

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: P854983

Luminaire Tested: SQ2-F-150U-125D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

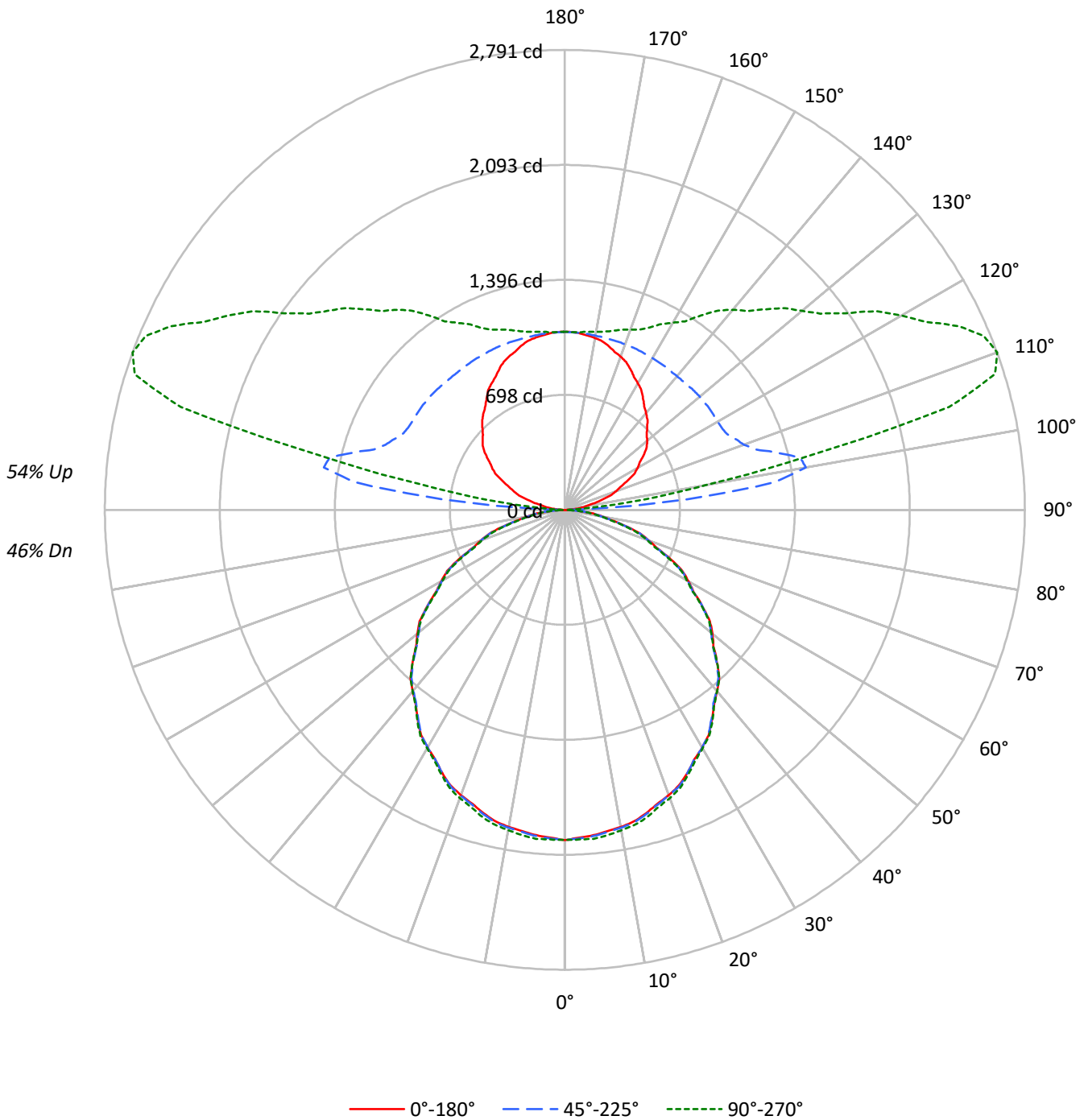
Test Method: LM-79-2019  
Report Number: P854983  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-150U-125D-830-UNV-STD-W-4  
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: 12292.2 lumens  
Efficiency: N/A  
Efficacy: 116.2 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

TEST NUMBER: P854983  
CATALOG NUMBER: SQ2-F-150U-125D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854983

CATALOG NUMBER: SQ2-F-150U-125D-830-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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	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°	32359	32359	32359
5°	32130	32217	32483
10°	32054	32142	32367
15°	31858	31950	32269
20°	31668	31716	31998
25°	31376	31376	31572
30°	31055	31055	31155
35°	30677	30569	30786
40°	30273	30157	30273
45°	29803	29679	29803
50°	29353	29082	29150
55°	28670	28594	28439
60°	27952	27774	27600
65°	27121	26812	26495
70°	25525	25398	24878
75°	24017	23506	22826
80°	21330	20818	20056
85°	17191	15691	14653

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 29985 cd/sqm



TEST NUMBER: P854983

CATALOG NUMBER: SQ2-F-150U-125D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.5	1.5
10°-20°	541.3	4.4
20°-30°	814.4	6.6
30°-40°	974.5	7.9
40°-50°	1005.5	8.2
50°-60°	907.1	7.4
60°-70°	692.2	5.6
70°-80°	398.0	3.2
80°-90°	105.0	0.9
90°-100°	411.4	3.3
100°-110°	1347.2	11.0
110°-120°	1332.0	10.8
120°-130°	1088.8	8.9
130°-140°	888.5	7.2
140°-150°	691.5	5.6
150°-160°	497.9	4.1
160°-170°	304.6	2.5
170°-180°	102.9	0.8
0°-30°	1545.2	12.6
0°-40°	2519.7	20.5
0°-60°	4432.3	36.1
0°-90°	5627.4	45.8
90°-120°	3090.6	25.1
90°-150°	5759.4	46.9
90°-180°	6665.0	54.2
0°-180°	12292.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2004	2004	2004	2004	2004	
5°	1982	2009	1988	1991	2004	188
15°	1906	1930	1911	1920	1930	538
25°	1761	1780	1761	1764	1772	811
35°	1556	1567	1551	1557	1562	973
45°	1305	1313	1300	1302	1305	1007
55°	1018	1024	1016	1010	1010	911
65°	710	707	702	696	694	698
75°	385	382	377	369	366	406
85°	93	88	85	76	79	108
90°	1	3	9	8	9	7
95°	58	167	748	266	173	65
105°	234	334	1337	2541	2414	247
115°	422	504	1086	2245	2636	417
125°	587	654	1071	1770	2080	522
135°	707	782	1062	1527	1721	547
145°	827	888	1060	1314	1439	518
155°	942	974	1066	1175	1221	434
165°	1029	1038	1071	1112	1124	290
175°	1075	1075	1076	1084	1082	102
180°	1080	1080	1080	1080	1080	



TEST NUMBER: P854983

CATALOG NUMBER: SQ2-F-150U-125D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2004.2	2004.2	2004.2	2004.2	2004.2
2.5°	1991.1	2014.6	1995.5	1999.9	2002.0
5°	1982.4	2009.0	1987.8	1990.8	2004.2
7.5°	1966.0	1994.8	1971.5	1976.7	1991.6
10°	1955.1	1981.8	1960.5	1963.5	1974.2
12.5°	1937.6	1964.3	1943.0	1948.2	1958.8
15°	1905.9	1929.9	1911.4	1919.8	1930.5
17.5°	1869.3	1895.0	1874.3	1881.5	1890.7
20°	1843.1	1864.4	1845.9	1848.8	1862.3
22.5°	1810.4	1831.8	1815.2	1816.0	1827.2
25°	1761.2	1779.9	1761.2	1764.1	1772.2
27.5°	1704.9	1721.0	1704.9	1707.8	1714.7
30°	1665.7	1681.6	1665.7	1668.4	1671.1
32.5°	1621.9	1635.8	1619.8	1622.7	1629.6
35°	1556.4	1567.1	1550.9	1556.6	1561.9
37.5°	1486.5	1494.5	1481.0	1483.9	1488.7
40°	1436.3	1444.3	1430.8	1433.5	1436.3
42.5°	1386.1	1391.9	1378.4	1381.2	1386.1
45°	1305.2	1313.2	1299.8	1302.5	1305.2
47.5°	1223.2	1228.1	1216.7	1214.6	1219.5
50°	1168.6	1171.3	1157.8	1157.8	1160.5
52.5°	1109.7	1112.3	1103.2	1098.9	1101.5
55°	1018.5	1023.8	1015.8	1010.3	1010.3
57.5°	926.8	931.5	921.2	918.5	918.0
60°	865.6	868.2	860.1	857.4	854.7
62.5°	804.5	804.9	796.8	793.9	791.3
65°	709.9	707.2	701.8	696.2	693.5
67.5°	604.0	606.7	601.3	592.6	592.6
70°	540.7	543.3	538.0	527.0	527.0
72.5°	479.5	477.9	474.5	465.7	461.4
75°	385.0	382.4	376.8	368.6	365.9
77.5°	290.6	287.9	285.0	274.7	276.9
80°	229.4	226.7	223.9	215.7	215.7
82.5°	174.8	169.9	167.1	159.0	159.0
85°	92.8	87.5	84.7	76.5	79.1
87.5°	26.5	24.8	23.6	19.0	19.2
90°	1.1	3.3	8.9	7.8	8.9
92.5°	18.9	68.7	211.3	68.7	55.1
95°	57.7	167.3	748.0	266.5	173.1
97.5°	104.8	220.7	1283.4	776.3	481.2
100°	137.6	248.3	1484.9	1326.0	879.0
102.5°	174.9	283.0	1462.7	1953.9	1514.6
105°	234.2	334.0	1337.3	2540.8	2413.8
107.5°	292.5	384.1	1215.0	2595.6	2735.1
110°	330.7	419.7	1156.4	2531.7	2791.1



TEST NUMBER: P854983

CATALOG NUMBER: SQ2-F-150U-125D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	367.1	453.5	1120.9	2420.7	2752.9
115°	421.7	504.2	1086.4	2245.1	2635.8
117.5°	474.8	551.8	1073.4	2072.6	2469.2
120°	509.4	582.1	1069.8	1972.0	2358.3
122.5°	540.4	611.5	1069.8	1885.2	2243.8
125°	587.0	654.3	1070.9	1770.5	2079.7
127.5°	626.6	695.1	1069.6	1685.9	1955.0
130°	651.5	720.9	1068.7	1634.7	1877.8
132.5°	673.6	744.9	1066.1	1590.7	1811.2
135°	706.9	781.8	1062.0	1527.0	1721.3
137.5°	742.0	816.2	1059.6	1460.7	1636.3
140°	766.9	838.5	1058.7	1418.7	1584.8
142.5°	791.7	858.9	1058.7	1374.0	1524.4
145°	826.8	887.6	1059.9	1313.5	1439.4
147.5°	863.6	914.2	1061.4	1260.9	1356.0
150°	886.8	931.2	1063.1	1230.4	1310.6
152.5°	909.8	949.1	1064.0	1205.2	1271.6
155°	942.2	973.7	1066.5	1175.2	1220.8
157.5°	971.3	994.1	1068.9	1151.6	1184.6
160°	989.9	1008.4	1069.8	1138.1	1164.1
162.5°	1005.9	1020.9	1069.8	1127.3	1146.4
165°	1028.8	1038.5	1070.9	1112.3	1124.2
167.5°	1048.1	1052.9	1072.3	1100.6	1107.1
170°	1058.7	1060.9	1073.2	1094.3	1096.5
172.5°	1066.8	1068.0	1075.8	1089.8	1090.3
175°	1075.4	1075.4	1076.5	1084.2	1082.0
177.5°	1079.8	1079.0	1078.1	1083.3	1079.8
180°	1079.8	1079.8	1079.8	1079.8	1079.8

-----



TEST NUMBER: P854983

CATALOG NUMBER: SQ2-F-150U-125D-830-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	19.65	20.48	20.64	21.48	22.81	19.57	20.40	20.56	21.41	22.74
	3H	21.42	22.17	22.43	23.19	24.54	21.31	22.05	22.31	23.07	24.42
	4H	22.08	22.79	23.10	23.81	25.17	21.93	22.64	22.94	23.66	25.01
	6H	22.55	23.20	23.57	24.22	25.60	22.37	23.02	23.39	24.04	25.41
	8H	22.69	23.31	23.72	24.35	25.71	22.49	23.11	23.52	24.15	25.51
	12H	22.76	23.35	23.80	24.38	25.78	22.54	23.13	23.57	24.16	25.55
4H	2H	20.19	20.90	21.21	21.92	23.28	20.13	20.84	21.15	21.86	23.22
	3H	22.18	22.77	23.21	23.82	25.19	22.07	22.66	23.10	23.71	25.08
	4H	22.97	23.51	24.00	24.55	25.94	22.82	23.37	23.86	24.40	25.80
	6H	23.56	24.02	24.60	25.08	26.47	23.38	23.84	24.42	24.90	26.29
	8H	23.74	24.18	24.79	25.23	26.64	23.54	23.98	24.59	25.03	26.44
	12H	23.84	24.24	24.91	25.31	26.72	23.62	24.01	24.68	25.08	26.49
8H	4H	23.21	23.65	24.26	24.70	26.11	23.09	23.52	24.13	24.58	25.98
	6H	23.93	24.29	25.00	25.38	26.79	23.76	24.12	24.83	25.22	26.62
	8H	24.20	24.51	25.28	25.59	27.01	24.00	24.32	25.08	25.40	26.82
	12H	24.36	24.64	25.45	25.72	27.18	24.14	24.41	25.22	25.49	26.95
12H	4H	23.21	23.60	24.27	24.67	26.08	23.08	23.48	24.15	24.55	25.96
	6H	23.97	24.29	25.05	25.37	26.79	23.81	24.13	24.89	25.21	26.63
	8H	24.26	24.54	25.35	25.62	27.08	24.08	24.36	25.16	25.43	26.89