

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: P855466

Luminaire Tested: SQ2-F-150U-125D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

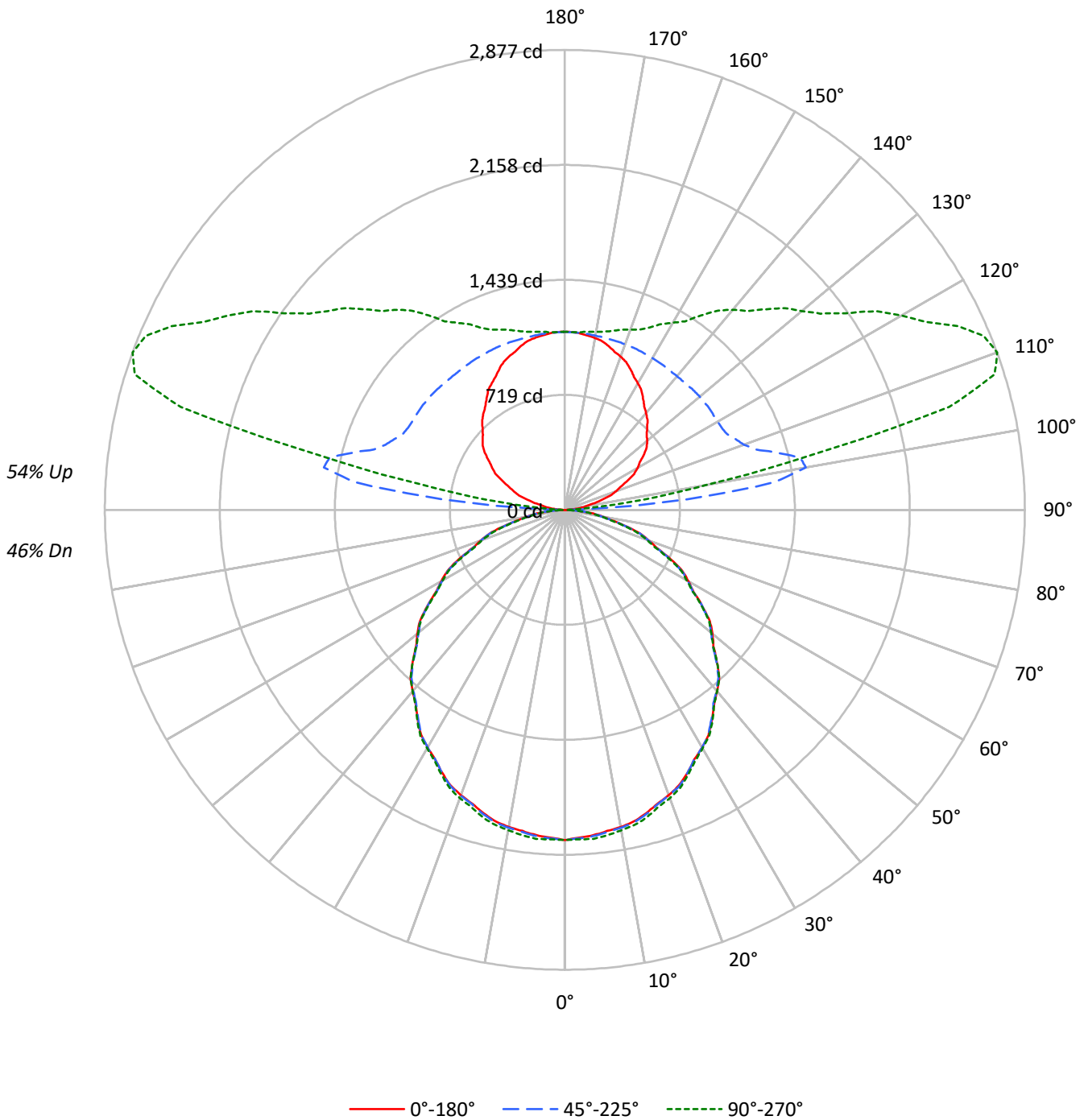
Test Method: LM-79-2019  
Report Number: P855466  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-150U-125D-840-UNV-STD-W-4  
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: 12670.2 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
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

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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	0	
RCR																						
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46				46
1	97	92	88	85	89	85	81	78	71	68	66	58	56	55	46	45	44				38	
2	88	80	74	69	80	74	69	64	62	58	55	51	48	45	40	38	37				32	
3	80	71	63	57	73	65	59	53	54	50	46	45	41	38	36	33	31				27	
4	73	62	54	48	67	57	50	45	48	43	39	40	36	33	32	29	27				23	
5	67	55	47	41	61	51	44	39	43	38	33	35	31	28	28	25	23				20	
6	62	50	42	36	56	46	39	33	39	33	29	32	28	25	26	23	20				17	
7	57	45	37	31	52	41	34	29	35	29	25	29	25	22	23	20	18				15	
8	53	41	33	27	48	38	31	26	32	26	22	27	22	19	22	18	16				14	
9	49	37	29	24	45	34	28	23	29	24	20	24	20	17	20	17	14				12	
10	46	34	27	22	42	31	25	21	27	22	18	22	18	16	18	15	13				11	

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

	0°	45°	90°
0°	33354	33354	33354
5°	33117	33208	33481
10°	33039	33131	33362
15°	32837	32931	33260
20°	32641	32691	32981
25°	32340	32340	32541
30°	32009	32009	32114
35°	31621	31509	31732
40°	31202	31084	31202
45°	30718	30590	30718
50°	30258	29976	30047
55°	29551	29472	29315
60°	28811	28627	28446
65°	27958	27637	27312
70°	26309	26176	25643
75°	24753	24229	23525
80°	21990	21451	20679
85°	17729	16173	15117

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 30908 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	195.3	1.5
10°-20°	558.0	4.4
20°-30°	839.5	6.6
30°-40°	1004.5	7.9
40°-50°	1036.4	8.2
50°-60°	935.0	7.4
60°-70°	713.5	5.6
70°-80°	410.2	3.2
80°-90°	108.3	0.9
90°-100°	424.1	3.3
100°-110°	1388.7	11.0
110°-120°	1372.9	10.8
120°-130°	1122.3	8.9
130°-140°	915.8	7.2
140°-150°	712.7	5.6
150°-160°	513.2	4.1
160°-170°	314.0	2.5
170°-180°	106.1	0.8
0°-30°	1592.7	12.6
0°-40°	2597.2	20.5
0°-60°	4568.5	36.1
0°-90°	5800.5	45.8
90°-120°	3185.7	25.1
90°-150°	5936.5	46.9
90°-180°	6870.0	54.2
0°-180°	12670.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2066	2066	2066	2066	2066	
5°	2043	2071	2049	2052	2066	194
15°	1964	1989	1970	1979	1990	554
25°	1815	1835	1815	1818	1827	836
35°	1604	1615	1599	1604	1610	1003
45°	1345	1354	1340	1342	1345	1038
55°	1050	1055	1047	1041	1041	939
65°	732	729	723	718	715	719
75°	397	394	388	380	377	418
85°	96	90	87	79	82	111
90°	1	3	9	8	9	7
95°	59	172	771	275	178	67
105°	241	344	1378	2619	2488	254
115°	435	520	1120	2314	2717	429
125°	605	674	1104	1825	2144	538
135°	729	806	1095	1574	1774	564
145°	852	915	1092	1354	1484	534
155°	971	1004	1099	1211	1258	447
165°	1060	1070	1104	1146	1159	299
175°	1108	1108	1110	1118	1115	105
180°	1113	1113	1113	1113	1113	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2065.8	2065.8	2065.8	2065.8	2065.8
2.5°	2052.3	2076.5	2056.8	2061.4	2063.6
5°	2043.3	2070.8	2048.9	2052.0	2065.8
7.5°	2026.4	2056.1	2032.1	2037.5	2052.9
10°	2015.2	2042.7	2020.8	2023.8	2034.9
12.5°	1997.1	2024.7	2002.7	2008.1	2019.1
15°	1964.5	1989.2	1970.1	1978.9	1989.8
17.5°	1926.8	1953.2	1931.9	1939.3	1948.8
20°	1899.7	1921.7	1902.6	1905.7	1919.5
22.5°	1866.0	1888.1	1871.1	1871.9	1883.4
25°	1815.3	1834.6	1815.3	1818.4	1826.6
27.5°	1757.3	1773.9	1757.3	1760.3	1767.4
30°	1716.9	1733.3	1716.9	1719.7	1722.5
32.5°	1671.8	1686.1	1669.6	1672.6	1679.7
35°	1604.3	1615.2	1598.6	1604.4	1609.9
37.5°	1532.2	1540.4	1526.6	1529.5	1534.5
40°	1480.4	1488.7	1474.8	1477.6	1480.4
42.5°	1428.7	1434.7	1420.7	1423.7	1428.7
45°	1345.3	1353.6	1339.7	1342.5	1345.3
47.5°	1260.8	1265.9	1254.1	1252.0	1257.0
50°	1204.6	1207.4	1193.4	1193.4	1196.2
52.5°	1143.8	1146.5	1137.1	1132.7	1135.3
55°	1049.8	1055.3	1047.0	1041.4	1041.4
57.5°	955.3	960.2	949.6	946.8	946.2
60°	892.2	894.9	886.5	883.7	880.9
62.5°	829.2	829.6	821.3	818.3	815.7
65°	731.8	729.0	723.4	717.7	714.9
67.5°	622.6	625.4	619.8	610.8	610.8
70°	557.3	560.0	554.5	543.2	543.2
72.5°	494.2	492.6	489.1	480.0	475.6
75°	396.8	394.1	388.4	379.9	377.1
77.5°	299.5	296.7	293.8	283.2	285.4
80°	236.5	233.7	230.7	222.4	222.4
82.5°	180.2	175.2	172.2	163.9	163.9
85°	95.7	90.2	87.3	78.9	81.6
87.5°	27.3	25.5	24.4	19.6	19.8
90°	1.2	3.4	9.2	8.0	9.2
92.5°	19.5	70.9	217.8	70.9	56.8
95°	59.4	172.5	771.0	274.7	178.4
97.5°	108.0	227.5	1322.8	800.2	496.0
100°	141.8	255.9	1530.5	1366.8	906.0
102.5°	180.3	291.7	1507.7	2013.9	1561.2
105°	241.4	344.3	1378.4	2618.9	2488.0
107.5°	301.5	395.9	1252.3	2675.4	2819.2
110°	340.9	432.6	1192.0	2609.6	2876.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	378.4	467.4	1155.4	2495.1	2837.5
115°	434.7	519.7	1119.8	2314.1	2716.8
117.5°	489.4	568.7	1106.4	2136.3	2545.1
120°	525.0	599.9	1102.7	2032.6	2430.8
122.5°	557.1	630.2	1102.7	1943.2	2312.7
125°	605.1	674.4	1103.9	1824.9	2143.6
127.5°	645.9	716.5	1102.5	1737.7	2015.1
130°	671.5	743.1	1101.5	1684.9	1935.5
132.5°	694.3	767.8	1098.9	1639.6	1866.9
135°	728.6	805.9	1094.7	1574.0	1774.2
137.5°	764.9	841.3	1092.2	1505.6	1686.6
140°	790.5	864.3	1091.3	1462.3	1633.5
142.5°	816.0	885.4	1091.3	1416.2	1571.3
145°	852.3	914.8	1092.4	1353.8	1483.7
147.5°	890.1	942.3	1094.1	1299.7	1397.7
150°	914.0	959.8	1095.8	1268.2	1350.9
152.5°	937.8	978.2	1096.8	1242.2	1310.7
155°	971.1	1003.6	1099.3	1211.3	1258.3
157.5°	1001.2	1024.6	1101.8	1187.0	1221.0
160°	1020.3	1039.4	1102.7	1173.1	1199.9
162.5°	1036.9	1052.2	1102.7	1161.9	1181.6
165°	1060.4	1070.4	1103.9	1146.5	1158.8
167.5°	1080.3	1085.2	1105.3	1134.4	1141.2
170°	1091.3	1093.5	1106.2	1128.0	1130.2
172.5°	1099.6	1100.8	1108.9	1123.3	1123.8
175°	1108.4	1108.4	1109.6	1117.5	1115.3
177.5°	1113.0	1112.1	1111.2	1116.6	1113.0
180°	1113.0	1113.0	1113.0	1113.0	1113.0



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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	19.75	20.59	20.74	21.59	22.92	19.67	20.51	20.66	21.51	22.84
	3H	21.53	22.28	22.53	23.29	24.64	21.41	22.16	22.41	23.17	24.52
	4H	22.19	22.90	23.20	23.91	25.27	22.04	22.74	23.05	23.76	25.12
	6H	22.66	23.31	23.68	24.33	25.70	22.47	23.12	23.50	24.14	25.52
	8H	22.79	23.42	23.82	24.45	25.82	22.59	23.21	23.62	24.25	25.62
	12H	22.87	23.46	23.90	24.49	25.88	22.64	23.24	23.68	24.27	25.66
4H	2H	20.30	21.01	21.32	22.02	23.38	20.24	20.95	21.26	21.96	23.32
	3H	22.28	22.88	23.31	23.92	25.29	22.18	22.77	23.21	23.81	25.19
	4H	23.07	23.62	24.11	24.65	26.05	22.93	23.47	23.97	24.51	25.90
	6H	23.66	24.13	24.71	25.19	26.58	23.48	23.95	24.53	25.01	26.40
	8H	23.85	24.28	24.90	25.34	26.74	23.65	24.08	24.69	25.14	26.54
	12H	23.95	24.34	25.02	25.41	26.82	23.72	24.12	24.79	25.18	26.59
8H	4H	23.32	23.75	24.37	24.81	26.21	23.19	23.63	24.24	24.68	26.09
	6H	24.03	24.40	25.11	25.49	26.89	23.87	24.23	24.94	25.32	26.73
	8H	24.30	24.62	25.38	25.70	27.12	24.11	24.43	25.19	25.50	26.93
	12H	24.47	24.75	25.55	25.82	27.28	24.24	24.52	25.32	25.59	27.06
12H	4H	23.31	23.71	24.38	24.77	26.18	23.19	23.58	24.26	24.65	26.06
	6H	24.08	24.40	25.16	25.47	26.90	23.92	24.24	25.00	25.31	26.74
	8H	24.37	24.65	25.45	25.72	27.18	24.18	24.46	25.27	25.54	27.00