

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: P854222

Luminaire Tested: SQ2-PR1-125U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854222  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-125U-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: -

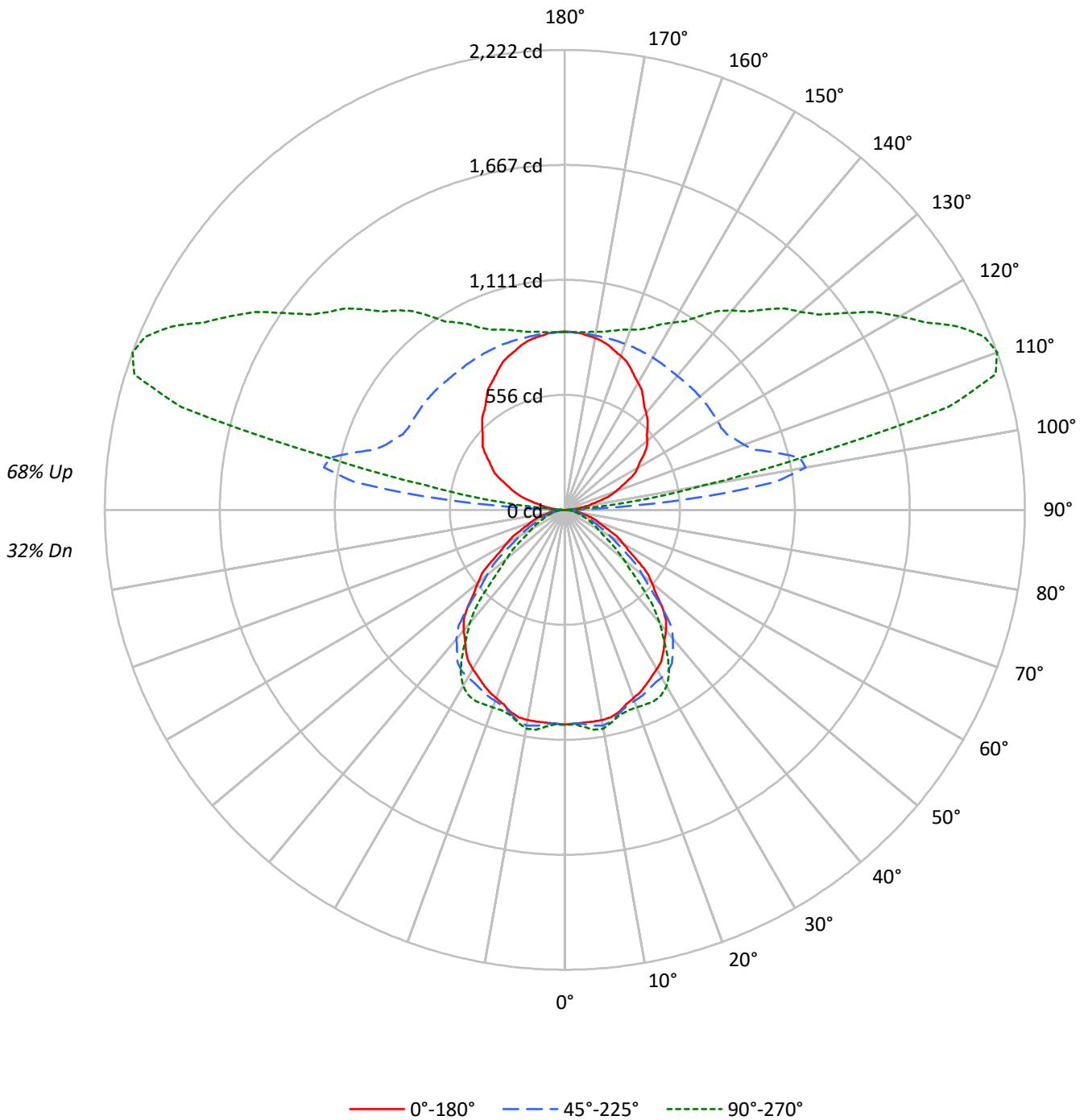
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7802.4 lumens  
Efficiency: N/A  
Efficacy: 126.5 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
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

TEST NUMBER: P854222

CATALOG NUMBER: SQ2-PR1-125U-050D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854222

CATALOG NUMBER: SQ2-PR1-125U-050D-940-UNV-STD-W-4

**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	93	93	93	93	73	73	73	56	56	56	40	40	40	32
1	94	90	86	83	85	81	78	76	65	63	61	50	48	47	36	35	34	28
2	86	79	73	69	77	71	67	63	57	54	51	44	42	40	32	31	29	24
3	79	70	63	57	71	63	57	53	51	47	43	39	36	34	28	27	25	21
4	72	62	54	49	65	56	50	45	45	41	37	35	32	29	26	24	22	18
5	66	55	47	42	59	50	43	39	40	36	32	32	28	26	23	21	19	16
6	61	49	42	36	55	45	38	33	36	32	28	29	25	23	21	19	17	14
7	56	45	37	32	51	41	34	29	33	28	25	26	23	20	19	17	15	13
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	19	22	18	16	16	14	12	10
10	45	34	27	22	41	31	25	21	25	21	17	20	17	14	15	13	11	9

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

	0°	45°	90°
0°	16755	16755	16755
5°	16733	16835	17041
10°	16908	17343	17602
15°	16903	16991	17133
20°	16631	16885	17448
25°	16582	17054	18166
30°	16565	17434	18340
35°	16409	17804	17075
40°	16029	17144	15026
45°	15168	15047	11883
50°	13790	12303	9218
55°	12118	10123	7175
60°	10485	8096	5909
65°	9051	6709	5173
70°	8139	5943	4593
75°	7455	5147	4223
80°	6490	4128	4128
85°	4705	3724	1964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16397 cd/sqm



TEST NUMBER: P854222

CATALOG NUMBER: SQ2-PR1-125U-050D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	1.3
10°-20°	290.1	3.7
20°-30°	448.4	5.7
30°-40°	539.3	6.9
40°-50°	484.3	6.2
50°-60°	324.4	4.2
60°-70°	188.7	2.4
70°-80°	96.9	1.2
80°-90°	24.9	0.3
90°-100°	328.9	4.2
100°-110°	1070.9	13.7
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	1.0
0°-30°	838.7	10.7
0°-40°	1378.0	17.7
0°-60°	2186.7	28.0
0°-90°	2497.2	32.0
90°-120°	2459.0	31.5
90°-150°	4583.3	58.7
90°-180°	5305.0	68.0
0°-180°	7802.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1032	1050	1039	1041	1051	99
15°	1011	1053	1016	1020	1025	284
25°	931	968	957	993	1020	429
35°	832	840	903	886	866	519
45°	664	718	659	556	520	508
55°	430	447	360	278	255	387
65°	237	242	176	143	135	240
75°	120	116	82	70	68	127
85°	25	20	20	14	11	31
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	



TEST NUMBER: P854222

CATALOG NUMBER: SQ2-PR1-125U-050D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1037.7	1037.7	1037.7	1037.7	1037.7
2.5°	1033.4	1045.9	1034.3	1035.2	1037.7
5°	1032.4	1050.0	1038.7	1041.1	1051.4
7.5°	1032.2	1057.2	1051.9	1058.3	1071.9
10°	1031.3	1061.3	1057.8	1059.2	1073.6
12.5°	1026.3	1061.2	1045.1	1043.8	1051.6
15°	1011.2	1052.6	1016.5	1019.8	1025.0
17.5°	984.8	1028.0	993.7	1005.3	1015.5
20°	967.9	1010.3	982.7	997.9	1015.5
22.5°	952.6	995.0	972.5	993.8	1018.0
25°	930.8	968.1	957.3	992.8	1019.7
27.5°	908.0	929.9	942.7	990.3	1009.1
30°	888.5	903.0	935.1	976.5	983.7
32.5°	867.4	876.1	924.9	946.5	937.2
35°	832.5	839.7	903.3	886.0	866.3
37.5°	791.0	805.9	854.9	804.9	782.3
40°	760.5	785.4	813.4	738.8	712.9
42.5°	723.3	763.0	758.4	663.4	631.7
45°	664.3	718.1	659.0	555.6	520.4
47.5°	594.7	649.9	553.2	460.9	428.0
50°	549.0	593.5	489.8	403.2	367.0
52.5°	502.4	534.5	435.6	349.2	316.3
55°	430.5	447.1	359.6	277.7	254.9
57.5°	364.5	375.1	293.9	224.3	207.5
60°	324.7	332.0	250.7	196.4	183.0
62.5°	288.3	293.9	216.0	172.8	162.7
65°	236.9	242.1	175.6	142.6	135.4
67.5°	196.1	198.8	144.5	118.5	111.7
70°	172.4	173.5	125.9	102.5	97.3
72.5°	151.3	149.8	108.1	89.0	85.5
75°	119.5	116.4	82.5	69.8	67.7
77.5°	89.3	86.0	58.0	53.7	53.7
80°	69.8	65.7	44.4	44.4	44.4
82.5°	52.0	46.3	34.3	34.3	33.4
85°	25.4	20.2	20.1	13.7	10.6
87.5°	6.8	7.4	4.0	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



TEST NUMBER: P854222

CATALOG NUMBER: SQ2-PR1-125U-050D-940-UNV-STD-W-4

**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



TEST NUMBER: P854222

CATALOG NUMBER: SQ2-PR1-125U-050D-940-UNV-STD-W-4

**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	14.61	15.30	15.71	16.40	17.91	11.33	12.03	12.44	13.12	14.63
	3H	15.83	16.45	16.94	17.55	19.08	12.38	13.01	13.50	14.11	15.64
	4H	16.27	16.86	17.39	17.97	19.50	12.78	13.37	13.90	14.47	16.00
	6H	16.58	17.12	17.71	18.23	19.77	13.10	13.64	14.23	14.75	16.29
	8H	16.66	17.17	17.79	18.30	19.83	13.18	13.70	14.31	14.82	16.36
	12H	16.68	17.17	17.82	18.29	19.85	13.18	13.67	14.32	14.79	16.35
4H	2H	14.66	15.25	15.79	16.36	17.89	11.88	12.47	13.01	13.57	15.11
	3H	16.12	16.61	17.26	17.74	19.29	13.13	13.62	14.27	14.75	16.30
	4H	16.71	17.16	17.85	18.28	19.84	13.63	14.08	14.77	15.20	16.77
	6H	17.15	17.54	18.30	18.68	20.24	14.06	14.44	15.20	15.59	17.14
	8H	17.28	17.64	18.43	18.78	20.35	14.18	14.54	15.32	15.67	17.24
	12H	17.33	17.65	18.49	18.80	20.38	14.19	14.52	15.35	15.66	17.24
8H	4H	16.72	17.08	17.87	18.22	19.79	13.92	14.28	15.07	15.42	16.99
	6H	17.27	17.56	18.43	18.74	20.31	14.45	14.75	15.62	15.93	17.50
	8H	17.47	17.72	18.64	18.88	20.47	14.64	14.90	15.81	16.05	17.64
	12H	17.56	17.79	18.74	18.94	20.57	14.70	14.92	15.87	16.08	17.70
12H	4H	16.67	17.00	17.84	18.15	19.72	13.93	14.26	15.09	15.41	16.98
	6H	17.25	17.51	18.42	18.67	20.26	14.51	14.77	15.68	15.93	17.52
	8H	17.46	17.69	18.63	18.84	20.46	14.71	14.94	15.89	16.10	17.72