

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: P855059

Luminaire Tested: SQ2-F-125U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

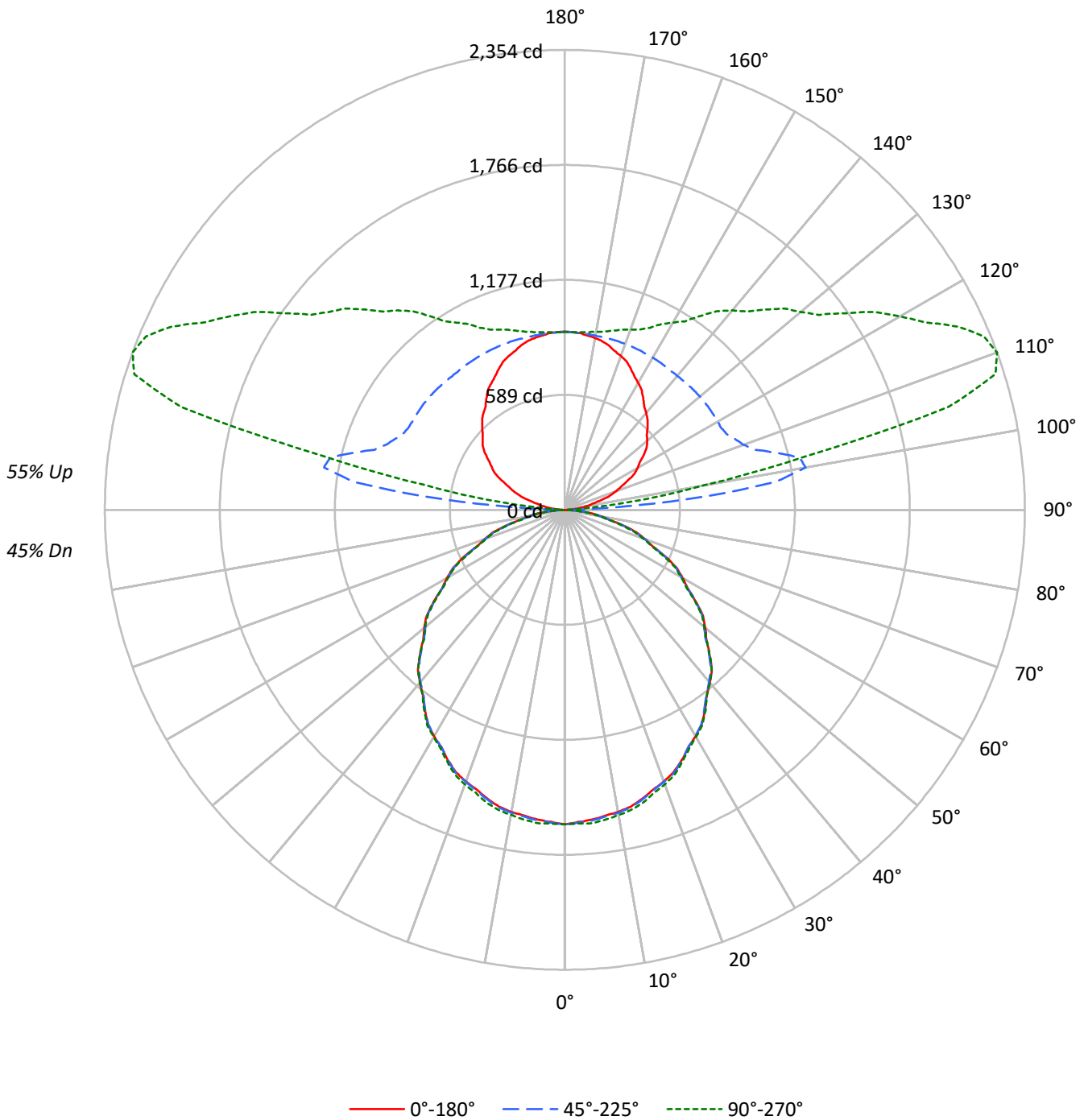
Test Method: LM-79-2019  
Report Number: P855059  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-125U-100D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10139.0 lumens  
Efficiency: N/A  
Efficacy: 124.4 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): 81.5  
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: P855059  
CATALOG NUMBER: SQ2-F-125U-100D-830-UNV-STD-W-4

### 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	80	80	80	65	65	65	51	51	51	45				45
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37				37
2	88	80	74	69	80	74	68	64	61	57	54	50	47	45	39	38	36	31				31
3	80	70	63	57	73	65	58	53	54	49	45	44	41	38	35	32	30	26				26
4	73	62	54	48	67	57	50	45	48	43	38	39	35	32	31	28	26	22				22
5	67	55	47	41	61	51	44	38	43	37	33	35	31	28	28	25	23	19				19
6	62	49	41	36	56	46	38	33	38	33	29	32	27	24	25	22	20	17				17
7	57	45	37	31	52	41	34	29	35	29	25	29	24	21	23	20	18	15				15
8	53	40	33	27	48	37	30	26	32	26	22	26	22	19	21	18	16	13				13
9	49	37	29	24	45	34	27	23	29	24	20	24	20	17	19	16	14	12				12
10	46	34	27	22	42	31	25	20	27	21	18	22	18	15	18	15	13	11				11

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

	0°	45°	90°
0°	25988	25988	25988
5°	25804	25875	26088
10°	25742	25814	25994
15°	25586	25660	25917
20°	25433	25471	25697
25°	25197	25197	25356
30°	24940	24940	25022
35°	24636	24551	24723
40°	24312	24219	24312
45°	23934	23834	23934
50°	23574	23355	23410
55°	23026	22964	22838
60°	22446	22307	22165
65°	21784	21532	21280
70°	20497	20394	19978
75°	19289	18883	18334
80°	17127	16718	16104
85°	13801	12597	11764

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 24083 cd/sqm



TEST NUMBER: P855059

CATALOG NUMBER: SQ2-F-125U-100D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.2	1.5
10°-20°	434.7	4.3
20°-30°	654.1	6.5
30°-40°	782.6	7.7
40°-50°	807.5	8.0
50°-60°	728.5	7.2
60°-70°	555.9	5.5
70°-80°	319.6	3.2
80°-90°	84.4	0.8
90°-100°	348.4	3.4
100°-110°	1134.3	11.2
110°-120°	1122.0	11.1
120°-130°	916.9	9.0
130°-140°	749.4	7.4
140°-150°	583.7	5.8
150°-160°	420.8	4.1
160°-170°	257.2	2.5
170°-180°	86.8	0.9
0°-30°	1241.0	12.2
0°-40°	2023.6	20.0
0°-60°	3559.6	35.1
0°-90°	4519.5	44.6
90°-120°	2604.7	25.7
90°-150°	4854.8	47.9
90°-180°	5619.0	55.4
0°-180°	10139.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1592	1614	1596	1599	1610	151
15°	1531	1550	1535	1542	1550	432
25°	1414	1430	1414	1417	1423	651
35°	1250	1258	1246	1250	1254	782
45°	1048	1055	1044	1046	1048	809
55°	818	822	816	811	811	731
65°	570	568	564	559	557	560
75°	309	307	303	296	294	326
85°	74	70	68	62	64	86
90°	0	3	8	7	7	5
95°	47	144	639	228	140	55
105°	193	278	1124	2146	2032	206
115°	356	425	915	1886	2219	353
125°	495	552	903	1489	1756	441
135°	598	661	898	1285	1450	462
145°	699	750	896	1107	1212	438
155°	798	824	902	991	1028	367
165°	870	878	904	938	949	245
175°	908	908	908	914	912	86
180°	911	911	911	911	911	



TEST NUMBER: P855059

CATALOG NUMBER: SQ2-F-125U-100D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1609.6	1609.6	1609.6	1609.6	1609.6
2.5°	1599.1	1618.0	1602.6	1606.2	1607.9
5°	1592.1	1613.5	1596.5	1598.8	1609.6
7.5°	1578.9	1602.1	1583.4	1587.5	1599.5
10°	1570.1	1591.6	1574.5	1576.9	1585.5
12.5°	1556.1	1577.6	1560.5	1564.6	1573.2
15°	1530.7	1550.0	1535.1	1541.9	1550.5
17.5°	1501.3	1521.8	1505.2	1511.1	1518.3
20°	1480.2	1497.4	1482.4	1484.9	1495.6
22.5°	1453.9	1471.1	1457.9	1458.5	1467.5
25°	1414.4	1429.5	1414.4	1416.8	1423.3
27.5°	1369.3	1382.1	1369.3	1371.6	1377.1
30°	1337.7	1350.6	1337.7	1339.9	1342.1
32.5°	1302.6	1313.8	1300.8	1303.2	1308.7
35°	1249.9	1258.5	1245.6	1250.0	1254.3
37.5°	1193.8	1200.3	1189.4	1191.7	1195.5
40°	1153.5	1159.9	1149.1	1151.3	1153.5
42.5°	1113.1	1117.9	1107.0	1109.3	1113.1
45°	1048.2	1054.7	1043.8	1046.1	1048.2
47.5°	982.4	986.3	977.2	975.5	979.4
50°	938.5	940.7	929.8	929.8	932.0
52.5°	891.2	893.3	886.0	882.5	884.6
55°	818.0	822.2	815.8	811.3	811.3
57.5°	744.3	748.1	739.9	737.7	737.3
60°	695.1	697.3	690.8	688.6	686.4
62.5°	646.0	646.5	639.9	637.7	635.5
65°	570.2	568.0	563.6	559.1	557.0
67.5°	485.0	487.2	482.9	475.9	475.9
70°	434.2	436.3	432.0	423.2	423.2
72.5°	385.1	383.7	381.1	374.0	370.6
75°	309.2	307.1	302.7	296.0	293.9
77.5°	233.4	231.2	229.0	220.7	222.4
80°	184.2	182.0	179.8	173.2	173.2
82.5°	140.3	136.5	134.2	127.6	127.6
85°	74.5	70.3	68.0	61.5	63.5
87.5°	21.0	20.0	19.1	15.4	15.4
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.2	58.0	185.3	61.1	47.0
95°	47.0	143.5	638.6	227.7	140.1
97.5°	88.5	186.7	1083.7	660.1	402.8
100°	115.4	211.8	1251.4	1115.8	723.7
102.5°	145.9	238.8	1230.7	1650.9	1255.1
105°	192.7	278.1	1123.6	2146.2	2032.2
107.5°	243.3	323.7	1022.0	2189.2	2309.8
110°	280.1	353.4	973.5	2135.8	2353.8



TEST NUMBER: P855059

CATALOG NUMBER: SQ2-F-125U-100D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	310.6	383.1	943.1	2039.5	2320.5
115°	356.3	425.2	915.3	1886.3	2219.3
117.5°	403.3	465.5	904.5	1746.1	2077.4
120°	430.2	491.5	901.8	1659.8	1980.7
122.5°	456.2	516.7	902.7	1584.8	1883.9
125°	495.2	552.1	902.9	1489.3	1755.5
127.5°	528.6	586.8	902.7	1417.7	1639.7
130°	550.1	609.2	901.8	1376.9	1575.1
132.5°	568.9	630.7	900.9	1338.9	1524.9
135°	598.2	660.6	898.5	1285.3	1449.7
137.5°	626.9	689.8	896.0	1230.9	1376.9
140°	647.5	707.8	895.1	1194.0	1332.0
142.5°	667.2	724.9	895.1	1158.7	1281.8
145°	699.1	750.5	896.3	1107.0	1212.2
147.5°	729.9	774.7	897.8	1063.0	1144.3
150°	750.6	790.0	899.7	1036.7	1105.8
152.5°	771.2	803.7	900.4	1016.7	1071.6
155°	797.7	823.9	901.8	991.2	1028.4
157.5°	822.8	841.5	903.2	972.4	998.4
160°	838.0	853.3	904.1	960.6	981.4
162.5°	851.4	863.2	904.1	950.5	966.1
165°	870.5	878.2	904.1	938.0	948.8
167.5°	883.9	888.7	904.3	928.4	934.1
170°	892.9	895.0	905.2	922.0	924.2
172.5°	899.2	900.4	907.0	918.4	918.0
175°	907.5	907.5	907.5	914.1	911.9
177.5°	910.8	909.9	909.0	913.4	909.9
180°	910.8	910.8	910.8	910.8	910.8



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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	18.77	19.59	19.77	20.60	21.95	18.69	19.51	19.69	20.52	21.87
	3H	20.54	21.28	21.55	22.30	23.67	20.42	21.16	21.43	22.18	23.55
	4H	21.20	21.90	22.22	22.93	24.30	21.05	21.75	22.07	22.77	24.15
	6H	21.67	22.31	22.70	23.34	24.73	21.48	22.13	22.52	23.16	24.54
	8H	21.80	22.42	22.84	23.46	24.85	21.60	22.22	22.64	23.26	24.64
	12H	21.88	22.46	22.92	23.50	24.91	21.65	22.24	22.70	23.28	24.68
4H	2H	19.31	20.01	20.34	21.04	22.41	19.25	19.95	20.28	20.98	22.35
	3H	21.30	21.88	22.33	22.93	24.32	21.19	21.77	22.23	22.83	24.21
	4H	22.08	22.62	23.13	23.66	25.07	21.94	22.48	22.99	23.52	24.93
	6H	22.67	23.13	23.73	24.20	25.61	22.49	22.95	23.55	24.02	25.43
	8H	22.86	23.29	23.91	24.35	25.77	22.66	23.09	23.71	24.15	25.57
	12H	22.96	23.35	24.03	24.42	25.85	22.73	23.12	23.80	24.19	25.62
8H	4H	22.33	22.76	23.38	23.82	25.24	22.20	22.63	23.26	23.69	25.11
	6H	23.04	23.40	24.12	24.50	25.92	22.88	23.23	23.96	24.34	25.75
	8H	23.31	23.62	24.40	24.71	26.15	23.12	23.43	24.20	24.52	25.95
	12H	23.48	23.75	24.57	24.83	26.31	23.25	23.52	24.34	24.61	26.08
12H	4H	22.32	22.71	23.39	23.78	25.21	22.20	22.59	23.27	23.66	25.09
	6H	23.09	23.40	24.17	24.49	25.92	22.93	23.24	24.01	24.33	25.76
	8H	23.38	23.65	24.47	24.73	26.21	23.19	23.47	24.28	24.55	26.03