

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: P855099

Luminaire Tested: SQ2-PR1-100U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855099  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100U-125D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

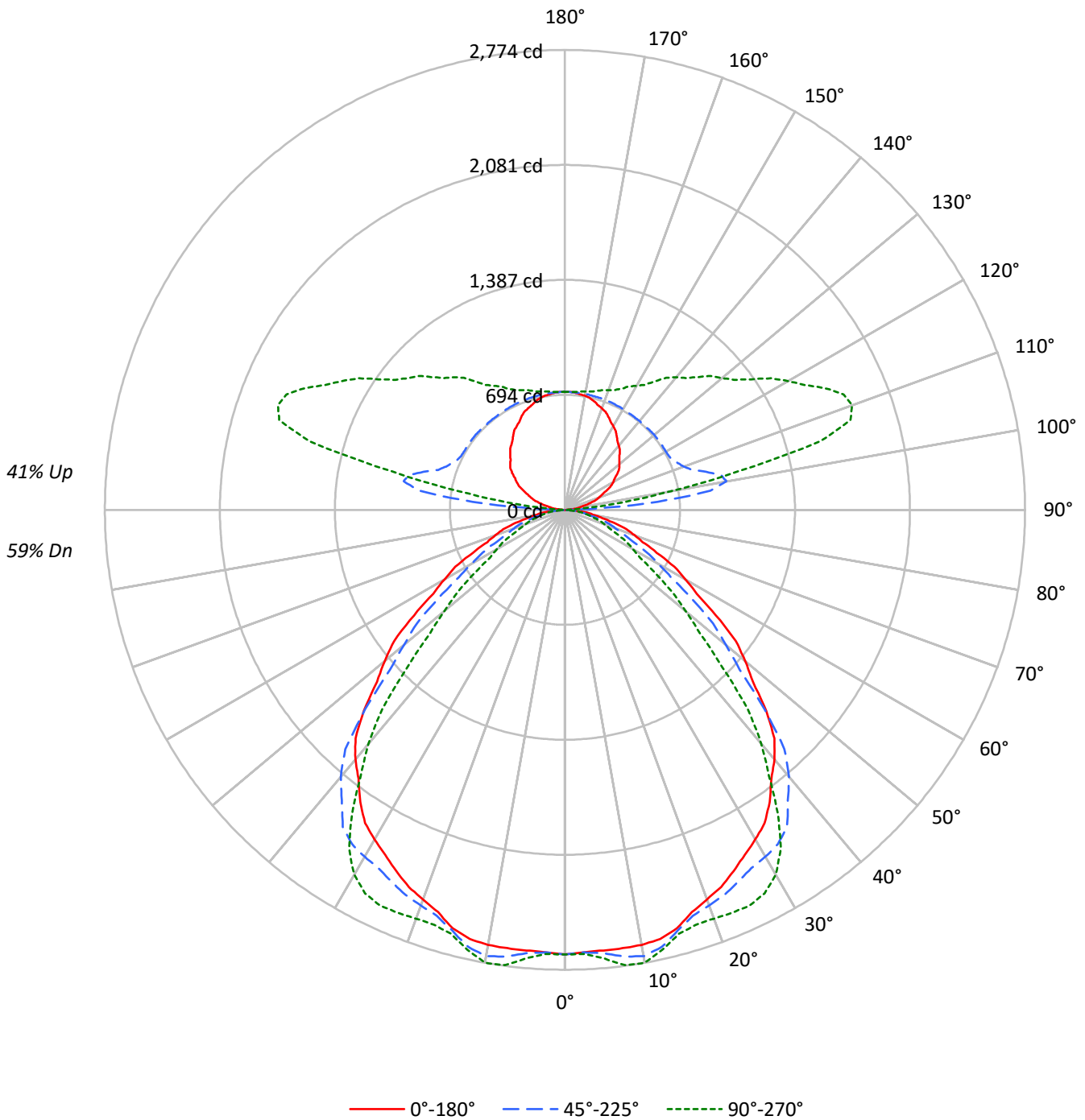
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10880.3 lumens  
Efficiency: N/A  
Efficacy: 133.0 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): 81.8  
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59				
1	101	97	93	90	94	90	87	84	79	76	74	68	66	65	58	57	56	51				
2	92	85	79	74	86	80	75	70	70	66	63	61	58	55	52	50	48	44				
3	85	75	68	63	79	71	65	60	62	57	54	54	51	48	47	44	42	38				
4	78	67	60	54	72	63	56	51	56	50	46	49	45	41	42	39	37	33				
5	72	60	52	46	67	57	50	44	50	45	40	44	40	36	38	35	32	29				
6	66	54	46	41	62	51	44	39	45	40	35	40	36	32	35	31	29	26				
7	61	49	41	36	57	47	39	34	41	36	31	37	32	29	32	28	26	23				
8	57	45	37	32	53	42	35	31	38	32	28	34	29	26	30	26	23	21				
9	53	41	34	29	50	39	32	27	35	29	25	31	26	23	27	24	21	19				
10	50	38	31	26	47	36	29	25	32	27	23	29	24	21	25	22	19	17				

**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	2.4
10°-20°	749.5	6.9
20°-30°	1158.6	10.6
30°-40°	1393.5	12.8
40°-50°	1251.2	11.5
50°-60°	838.3	7.7
60°-70°	487.6	4.5
70°-80°	250.4	2.3
80°-90°	63.1	0.6
90°-100°	297.2	2.7
100°-110°	898.9	8.3
110°-120°	877.5	8.1
120°-130°	717.1	6.6
130°-140°	585.3	5.4
140°-150°	455.7	4.2
150°-160°	328.5	3.0
160°-170°	201.1	1.8
170°-180°	67.9	0.6
0°-30°	2167.0	19.9
0°-40°	3560.5	32.7
0°-60°	5650.0	51.9
0°-90°	6451.0	59.3
90°-120°	2073.7	19.1
90°-150°	3831.8	35.2
90°-180°	4429.0	40.7
0°-180°	10880.3	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	2	13	8	7	4
95°	37	117	561	207	131	44
105°	156	220	883	1676	1593	164
115°	278	332	714	1477	1735	275
125°	389	431	704	1167	1373	345
135°	466	515	699	1006	1132	361
145°	544	584	699	866	946	341
155°	620	641	704	776	806	285
165°	678	686	707	734	743	191
175°	709	709	711	716	714	67
180°	712	712	712	712	712	



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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	17.9	9.3	8.1	7.9
90°	0.0	2.2	13.4	7.8	6.7
92.5°	12.6	50.6	181.4	60.2	43.3
95°	36.9	116.6	560.9	207.2	130.7
97.5°	71.3	148.4	883.9	585.0	356.1
100°	92.7	168.1	987.6	954.8	641.3
102.5°	116.9	189.7	966.2	1339.2	1067.6
105°	156.4	219.8	882.6	1676.2	1593.2
107.5°	194.0	254.5	802.2	1709.6	1805.7
110°	219.0	276.9	761.9	1667.5	1842.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	243.1	299.2	737.8	1597.1	1818.2
115°	278.2	331.7	714.0	1477.3	1735.1
117.5°	313.0	363.7	705.5	1365.0	1628.9
120°	336.3	384.3	702.8	1299.5	1553.0
122.5°	357.7	403.2	702.8	1241.9	1476.1
125°	388.8	431.4	703.9	1166.6	1373.0
127.5°	414.1	458.2	702.8	1109.8	1285.9
130°	430.1	476.0	702.8	1077.3	1236.8
132.5°	444.4	491.1	701.9	1047.6	1194.8
135°	465.9	515.0	699.4	1006.2	1131.8
137.5°	489.8	536.5	699.4	961.9	1078.4
140°	504.9	550.9	699.4	933.2	1043.5
142.5°	520.2	564.4	698.5	906.9	1003.3
145°	544.1	584.5	699.4	865.5	946.3
147.5°	568.0	602.3	700.7	831.3	893.3
150°	583.3	614.8	701.6	812.3	864.7
152.5°	597.5	625.7	702.5	796.0	838.8
155°	620.0	640.9	703.9	776.1	805.5
157.5°	639.7	656.6	705.3	761.3	781.9
160°	651.4	665.5	706.0	752.2	767.5
162.5°	662.9	673.7	707.0	744.2	756.9
165°	678.2	685.8	707.2	734.2	742.9
167.5°	691.1	695.1	708.5	726.5	730.3
170°	698.2	700.5	709.4	722.9	723.9
172.5°	702.8	704.0	709.4	719.3	719.5
175°	709.4	709.4	710.6	716.1	714.0
177.5°	712.6	711.7	710.8	713.4	711.7
180°	711.7	711.7	711.7	711.7	711.7

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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	20.70	21.60	21.58	22.50	23.63	17.42	18.33	18.31	19.22	20.36
	3H	21.94	22.74	22.83	23.65	24.81	18.49	19.30	19.39	20.20	21.37
	4H	22.39	23.15	23.30	24.06	25.23	18.90	19.65	19.81	20.57	21.74
	6H	22.71	23.41	23.63	24.32	25.51	19.23	19.93	20.15	20.84	22.03
	8H	22.79	23.46	23.72	24.39	25.57	19.32	19.98	20.25	20.91	22.10
	12H	22.82	23.45	23.76	24.38	25.59	19.33	19.96	20.26	20.89	22.09
4H	2H	20.78	21.54	21.70	22.45	23.62	18.00	18.76	18.91	19.67	20.84
	3H	22.26	22.89	23.18	23.83	25.02	19.27	19.90	20.19	20.84	22.03
	4H	22.85	23.43	23.79	24.36	25.58	19.78	20.35	20.71	21.29	22.50
	6H	23.31	23.80	24.26	24.76	25.98	20.21	20.71	21.16	21.67	22.88
	8H	23.44	23.90	24.39	24.86	26.08	20.34	20.80	21.29	21.75	22.98
	12H	23.50	23.91	24.47	24.88	26.11	20.36	20.77	21.33	21.75	22.98
8H	4H	22.88	23.34	23.84	24.30	25.52	20.09	20.54	21.04	21.50	22.72
	6H	23.43	23.81	24.41	24.81	26.03	20.62	21.00	21.60	22.00	23.22
	8H	23.63	23.97	24.62	24.95	26.20	20.81	21.14	21.79	22.13	23.37
	12H	23.74	24.03	24.73	25.01	26.30	20.87	21.17	21.86	22.15	23.44
12H	4H	22.84	23.26	23.81	24.23	25.46	20.10	20.52	21.07	21.49	22.72
	6H	23.42	23.75	24.41	24.74	25.98	20.68	21.02	21.67	22.00	23.25
	8H	23.63	23.93	24.62	24.91	26.20	20.89	21.19	21.88	22.17	23.46