

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: P855241

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855241
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-050D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

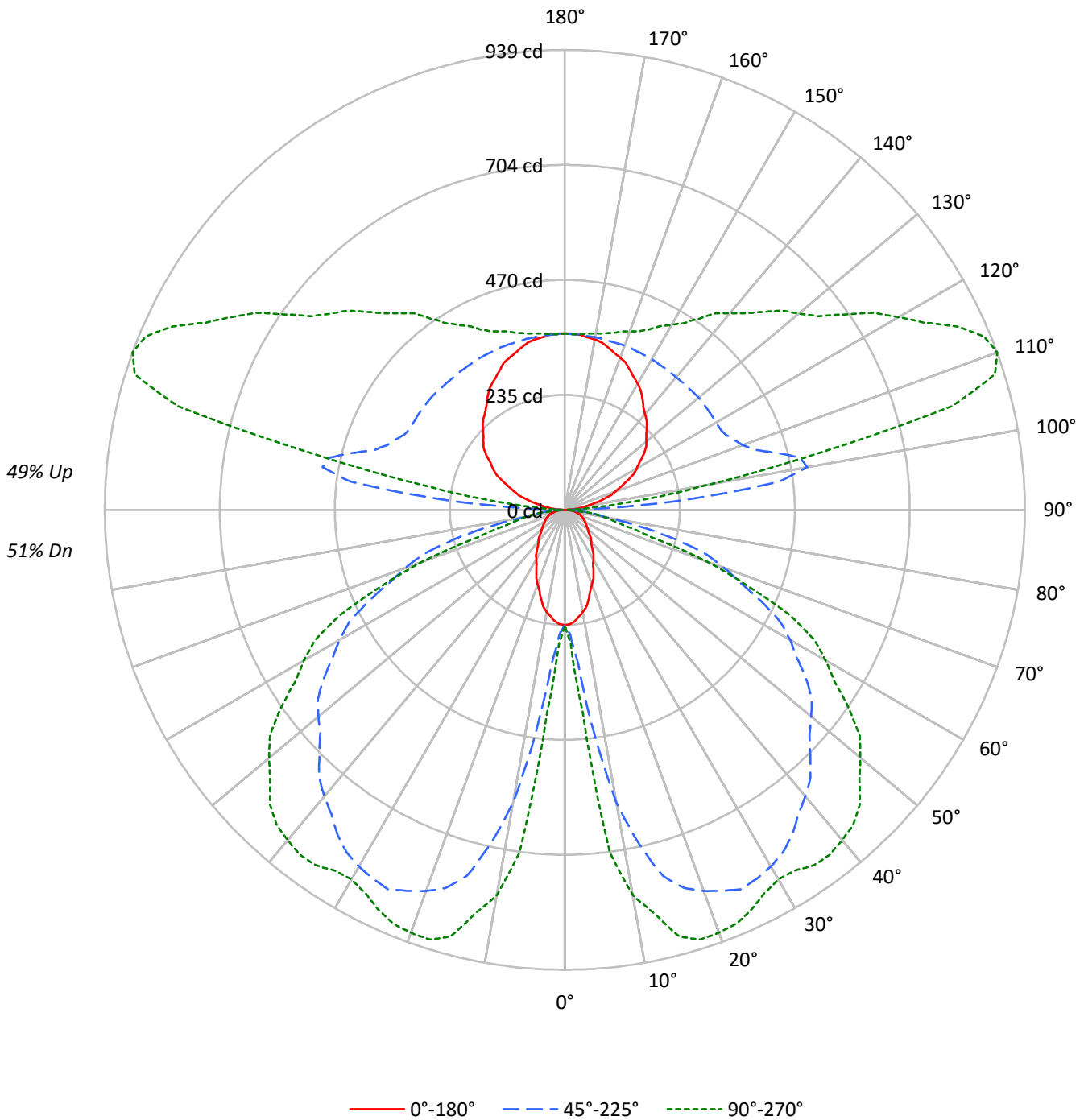
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4561.0 lumens
Efficiency: N/A
Efficacy: 139.9 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): 32.6
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: P855241
CATALOG NUMBER: SQ2-FB-050U-050D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855241

CATALOG NUMBER: SQ2-FB-050U-050D-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	50	30	10	0	
RCR																						
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51				
1	98	93	89	86	90	86	83	80	73	71	69	61	60	58	50	49	48	43				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	44	42	40	35				
3	81	71	63	57	74	66	59	54	56	51	47	47	43	40	38	36	33	29				
4	73	62	54	48	67	58	51	45	49	44	39	41	37	34	34	31	28	24				
5	67	55	47	41	62	51	44	38	44	38	33	37	32	29	30	27	24	21				
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	24	21	18				
7	57	44	36	30	52	41	34	29	35	29	25	30	25	22	24	21	18	16				
8	53	40	32	26	48	37	30	25	32	26	22	27	22	19	22	19	16	14				
9	49	36	29	23	45	34	27	22	29	23	19	25	20	17	20	17	14	12				
10	45	33	26	21	42	31	24	20	27	21	17	23	18	15	19	15	13	11				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3801	3801	3801
5°	3705	5136	6731
10°	3469	9945	13100
15°	3141	12939	15076
20°	2780	14234	15789
25°	2460	15221	16048
30°	2174	15676	16246
35°	1941	15948	17465
40°	1764	16101	18556
45°	1628	16175	19431
50°	1535	16488	19783
55°	1498	16915	19941
60°	1534	17140	19843
65°	1601	16905	19282
70°	1657	16348	14582
75°	1834	14685	8047
80°	1897	7578	7466
85°	1890	5243	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 20123 cd/sqm



TEST NUMBER: P855241

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.4	0.9
10°-20°	180.0	3.9
20°-30°	316.7	6.9
30°-40°	410.0	9.0
40°-50°	452.1	9.9
50°-60°	422.2	9.3
60°-70°	326.3	7.2
70°-80°	150.5	3.3
80°-90°	29.2	0.6
90°-100°	143.3	3.1
100°-110°	454.6	10.0
110°-120°	445.8	9.8
120°-130°	362.7	8.0
130°-140°	295.8	6.5
140°-150°	230.6	5.1
150°-160°	166.1	3.6
160°-170°	101.5	2.2
170°-180°	34.3	0.8
0°-30°	536.2	11.8
0°-40°	946.1	20.7
0°-60°	1820.4	39.9
0°-90°	2326.4	51.0
90°-120°	1043.6	22.9
90°-150°	1932.7	42.4
90°-180°	2235.0	49.0
0°-180°	4561.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	235	235	235	235	235	
5°	229	262	317	387	415	21
15°	188	370	774	866	902	52
25°	138	498	854	892	901	63
35°	98	480	809	837	886	62
45°	71	368	708	813	851	55
55°	53	219	601	691	708	48
65°	42	124	442	496	505	41
75°	29	76	235	127	129	30
85°	10	22	28	19	17	11
90°	0	1	3	3	3	1
95°	19	58	260	96	62	22
105°	79	111	448	854	818	84
115°	142	168	362	752	885	140
125°	196	219	356	590	695	174
135°	236	260	354	507	572	183
145°	276	297	354	438	476	173
155°	315	326	355	391	406	145
165°	343	346	356	370	373	97
175°	359	358	359	361	360	34
180°	360	360	360	360	360	

TEST NUMBER: P855241

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	235.4	235.4	235.4	235.4	235.4
2.5°	233.6	243.3	254.4	267.2	272.5
5°	228.6	261.8	316.9	386.6	415.3
7.5°	219.8	287.2	460.8	647.3	704.8
10°	211.6	305.7	606.6	767.9	799.0
12.5°	202.6	330.2	698.0	811.4	843.3
15°	187.9	370.4	774.1	866.5	901.9
17.5°	172.7	415.7	809.4	900.6	919.8
20°	161.8	447.3	828.4	906.8	918.9
22.5°	151.9	471.0	842.0	901.4	914.4
25°	138.1	497.7	854.4	892.0	900.8
27.5°	124.7	504.7	849.0	873.6	882.2
30°	116.6	502.7	840.8	859.3	871.4
32.5°	109.3	497.3	829.1	846.8	873.2
35°	98.5	480.2	809.1	837.4	886.1
37.5°	89.2	452.8	782.9	840.7	887.7
40°	83.7	432.3	763.9	840.6	880.4
42.5°	78.3	408.3	742.1	831.5	871.4
45°	71.3	367.8	708.4	813.4	851.0
47.5°	64.7	322.3	677.2	788.3	815.7
50°	61.1	291.3	656.4	765.5	787.6
52.5°	57.5	261.1	635.5	738.3	758.7
55°	53.2	219.2	600.9	690.8	708.4
57.5°	49.3	183.2	561.5	638.1	652.5
60°	47.5	163.8	530.8	600.1	614.5
62.5°	44.8	146.0	496.3	560.3	573.8
65°	41.9	123.8	442.5	495.9	504.7
67.5°	37.8	107.3	385.2	417.9	401.3
70°	35.1	99.2	346.3	356.5	308.9
72.5°	33.3	90.4	303.7	276.8	186.7
75°	29.4	75.9	235.4	126.7	129.0
77.5°	24.0	58.7	154.8	97.3	99.4
80°	20.4	48.0	81.5	79.2	80.3
82.5°	16.7	37.3	56.1	58.4	56.8
85°	10.2	22.4	28.3	19.2	17.0
87.5°	3.6	8.3	5.2	5.2	5.2
90°	0.0	1.1	3.4	3.4	3.4
92.5°	6.3	25.1	80.3	26.7	18.8
95°	19.2	57.9	260.3	96.5	62.2
97.5°	35.8	75.1	440.9	275.4	169.1
100°	47.5	85.1	502.5	458.0	297.6
102.5°	60.2	96.1	491.6	672.7	514.9
105°	79.2	111.2	448.1	853.5	818.1
107.5°	98.2	127.9	406.7	872.4	920.2
110°	110.9	139.6	385.9	850.7	939.2



TEST NUMBER: P855241

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	123.6	150.5	374.1	813.2	925.6
115°	141.5	168.1	362.1	752.1	884.8
117.5°	158.9	184.1	357.4	693.3	827.1
120°	169.7	194.1	356.5	656.9	786.4
122.5°	180.6	204.0	356.5	627.8	748.4
125°	195.8	219.0	356.5	589.7	694.7
127.5°	209.1	231.4	356.5	560.2	649.7
130°	217.3	240.5	356.5	542.7	623.4
132.5°	225.4	248.6	355.6	528.9	601.8
135°	236.5	259.7	354.2	507.2	571.5
137.5°	247.4	271.7	354.0	486.5	543.9
140°	254.6	279.0	353.1	471.9	524.0
142.5°	263.7	287.1	354.0	457.3	505.9
145°	276.1	297.2	354.2	437.6	476.4
147.5°	288.6	306.5	354.4	420.3	452.0
150°	297.6	312.0	355.3	410.2	435.7
152.5°	304.9	317.4	355.3	402.0	423.0
155°	314.6	325.7	355.3	390.8	406.3
157.5°	325.0	332.5	356.5	383.9	394.5
160°	330.4	337.0	356.5	379.2	388.2
162.5°	335.9	340.7	356.5	375.6	381.8
165°	342.9	346.2	356.5	370.1	373.4
167.5°	349.5	350.4	357.6	366.2	369.1
170°	353.1	353.1	357.6	364.4	365.5
172.5°	354.9	355.8	357.6	362.6	362.8
175°	358.7	357.6	358.7	360.9	359.9
177.5°	359.9	359.0	359.0	360.7	359.0
180°	359.9	359.9	359.9	359.9	359.9

TEST NUMBER: P855241

CATALOG NUMBER: SQ2-FB-050U-050D-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	11.80	12.69	12.74	13.66	14.91	20.53	21.43	21.47	22.39	23.65
	3H	12.53	13.33	13.48	14.31	15.58	22.16	22.96	23.11	23.93	25.21
	4H	12.83	13.59	13.80	14.57	15.85	22.34	23.10	23.31	24.08	25.36
	6H	13.05	13.75	14.03	14.73	16.03	22.43	23.13	23.41	24.11	25.41
	8H	13.11	13.78	14.09	14.78	16.07	22.43	23.10	23.42	24.10	25.40
	12H	13.14	13.77	14.13	14.77	16.09	22.40	23.04	23.40	24.03	25.35
4H	2H	16.20	16.96	17.17	17.94	19.22	20.98	21.74	21.95	22.72	24.00
	3H	17.13	17.77	18.12	18.78	20.08	22.81	23.44	23.79	24.45	25.75
	4H	17.42	18.00	18.41	19.00	20.32	23.05	23.63	24.04	24.63	25.95
	6H	17.55	18.05	18.56	19.08	20.40	23.19	23.69	24.20	24.72	26.04
	8H	17.58	18.04	18.58	19.06	20.39	23.22	23.69	24.23	24.70	26.04
	12H	17.57	17.99	18.60	19.02	20.36	23.20	23.62	24.22	24.65	25.99
8H	4H	18.60	19.06	19.61	20.08	21.42	23.17	23.63	24.18	24.65	25.99
	6H	18.84	19.22	19.87	20.28	21.61	23.38	23.76	24.41	24.82	26.15
	8H	18.91	19.25	19.95	20.29	21.64	23.44	23.77	24.48	24.82	26.17
	12H	18.94	19.23	19.98	20.27	21.67	23.43	23.73	24.48	24.77	26.16
12H	4H	18.62	19.04	19.64	20.07	21.41	23.12	23.54	24.15	24.57	25.92
	6H	18.93	19.27	19.97	20.31	21.67	23.36	23.70	24.40	24.74	26.09
	8H	19.04	19.33	20.08	20.37	21.77	23.43	23.72	24.47	24.76	26.16