

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: P855086

Luminaire Tested: SQ2-PW1-050U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855086
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050U-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

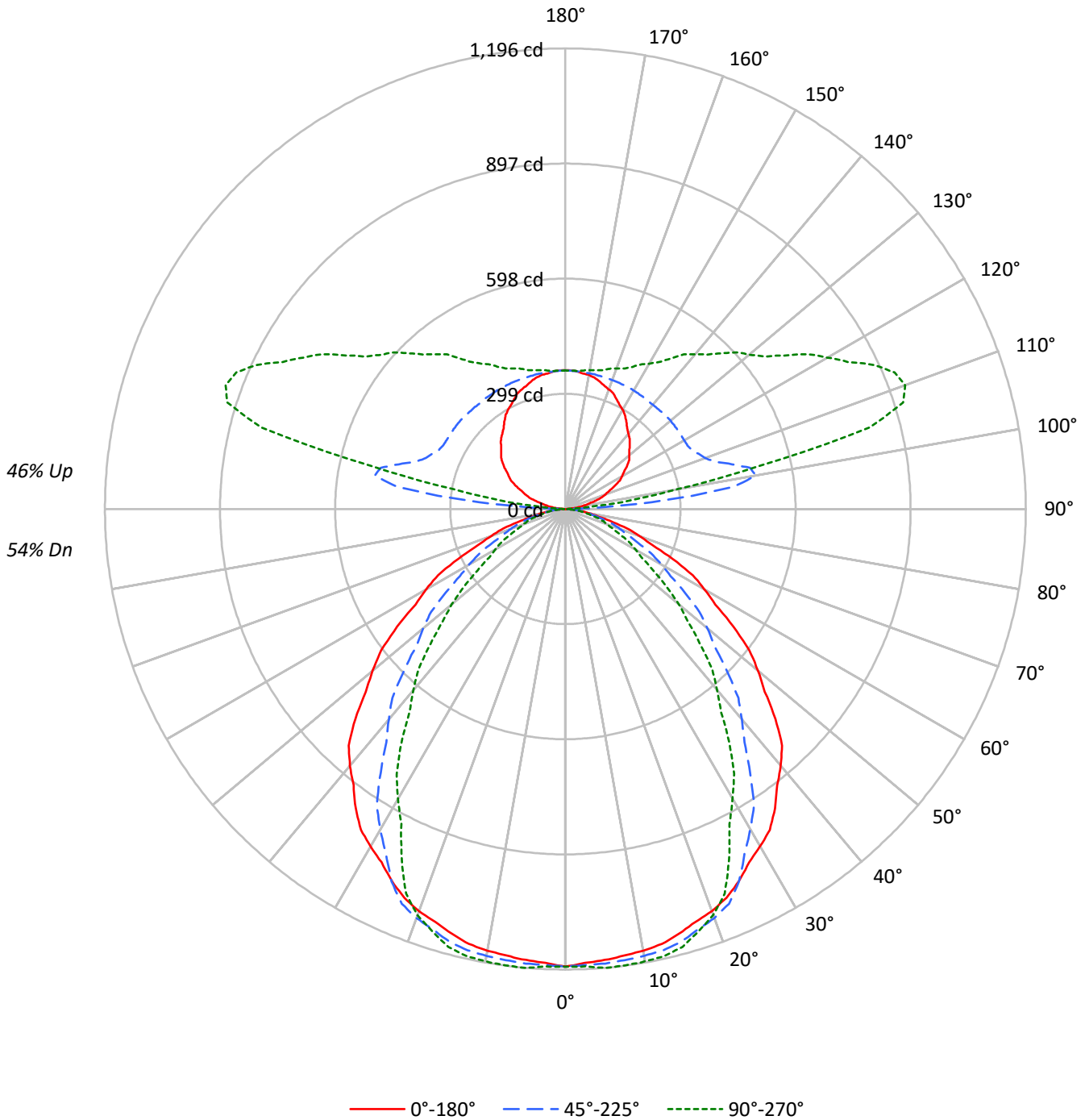
Lumens per Lamp: N/A
Luminaire Lumens: 4871.6 lumens
Efficiency: N/A
Efficacy: 149.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

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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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54	54	54	54	
1	99	95	92	88	92	89	85	83	76	74	72	65	63	61	54	53	52	47	47	47	47	
2	91	84	78	73	84	78	73	69	67	64	60	57	55	52	48	46	45	40	40	40	40	
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	39	35	35	35	35	
4	77	66	59	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30	30	30	30	
5	71	59	51	46	65	55	48	43	48	43	39	42	37	34	35	32	30	27	27	27	27	
6	65	53	45	40	60	50	43	38	44	38	34	38	34	30	32	29	27	24	24	24	24	
7	60	48	41	35	56	45	38	33	40	34	30	35	30	27	30	26	24	21	21	21	21	
8	56	44	36	31	52	41	35	30	36	31	27	32	27	24	27	24	21	19	19	19	19	
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	25	22	20	17	17	17	17	
10	49	37	30	25	46	35	29	24	31	26	22	27	23	20	24	20	18	16	16	16	16	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19184	19184	19184
5°	19057	19204	19387
10°	19092	19315	19556
15°	19086	19447	19672
20°	19094	19424	19289
25°	18991	19012	17922
30°	18862	17913	16203
35°	18715	16484	14633
40°	18341	15026	12929
45°	17623	13515	11291
50°	16402	12082	9666
55°	15004	10671	7837
60°	13449	9281	6762
65°	11759	8000	6010
70°	9616	7105	5448
75°	7486	6145	5009
80°	5579	5263	4417
85°	3779	3983	2519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17623 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.1	2.3
10°-20°	327.8	6.7
20°-30°	482.4	9.9
30°-40°	527.5	10.8
40°-50°	473.2	9.7
50°-60°	353.0	7.2
60°-70°	223.1	4.6
70°-80°	110.5	2.3
80°-90°	26.3	0.5
90°-100°	143.3	2.9
100°-110°	454.6	9.3
110°-120°	445.8	9.2
120°-130°	362.7	7.4
130°-140°	295.8	6.1
140°-150°	230.6	4.7
150°-160°	166.1	3.4
160°-170°	101.5	2.1
170°-180°	34.3	0.7
0°-30°	923.4	19.0
0°-40°	1450.9	29.8
0°-60°	2277.1	46.7
0°-90°	2637.0	54.1
90°-120°	1043.6	21.4
90°-150°	1932.7	39.7
90°-180°	2235.0	45.9
0°-180°	4871.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1188	1188	1188	1188	1188	
5°	1176	1195	1185	1186	1196	112
15°	1142	1164	1163	1171	1177	322
25°	1066	1089	1067	1023	1006	491
35°	950	940	836	763	742	592
45°	772	710	592	518	494	592
55°	533	482	379	297	278	476
65°	308	282	209	168	157	305
75°	120	129	98	83	80	132
85°	20	26	22	15	14	26
90°	0	1	3	3	3	2
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1188.2	1188.2	1188.2	1188.2	1188.2
2.5°	1180.1	1195.2	1185.5	1186.5	1189.2
5°	1175.8	1194.6	1184.9	1186.2	1196.2
7.5°	1169.9	1188.9	1181.7	1185.8	1195.5
10°	1164.5	1184.4	1178.1	1183.9	1192.8
12.5°	1157.2	1178.1	1173.5	1180.3	1189.2
15°	1141.8	1164.0	1163.4	1171.4	1176.9
17.5°	1124.0	1146.1	1145.0	1147.2	1149.8
20°	1111.3	1133.5	1130.5	1122.6	1122.6
22.5°	1093.2	1117.1	1109.7	1088.1	1081.0
25°	1066.0	1089.2	1067.2	1022.7	1006.0
27.5°	1034.3	1053.1	1008.8	945.5	922.5
30°	1011.7	1026.1	960.8	891.3	869.1
32.5°	988.2	993.7	911.9	839.6	815.7
35°	949.5	939.5	836.3	763.4	742.4
37.5°	903.7	874.1	763.6	687.3	664.1
40°	870.2	828.3	712.9	636.6	613.4
42.5°	833.1	780.5	665.0	588.6	564.5
45°	771.8	709.9	591.9	517.7	494.5
47.5°	702.8	641.2	523.5	451.8	431.8
50°	653.0	593.2	481.0	409.1	384.8
52.5°	602.3	548.7	439.3	365.4	332.3
55°	533.0	482.1	379.1	297.2	278.4
57.5°	461.7	417.7	324.6	250.2	234.7
60°	416.5	377.7	287.4	224.9	209.4
62.5°	373.0	338.7	251.2	201.3	188.5
65°	307.8	282.4	209.4	168.4	157.3
67.5°	244.4	230.3	174.0	138.2	130.8
70°	203.7	199.3	150.5	121.0	115.4
72.5°	168.4	170.2	127.9	104.7	100.9
75°	120.0	128.8	98.5	82.6	80.3
77.5°	81.7	94.9	72.9	61.1	59.3
80°	60.0	73.2	56.6	47.5	47.5
82.5°	41.9	52.5	40.3	35.8	35.8
85°	20.4	25.9	21.5	14.7	13.6
87.5°	5.4	8.3	4.3	3.4	3.4
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



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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



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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	17.70	18.55	18.63	19.50	20.71	14.18	15.04	15.11	15.98	17.20
	3H	19.02	19.78	19.96	20.74	21.97	15.39	16.15	16.33	17.11	18.34
	4H	19.39	20.12	20.35	21.07	22.32	15.84	16.56	16.79	17.51	18.76
	6H	19.60	20.26	20.56	21.22	22.48	16.15	16.82	17.12	17.78	19.04
	8H	19.63	20.26	20.60	21.24	22.50	16.23	16.86	17.20	17.84	19.09
	12H	19.63	20.23	20.60	21.20	22.48	16.24	16.84	17.22	17.81	19.09
4H	2H	17.80	18.52	18.76	19.48	20.73	14.87	15.59	15.83	16.54	17.79
	3H	19.34	19.95	20.32	20.93	22.19	16.25	16.85	17.22	17.84	19.10
	4H	19.85	20.40	20.83	21.38	22.67	16.80	17.35	17.78	18.33	19.61
	6H	20.18	20.66	21.18	21.66	22.94	17.20	17.67	18.20	18.68	19.96
	8H	20.26	20.70	21.26	21.70	23.00	17.31	17.75	18.30	18.74	20.04
	12H	20.28	20.67	21.29	21.69	22.99	17.33	17.73	18.34	18.74	20.04
8H	4H	19.89	20.33	20.89	21.33	22.62	17.13	17.57	18.12	18.56	19.86
	6H	20.33	20.69	21.35	21.73	23.02	17.63	17.99	18.65	19.03	20.33
	8H	20.47	20.79	21.50	21.82	23.13	17.79	18.11	18.82	19.14	20.45
	12H	20.54	20.82	21.57	21.84	23.20	17.86	18.14	18.88	19.15	20.51
12H	4H	19.85	20.25	20.86	21.26	22.56	17.14	17.54	18.15	18.55	19.85
	6H	20.32	20.64	21.34	21.66	22.98	17.70	18.02	18.72	19.04	20.36
	8H	20.48	20.76	21.51	21.78	23.14	17.88	18.16	18.91	19.18	20.54