

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: P855240

Luminaire Tested: SQ2-FB-050U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855240  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-050U-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

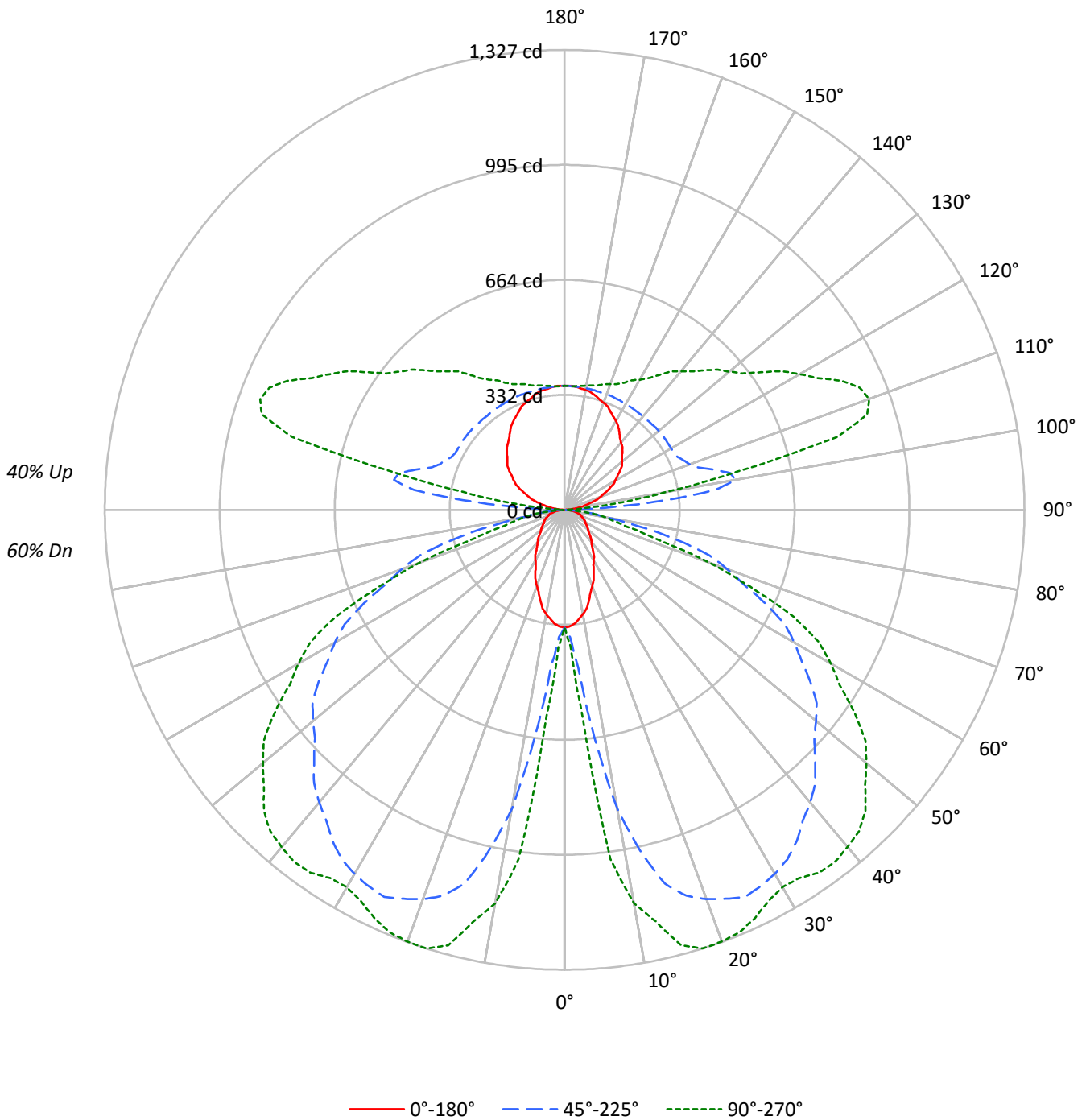
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5580.2 lumens  
Efficiency: N/A  
Efficacy: 134.5 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: Semi-Direct  
  
Input Watts (W): 41.5  
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: P855240

CATALOG NUMBER: SQ2-FB-050U-075D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P855240

CATALOG NUMBER: SQ2-FB-050U-075D-835-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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	100	95	91	88	93	89	86	83	78	75	73	67	65	64	58	56	55	50
2	91	83	76	71	84	78	72	67	68	63	60	59	55	52	50	48	46	41
3	82	72	65	58	76	68	61	55	59	54	49	51	47	44	44	41	38	34
4	75	64	55	49	70	60	52	46	52	46	42	45	41	37	39	35	32	29
5	69	56	48	41	64	53	45	39	46	40	35	40	35	31	34	31	28	25
6	63	50	42	36	58	47	39	34	41	35	30	36	31	27	31	27	24	21
7	58	45	37	31	54	42	35	29	37	31	27	33	27	24	28	24	21	18
8	54	41	33	27	50	38	31	26	34	28	23	30	25	21	26	21	18	16
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	25	20	17	22	18	15	13

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

	0°	45°	90°
0°	5483	5483	5483
5°	5345	7408	9710
10°	5005	14346	18897
15°	4530	18664	21748
20°	4012	20533	22777
25°	3549	21957	23151
30°	3136	22613	23437
35°	2799	23006	25194
40°	2548	23225	26770
45°	2350	23336	28031
50°	2215	23785	28540
55°	2159	24403	28769
60°	2215	24726	28623
65°	2308	24386	27817
70°	2389	23580	21036
75°	2645	21185	11616
80°	2734	10934	10776
85°	2723	7577	4520

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 29026 cd/sqm



TEST NUMBER: P855240

CATALOG NUMBER: SQ2-FB-050U-075D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.9	1.0
10°-20°	259.7	4.7
20°-30°	456.9	8.2
30°-40°	591.4	10.6
40°-50°	652.3	11.7
50°-60°	609.0	10.9
60°-70°	470.7	8.4
70°-80°	217.1	3.9
80°-90°	41.9	0.8
90°-100°	142.7	2.6
100°-110°	452.5	8.1
110°-120°	443.7	8.0
120°-130°	361.1	6.5
130°-140°	294.4	5.3
140°-150°	229.5	4.1
150°-160°	165.4	3.0
160°-170°	101.0	1.8
170°-180°	34.1	0.6
0°-30°	773.5	13.9
0°-40°	1364.9	24.5
0°-60°	2626.2	47.1
0°-90°	3355.9	60.1
90°-120°	1038.9	18.6
90°-150°	1923.8	34.5
90°-180°	2224.0	39.9
0°-180°	5580.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	340	340	340	340	340	
5°	330	378	457	558	599	31
15°	271	534	1117	1250	1301	76
25°	199	718	1232	1287	1300	92
35°	142	693	1167	1208	1278	89
45°	103	531	1022	1173	1228	80
55°	77	316	867	996	1022	69
65°	60	179	638	715	728	59
75°	42	109	340	183	186	44
85°	15	32	41	28	24	15
90°	0	1	3	3	3	2
95°	19	58	259	96	62	22
105°	79	111	446	850	814	83
115°	141	167	360	749	881	139
125°	195	218	355	587	692	173
135°	235	259	352	505	569	182
145°	275	296	352	436	474	172
155°	313	324	354	389	404	144
165°	341	345	355	368	372	96
175°	357	356	357	359	358	34
180°	358	358	358	358	358	



TEST NUMBER: P855240

CATALOG NUMBER: SQ2-FB-050U-075D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	339.6	339.6	339.6	339.6	339.6
2.5°	336.9	351.0	367.0	385.4	393.1
5°	329.8	377.6	457.1	557.7	599.1
7.5°	317.0	414.4	664.7	933.7	1016.7
10°	305.3	441.0	875.0	1107.9	1152.6
12.5°	292.2	476.4	1007.0	1170.6	1216.5
15°	271.0	534.4	1116.6	1250.0	1301.1
17.5°	249.1	599.7	1167.5	1299.1	1326.9
20°	233.5	645.3	1195.0	1308.1	1325.6
22.5°	219.1	679.5	1214.6	1300.3	1319.1
25°	199.2	717.9	1232.5	1286.7	1299.5
27.5°	179.9	728.0	1224.7	1260.2	1272.7
30°	168.2	725.3	1212.9	1239.5	1257.1
32.5°	157.8	717.4	1195.9	1221.6	1259.7
35°	142.0	692.7	1167.2	1208.1	1278.2
37.5°	128.7	653.2	1129.4	1212.9	1280.6
40°	120.9	623.7	1101.9	1212.6	1270.1
42.5°	112.9	588.9	1070.6	1199.6	1257.1
45°	102.9	530.6	1022.0	1173.4	1227.6
47.5°	93.4	465.0	976.9	1137.1	1176.7
50°	88.2	420.2	946.9	1104.3	1136.2
52.5°	83.0	376.6	916.9	1065.1	1094.4
55°	76.7	316.2	866.9	996.4	1022.0
57.5°	71.2	264.4	810.0	920.6	941.3
60°	68.6	236.2	765.7	865.7	886.4
62.5°	64.6	210.5	716.0	808.2	827.7
65°	60.4	178.6	638.3	715.3	728.1
67.5°	54.5	154.8	555.8	602.8	578.8
70°	50.6	143.2	499.5	514.3	445.6
72.5°	48.0	130.4	438.2	399.3	269.3
75°	42.4	109.4	339.6	182.9	186.2
77.5°	34.6	84.8	223.3	140.4	143.4
80°	29.4	69.3	117.6	114.3	115.9
82.5°	24.2	53.9	81.0	84.2	81.9
85°	14.7	32.3	40.9	27.7	24.4
87.5°	5.2	11.9	7.2	7.2	7.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.0	80.0	26.6	18.7
95°	19.1	57.7	259.0	96.1	61.9
97.5°	35.6	74.8	438.9	274.2	168.3
100°	47.3	84.8	500.1	455.9	296.3
102.5°	60.0	95.6	489.3	669.6	512.5
105°	78.9	110.8	446.1	849.7	814.3
107.5°	97.8	127.3	404.8	868.4	916.0
110°	110.3	139.0	384.1	846.8	934.9



TEST NUMBER: P855240

CATALOG NUMBER: SQ2-FB-050U-075D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	123.0	149.8	372.4	809.5	921.4
115°	140.8	167.3	360.4	748.7	880.9
117.5°	158.1	183.2	355.7	690.1	823.4
120°	169.0	193.2	354.8	654.0	782.9
122.5°	179.8	203.1	354.8	624.9	745.0
125°	194.9	218.0	354.8	587.0	691.6
127.5°	208.1	230.4	354.8	557.6	646.7
130°	216.3	239.3	354.8	540.3	620.6
132.5°	224.4	247.5	353.9	526.6	599.0
135°	235.4	258.6	352.5	504.9	568.9
137.5°	246.3	270.5	352.3	484.4	541.4
140°	253.5	277.7	351.4	469.8	521.5
142.5°	262.4	285.7	352.3	455.3	503.5
145°	274.9	295.8	352.5	435.7	474.2
147.5°	287.2	305.1	352.7	418.4	449.8
150°	296.3	310.5	353.6	408.3	433.7
152.5°	303.4	316.0	353.6	400.2	421.1
155°	313.1	324.1	353.6	389.0	404.3
157.5°	323.5	331.0	354.8	382.0	392.7
160°	328.9	335.5	354.8	377.5	386.4
162.5°	334.3	339.2	354.8	373.9	380.0
165°	341.3	344.6	354.8	368.4	371.8
167.5°	347.9	348.7	355.9	364.6	367.5
170°	351.4	351.4	355.9	362.7	363.8
172.5°	353.2	354.1	355.9	360.9	361.1
175°	357.0	356.0	357.0	359.3	358.2
177.5°	358.2	357.3	357.3	359.1	357.3
180°	358.2	358.2	358.2	358.2	358.2

-----

TEST NUMBER: P855240

CATALOG NUMBER: SQ2-FB-050U-075D-835-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	13.85	14.85	14.71	15.73	16.85	22.59	23.58	23.45	24.47	25.58
	3H	14.59	15.49	15.46	16.38	17.52	24.22	25.11	25.09	26.01	27.15
	4H	14.90	15.74	15.79	16.64	17.80	24.41	25.25	25.30	26.15	27.30
	6H	15.12	15.90	16.02	16.81	17.97	24.50	25.28	25.40	26.19	27.35
	8H	15.19	15.93	16.09	16.85	18.02	24.51	25.25	25.42	26.18	27.34
	12H	15.22	15.92	16.13	16.84	18.03	24.49	25.19	25.40	26.11	27.30
4H	2H	18.27	19.11	19.16	20.01	21.16	23.05	23.89	23.94	24.79	25.94
	3H	19.21	19.92	20.12	20.85	22.02	24.89	25.59	25.79	26.52	27.69
	4H	19.50	20.14	20.42	21.07	22.26	25.13	25.77	26.05	26.70	27.89
	6H	19.64	20.20	20.57	21.15	22.34	25.28	25.84	26.21	26.79	27.98
	8H	19.67	20.18	20.60	21.13	22.34	25.31	25.83	26.25	26.77	27.98
	12H	19.66	20.13	20.62	21.09	22.31	25.29	25.76	26.25	26.72	27.94
8H	4H	20.69	21.21	21.62	22.15	23.36	25.26	25.78	26.19	26.72	27.93
	6H	20.93	21.36	21.89	22.35	23.55	25.47	25.90	26.43	26.89	28.09
	8H	21.01	21.38	21.98	22.36	23.58	25.53	25.91	26.50	26.89	28.11
	12H	21.04	21.37	22.01	22.34	23.61	25.53	25.87	26.51	26.84	28.11
12H	4H	20.71	21.18	21.67	22.14	23.36	25.22	25.68	26.17	26.65	27.86
	6H	21.03	21.41	22.00	22.38	23.61	25.46	25.83	26.43	26.81	28.04
	8H	21.14	21.47	22.11	22.44	23.71	25.53	25.86	26.50	26.83	28.11