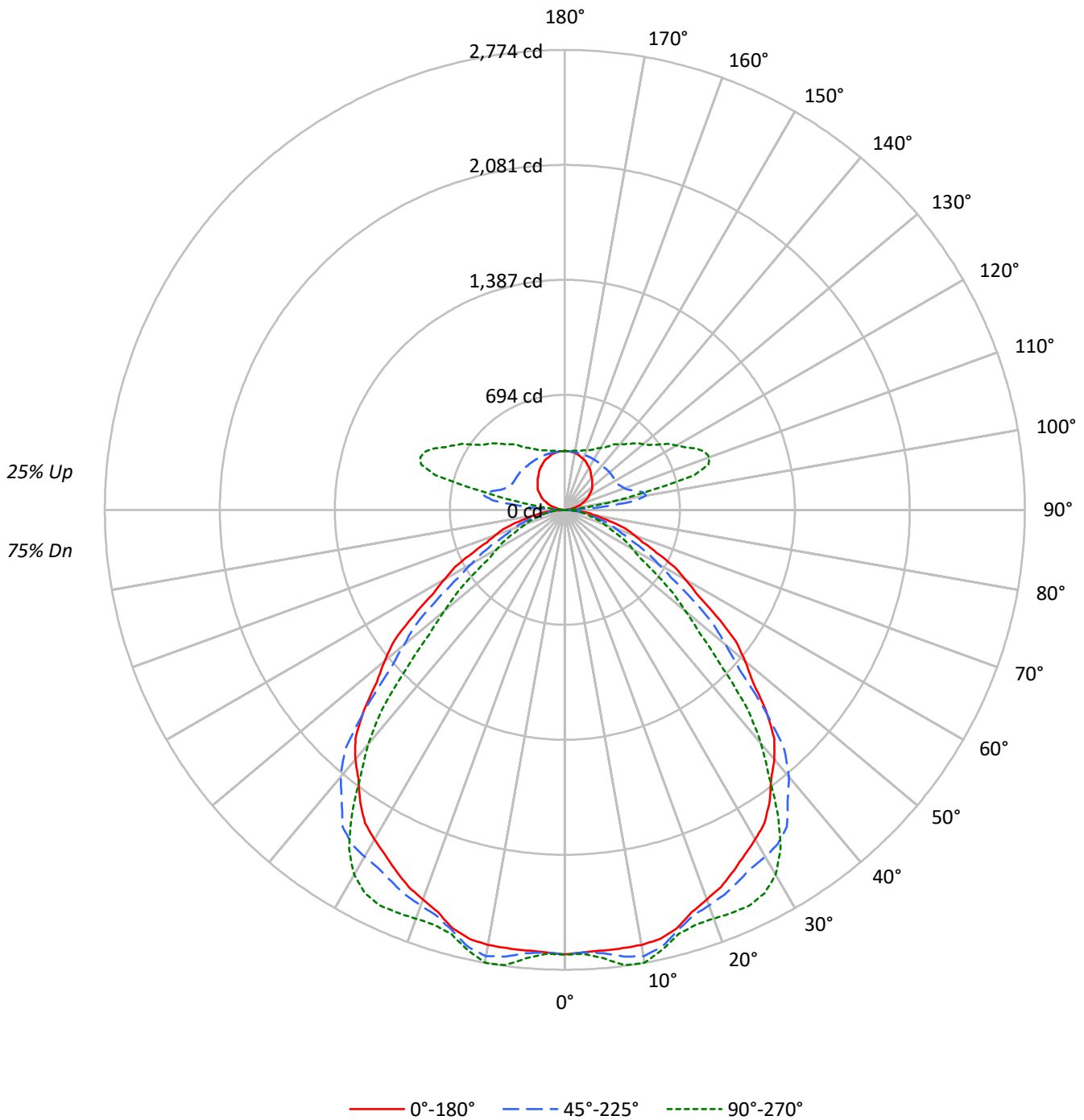
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8656.9 lumens  
Efficiency: N/A  
Efficacy: 135.3 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: Semi-Direct  
  
Input Watts (W): 64  
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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	79	79	79	75				
1	104	100	96	93	99	95	92	89	87	84	82	78	77	75	71	70	68	65				
2	96	89	83	78	91	85	79	75	77	73	69	70	67	64	64	61	59	56				
3	88	79	71	66	83	75	69	64	69	64	59	63	59	55	57	54	51	48				
4	81	70	62	56	77	67	60	55	62	56	51	56	52	48	52	48	45	42				
5	75	63	55	49	71	61	53	48	56	50	45	51	46	42	47	43	40	37				
6	69	57	49	43	66	55	47	42	50	44	40	46	41	37	43	38	35	33				
7	64	52	44	38	61	50	42	37	46	40	35	42	37	33	39	35	31	29				
8	60	47	39	34	57	46	38	33	42	36	32	39	34	30	36	32	28	26				
9	56	43	36	31	53	42	35	30	39	33	29	36	31	27	33	29	26	24				
10	52	40	33	28	50	39	32	27	36	30	26	33	28	25	31	27	23	22				

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

	0°	45°	90°
0°	43289	43289	43289
5°	43232	43499	44031
10°	43688	44809	45479
15°	43674	43903	44267
20°	42969	43625	45082
25°	42845	44064	46935
30°	42800	45043	47386
35°	42393	46006	44118
40°	41416	44297	38824
45°	39192	38879	30702
50°	35628	31785	23820
55°	31311	26156	18539
60°	27093	20919	15268
65°	23389	17333	13364
70°	21031	15352	11873
75°	19264	13300	10917
80°	16774	10674	10674
85°	12153	9615	5076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 42361 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.9	3.0
10°-20°	749.5	8.7
20°-30°	1158.6	13.4
30°-40°	1393.5	16.1
40°-50°	1251.2	14.5
50°-60°	838.3	9.7
60°-70°	487.6	5.6
70°-80°	250.4	2.9
80°-90°	62.2	0.7
90°-100°	141.5	1.6
100°-110°	448.9	5.2
110°-120°	440.2	5.1
120°-130°	358.2	4.1
130°-140°	292.1	3.4
140°-150°	227.7	2.6
150°-160°	164.1	1.9
160°-170°	100.2	1.2
170°-180°	33.8	0.4
0°-30°	2167.0	25.0
0°-40°	3560.5	41.1
0°-60°	5650.0	65.3
0°-90°	6450.2	74.5
90°-120°	1030.6	11.9
90°-150°	1908.6	22.0
90°-180°	2207.0	25.5
0°-180°	8656.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2681	2681	2681	2681	2681	
5°	2667	2713	2684	2690	2717	255
15°	2613	2720	2626	2635	2648	734
25°	2405	2501	2473	2565	2635	1109
35°	2151	2170	2334	2289	2238	1341
45°	1716	1855	1703	1436	1345	1313
55°	1112	1155	929	718	659	1000
65°	612	626	454	369	350	619
75°	309	301	213	180	175	328
85°	66	52	52	35	27	81
90°	0	1	3	3	3	3
95°	19	57	257	95	61	22
105°	78	110	442	843	808	82
115°	140	166	358	743	874	138
125°	193	216	352	582	686	172
135°	234	256	350	501	564	180
145°	273	293	350	432	470	171
155°	311	322	351	386	401	143
165°	339	342	352	366	369	96
175°	354	353	354	356	355	34
180°	355	355	355	355	355	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2681.1	2681.1	2681.1	2681.1	2681.1
2.5°	2670.2	2702.2	2672.3	2674.7	2681.1
5°	2667.4	2712.8	2683.9	2690.0	2716.7
7.5°	2666.9	2731.6	2717.7	2734.3	2769.6
10°	2664.7	2742.2	2733.1	2736.6	2774.0
12.5°	2651.6	2741.9	2700.3	2696.9	2717.1
15°	2612.8	2719.6	2626.5	2635.0	2648.3
17.5°	2544.4	2656.1	2567.4	2597.5	2623.8
20°	2500.8	2610.3	2539.0	2578.3	2623.8
22.5°	2461.4	2570.9	2512.7	2567.7	2630.3
25°	2405.0	2501.3	2473.4	2565.1	2634.6
27.5°	2346.1	2402.6	2435.7	2558.7	2607.4
30°	2295.7	2333.2	2416.0	2523.0	2541.7
32.5°	2241.0	2263.6	2389.7	2445.5	2421.4
35°	2150.8	2169.6	2334.1	2289.1	2238.3
37.5°	2043.8	2082.3	2208.8	2079.7	2021.4
40°	1965.0	2029.2	2101.7	1908.9	1842.0
42.5°	1868.8	1971.5	1959.6	1713.9	1632.2
45°	1716.4	1855.2	1702.7	1435.5	1344.6
47.5°	1536.5	1679.2	1429.4	1190.7	1105.7
50°	1418.4	1533.4	1265.4	1041.9	948.3
52.5°	1298.2	1381.1	1125.4	902.2	817.2
55°	1112.3	1155.1	929.2	717.5	658.6
57.5°	941.8	969.0	759.2	579.5	536.2
60°	839.0	857.8	647.8	507.6	472.8
62.5°	745.0	759.5	558.1	446.6	420.3
65°	612.2	625.6	453.7	368.6	349.8
67.5°	506.8	513.7	373.3	306.2	288.6
70°	445.5	448.1	325.2	264.8	251.5
72.5°	390.9	387.0	279.3	230.0	220.8
75°	308.8	300.8	213.2	180.3	175.0
77.5°	230.6	222.1	149.7	138.9	138.9
80°	180.4	169.6	114.8	114.8	114.8
82.5°	134.4	119.5	88.5	88.5	86.3
85°	65.6	52.3	51.9	35.3	27.4
87.5°	17.5	17.7	7.2	7.2	7.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.2	24.8	79.3	26.4	18.6
95°	19.0	57.3	257.0	95.3	61.4
97.5°	35.3	74.2	435.4	272.1	166.9
100°	47.0	84.1	496.1	452.3	293.9
102.5°	59.4	94.8	485.4	664.3	508.5
105°	78.2	109.9	442.5	842.9	807.9
107.5°	97.0	126.3	401.6	861.5	908.7
110°	109.5	137.9	381.0	840.0	927.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	122.0	148.7	369.4	803.0	914.0
115°	139.6	165.9	357.6	742.7	873.9
117.5°	156.8	181.7	352.9	684.7	816.8
120°	167.6	191.7	351.9	648.8	776.7
122.5°	178.4	201.5	351.9	619.9	739.1
125°	193.3	216.3	351.9	582.4	686.1
127.5°	206.5	228.6	351.9	553.2	641.7
130°	214.6	237.5	351.9	536.0	615.7
132.5°	222.6	245.6	351.2	522.4	594.2
135°	233.6	256.4	349.8	501.0	564.4
137.5°	244.3	268.3	349.6	480.4	537.1
140°	251.5	275.4	348.7	466.0	517.4
142.5°	260.4	283.5	349.6	451.6	499.5
145°	272.6	293.4	349.8	432.2	470.4
147.5°	285.0	302.6	350.0	415.1	446.3
150°	293.9	308.0	350.9	405.1	430.3
152.5°	301.0	313.5	350.9	397.0	417.7
155°	310.6	321.6	350.9	385.9	401.2
157.5°	320.9	328.4	351.9	379.1	389.5
160°	326.3	332.8	351.9	374.6	383.3
162.5°	331.7	336.4	351.9	371.0	377.1
165°	338.6	341.9	351.9	365.5	368.8
167.5°	345.0	345.9	353.1	361.7	364.5
170°	348.7	348.7	353.1	359.9	360.9
172.5°	350.5	351.3	353.1	358.1	358.3
175°	354.2	353.2	354.2	356.5	355.3
177.5°	355.3	354.4	354.4	356.2	354.4
180°	355.3	355.3	355.3	355.3	355.3



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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	21.92	22.98	22.64	23.72	24.59	18.64	19.71	19.37	20.44	21.32
	3H	23.17	24.12	23.90	24.86	25.77	19.73	20.68	20.46	21.42	22.33
	4H	23.63	24.52	24.39	25.28	26.20	20.13	21.03	20.89	21.78	22.71
	6H	23.96	24.78	24.72	25.54	26.48	20.48	21.30	21.24	22.07	23.00
	8H	24.04	24.83	24.82	25.61	26.55	20.57	21.35	21.35	22.13	23.07
	12H	24.08	24.83	24.86	25.60	26.56	20.58	21.33	21.37	22.11	23.07
4H	2H	22.02	22.92	22.78	23.67	24.59	19.24	20.13	20.00	20.89	21.81
	3H	23.51	24.25	24.28	25.04	25.98	20.52	21.26	21.29	22.05	22.99
	4H	24.11	24.78	24.90	25.58	26.54	21.04	21.71	21.82	22.50	23.47
	6H	24.58	25.16	25.38	25.97	26.95	21.48	22.06	22.29	22.88	23.85
	8H	24.71	25.25	25.52	26.07	27.05	21.61	22.15	22.42	22.96	23.95
	12H	24.78	25.26	25.60	26.10	27.08	21.64	22.12	22.47	22.96	23.95
8H	4H	24.16	24.69	24.96	25.51	26.49	21.36	21.90	22.16	22.71	23.69
	6H	24.71	25.16	25.55	26.01	27.00	21.90	22.34	22.73	23.20	24.19
	8H	24.91	25.30	25.76	26.16	27.16	22.08	22.48	22.93	23.33	24.34
	12H	25.02	25.37	25.87	26.21	27.27	22.15	22.51	23.00	23.35	24.41
12H	4H	24.12	24.61	24.95	25.44	26.43	21.38	21.87	22.21	22.70	23.69
	6H	24.70	25.09	25.54	25.95	26.95	21.96	22.36	22.81	23.21	24.21
	8H	24.92	25.27	25.77	26.11	27.17	22.17	22.52	23.02	23.37	24.43