

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: P854313

Luminaire Tested: SQ2-PW1-125U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854313  
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-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

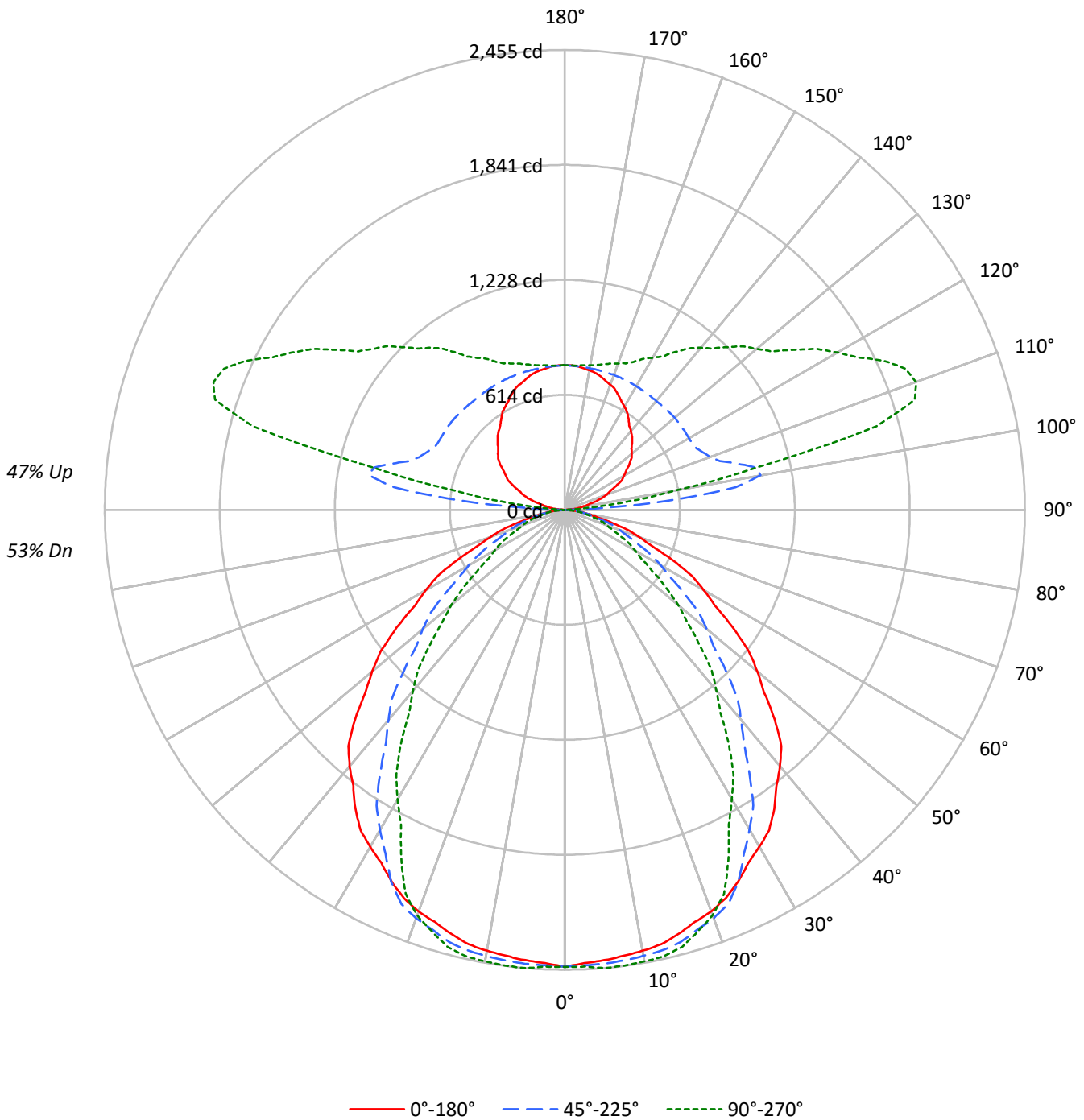
Lumens per Lamp: N/A  
Luminaire Lumens: 10176.1 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 93.1  
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
RCR																				
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53	53	53
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	53	52	51	46	46	46
2	91	84	78	73	84	78	73	68	67	63	60	57	54	52	48	46	44	40	40	40
3	83	74	67	61	77	69	63	58	60	55	51	51	47	44	43	40	38	34	34	34
4	76	66	58	53	71	62	55	50	53	48	44	46	42	39	38	36	33	30	30	30
5	70	59	51	45	65	55	48	43	48	43	38	41	37	34	35	32	29	26	26	26
6	65	53	45	40	60	50	43	38	43	38	34	37	33	30	32	29	26	23	23	23
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	23	21	21	21
8	56	44	36	31	52	41	34	30	36	31	27	31	27	24	27	24	21	19	19	19
9	52	40	33	28	48	38	31	27	33	28	24	29	25	22	25	22	19	17	17	17
10	49	37	30	25	45	35	28	24	31	25	22	27	23	20	23	20	18	16	16	16

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

	0°	45°	90°
0°	39378	39378	39378
5°	39115	39417	39793
10°	39187	39643	40138
15°	39176	39913	40379
20°	39192	39871	39591
25°	38981	39022	36788
30°	38715	36767	33258
35°	38412	33835	30035
40°	37648	30844	26536
45°	36173	27738	23178
50°	33666	24797	19839
55°	30795	21903	16085
60°	27603	19052	13876
65°	24137	16416	12336
70°	19737	14582	11183
75°	15359	12608	10287
80°	11446	10795	9075
85°	7744	8170	5169

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 36173 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.2	2.3
10°-20°	672.9	6.6
20°-30°	990.3	9.7
30°-40°	1082.7	10.6
40°-50°	971.3	9.5
50°-60°	724.5	7.1
60°-70°	457.9	4.5
70°-80°	226.8	2.2
80°-90°	53.9	0.5
90°-100°	295.3	2.9
100°-110°	961.5	9.4
110°-120°	951.1	9.3
120°-130°	777.3	7.6
130°-140°	635.3	6.2
140°-150°	494.8	4.9
150°-160°	356.7	3.5
160°-170°	218.0	2.1
170°-180°	73.6	0.7
0°-30°	1895.4	18.6
0°-40°	2978.1	29.3
0°-60°	4673.8	45.9
0°-90°	5412.4	53.2
90°-120°	2208.0	21.7
90°-150°	4115.4	40.4
90°-180°	4764.0	46.8
0°-180°	10176.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2439	2439	2439	2439	2439	
5°	2413	2452	2432	2435	2455	230
15°	2344	2389	2388	2404	2416	662
25°	2188	2236	2190	2099	2065	1008
35°	1949	1928	1717	1567	1524	1215
45°	1584	1457	1215	1063	1015	1215
55°	1094	990	778	610	571	977
65°	632	580	430	346	323	626
75°	246	264	202	170	165	271
85°	42	53	44	30	28	53
90°	0	3	7	6	6	3
95°	40	122	541	193	119	46
105°	163	236	952	1819	1723	174
115°	302	360	776	1599	1881	299
125°	420	468	765	1262	1488	374
135°	507	560	762	1090	1229	392
145°	593	636	760	938	1028	371
155°	676	698	764	840	872	311
165°	738	744	766	795	804	208
175°	769	769	769	775	773	73
180°	772	772	772	772	772	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2438.9	2438.9	2438.9	2438.9	2438.9
2.5°	2422.2	2453.1	2433.4	2435.4	2440.8
5°	2413.4	2452.0	2432.0	2434.8	2455.2
7.5°	2401.3	2440.4	2425.5	2433.8	2453.8
10°	2390.2	2431.0	2418.0	2430.1	2448.2
12.5°	2375.3	2418.0	2408.7	2422.6	2440.8
15°	2343.7	2389.1	2387.8	2404.4	2415.7
17.5°	2307.0	2352.4	2350.2	2354.5	2360.0
20°	2281.0	2326.4	2320.5	2304.2	2304.2
22.5°	2243.8	2292.9	2277.7	2233.3	2218.7
25°	2188.1	2235.8	2190.4	2099.0	2065.0
27.5°	2123.0	2161.7	2070.5	1940.8	1893.5
30°	2076.6	2106.1	1972.1	1829.3	1783.9
32.5°	2028.3	2039.6	1871.7	1723.3	1674.3
35°	1948.8	1928.4	1716.6	1566.9	1523.8
37.5°	1855.0	1794.1	1567.4	1410.7	1363.0
40°	1786.2	1699.9	1463.4	1306.7	1259.0
42.5°	1710.0	1601.9	1364.9	1208.1	1158.6
45°	1584.2	1457.0	1214.8	1062.8	1015.1
47.5°	1442.5	1316.2	1074.5	927.3	886.4
50°	1340.3	1217.6	987.2	839.7	789.8
52.5°	1236.2	1126.3	901.7	750.1	682.0
55°	1094.0	989.6	778.1	610.0	571.4
57.5°	947.7	857.3	666.2	513.5	481.7
60°	854.8	775.3	590.0	461.5	429.7
62.5°	765.6	695.2	515.7	413.3	387.0
65°	631.8	579.6	429.7	345.6	322.9
67.5°	501.7	472.7	357.2	283.5	268.5
70°	418.1	409.0	308.9	248.3	236.9
72.5°	345.6	349.3	262.5	214.9	207.2
75°	246.2	264.4	202.1	169.5	164.9
77.5°	167.7	195.0	149.6	125.3	121.7
80°	123.1	150.4	116.1	97.6	97.6
82.5°	85.9	107.7	82.7	73.4	73.4
85°	41.8	53.2	44.1	30.1	27.9
87.5°	11.1	17.2	8.8	6.7	6.7
90°	0.0	2.8	6.6	5.7	5.7
92.5°	13.7	49.1	157.1	51.8	39.9
95°	39.9	121.6	541.3	193.0	118.7
97.5°	75.0	158.2	918.7	559.5	341.5
100°	97.8	179.5	1060.8	945.9	613.5
102.5°	123.6	202.4	1043.3	1399.4	1064.0
105°	163.3	235.8	952.5	1819.3	1722.7
107.5°	206.3	274.4	866.3	1855.7	1958.1
110°	237.4	299.6	825.3	1810.5	1995.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	263.3	324.7	799.4	1728.9	1967.2
115°	302.0	360.5	775.9	1599.0	1881.3
117.5°	341.9	394.6	766.8	1480.1	1761.1
120°	364.7	416.7	764.5	1407.0	1679.1
122.5°	386.7	438.0	765.3	1343.5	1597.0
125°	419.8	468.0	765.4	1262.5	1488.2
127.5°	448.1	497.5	765.3	1201.8	1390.0
130°	466.3	516.4	764.5	1167.2	1335.3
132.5°	482.3	534.6	763.7	1135.0	1292.7
135°	507.1	560.1	761.7	1089.6	1228.9
137.5°	531.4	584.7	759.6	1043.5	1167.2
140°	548.9	600.0	758.8	1012.2	1129.2
142.5°	565.6	614.5	758.8	982.3	1086.6
145°	592.6	636.2	759.8	938.4	1027.6
147.5°	618.8	656.7	761.1	901.1	970.0
150°	636.3	669.7	762.6	878.8	937.3
152.5°	653.8	681.3	763.4	861.9	908.5
155°	676.2	698.5	764.5	840.2	871.8
157.5°	697.5	713.4	765.6	824.3	846.4
160°	710.4	723.4	766.4	814.3	831.9
162.5°	721.8	731.8	766.4	805.8	819.0
165°	737.9	744.4	766.4	795.1	804.4
167.5°	749.3	753.4	766.6	787.0	791.9
170°	756.9	758.8	767.3	781.6	783.5
172.5°	762.2	763.3	768.9	778.5	778.2
175°	769.2	769.2	769.2	774.9	773.0
177.5°	772.1	771.4	770.6	774.3	771.3
180°	772.1	772.1	772.1	772.1	772.1



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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	20.11	20.96	21.05	21.91	23.14	16.60	17.45	17.53	18.39	19.62
	3H	21.43	22.19	22.38	23.15	24.40	17.80	18.56	18.75	19.52	20.77
	4H	21.81	22.52	22.77	23.48	24.75	18.25	18.96	19.21	19.93	21.19
	6H	22.01	22.67	22.98	23.64	24.91	18.56	19.22	19.54	20.19	21.47
	8H	22.04	22.67	23.02	23.65	24.92	18.64	19.27	19.62	20.25	21.52
	12H	22.04	22.63	23.02	23.61	24.91	18.65	19.25	19.64	20.23	21.52
4H	2H	20.21	20.93	21.18	21.89	23.15	17.28	18.00	18.25	18.96	20.22
	3H	21.76	22.35	22.74	23.34	24.62	18.67	19.26	19.64	20.25	21.53
	4H	22.26	22.81	23.25	23.79	25.09	19.21	19.75	20.20	20.74	22.04
	6H	22.60	23.06	23.60	24.07	25.37	19.61	20.08	20.61	21.09	22.39
	8H	22.67	23.11	23.67	24.11	25.42	19.72	20.16	20.72	21.16	22.47
	12H	22.69	23.08	23.71	24.10	25.42	19.74	20.13	20.76	21.15	22.47
8H	4H	22.30	22.74	23.30	23.74	25.05	19.54	19.97	20.54	20.97	22.29
	6H	22.74	23.10	23.76	24.14	25.45	20.04	20.40	21.07	21.45	22.75
	8H	22.88	23.20	23.92	24.23	25.56	20.21	20.52	21.24	21.55	22.88
	12H	22.95	23.23	23.99	24.25	25.63	20.27	20.54	21.30	21.57	22.94
12H	4H	22.26	22.65	23.28	23.67	24.99	19.55	19.94	20.57	20.96	22.28
	6H	22.73	23.05	23.76	24.08	25.40	20.11	20.42	21.14	21.46	22.78
	8H	22.89	23.17	23.93	24.19	25.57	20.29	20.57	21.33	21.60	22.97