

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: P855110

Luminaire Tested: SQ2-PR1-075U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855110
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-075U-050D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

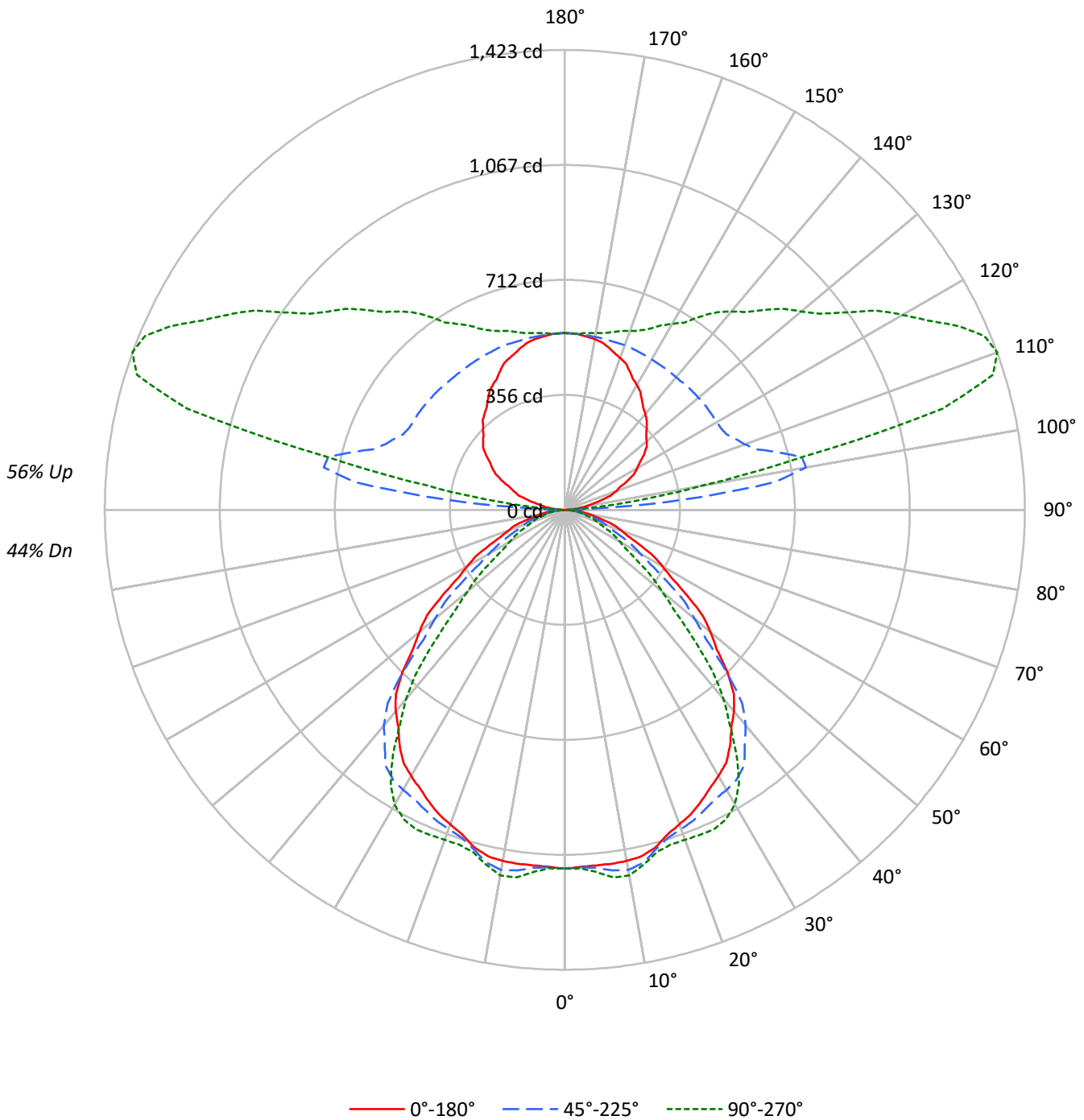
Lumens per Lamp: N/A
Luminaire Lumens: 6055.0 lumens
Efficiency: N/A
Efficacy: 147.3 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 41.1
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: P855110

CATALOG NUMBER: SQ2-PR1-075U-050D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855110

CATALOG NUMBER: SQ2-PR1-075U-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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				44
1	97	93	89	86	89	85	82	79	71	69	67	58	56	55	46	45	44				38	
2	89	82	76	71	81	75	70	66	63	59	56	51	49	47	41	39	38				33	
3	81	72	65	60	74	67	61	56	56	51	48	46	43	40	37	35	33				28	
4	75	64	57	51	68	59	53	48	50	45	41	41	38	35	33	31	29				25	
5	69	57	50	44	63	53	46	41	45	40	36	37	33	30	30	27	25				22	
6	63	52	44	38	58	48	41	36	40	35	31	34	30	27	27	25	22				19	
7	59	47	39	34	54	43	36	32	37	31	28	31	27	24	25	22	20				17	
8	54	42	35	30	50	39	33	28	34	28	25	28	24	21	23	20	18				16	
9	51	39	31	27	46	36	29	25	31	26	22	26	22	19	21	18	16				14	
10	47	35	28	24	43	33	27	22	28	23	20	24	20	17	20	17	15				13	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17925	17925	17925
5°	17901	18011	18232
10°	18090	18554	18831
15°	18084	18178	18330
20°	17792	18063	18667
25°	17742	18246	19434
30°	17723	18651	19621
35°	17554	19048	18268
40°	17150	18341	16075
45°	16228	16098	12714
50°	14752	13162	9864
55°	12966	10832	7676
60°	11218	8661	6323
65°	9685	7179	5536
70°	8710	6359	4914
75°	7979	5508	4517
80°	6946	4417	4417
85°	5039	3983	2093

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17543 cd/sqm



TEST NUMBER: P855110

CATALOG NUMBER: SQ2-PR1-075U-050D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	1.8
10°-20°	310.3	5.1
20°-30°	479.7	7.9
30°-40°	577.0	9.5
40°-50°	518.1	8.6
50°-60°	347.1	5.7
60°-70°	201.9	3.3
70°-80°	103.7	1.7
80°-90°	26.1	0.4
90°-100°	206.7	3.4
100°-110°	685.2	11.3
110°-120°	680.0	11.2
120°-130°	553.9	9.1
130°-140°	450.2	7.4
140°-150°	349.6	5.8
150°-160°	251.9	4.2
160°-170°	154.3	2.5
170°-180°	52.1	0.9
0°-30°	897.3	14.8
0°-40°	1474.3	24.3
0°-60°	2339.5	38.6
0°-90°	2671.2	44.1
90°-120°	1571.9	26.0
90°-150°	2925.6	48.3
90°-180°	3384.0	55.9
0°-180°	6055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1104	1123	1111	1114	1125	105
15°	1082	1126	1088	1091	1097	304
25°	996	1036	1024	1062	1091	459
35°	891	898	966	948	927	555
45°	711	768	705	594	557	544
55°	461	478	385	297	273	414
65°	254	259	188	152	145	256
75°	128	125	88	75	72	136
85°	27	22	22	15	11	34
90°	0	1	3	4	4	2
95°	29	87	375	134	89	34
105°	120	171	686	1294	1210	127
115°	214	256	552	1150	1344	211
125°	299	332	542	903	1065	266
135°	358	394	537	775	875	277
145°	415	446	536	667	730	261
155°	474	491	540	596	618	218
165°	520	526	542	564	569	147
175°	544	544	545	549	548	52
180°	546	546	546	546	546	



TEST NUMBER: P855110

CATALOG NUMBER: SQ2-PR1-075U-050D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1110.2	1110.2	1110.2	1110.2	1110.2
2.5°	1105.6	1118.9	1106.5	1107.6	1110.2
5°	1104.5	1123.3	1111.3	1113.8	1124.9
7.5°	1104.3	1131.1	1125.3	1132.2	1146.8
10°	1103.4	1135.5	1131.7	1133.1	1148.6
12.5°	1097.9	1135.4	1118.1	1116.7	1125.1
15°	1081.9	1126.1	1087.5	1091.0	1096.6
17.5°	1053.6	1099.9	1063.1	1075.5	1086.4
20°	1035.5	1080.9	1051.3	1067.6	1086.4
22.5°	1019.2	1064.6	1040.5	1063.2	1089.1
25°	995.9	1035.7	1024.2	1062.2	1090.9
27.5°	971.4	994.8	1008.5	1059.5	1079.6
30°	950.6	966.1	1000.4	1044.8	1052.4
32.5°	928.0	937.2	989.5	1012.6	1002.7
35°	890.6	898.4	966.4	947.9	926.8
37.5°	846.3	862.2	914.6	861.1	837.0
40°	813.7	840.3	870.2	790.5	762.7
42.5°	773.8	816.4	811.4	709.7	675.8
45°	710.7	768.3	705.0	594.3	556.8
47.5°	636.2	695.3	591.9	493.1	457.9
50°	587.3	634.9	524.0	431.4	392.7
52.5°	537.5	571.8	466.0	373.6	338.4
55°	460.6	478.2	384.8	297.1	272.7
57.5°	390.0	401.3	314.4	239.9	222.0
60°	347.4	355.1	268.2	210.1	195.8
62.5°	308.5	314.5	231.1	184.9	174.0
65°	253.5	259.0	187.9	152.5	144.9
67.5°	209.8	212.6	154.6	126.9	119.5
70°	184.5	185.6	134.7	109.7	104.1
72.5°	161.8	160.2	115.7	95.2	91.4
75°	127.9	124.6	88.3	74.7	72.4
77.5°	95.5	92.0	62.0	57.5	57.5
80°	74.7	70.3	47.5	47.5	47.5
82.5°	55.7	49.5	36.7	36.7	35.8
85°	27.2	21.6	21.5	14.6	11.3
87.5°	7.2	7.5	3.4	3.6	3.6
90°	0.0	1.1	3.4	4.5	4.5
92.5°	9.1	35.0	103.0	33.4	28.1
95°	29.4	86.9	374.6	133.6	89.4
97.5°	54.1	114.3	653.8	381.3	241.0
100°	71.3	128.8	757.0	650.1	431.2
102.5°	90.3	146.1	750.6	993.6	750.6
105°	120.0	170.9	685.7	1293.7	1209.6
107.5°	150.3	195.7	623.4	1324.2	1388.1
110°	167.5	212.9	591.7	1294.1	1423.4



TEST NUMBER: P855110

CATALOG NUMBER: SQ2-PR1-075U-050D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	185.6	230.1	572.7	1240.5	1405.3
115°	213.9	255.9	552.1	1149.5	1344.3
117.5°	241.9	279.3	544.7	1062.6	1266.9
120°	259.2	295.6	542.0	1008.2	1206.2
122.5°	274.5	310.2	542.0	963.5	1146.5
125°	298.8	331.9	542.0	903.2	1064.8
127.5°	318.7	351.2	540.6	857.7	995.8
130°	330.4	364.7	539.7	831.1	955.0
132.5°	341.3	376.5	538.8	809.1	920.6
135°	357.6	394.0	537.4	775.1	874.7
137.5°	375.3	410.3	536.1	742.3	830.1
140°	387.0	421.3	535.2	720.3	801.1
142.5°	397.9	431.3	536.1	698.5	770.3
145°	415.3	446.2	536.3	666.8	729.8
147.5°	434.1	459.9	536.5	640.0	686.8
150°	445.9	469.1	537.4	624.3	664.2
152.5°	456.6	479.0	538.3	611.6	643.4
155°	474.1	490.7	539.7	595.7	617.8
157.5°	491.0	503.9	541.0	584.5	600.1
160°	500.1	511.2	542.0	576.2	588.4
162.5°	509.1	517.6	542.0	570.7	580.2
165°	520.5	526.0	542.0	563.6	569.1
167.5°	530.9	533.8	543.1	557.2	560.1
170°	536.3	537.4	543.1	554.5	555.5
172.5°	539.9	541.0	544.0	551.7	551.9
175°	544.2	544.2	545.3	548.7	547.6
177.5°	546.5	546.5	545.6	547.4	545.6
180°	546.5	546.5	546.5	546.5	546.5



TEST NUMBER: P855110

CATALOG NUMBER: SQ2-PR1-075U-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	16.23	17.01	17.25	18.03	19.38	12.96	13.73	13.97	14.75	16.11
	3H	17.46	18.15	18.48	19.18	20.55	14.02	14.71	15.04	15.74	17.11
	4H	17.91	18.56	18.94	19.59	20.98	14.41	15.07	15.45	16.10	17.48
	6H	18.22	18.82	19.27	19.86	21.25	14.74	15.34	15.79	16.37	17.77
	8H	18.30	18.87	19.35	19.92	21.31	14.82	15.39	15.87	16.44	17.84
	12H	18.33	18.87	19.38	19.91	21.33	14.83	15.37	15.88	16.41	17.83
4H	2H	16.30	16.95	17.34	17.98	19.37	13.51	14.17	14.56	15.20	16.58
	3H	17.76	18.31	18.81	19.36	20.76	14.77	15.32	15.82	16.38	17.77
	4H	18.35	18.85	19.41	19.90	21.32	15.28	15.77	16.33	16.82	18.24
	6H	18.80	19.23	19.87	20.30	21.72	15.71	16.13	16.77	17.21	18.62
	8H	18.93	19.33	20.00	20.40	21.83	15.83	16.23	16.90	17.29	18.72
	12H	18.98	19.34	20.07	20.42	21.86	15.85	16.21	16.93	17.28	18.72
8H	4H	18.38	18.77	19.44	19.84	21.27	15.58	15.97	16.64	17.04	18.47
	6H	18.92	19.25	20.01	20.36	21.78	16.11	16.44	17.20	17.54	18.97
	8H	19.12	19.41	20.22	20.50	21.94	16.29	16.58	17.39	17.67	19.12
	12H	19.22	19.47	20.32	20.56	22.05	16.35	16.61	17.45	17.69	19.18
12H	4H	18.33	18.69	19.41	19.77	21.20	15.59	15.95	16.67	17.03	18.46
	6H	18.91	19.20	20.00	20.29	21.73	16.17	16.46	17.27	17.55	18.99
	8H	19.12	19.37	20.22	20.46	21.94	16.37	16.63	17.47	17.71	19.20