

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: P854861

Luminaire Tested: SQ2-PW1-125U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854861  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-125U-100D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

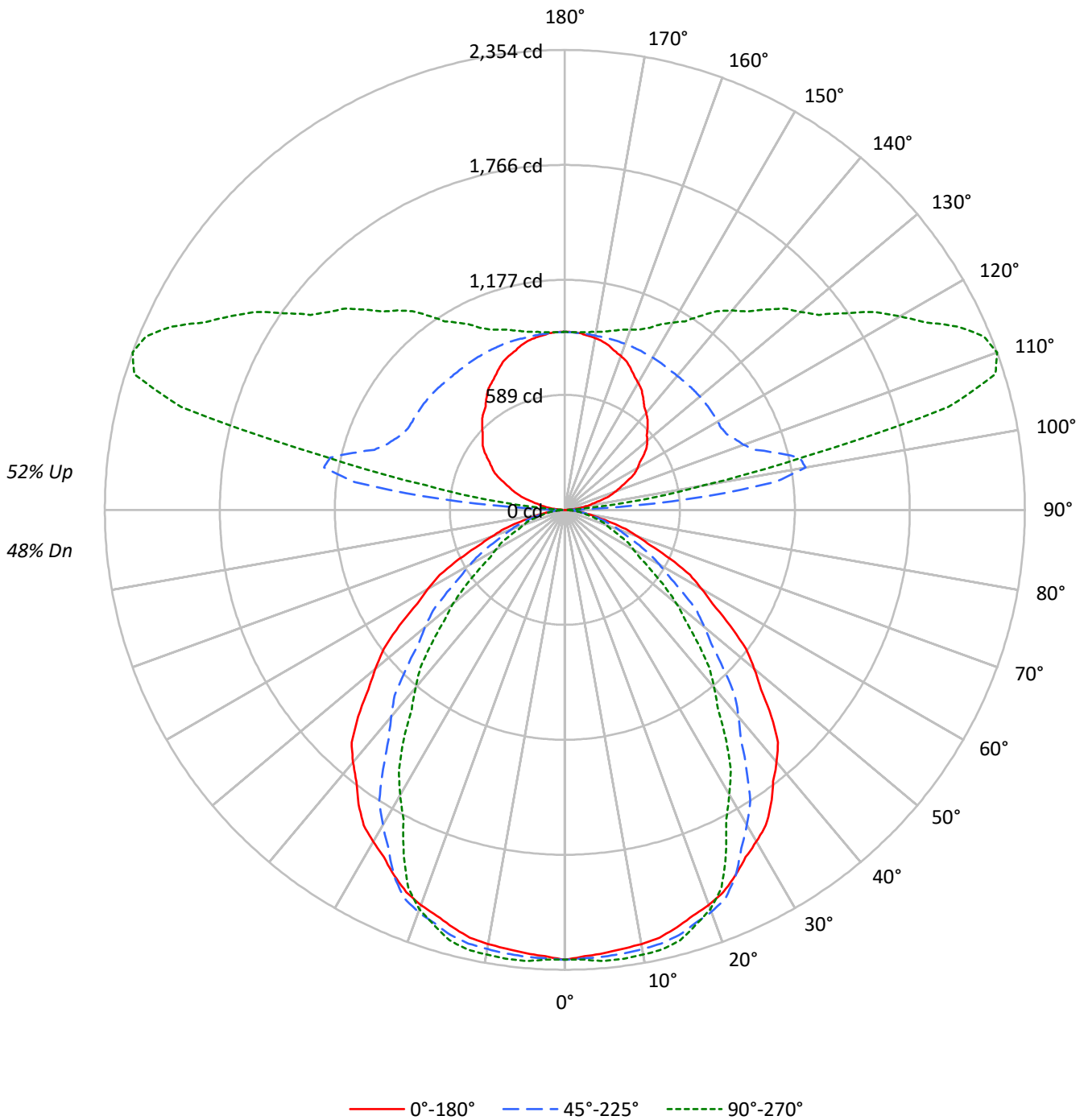
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10729.6 lumens  
Efficiency: N/A  
Efficacy: 131.7 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: General Diffuse  
  
Input Watts (W): 81.5  
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	0
RCR																		
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48
1	98	94	90	87	90	86	83	80	73	71	68	60	59	57	49	48	47	41
2	90	82	77	72	82	76	71	67	64	61	58	53	51	49	43	42	40	35
3	82	73	66	60	75	67	61	57	57	53	49	48	44	42	39	37	35	31
4	75	65	57	52	69	60	53	48	51	46	42	43	39	36	35	33	30	27
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	29	27	24
6	64	52	44	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21
7	59	47	40	34	54	44	37	32	38	32	29	32	28	25	27	24	21	19
8	55	43	35	30	51	40	33	29	35	29	26	29	25	22	25	22	19	17
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	23	20	17	15
10	48	36	29	24	44	34	27	23	29	24	21	25	21	18	21	18	16	14

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

	0°	45°	90°
0°	37177	37177	37177
5°	36929	37212	37567
10°	36995	37428	37895
15°	36986	37683	38123
20°	37002	37641	37380
25°	36802	36840	34732
30°	36551	34711	31400
35°	36265	31943	28355
40°	35544	29118	25050
45°	34150	26188	21882
50°	31782	23410	18731
55°	29073	20681	15184
60°	26063	17990	13101
65°	22789	15499	11645
70°	18633	13770	10556
75°	14504	11896	9713
80°	10804	10200	8563
85°	7317	7725	4872

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 34150 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.3	2.0
10°-20°	635.3	5.9
20°-30°	934.9	8.7
30°-40°	1022.2	9.5
40°-50°	916.9	8.5
50°-60°	684.0	6.4
60°-70°	432.3	4.0
70°-80°	214.1	2.0
80°-90°	51.1	0.5
90°-100°	348.4	3.2
100°-110°	1134.3	10.6
110°-120°	1122.0	10.5
120°-130°	916.9	8.5
130°-140°	749.4	7.0
140°-150°	583.7	5.4
150°-160°	420.8	3.9
160°-170°	257.2	2.4
170°-180°	86.8	0.8
0°-30°	1789.4	16.7
0°-40°	2811.6	26.2
0°-60°	4412.6	41.1
0°-90°	5110.1	47.6
90°-120°	2604.7	24.3
90°-150°	4854.8	45.2
90°-180°	5619.0	52.4
0°-180°	10729.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2303	2303	2303	2303	2303	
5°	2278	2315	2296	2299	2318	217
15°	2213	2256	2254	2270	2281	625
25°	2066	2111	2068	1982	1950	951
35°	1840	1821	1621	1479	1439	1147
45°	1496	1376	1147	1003	958	1147
55°	1033	934	735	576	539	922
65°	596	547	406	326	305	591
75°	232	250	191	160	156	256
85°	40	50	42	28	26	50
90°	0	3	8	7	7	4
95°	47	144	639	228	140	55
105°	193	278	1124	2146	2032	206
115°	356	425	915	1886	2219	353
125°	495	552	903	1489	1756	441
135°	598	661	898	1285	1450	462
145°	699	750	896	1107	1212	438
155°	798	824	902	991	1028	367
165°	870	878	904	938	949	245
175°	908	908	908	914	912	86
180°	911	911	911	911	911	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2302.6	2302.6	2302.6	2302.6	2302.6
2.5°	2286.8	2316.0	2297.4	2299.3	2304.4
5°	2278.5	2315.0	2296.0	2298.7	2317.9
7.5°	2267.1	2303.9	2289.9	2297.8	2316.7
10°	2256.5	2295.2	2282.9	2294.2	2311.4
12.5°	2242.5	2282.9	2274.1	2287.2	2304.4
15°	2212.7	2255.6	2254.4	2270.0	2280.7
17.5°	2178.1	2220.9	2218.9	2223.0	2228.0
20°	2153.5	2196.4	2190.7	2175.5	2175.5
22.5°	2118.4	2164.7	2150.4	2108.4	2094.7
25°	2065.8	2110.8	2067.9	1981.7	1949.6
27.5°	2004.4	2040.8	1954.8	1832.3	1787.7
30°	1960.5	1988.3	1861.8	1727.1	1684.2
32.5°	1914.9	1925.6	1767.1	1627.0	1580.6
35°	1839.9	1820.6	1620.6	1479.3	1438.6
37.5°	1751.3	1693.8	1479.8	1331.9	1286.8
40°	1686.4	1604.9	1381.5	1233.6	1188.5
42.5°	1614.4	1512.3	1288.6	1140.6	1093.9
45°	1495.6	1375.5	1146.9	1003.3	958.3
47.5°	1361.9	1242.6	1014.4	875.5	836.8
50°	1265.3	1149.5	932.0	792.8	745.7
52.5°	1167.0	1063.4	851.3	708.2	643.9
55°	1032.8	934.3	734.7	575.9	539.4
57.5°	894.7	809.4	629.0	484.8	454.9
60°	807.1	732.0	557.1	435.7	405.7
62.5°	722.8	656.3	486.9	390.2	365.3
65°	596.5	547.1	405.7	326.3	304.8
67.5°	473.6	446.3	337.3	267.6	253.5
70°	394.7	386.1	291.7	234.4	223.6
72.5°	326.3	329.7	247.8	203.0	195.6
75°	232.5	249.6	190.7	160.0	155.7
77.5°	158.3	184.1	141.2	118.4	114.9
80°	116.2	142.0	109.7	92.1	92.1
82.5°	81.2	101.8	78.0	69.3	69.3
85°	39.5	50.2	41.7	28.5	26.3
87.5°	10.5	16.3	8.6	6.6	6.6
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.2	58.0	185.3	61.1	47.0
95°	47.0	143.5	638.6	227.7	140.1
97.5°	88.5	186.7	1083.7	660.1	402.8
100°	115.4	211.8	1251.4	1115.8	723.7
102.5°	145.9	238.8	1230.7	1650.9	1255.1
105°	192.7	278.1	1123.6	2146.2	2032.2
107.5°	243.3	323.7	1022.0	2189.2	2309.8
110°	280.1	353.4	973.5	2135.8	2353.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	310.6	383.1	943.1	2039.5	2320.5
115°	356.3	425.2	915.3	1886.3	2219.3
117.5°	403.3	465.5	904.5	1746.1	2077.4
120°	430.2	491.5	901.8	1659.8	1980.7
122.5°	456.2	516.7	902.7	1584.8	1883.9
125°	495.2	552.1	902.9	1489.3	1755.5
127.5°	528.6	586.8	902.7	1417.7	1639.7
130°	550.1	609.2	901.8	1376.9	1575.1
132.5°	568.9	630.7	900.9	1338.9	1524.9
135°	598.2	660.6	898.5	1285.3	1449.7
137.5°	626.9	689.8	896.0	1230.9	1376.9
140°	647.5	707.8	895.1	1194.0	1332.0
142.5°	667.2	724.9	895.1	1158.7	1281.8
145°	699.1	750.5	896.3	1107.0	1212.2
147.5°	729.9	774.7	897.8	1063.0	1144.3
150°	750.6	790.0	899.7	1036.7	1105.8
152.5°	771.2	803.7	900.4	1016.7	1071.6
155°	797.7	823.9	901.8	991.2	1028.4
157.5°	822.8	841.5	903.2	972.4	998.4
160°	838.0	853.3	904.1	960.6	981.4
162.5°	851.4	863.2	904.1	950.5	966.1
165°	870.5	878.2	904.1	938.0	948.8
167.5°	883.9	888.7	904.3	928.4	934.1
170°	892.9	895.0	905.2	922.0	924.2
172.5°	899.2	900.4	907.0	918.4	918.0
175°	907.5	907.5	907.5	914.1	911.9
177.5°	910.8	909.9	909.0	913.4	909.9
180°	910.8	910.8	910.8	910.8	910.8

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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	19.39	20.20	20.38	21.19	22.50	15.88	16.68	16.86	17.67	18.98
	3H	20.71	21.43	21.70	22.43	23.76	17.08	17.80	18.07	18.80	20.13
	4H	21.08	21.76	22.09	22.76	24.10	17.52	18.20	18.53	19.21	20.54
	6H	21.28	21.91	22.30	22.91	24.26	17.84	18.46	18.86	19.47	20.82
	8H	21.31	21.91	22.34	22.93	24.28	17.91	18.50	18.93	19.53	20.88
	12H	21.31	21.87	22.34	22.89	24.26	17.92	18.48	18.95	19.50	20.87
4H	2H	19.49	20.17	20.50	21.17	22.51	16.55	17.23	17.57	18.24	19.57
	3H	21.03	21.59	22.05	22.62	23.98	17.94	18.50	18.96	19.53	20.88
	4H	21.53	22.05	22.56	23.07	24.45	18.48	18.99	19.51	20.02	21.39
	6H	21.86	22.30	22.90	23.35	24.72	18.88	19.32	19.92	20.37	21.74
	8H	21.94	22.35	22.98	23.39	24.78	18.98	19.40	20.03	20.44	21.82
	12H	21.95	22.32	23.01	23.38	24.77	19.00	19.38	20.06	20.43	21.82
8H	4H	21.57	21.98	22.61	23.02	24.41	18.80	19.21	19.84	20.26	21.64
	6H	22.00	22.34	23.07	23.43	24.81	19.31	19.65	20.37	20.73	22.11
	8H	22.15	22.45	23.22	23.51	24.92	19.47	19.77	20.54	20.84	22.24
	12H	22.21	22.47	23.29	23.54	24.98	19.53	19.79	20.60	20.85	22.30
12H	4H	21.52	21.90	22.58	22.95	24.34	18.81	19.19	19.87	20.24	21.63
	6H	21.99	22.29	23.07	23.36	24.76	19.37	19.67	20.44	20.74	22.14
	8H	22.15	22.42	23.23	23.48	24.92	19.55	19.82	20.63	20.88	22.32