

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: P854159

Luminaire Tested: SQ2-PP3-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854159  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-150U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

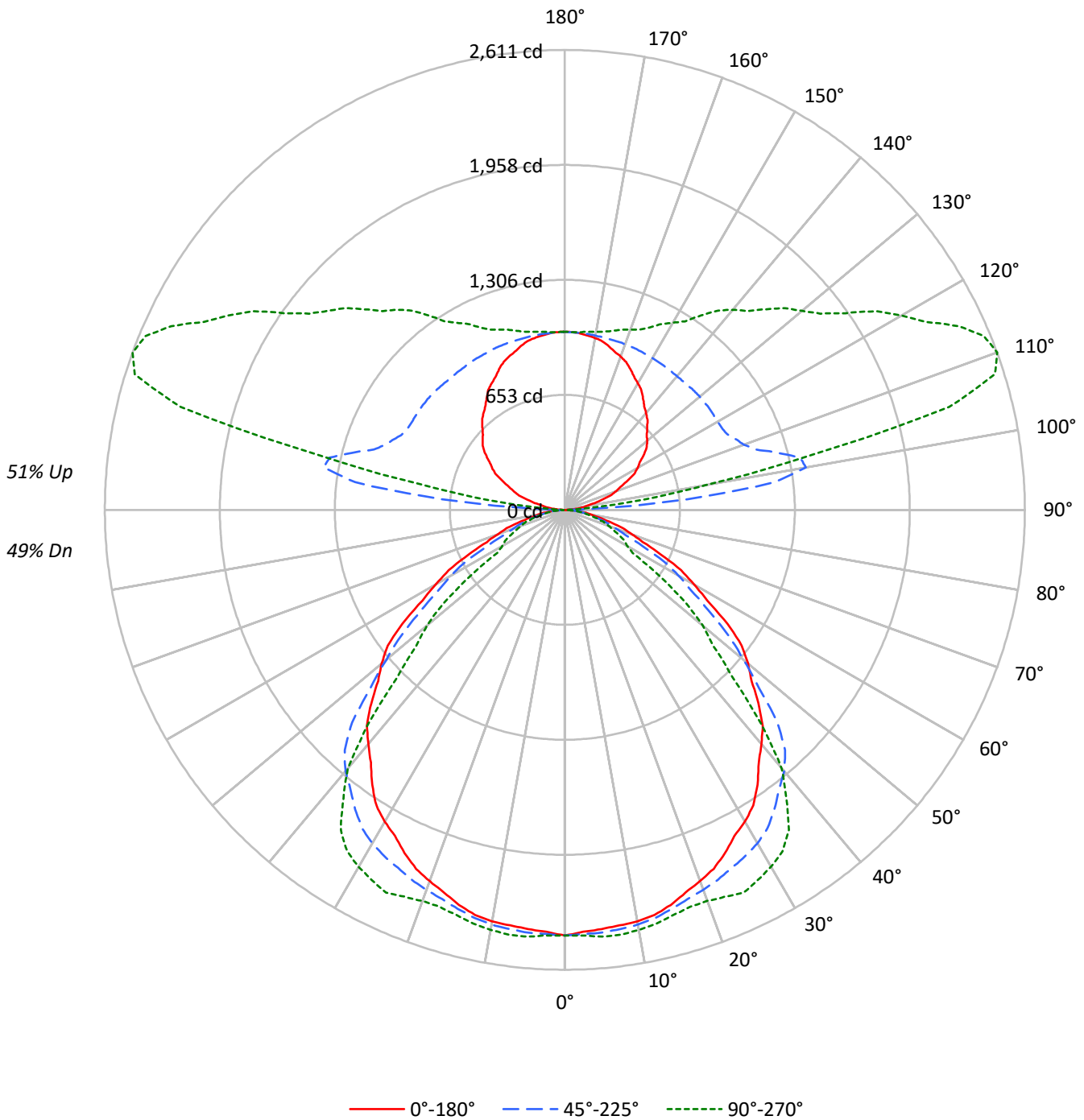
Lumens per Lamp: N/A  
Luminaire Lumens: 12322.3 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 105.8  
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

TEST NUMBER: P854159

CATALOG NUMBER: SQ2-PP3-150U-125D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854159

CATALOG NUMBER: SQ2-PP3-150U-125D-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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49
1	98	94	90	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43
2	90	83	77	72	83	77	72	67	65	61	58	54	52	49	45	43	41	37
3	82	73	66	60	76	68	62	57	58	53	49	48	45	42	40	38	36	31
4	75	65	57	51	69	60	54	48	52	46	42	43	40	37	36	33	31	27
5	69	58	50	44	64	54	47	42	46	41	37	39	35	32	32	30	27	24
6	64	52	44	39	59	49	41	36	42	36	32	35	31	28	30	26	24	21
7	59	47	39	34	54	44	37	32	38	32	28	32	28	25	27	24	21	19
8	55	43	35	30	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	32	27	47	37	30	25	32	26	23	27	23	20	23	20	17	15
10	48	36	29	24	44	34	27	23	29	24	20	25	21	18	21	18	16	14

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

	0°	45°	90°
0°	39018	39018	39018
5°	38712	39044	39415
10°	38908	39202	39704
15°	38815	39199	39798
20°	38538	39460	40601
25°	38318	39957	42733
30°	38102	40768	43626
35°	37562	40885	43706
40°	36558	40813	40381
45°	35465	38963	30741
50°	34073	33239	25603
55°	31713	27972	18410
60°	27306	24006	13198
65°	23033	18544	12982
70°	19176	14592	12420
75°	16257	12589	11634
80°	13780	10925	10451
85°	10893	8985	5687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 38963 cd/sqm



TEST NUMBER: P854159

CATALOG NUMBER: SQ2-PP3-150U-125D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.1	1.9
10°-20°	666.0	5.4
20°-30°	1043.3	8.5
30°-40°	1287.0	10.4
40°-50°	1211.8	9.8
50°-60°	858.0	7.0
60°-70°	488.9	4.0
70°-80°	241.9	2.0
80°-90°	60.2	0.5
90°-100°	384.9	3.1
100°-110°	1260.4	10.2
110°-120°	1246.1	10.1
120°-130°	1018.6	8.3
130°-140°	831.2	6.7
140°-150°	646.9	5.2
150°-160°	465.8	3.8
160°-170°	285.0	2.3
170°-180°	96.3	0.8
0°-30°	1939.4	15.7
0°-40°	3226.4	26.2
0°-60°	5296.2	43.0
0°-90°	6087.1	49.4
90°-120°	2891.4	23.5
90°-150°	5388.2	43.7
90°-180°	6235.0	50.6
0°-180°	12322.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2417	2417	2417	2417	2417	
5°	2388	2431	2409	2414	2432	228
15°	2322	2355	2345	2368	2381	654
25°	2151	2206	2243	2334	2399	991
35°	1906	1958	2074	2192	2217	1188
45°	1553	1671	1706	1446	1346	1196
55°	1127	1194	994	749	654	994
65°	603	635	485	342	340	605
75°	261	288	202	189	186	282
85°	59	54	48	38	31	69
90°	1	3	8	7	8	5
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



TEST NUMBER: P854159

CATALOG NUMBER: SQ2-PP3-150U-125D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2416.6	2416.6	2416.6	2416.6	2416.6
2.5°	2398.2	2432.2	2410.5	2414.7	2418.7
5°	2388.5	2431.0	2409.0	2414.5	2431.9
7.5°	2379.3	2422.8	2401.3	2410.5	2431.9
10°	2373.2	2410.7	2391.1	2404.2	2421.7
12.5°	2354.8	2390.3	2372.7	2389.9	2405.4
15°	2322.1	2354.6	2345.1	2368.4	2380.9
17.5°	2277.7	2317.1	2317.0	2350.0	2363.0
20°	2242.9	2290.4	2296.6	2338.0	2363.0
22.5°	2206.1	2261.6	2272.0	2334.3	2377.3
25°	2150.9	2205.9	2242.9	2333.8	2398.7
27.5°	2086.6	2141.0	2217.4	2319.2	2370.6
30°	2043.7	2096.1	2186.7	2292.5	2340.0
32.5°	1990.5	2045.0	2141.7	2255.6	2299.1
35°	1905.7	1958.2	2074.3	2192.4	2217.4
37.5°	1808.1	1867.6	1997.7	2063.6	2065.1
40°	1734.5	1812.0	1936.4	1948.4	1915.9
42.5°	1663.0	1762.4	1850.5	1796.7	1652.3
45°	1553.2	1670.6	1706.4	1446.2	1346.3
47.5°	1436.2	1552.1	1494.9	1212.9	1143.9
50°	1356.5	1466.4	1323.3	1084.2	1019.3
52.5°	1266.6	1364.5	1170.0	960.8	861.9
55°	1126.6	1194.0	993.7	748.9	654.0
57.5°	958.0	1005.4	849.6	562.1	455.7
60°	845.6	883.0	743.4	461.2	408.7
62.5°	743.4	776.8	633.0	400.6	382.2
65°	602.9	635.3	485.4	342.3	339.8
67.5°	479.7	515.2	372.5	298.8	295.8
70°	406.2	443.6	309.1	268.1	263.1
72.5°	344.9	380.3	262.1	235.5	232.5
75°	260.6	288.0	201.8	189.0	186.5
77.5°	189.0	206.5	150.2	143.5	141.0
80°	148.2	155.7	117.5	114.9	112.4
82.5°	111.4	108.9	88.9	86.2	81.7
85°	58.8	53.8	48.5	38.1	30.7
87.5°	18.6	19.0	9.8	7.6	7.8
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



TEST NUMBER: P854159

CATALOG NUMBER: SQ2-PP3-150U-125D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2



TEST NUMBER: P854159

CATALOG NUMBER: SQ2-PP3-150U-125D-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	20.22	21.04	21.18	22.02	23.30	16.61	17.44	17.58	18.42	19.70
	3H	21.31	22.05	22.29	23.03	24.34	17.71	18.45	18.69	19.44	20.74
	4H	21.65	22.35	22.64	23.34	24.65	18.17	18.87	19.17	19.86	21.18
	6H	21.86	22.50	22.87	23.50	24.82	18.52	19.16	19.52	20.16	21.48
	8H	21.91	22.52	22.92	23.53	24.85	18.60	19.21	19.61	20.23	21.55
	12H	21.92	22.50	22.94	23.51	24.85	18.62	19.20	19.63	20.20	21.55
4H	2H	20.32	21.02	21.32	22.01	23.32	17.32	18.02	18.32	19.01	20.32
	3H	21.63	22.20	22.63	23.22	24.55	18.57	19.15	19.58	20.17	21.49
	4H	22.10	22.62	23.11	23.64	24.99	19.12	19.65	20.14	20.66	22.01
	6H	22.43	22.89	23.46	23.92	25.27	19.56	20.01	20.59	21.05	22.40
	8H	22.53	22.95	23.56	23.98	25.34	19.68	20.10	20.71	21.13	22.49
	12H	22.56	22.94	23.61	23.99	25.35	19.71	20.09	20.75	21.13	22.50
8H	4H	22.11	22.54	23.14	23.56	24.93	19.39	19.81	20.42	20.84	22.21
	6H	22.54	22.89	23.60	23.96	25.32	19.94	20.29	20.99	21.36	22.72
	8H	22.70	23.01	23.76	24.06	25.44	20.12	20.43	21.18	21.49	22.86
	12H	22.79	23.06	23.85	24.11	25.53	20.20	20.47	21.26	21.52	22.94
12H	4H	22.07	22.45	23.12	23.50	24.86	19.40	19.78	20.45	20.82	22.19
	6H	22.53	22.84	23.59	23.90	25.27	19.99	20.30	21.05	21.35	22.73
	8H	22.70	22.97	23.76	24.02	25.44	20.20	20.47	21.26	21.52	22.94