

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: P855362

Luminaire Tested: SQ2-PH1-100U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

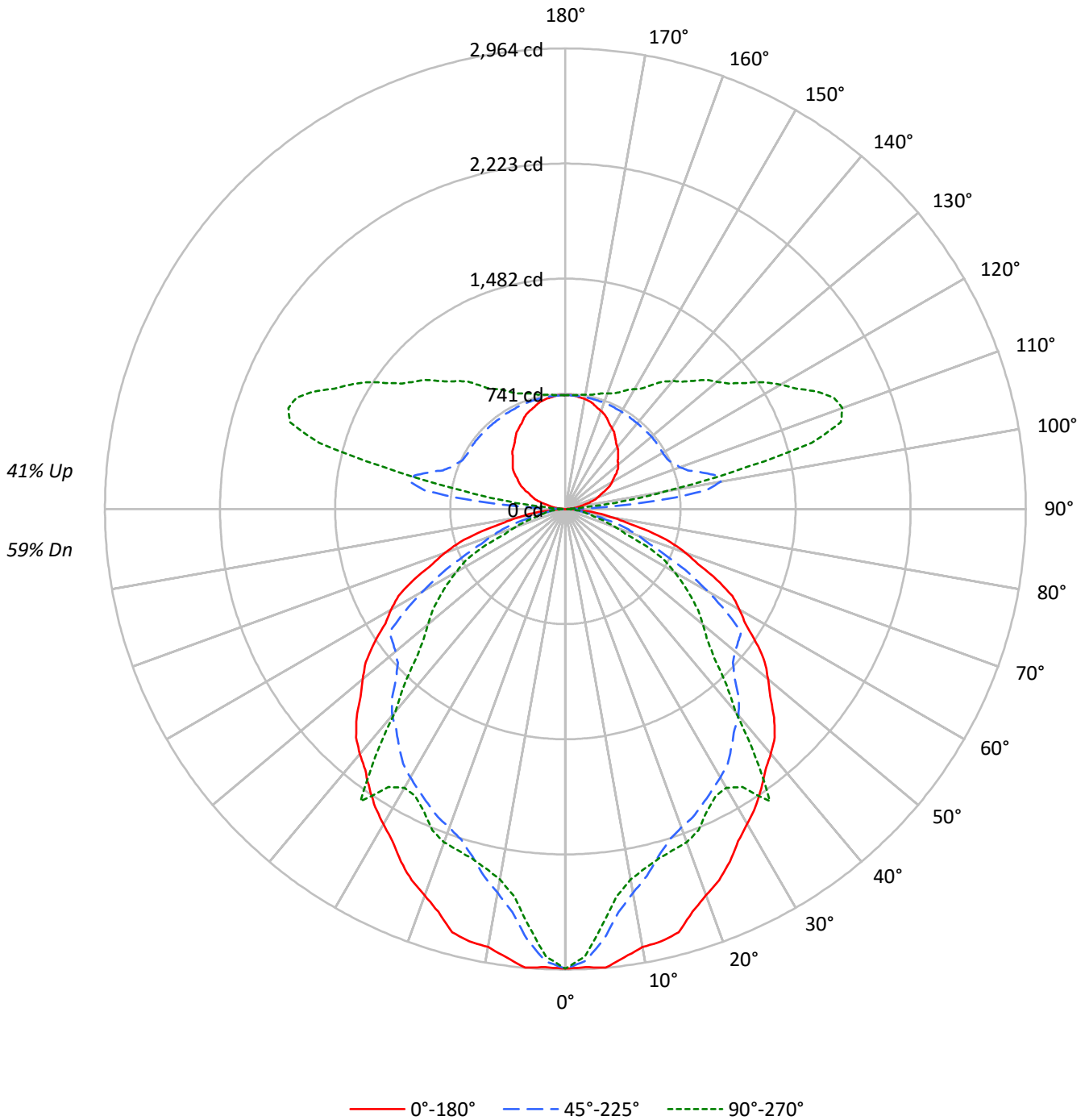
Test Method: LM-79-2019  
Report Number: P855362  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-125D-840-UNV-STD-W-4  
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: 11105.5 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
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	0
RCR																		
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	100	96	92	88	93	90	86	83	78	75	73	67	65	64	57	56	55	50
2	91	84	78	73	85	79	73	69	68	64	61	59	56	54	51	48	47	42
3	83	74	67	61	78	69	63	57	61	55	51	52	49	45	45	42	40	36
4	76	65	58	51	71	61	54	49	54	48	44	47	43	39	40	37	34	31
5	70	58	50	44	65	55	48	42	48	42	38	42	37	34	36	33	30	27
6	65	52	44	38	60	49	42	37	44	38	33	38	33	30	33	29	26	24
7	60	47	39	34	56	45	37	32	40	34	29	35	30	26	30	26	23	21
8	56	43	35	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	39	32	27	48	37	30	26	33	27	23	29	25	21	26	22	19	17
10	48	36	29	24	45	34	28	23	31	25	21	27	22	19	24	20	17	15

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

	0°	45°	90°
0°	47759	47759	47759
5°	48034	45161	43655
10°	46927	41114	39682
15°	47141	38673	38908
20°	45459	37479	39220
25°	44625	37305	38308
30°	43656	37203	38620
35°	43327	36780	45269
40°	43364	36543	35890
45°	43379	35152	30910
50°	42772	35842	28987
55°	42227	38900	27809
60°	41805	34081	26082
65°	41077	27637	22690
70°	38795	23519	16206
75°	34591	17729	12296
80°	28257	11520	11520
85°	17729	10430	7818

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 43379 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	260.3	2.3
10°-20°	684.6	6.2
20°-30°	1003.9	9.0
30°-40°	1215.7	10.9
40°-50°	1195.5	10.8
50°-60°	1040.7	9.4
60°-70°	723.5	6.5
70°-80°	343.0	3.1
80°-90°	76.9	0.7
90°-100°	306.1	2.8
100°-110°	925.7	8.3
110°-120°	903.7	8.1
120°-130°	738.5	6.6
130°-140°	602.8	5.4
140°-150°	469.2	4.2
150°-160°	338.3	3.0
160°-170°	207.1	1.9
170°-180°	69.9	0.6
0°-30°	1948.8	17.5
0°-40°	3164.5	28.5
0°-60°	5400.7	48.6
0°-90°	6544.2	58.9
90°-120°	2135.5	19.2
90°-150°	3946.0	35.5
90°-180°	4561.0	41.1
0°-180°	11105.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2958	2958	2958	2958	2958	
5°	2964	2961	2786	2699	2694	279
15°	2820	2512	2314	2297	2328	786
25°	2505	2131	2094	2159	2150	1152
35°	2198	1777	1866	2027	2297	1377
45°	1900	1407	1540	1593	1354	1460
55°	1500	1096	1382	996	988	1340
65°	1075	753	723	594	594	1056
75°	554	384	284	202	197	588
85°	96	63	56	45	42	128
90°	0	2	14	8	7	5
95°	38	120	578	213	135	45
105°	161	226	909	1726	1641	169
115°	286	342	735	1521	1787	283
125°	400	444	725	1201	1414	356
135°	480	530	720	1036	1166	372
145°	560	602	720	891	974	351
155°	638	660	725	799	830	294
165°	698	706	728	756	765	197
175°	731	731	732	738	735	69
180°	733	733	733	733	733	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2958.0	2958.0	2958.0	2958.0	2958.0
2.5°	2951.3	2982.1	2913.0	2885.9	2881.5
5°	2963.7	2960.9	2786.4	2699.0	2693.5
7.5°	2909.7	2824.3	2615.9	2519.5	2515.1
10°	2862.3	2733.0	2507.7	2420.4	2420.4
12.5°	2851.2	2646.9	2420.0	2355.5	2368.7
15°	2820.2	2511.9	2313.6	2297.4	2327.7
17.5°	2717.7	2385.8	2230.8	2267.6	2302.8
20°	2645.7	2318.1	2181.3	2249.6	2282.6
22.5°	2584.9	2253.0	2145.3	2220.0	2237.6
25°	2504.9	2130.7	2094.0	2158.6	2150.3
27.5°	2409.2	2018.5	2042.7	2082.3	2087.2
30°	2341.6	1950.9	1995.5	2035.7	2071.5
32.5°	2276.4	1872.3	1943.7	2039.0	2121.0
35°	2198.2	1777.1	1866.0	2027.0	2296.7
37.5°	2115.9	1664.7	1787.7	1923.1	2009.0
40°	2057.4	1584.0	1733.8	1900.9	1702.8
42.5°	1994.4	1521.0	1652.7	1868.5	1533.9
45°	1899.8	1407.2	1539.5	1593.2	1353.7
47.5°	1788.3	1318.9	1462.9	1328.6	1235.0
50°	1702.8	1259.7	1426.9	1214.5	1154.0
52.5°	1619.4	1198.4	1402.2	1120.4	1079.6
55°	1500.1	1095.6	1381.9	996.2	987.9
57.5°	1373.4	990.9	1222.0	888.0	902.4
60°	1294.6	923.1	1055.4	824.3	807.7
62.5°	1211.3	857.5	900.0	743.2	726.7
65°	1075.2	753.2	723.4	593.9	593.9
67.5°	925.4	644.7	586.0	486.0	419.9
70°	821.8	574.2	498.2	387.4	343.3
72.5°	711.5	499.0	408.1	317.5	266.8
75°	554.5	383.9	284.2	202.5	197.1
77.5°	400.8	276.4	191.4	150.3	150.8
80°	303.9	210.4	123.9	121.1	123.9
82.5°	213.9	144.5	92.3	96.3	96.8
85°	95.7	62.7	56.3	45.0	42.2
87.5°	20.3	18.5	14.0	12.8	12.6
90°	0.0	2.2	13.8	8.0	6.9
92.5°	12.9	52.1	186.8	62.0	44.6
95°	38.0	120.0	577.6	213.4	134.6
97.5°	73.4	152.8	910.3	602.4	366.8
100°	95.4	173.1	1017.0	983.2	660.4
102.5°	120.4	195.3	995.0	1379.1	1099.4
105°	161.1	226.3	908.9	1726.2	1640.7
107.5°	199.7	262.1	826.2	1760.6	1859.5
110°	225.5	285.2	784.7	1717.2	1897.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	250.3	308.1	759.8	1644.7	1872.5
115°	286.5	341.6	735.3	1521.3	1786.8
117.5°	322.3	374.6	726.5	1405.7	1677.5
120°	346.4	395.8	723.7	1338.2	1599.3
122.5°	368.4	415.2	723.7	1278.9	1520.1
125°	400.4	444.3	724.9	1201.4	1414.0
127.5°	426.4	471.9	723.7	1142.9	1324.2
130°	443.0	490.2	723.7	1109.5	1273.7
132.5°	457.7	505.8	722.8	1078.8	1230.4
135°	479.8	530.4	720.2	1036.2	1165.5
137.5°	504.4	552.5	720.2	990.6	1110.5
140°	520.0	567.3	720.2	961.0	1074.6
142.5°	535.7	581.2	719.3	934.0	1033.2
145°	560.3	601.9	720.2	891.3	974.5
147.5°	584.9	620.2	721.6	856.1	920.0
150°	600.6	633.2	722.5	836.5	890.5
152.5°	615.3	644.4	723.5	819.7	863.8
155°	638.5	660.0	724.9	799.2	829.5
157.5°	658.8	676.2	726.3	784.0	805.2
160°	670.8	685.4	727.1	774.6	790.4
162.5°	682.7	693.8	728.0	766.4	779.4
165°	698.4	706.2	728.3	756.1	765.1
167.5°	711.7	715.8	729.7	748.2	752.0
170°	719.1	721.4	730.6	744.5	745.5
172.5°	723.7	725.0	730.6	740.7	741.0
175°	730.6	730.6	731.8	737.5	735.3
177.5°	733.9	732.9	732.0	734.7	732.9
180°	732.9	732.9	732.9	732.9	732.9



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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	21.55	22.49	22.43	23.38	24.52	20.22	21.16	21.10	22.06	23.20
	3H	23.58	24.42	24.47	25.33	26.49	21.26	22.10	22.15	23.01	24.17
	4H	24.31	25.11	25.22	26.02	27.19	21.48	22.27	22.38	23.19	24.36
	6H	24.80	25.53	25.72	26.45	27.64	21.63	22.36	22.54	23.28	24.46
	8H	24.93	25.63	25.86	26.56	27.75	21.66	22.36	22.59	23.29	24.48
	12H	24.98	25.64	25.91	26.57	27.78	21.66	22.32	22.59	23.25	24.47
4H	2H	21.93	22.73	22.84	23.64	24.81	20.87	21.67	21.78	22.58	23.75
	3H	24.05	24.71	24.97	25.65	26.84	22.06	22.72	22.98	23.66	24.85
	4H	24.86	25.47	25.80	26.41	27.62	22.34	22.94	23.27	23.88	25.09
	6H	25.45	25.97	26.40	26.94	28.15	22.55	23.07	23.50	24.03	25.25
	8H	25.63	26.11	26.57	27.07	28.29	22.61	23.09	23.56	24.05	25.28
	12H	25.70	26.13	26.67	27.11	28.34	22.62	23.06	23.59	24.03	25.26
8H	4H	24.89	25.37	25.84	26.33	27.56	22.56	23.04	23.51	24.00	25.23
	6H	25.54	25.94	26.52	26.94	28.17	22.84	23.23	23.81	24.23	25.46
	8H	25.77	26.12	26.75	27.11	28.36	22.94	23.29	23.92	24.28	25.52
	12H	25.89	26.20	26.87	27.18	28.47	22.99	23.30	23.97	24.28	25.57
12H	4H	24.84	25.28	25.81	26.25	27.49	22.56	23.00	23.53	23.97	25.20
	6H	25.52	25.87	26.50	26.86	28.10	22.87	23.22	23.85	24.21	25.45
	8H	25.75	26.06	26.74	27.05	28.34	22.99	23.30	23.97	24.28	25.57