

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: P854306

Luminaire Tested: SQ2-PW1-125U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854306  
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-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

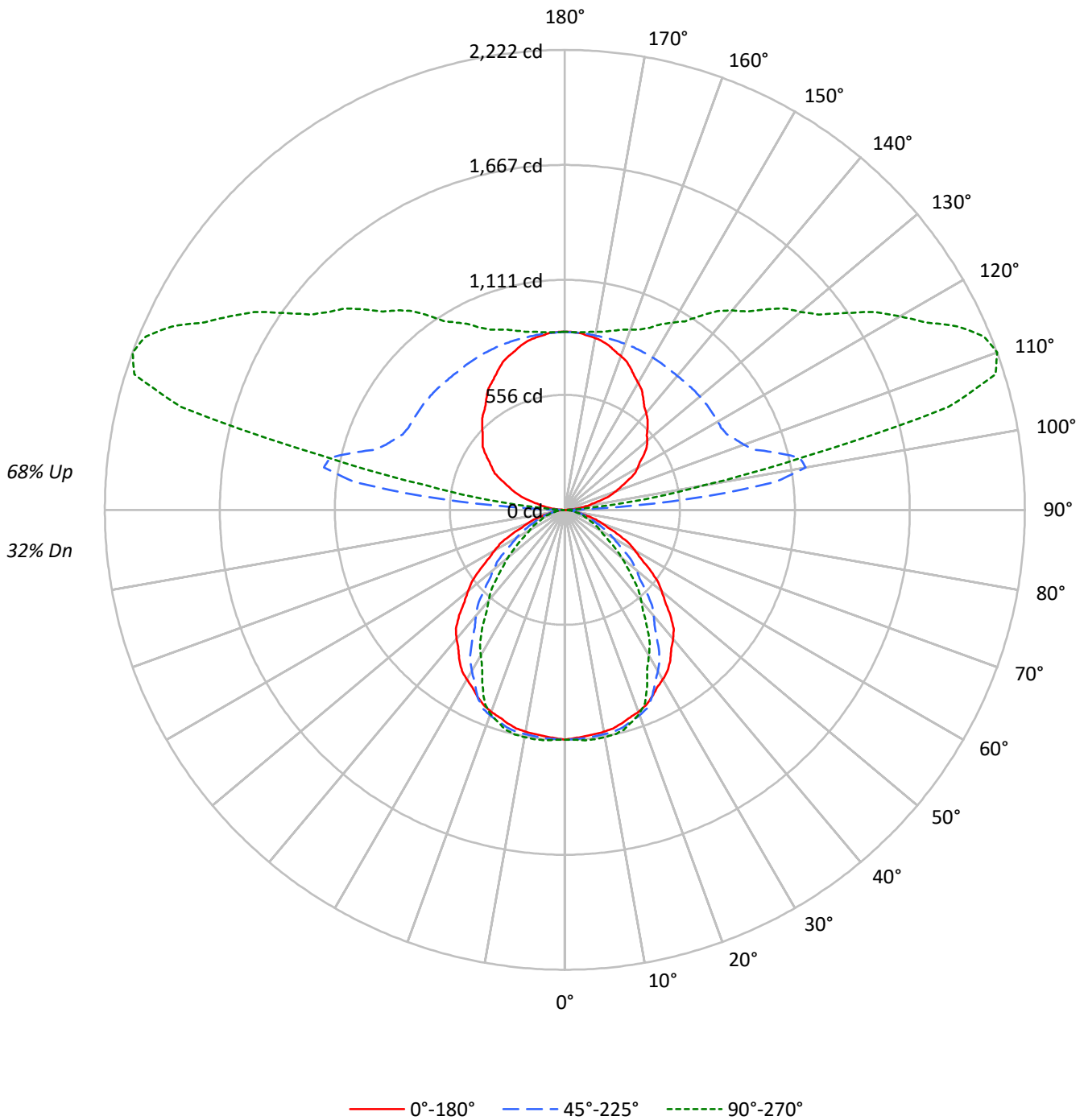
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7770.6 lumens  
Efficiency: N/A  
Efficacy: 125.9 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: Semi-Indirect  
  
Input Watts (W): 61.7  
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	103	103	103	103	92	92	92	92	73	73	73	56	56	56	39	39	39	32
1	94	90	86	83	85	81	78	75	65	63	61	49	48	47	35	35	34	27
2	86	79	73	68	77	71	66	62	57	54	51	44	42	40	32	30	29	24
3	79	70	63	57	70	63	57	52	51	46	43	39	36	34	28	27	25	20
4	72	62	54	49	65	56	50	45	45	40	37	35	32	29	25	24	22	18
5	66	55	47	42	59	50	43	38	40	36	32	31	28	26	23	21	19	16
6	61	49	42	36	55	45	38	33	36	32	28	28	25	22	21	19	17	14
7	56	45	37	32	51	41	34	29	33	28	25	26	22	20	19	17	15	12
8	52	40	33	28	47	37	30	26	30	25	22	24	20	18	18	15	14	11
9	49	37	30	25	44	34	27	23	28	23	20	22	18	16	16	14	12	10
10	45	34	27	22	41	31	25	21	25	21	18	20	17	14	15	13	11	9

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

	0°	45°	90°
0°	17933	17933	17933
5°	17812	17950	18122
10°	17846	18052	18279
15°	17840	18176	18389
20°	17847	18156	18029
25°	17751	17770	16753
30°	17631	16744	15146
35°	17493	15408	13677
40°	17144	14046	12083
45°	16472	12632	10554
50°	15330	11293	9033
55°	14024	9976	7324
60°	12571	8677	6319
65°	10991	7477	5616
70°	8988	6642	5094
75°	6993	5739	4685
80°	5216	4919	4128
85°	3520	3724	2353

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16472 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	1.4
10°-20°	306.4	3.9
20°-30°	451.0	5.8
30°-40°	493.0	6.3
40°-50°	442.3	5.7
50°-60°	329.9	4.2
60°-70°	208.5	2.7
70°-80°	103.3	1.3
80°-90°	25.1	0.3
90°-100°	328.9	4.2
100°-110°	1070.9	13.8
110°-120°	1059.3	13.6
120°-130°	865.7	11.1
130°-140°	707.5	9.1
140°-150°	551.1	7.1
150°-160°	397.2	5.1
160°-170°	242.8	3.1
170°-180°	81.9	1.1
0°-30°	863.1	11.1
0°-40°	1356.2	17.5
0°-60°	2128.4	27.4
0°-90°	2465.4	31.7
90°-120°	2459.0	31.6
90°-150°	4583.3	59.0
90°-180°	5305.0	68.3
0°-180°	7770.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1099	1117	1108	1109	1118	105
15°	1067	1088	1087	1095	1100	301
25°	996	1018	998	956	940	459
35°	888	878	782	714	694	553
45°	721	664	553	484	462	553
55°	498	451	354	278	260	445
65°	288	264	196	157	147	285
75°	112	120	92	77	75	124
85°	19	24	20	14	13	24
90°	0	3	7	6	6	3
95°	44	135	603	215	132	52
105°	182	263	1061	2026	1919	194
115°	336	402	864	1781	2095	333
125°	468	521	852	1406	1657	416
135°	565	624	848	1214	1369	436
145°	660	709	846	1045	1144	413
155°	753	778	851	936	971	347
165°	822	829	854	886	896	231
175°	857	857	857	863	861	81
180°	860	860	860	860	860	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1110.7	1110.7	1110.7	1110.7	1110.7
2.5°	1103.1	1117.1	1108.1	1109.0	1111.5
5°	1099.0	1116.6	1107.5	1108.8	1118.1
7.5°	1093.5	1111.3	1104.5	1108.3	1117.4
10°	1088.5	1107.1	1101.1	1106.6	1114.9
12.5°	1081.7	1101.1	1096.9	1103.2	1111.5
15°	1067.3	1088.0	1087.4	1094.9	1100.1
17.5°	1050.6	1071.3	1070.3	1072.2	1074.7
20°	1038.7	1059.4	1056.7	1049.3	1049.3
22.5°	1021.8	1044.2	1037.3	1017.0	1010.4
25°	996.4	1018.1	997.5	955.9	940.4
27.5°	966.8	984.4	942.9	883.8	862.3
30°	945.7	959.1	898.1	833.1	812.4
32.5°	923.7	928.8	852.4	784.8	762.4
35°	887.5	878.2	781.7	713.6	693.9
37.5°	844.7	817.0	713.8	642.4	620.7
40°	813.4	774.1	666.4	595.0	573.3
42.5°	778.7	729.5	621.6	550.2	527.6
45°	721.4	663.5	553.2	484.0	462.2
47.5°	656.9	599.4	489.3	422.3	403.6
50°	610.3	554.5	449.6	382.4	359.6
52.5°	562.9	512.9	410.6	341.6	310.6
55°	498.2	450.6	354.4	277.8	260.2
57.5°	431.6	390.4	303.4	233.9	219.4
60°	389.3	353.1	268.7	210.2	195.7
62.5°	348.6	316.6	234.8	188.2	176.2
65°	287.7	263.9	195.7	157.4	147.0
67.5°	228.5	215.2	162.7	129.1	122.3
70°	190.4	186.3	140.7	113.1	107.9
72.5°	157.4	159.1	119.5	97.9	94.4
75°	112.1	120.4	92.0	77.2	75.1
77.5°	76.4	88.8	68.1	57.1	55.4
80°	56.1	68.5	52.9	44.4	44.4
82.5°	39.1	49.1	37.7	33.4	33.4
85°	19.0	24.2	20.1	13.7	12.7
87.5°	5.1	8.2	4.9	3.8	3.8
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.7	174.9	57.7	44.4
95°	44.4	135.4	602.9	214.9	132.2
97.5°	83.6	176.2	1023.2	623.1	380.3
100°	108.9	199.9	1181.4	1053.5	683.2
102.5°	137.7	225.4	1161.9	1558.5	1185.0
105°	181.9	262.6	1060.8	2026.1	1918.6
107.5°	229.7	305.6	964.8	2066.7	2180.7
110°	264.4	333.7	919.1	2016.3	2222.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	293.2	361.6	890.3	1925.4	2190.8
115°	336.3	401.5	864.1	1780.8	2095.2
117.5°	380.8	439.5	853.9	1648.4	1961.3
120°	406.1	464.0	851.4	1566.9	1869.9
122.5°	430.7	487.8	852.3	1496.2	1778.5
125°	467.5	521.3	852.5	1406.0	1657.3
127.5°	499.0	554.0	852.3	1338.5	1548.0
130°	519.3	575.1	851.4	1299.9	1487.1
132.5°	537.1	595.4	850.6	1264.1	1439.7
135°	564.8	623.7	848.2	1213.5	1368.6
137.5°	591.9	651.2	845.9	1162.1	1299.8
140°	611.3	668.2	845.1	1127.2	1257.5
142.5°	629.9	684.3	845.1	1093.9	1210.2
145°	660.0	708.6	846.1	1045.1	1144.4
147.5°	689.2	731.4	847.6	1003.5	1080.3
150°	708.6	745.9	849.3	978.7	1043.9
152.5°	728.1	758.7	850.1	959.8	1011.7
155°	753.0	777.9	851.4	935.8	970.9
157.5°	776.7	794.5	852.7	918.0	942.6
160°	791.1	805.6	853.5	906.8	926.5
162.5°	803.8	815.0	853.5	897.4	912.1
165°	821.8	829.0	853.5	885.5	895.8
167.5°	834.5	839.0	853.7	876.5	881.9
170°	842.9	845.0	854.6	870.5	872.6
172.5°	848.9	850.1	856.3	867.0	866.6
175°	856.7	856.7	856.7	863.0	860.9
177.5°	859.9	859.0	858.2	862.3	859.0
180°	859.9	859.9	859.9	859.9	859.9

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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	15.08	15.78	16.19	16.88	18.39	11.57	12.27	12.67	13.36	14.88
	3H	16.39	17.01	17.51	18.12	19.65	12.76	13.38	13.88	14.49	16.02
	4H	16.76	17.35	17.88	18.46	19.99	13.20	13.79	14.32	14.90	16.43
	6H	16.95	17.50	18.09	18.61	20.15	13.51	14.05	14.64	15.16	16.71
	8H	16.98	17.50	18.12	18.62	20.16	13.58	14.10	14.72	15.22	16.76
	12H	16.97	17.46	18.11	18.58	20.14	13.59	14.07	14.73	15.19	16.76
4H	2H	15.16	15.76	16.30	16.86	18.40	12.23	12.82	13.36	13.93	15.46
	3H	16.70	17.19	17.83	18.32	19.87	13.60	14.09	14.74	15.23	16.78
	4H	17.20	17.65	18.34	18.77	20.34	14.14	14.59	15.28	15.72	17.28
	6H	17.52	17.91	18.67	19.05	20.61	14.54	14.92	15.69	16.07	17.63
	8H	17.60	17.95	18.74	19.09	20.67	14.64	15.00	15.79	16.14	17.71
	12H	17.60	17.93	18.77	19.08	20.66	14.66	14.98	15.82	16.13	17.71
8H	4H	17.22	17.58	18.37	18.72	20.30	14.46	14.82	15.60	15.96	17.53
	6H	17.65	17.95	18.82	19.13	20.70	14.96	15.25	16.12	16.43	18.01
	8H	17.80	18.06	18.97	19.22	20.81	15.12	15.38	16.29	16.54	18.13
	12H	17.86	18.09	19.03	19.24	20.87	15.17	15.40	16.35	16.56	18.18
12H	4H	17.18	17.50	18.34	18.65	20.23	14.47	14.79	15.63	15.94	17.52
	6H	17.65	17.90	18.82	19.06	20.65	15.02	15.28	16.19	16.44	18.03
	8H	17.80	18.03	18.97	19.18	20.81	15.20	15.43	16.38	16.58	18.21