

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: P855225

Luminaire Tested: SQ2-FB-125U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855225  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-125U-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

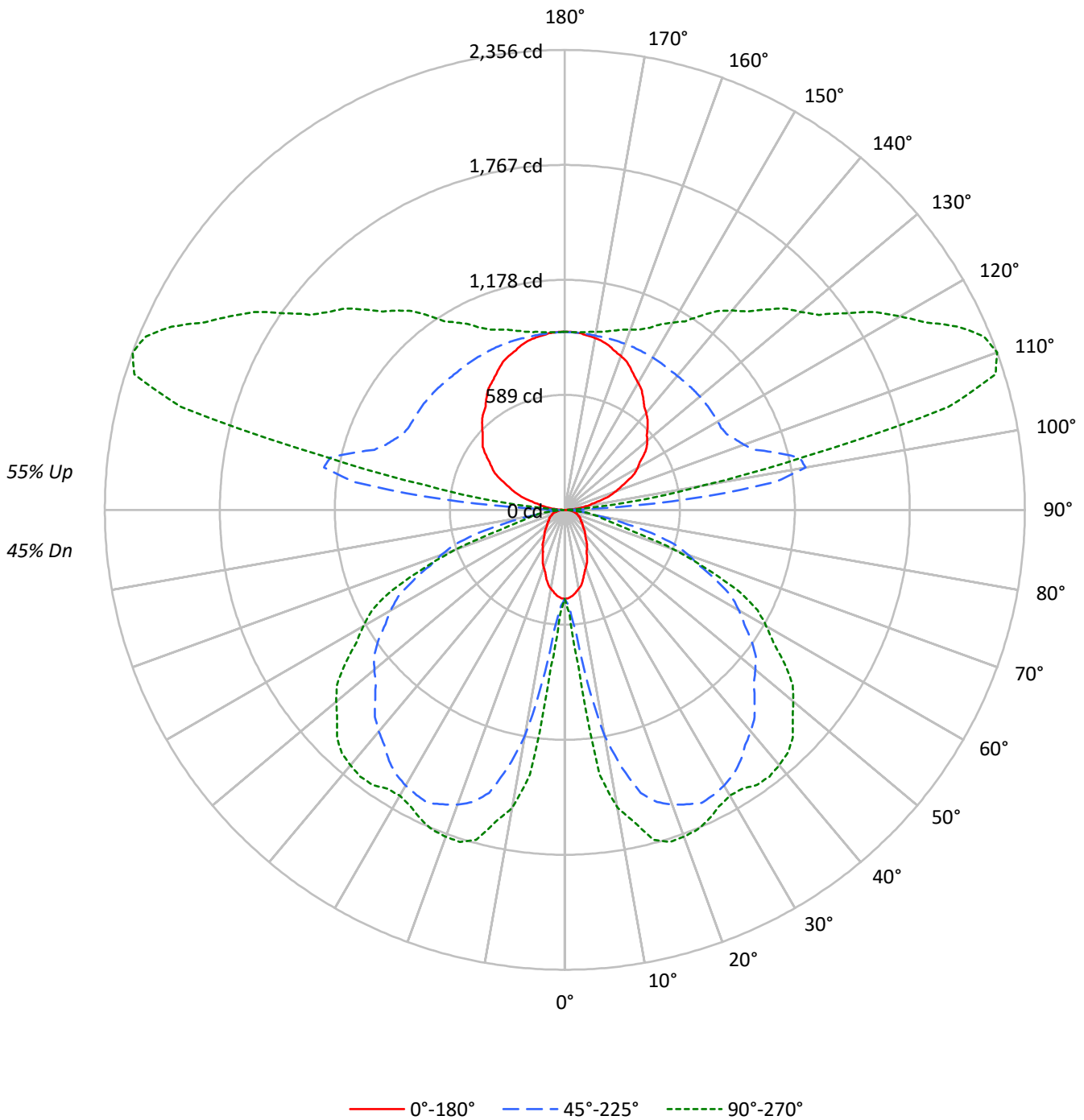
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10136.8 lumens  
Efficiency: N/A  
Efficacy: 124.4 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56  
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: P855225

CATALOG NUMBER: SQ2-FB-125U-100D-835-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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37
2	87	80	74	69	80	73	68	63	61	57	54	50	47	44	39	37	36	31
3	80	70	62	57	72	64	58	52	53	49	45	43	40	37	34	32	30	25
4	72	61	53	47	66	57	49	44	47	42	38	38	34	31	30	27	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	40	34	55	45	37	32	37	32	28	31	26	23	24	21	19	16
7	56	44	35	30	51	40	33	28	34	28	24	28	23	20	22	19	16	14
8	52	39	31	26	47	36	29	24	30	25	21	25	21	18	20	17	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	25	20	41	30	24	19	25	20	17	21	17	14	17	14	11	9

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

	0°	45°	90°
0°	7371	7371	7371
5°	7186	9961	13055
10°	6730	19289	25406
15°	6091	25097	29240
20°	5393	27606	30624
25°	4771	29523	31126
30°	4215	30404	31510
35°	3763	30934	33876
40°	3423	31228	35993
45°	3158	31376	37689
50°	2977	31976	38371
55°	2905	32808	38680
60°	2977	33244	38488
65°	3106	32791	37398
70°	3210	31704	28287
75°	3556	28478	15608
80°	3673	14691	14486
85°	3668	10170	6095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 39028 cd/sqm



TEST NUMBER: P855225

CATALOG NUMBER: SQ2-FB-125U-100D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.5	0.8
10°-20°	349.1	3.4
20°-30°	614.3	6.1
30°-40°	795.1	7.8
40°-50°	877.0	8.7
50°-60°	818.8	8.1
60°-70°	632.8	6.2
70°-80°	291.9	2.9
80°-90°	56.7	0.6
90°-100°	348.7	3.4
100°-110°	1135.3	11.2
110°-120°	1123.0	11.1
120°-130°	917.7	9.1
130°-140°	750.1	7.4
140°-150°	584.2	5.8
150°-160°	421.1	4.2
160°-170°	257.4	2.5
170°-180°	86.9	0.9
0°-30°	1039.9	10.3
0°-40°	1835.1	18.1
0°-60°	3530.8	34.8
0°-90°	4512.3	44.5
90°-120°	2607.1	25.7
90°-150°	4859.1	47.9
90°-180°	5625.0	55.5
0°-180°	10136.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	443	508	615	750	806	41
15°	364	718	1501	1681	1749	102
25°	268	965	1657	1730	1747	123
35°	191	931	1569	1624	1719	120
45°	138	713	1374	1578	1651	107
55°	103	425	1166	1340	1374	93
65°	81	240	858	962	979	80
75°	57	147	456	246	250	59
85°	20	43	55	37	33	21
90°	0	3	8	7	7	3
95°	47	144	639	228	140	55
105°	193	278	1125	2148	2034	206
115°	357	426	916	1888	2221	353
125°	496	553	904	1491	1757	441
135°	599	661	899	1286	1451	463
145°	700	751	897	1108	1213	438
155°	798	825	903	992	1029	368
165°	871	879	905	939	950	245
175°	908	908	908	915	913	86
180°	912	912	912	912	912	



TEST NUMBER: P855225

CATALOG NUMBER: SQ2-FB-125U-100D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	456.5	456.5	456.5	456.5	456.5
2.5°	453.0	471.9	493.4	518.2	528.5
5°	443.4	507.8	614.6	749.7	805.5
7.5°	426.3	557.1	893.8	1255.4	1367.0
10°	410.5	592.9	1176.5	1489.5	1549.6
12.5°	392.9	640.5	1353.8	1573.8	1635.7
15°	364.4	718.5	1501.4	1680.6	1749.3
17.5°	335.0	806.2	1569.8	1746.7	1784.1
20°	313.9	867.5	1606.7	1758.7	1782.3
22.5°	294.6	913.5	1633.0	1748.2	1773.5
25°	267.8	965.3	1657.2	1730.0	1747.2
27.5°	241.8	978.9	1646.7	1694.4	1711.2
30°	226.1	975.0	1630.8	1666.5	1690.1
32.5°	212.1	964.5	1608.0	1642.5	1693.6
35°	190.9	931.4	1569.4	1624.2	1718.7
37.5°	172.9	878.2	1518.5	1630.7	1721.7
40°	162.4	838.4	1481.6	1630.4	1707.7
42.5°	151.9	791.8	1439.5	1612.8	1690.1
45°	138.3	713.4	1374.1	1577.7	1650.6
47.5°	125.5	625.1	1313.4	1528.9	1582.1
50°	118.5	564.9	1273.0	1484.7	1527.6
52.5°	111.5	506.4	1232.7	1432.0	1471.5
55°	103.2	425.1	1165.5	1339.7	1374.1
57.5°	95.7	355.3	1089.1	1237.7	1265.7
60°	92.2	317.5	1029.5	1163.9	1191.9
62.5°	86.9	283.0	962.7	1086.6	1112.9
65°	81.3	240.0	858.3	961.8	978.9
67.5°	73.3	208.1	747.1	810.5	778.4
70°	68.0	192.5	671.6	691.4	599.2
72.5°	64.5	175.3	589.1	536.9	362.1
75°	57.0	147.2	456.5	245.9	250.2
77.5°	46.5	114.0	300.2	188.9	192.7
80°	39.5	93.1	158.0	153.7	155.8
82.5°	32.5	72.4	108.9	113.2	110.2
85°	19.8	43.3	54.9	37.2	32.9
87.5°	7.0	16.3	10.3	10.1	10.1
90°	0.0	3.3	7.8	6.7	6.7
92.5°	16.2	58.1	185.5	61.1	47.1
95°	47.1	143.6	639.2	227.9	140.2
97.5°	88.6	186.8	1084.7	660.7	403.2
100°	115.5	212.0	1252.5	1116.8	724.4
102.5°	146.0	239.0	1231.8	1652.3	1256.3
105°	192.8	278.4	1124.6	2148.1	2034.1
107.5°	243.5	324.0	1022.9	2191.1	2311.9
110°	280.3	353.8	974.4	2137.7	2355.9



TEST NUMBER: P855225

CATALOG NUMBER: SQ2-FB-125U-100D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	310.9	383.4	943.9	2041.3	2322.6
115°	356.6	425.6	916.1	1888.0	2221.3
117.5°	403.7	465.9	905.3	1747.6	2079.3
120°	430.6	491.9	902.6	1661.3	1982.4
122.5°	456.6	517.2	903.5	1586.3	1885.6
125°	495.7	552.6	903.7	1490.6	1757.1
127.5°	529.1	587.3	903.5	1419.0	1641.1
130°	550.6	609.7	902.6	1378.1	1576.5
132.5°	569.5	631.2	901.7	1340.1	1526.3
135°	598.8	661.2	899.3	1286.5	1451.0
137.5°	627.5	690.4	896.8	1232.0	1378.1
140°	648.1	708.4	895.9	1195.0	1333.2
142.5°	667.8	725.5	895.9	1159.7	1283.0
145°	699.7	751.2	897.1	1108.0	1213.3
147.5°	730.6	775.4	898.7	1064.0	1145.4
150°	751.3	790.7	900.5	1037.6	1106.8
152.5°	771.9	804.4	901.3	1017.6	1072.6
155°	798.4	824.6	902.6	992.1	1029.4
157.5°	823.5	842.3	904.0	973.2	999.3
160°	838.8	854.1	904.9	961.5	982.3
162.5°	852.1	864.0	904.9	951.4	967.0
165°	871.3	879.0	904.9	938.8	949.7
167.5°	884.7	889.5	905.1	929.2	935.0
170°	893.7	895.8	906.0	922.9	925.0
172.5°	900.0	901.3	907.8	919.3	918.8
175°	908.3	908.3	908.3	915.0	912.7
177.5°	911.7	910.8	909.9	914.3	910.8
180°	911.7	911.7	911.7	911.7	911.7



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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	13.48	14.32	14.48	15.33	16.67	22.22	23.05	23.21	24.07	25.41
	3H	14.21	14.96	15.22	15.98	17.35	23.84	24.59	24.84	25.61	26.97
	4H	14.51	15.22	15.53	16.24	17.62	24.02	24.73	25.04	25.75	27.12
	6H	14.72	15.38	15.75	16.40	17.79	24.10	24.75	25.13	25.78	27.17
	8H	14.78	15.40	15.82	16.45	17.83	24.10	24.73	25.14	25.77	27.15
	12H	14.81	15.40	15.85	16.44	17.85	24.07	24.67	25.12	25.71	27.11
4H	2H	17.88	18.59	18.90	19.61	20.98	22.66	23.37	23.68	24.39	25.76
	3H	18.81	19.40	19.84	20.45	21.84	24.48	25.07	25.52	26.12	27.51
	4H	19.09	19.63	20.13	20.67	22.08	24.72	25.26	25.76	26.30	27.71
	6H	19.22	19.68	20.27	20.75	22.16	24.86	25.33	25.91	26.39	27.80
	8H	19.24	19.67	20.29	20.73	22.15	24.88	25.32	25.94	26.38	27.80
	12H	19.23	19.62	20.30	20.70	22.12	24.86	25.25	25.93	26.32	27.75
8H	4H	20.26	20.70	21.32	21.76	23.18	24.83	25.27	25.89	26.33	27.75
	6H	20.50	20.85	21.58	21.96	23.38	25.04	25.39	26.11	26.50	27.91
	8H	20.57	20.88	21.65	21.97	23.40	25.10	25.41	26.18	26.50	27.93
	12H	20.59	20.87	21.68	21.95	23.43	25.09	25.36	26.18	26.45	27.92
12H	4H	20.28	20.67	21.35	21.74	23.17	24.78	25.17	25.86	26.25	27.68
	6H	20.59	20.91	21.68	21.99	23.43	25.02	25.33	26.10	26.42	27.86
	8H	20.69	20.97	21.78	22.05	23.53	25.08	25.36	26.17	26.44	27.92