

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: P854051

Luminaire Tested: SQ2-PH1-100U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

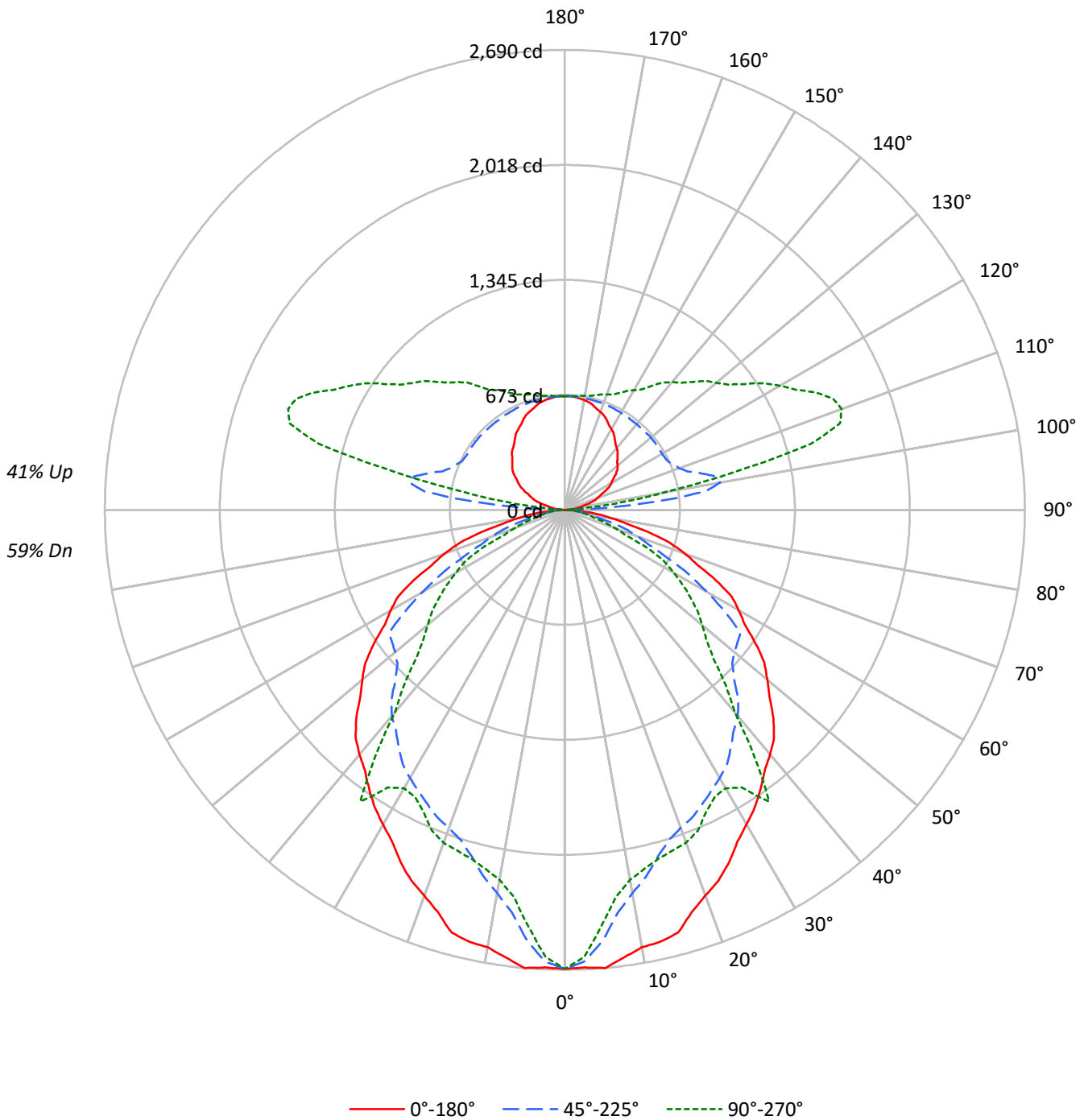
Test Method: LM-79-2019  
Report Number: P854051  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-125D-940-UNV-STD-W-4  
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: 10079.9 lumens  
Efficiency: N/A  
Efficacy: 123.2 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°	43348	43348	43348
5°	43598	40989	39623
10°	42594	37316	36018
15°	42786	35101	35313
20°	41259	34017	35598
25°	40504	33859	34769
30°	39625	33767	35054
35°	39324	33384	41086
40°	39359	33167	32574
45°	39372	31905	28056
50°	38821	32533	26309
55°	38328	35308	25242
60°	37946	30935	23676
65°	37280	25081	20592
70°	35212	21347	14715
75°	31391	16095	11154
80°	25653	10451	10451
85°	16098	9466	7095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 39372 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.2	2.3
10°-20°	621.4	6.2
20°-30°	911.2	9.0
30°-40°	1103.4	10.9
40°-50°	1085.1	10.8
50°-60°	944.6	9.4
60°-70°	656.7	6.5
70°-80°	311.3	3.1
80°-90°	69.8	0.7
90°-100°	277.8	2.8
100°-110°	840.2	8.3
110°-120°	820.3	8.1
120°-130°	670.3	6.6
130°-140°	547.1	5.4
140°-150°	425.9	4.2
150°-160°	307.0	3.0
160°-170°	187.9	1.9
170°-180°	63.5	0.6
0°-30°	1768.8	17.5
0°-40°	2872.3	28.5
0°-60°	4901.9	48.6
0°-90°	5939.8	58.9
90°-120°	1938.3	19.2
90°-150°	3581.6	35.5
90°-180°	4140.0	41.1
0°-180°	10079.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2685	2685	2685	2685	2685	
5°	2690	2688	2529	2450	2445	253
15°	2560	2280	2100	2085	2113	714
25°	2274	1934	1901	1959	1952	1046
35°	1995	1613	1694	1840	2084	1250
45°	1724	1277	1397	1446	1229	1325
55°	1362	994	1254	904	897	1216
65°	976	684	656	539	539	959
75°	503	348	258	184	179	533
85°	87	57	51	41	38	116
90°	0	2	12	7	6	4
95°	34	109	524	194	122	41
105°	146	205	825	1567	1489	154
115°	260	310	667	1381	1622	257
125°	363	403	658	1090	1283	323
135°	436	481	654	940	1058	337
145°	509	546	654	809	884	319
155°	580	599	658	725	753	267
165°	634	641	661	686	694	179
175°	663	663	664	669	667	63
180°	665	665	665	665	665	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2684.8	2684.8	2684.8	2684.8	2684.8
2.5°	2678.7	2706.7	2644.0	2619.4	2615.4
5°	2690.0	2687.5	2529.0	2449.7	2444.7
7.5°	2640.9	2563.5	2374.2	2286.8	2282.8
10°	2598.0	2480.6	2276.1	2196.9	2196.9
12.5°	2587.8	2402.4	2196.4	2137.9	2149.9
15°	2559.7	2279.9	2099.9	2085.1	2112.6
17.5°	2466.7	2165.5	2024.7	2058.2	2090.1
20°	2401.3	2104.1	1979.8	2041.8	2071.8
22.5°	2346.1	2044.9	1947.1	2014.9	2030.9
25°	2273.6	1933.9	1900.6	1959.2	1951.7
27.5°	2186.7	1832.0	1854.1	1890.0	1894.5
30°	2125.4	1770.7	1811.2	1847.7	1880.2
32.5°	2066.1	1699.5	1764.2	1850.7	1925.1
35°	1995.1	1613.0	1693.7	1839.7	2084.5
37.5°	1920.5	1510.9	1622.7	1745.5	1823.4
40°	1867.4	1437.8	1573.6	1725.4	1545.5
42.5°	1810.2	1380.5	1500.0	1696.0	1392.2
45°	1724.3	1277.2	1397.3	1446.1	1228.7
47.5°	1623.2	1197.0	1327.9	1205.9	1120.9
50°	1545.5	1143.4	1295.2	1102.3	1047.4
52.5°	1469.9	1087.7	1272.7	1016.9	979.9
55°	1361.6	994.4	1254.3	904.1	896.7
57.5°	1246.6	899.4	1109.2	806.0	819.0
60°	1175.1	837.9	958.0	748.1	733.2
62.5°	1099.5	778.3	816.9	674.6	659.6
65°	975.8	683.6	656.5	539.0	539.0
67.5°	839.9	585.2	531.9	441.1	381.1
70°	745.9	521.1	452.2	351.6	311.7
72.5°	645.8	453.0	370.4	288.1	242.2
75°	503.2	348.4	258.0	183.8	178.8
77.5°	363.8	250.9	173.7	136.4	136.9
80°	275.9	191.0	112.4	109.9	112.4
82.5°	194.1	131.2	83.8	87.4	87.9
85°	86.9	56.9	51.1	40.8	38.3
87.5°	18.4	16.8	12.7	11.7	11.5
90°	0.0	2.0	12.5	7.3	6.3
92.5°	11.7	47.2	169.6	56.2	40.5
95°	34.5	109.0	524.2	193.7	122.2
97.5°	66.6	138.7	826.2	546.7	332.9
100°	86.7	157.1	923.2	892.5	599.4
102.5°	109.2	177.2	903.1	1251.8	997.9
105°	146.2	205.4	825.0	1566.8	1489.2
107.5°	181.3	237.9	749.8	1597.9	1687.8
110°	204.7	258.8	712.2	1558.7	1722.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	227.2	279.7	689.7	1492.8	1699.5
115°	260.0	310.1	667.3	1380.8	1621.8
117.5°	292.6	340.0	659.4	1275.9	1522.6
120°	314.3	359.3	656.9	1214.7	1451.6
122.5°	334.4	376.9	656.9	1160.8	1379.7
125°	363.4	403.2	657.9	1090.4	1283.4
127.5°	387.0	428.3	656.9	1037.4	1202.0
130°	402.1	444.9	656.9	1007.0	1156.0
132.5°	415.4	459.1	656.0	979.1	1116.8
135°	435.5	481.4	653.7	940.4	1057.9
137.5°	457.8	501.5	653.7	899.1	1008.0
140°	472.0	514.9	653.7	872.2	975.4
142.5°	486.2	527.5	652.9	847.7	937.8
145°	508.6	546.4	653.7	809.0	884.5
147.5°	530.9	563.0	655.0	777.0	835.0
150°	545.1	574.7	655.8	759.3	808.3
152.5°	558.5	584.8	656.7	744.0	784.1
155°	579.6	599.0	657.9	725.4	752.9
157.5°	598.0	613.7	659.2	711.6	730.8
160°	608.8	622.1	660.0	703.1	717.4
162.5°	619.7	629.7	660.8	695.6	707.4
165°	633.9	641.0	661.0	686.3	694.5
167.5°	646.0	649.7	662.3	679.1	682.5
170°	652.7	654.7	663.1	675.7	676.7
172.5°	656.9	658.1	663.1	672.3	672.5
175°	663.1	663.1	664.2	669.3	667.3
177.5°	666.0	665.2	664.4	666.8	665.2
180°	665.2	665.2	665.2	665.2	665.2

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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	21.21	22.15	22.09	23.05	24.19	19.88	20.82	20.76	21.72	22.86
	3H	23.24	24.08	24.13	24.99	26.15	20.92	21.76	21.81	22.67	23.84
	4H	23.98	24.77	24.88	25.68	26.86	21.14	21.94	22.05	22.85	24.02
	6H	24.47	25.20	25.38	26.12	27.30	21.29	22.02	22.21	22.94	24.13
	8H	24.59	25.29	25.52	26.23	27.41	21.32	22.02	22.25	22.96	24.14
	12H	24.64	25.30	25.57	26.23	27.44	21.32	21.99	22.26	22.92	24.13
4H	2H	21.60	22.39	22.51	23.30	24.48	20.53	21.33	21.45	22.24	23.42
	3H	23.71	24.37	24.63	25.31	26.50	21.72	22.38	22.64	23.33	24.52
	4H	24.53	25.13	25.46	26.07	27.28	22.00	22.60	22.93	23.54	24.76
	6H	25.12	25.64	26.06	26.60	27.81	22.21	22.73	23.16	23.69	24.91
	8H	25.29	25.77	26.24	26.73	27.96	22.27	22.76	23.22	23.71	24.94
	12H	25.36	25.80	26.33	26.77	28.00	22.28	22.72	23.25	23.69	24.93
8H	4H	24.55	25.03	25.50	25.99	27.22	22.22	22.71	23.17	23.66	24.89
	6H	25.21	25.61	26.18	26.60	27.83	22.50	22.90	23.47	23.90	25.12
	8H	25.43	25.79	26.42	26.77	28.02	22.60	22.95	23.59	23.94	25.19
	12H	25.55	25.86	26.54	26.84	28.13	22.65	22.96	23.64	23.94	25.23
12H	4H	24.51	24.94	25.48	25.92	27.15	22.22	22.66	23.19	23.63	24.87
	6H	25.18	25.53	26.16	26.52	27.77	22.53	22.88	23.51	23.87	25.12
	8H	25.42	25.73	26.40	26.71	28.00	22.65	22.96	23.64	23.94	25.23