

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: P854262

Luminaire Tested: SQ2-PW1-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854262
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

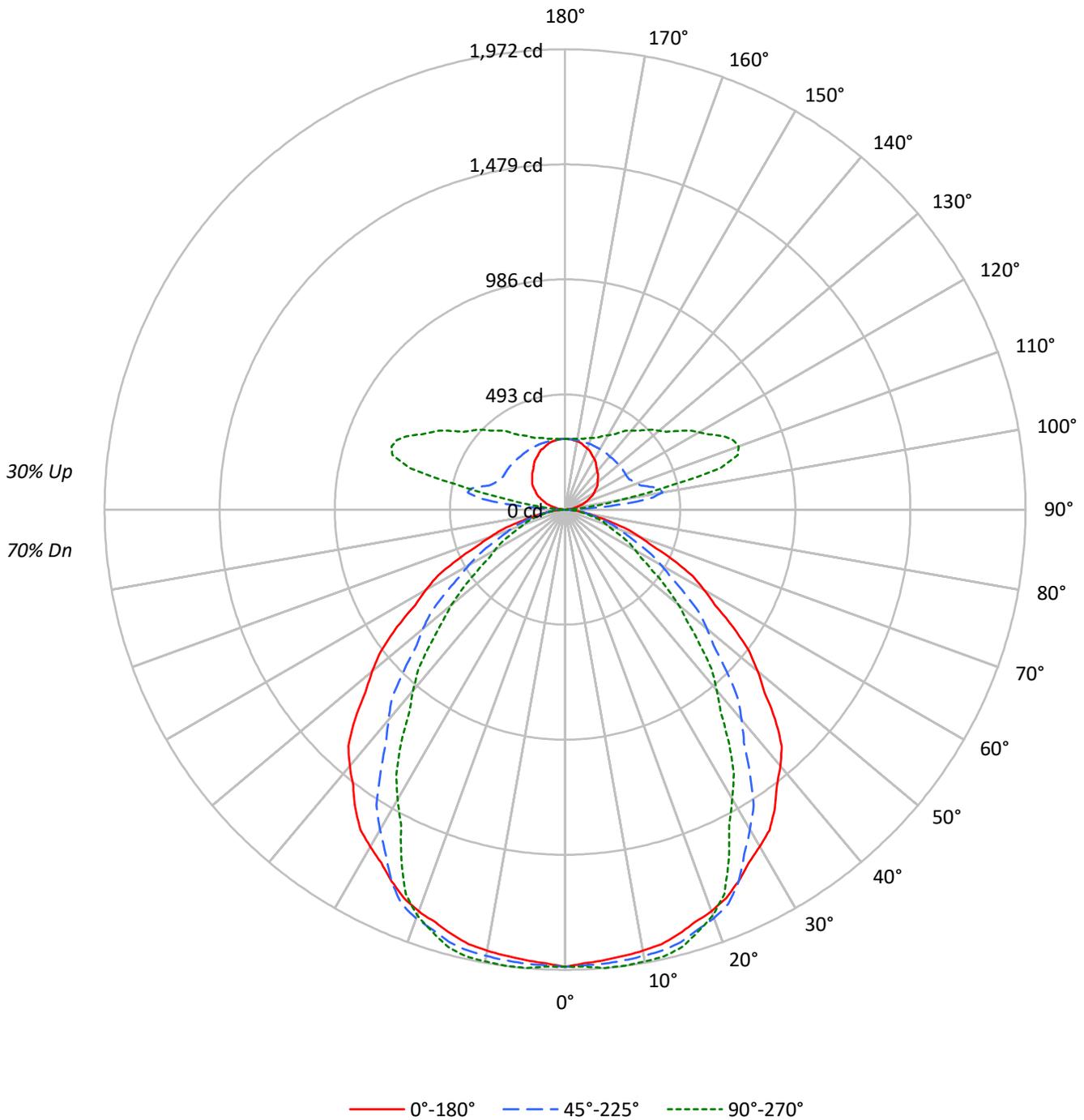
Lumens per Lamp: N/A
Luminaire Lumens: 6228.4 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 52.4
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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	103	99	95	92	97	94	91	88	84	82	79	75	73	72	67	66	64	64	64	64	60	
2	95	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	55	55	55	55	52	
3	87	78	70	65	82	74	67	62	67	61	57	60	56	53	54	51	48	48	48	48	45	
4	80	69	61	55	75	66	59	53	60	54	50	54	49	46	49	45	42	42	42	42	39	
5	74	62	54	48	70	59	52	47	54	48	43	49	44	40	44	40	37	37	37	37	34	
6	68	56	48	42	64	54	46	41	49	43	38	44	40	36	40	36	33	33	33	33	31	
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	30	30	30	27	
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	27	27	27	25	
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	24	24	24	22	
10	52	39	32	27	49	38	31	27	35	29	25	32	27	24	29	25	22	22	22	22	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31625	31625	31625
5°	31413	31657	31958
10°	31472	31839	32236
15°	31463	32055	32430
20°	31476	32020	31797
25°	31306	31338	29544
30°	31092	29528	26711
35°	30849	27173	24122
40°	30237	24770	21311
45°	29051	22277	18614
50°	27038	19914	15933
55°	24732	17591	12918
60°	22168	15300	11144
65°	19385	13184	9906
70°	15852	11712	8984
75°	12333	10125	8259
80°	9196	8675	7280
85°	6224	6558	4150

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29051 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.5	3.0
10°-20°	540.4	8.7
20°-30°	795.3	12.8
30°-40°	869.5	14.0
40°-50°	780.0	12.5
50°-60°	581.8	9.3
60°-70°	367.7	5.9
70°-80°	182.2	2.9
80°-90°	43.0	0.7
90°-100°	120.7	1.9
100°-110°	382.8	6.1
110°-120°	375.4	6.0
120°-130°	305.5	4.9
130°-140°	249.1	4.0
140°-150°	194.2	3.1
150°-160°	139.9	2.2
160°-170°	85.5	1.4
170°-180°	28.9	0.5
0°-30°	1522.2	24.4
0°-40°	2391.7	38.4
0°-60°	3753.6	60.3
0°-90°	4346.5	69.8
90°-120°	879.0	14.1
90°-150°	1627.7	26.1
90°-180°	1882.0	30.2
0°-180°	6228.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1959	1959	1959	1959	1959	
5°	1938	1969	1953	1955	1972	184
15°	1882	1919	1918	1931	1940	531
25°	1757	1796	1759	1686	1658	809
35°	1565	1549	1379	1258	1224	976
45°	1272	1170	976	854	815	976
55°	879	795	625	490	459	785
65°	507	466	345	278	259	503
75°	198	212	162	136	132	218
85°	34	43	35	24	22	43
90°	0	1	3	3	3	2
95°	16	49	219	81	52	19
105°	67	94	377	719	689	70
115°	119	142	305	633	745	118
125°	165	184	300	497	585	147
135°	199	219	298	427	481	154
145°	232	250	298	369	401	146
155°	265	274	299	329	342	122
165°	289	292	300	312	314	81
175°	302	301	302	304	303	29
180°	303	303	303	303	303	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1958.7	1958.7	1958.7	1958.7	1958.7
2.5°	1945.3	1970.1	1954.3	1955.9	1960.2
5°	1938.2	1969.2	1953.2	1955.4	1971.8
7.5°	1928.5	1959.9	1947.9	1954.6	1970.7
10°	1919.6	1952.4	1942.0	1951.6	1966.2
12.5°	1907.6	1941.9	1934.5	1945.6	1960.2
15°	1882.3	1918.7	1917.7	1931.0	1940.1
17.5°	1852.8	1889.3	1887.5	1890.9	1895.3
20°	1831.9	1868.4	1863.6	1850.6	1850.6
22.5°	1802.0	1841.4	1829.3	1793.6	1781.9
25°	1757.3	1795.6	1759.1	1685.8	1658.4
27.5°	1705.0	1736.1	1662.9	1558.7	1520.7
30°	1667.7	1691.4	1583.8	1469.2	1432.7
32.5°	1628.9	1638.1	1503.2	1384.0	1344.6
35°	1565.1	1548.7	1378.6	1258.4	1223.8
37.5°	1489.8	1440.9	1258.8	1133.0	1094.7
40°	1434.6	1365.2	1175.2	1049.4	1011.1
42.5°	1373.4	1286.5	1096.2	970.3	930.5
45°	1272.3	1170.1	975.6	853.5	815.2
47.5°	1158.5	1057.0	863.0	744.7	711.9
50°	1076.4	977.9	792.8	674.4	634.3
52.5°	992.8	904.5	724.2	602.4	547.7
55°	878.6	794.7	624.9	489.9	458.9
57.5°	761.1	688.5	535.0	412.4	386.9
60°	686.5	622.7	473.8	370.6	345.1
62.5°	614.9	558.3	414.1	331.9	310.8
65°	507.4	465.5	345.1	277.5	259.3
67.5°	402.9	379.6	286.9	227.7	215.6
70°	335.8	328.5	248.1	199.4	190.3
72.5°	277.6	280.5	210.8	172.6	166.4
75°	197.7	212.3	162.3	136.1	132.4
77.5°	134.7	156.6	120.1	100.7	97.8
80°	98.9	120.8	93.3	78.3	78.3
82.5°	69.0	86.5	66.4	58.9	58.9
85°	33.6	42.7	35.4	24.2	22.4
87.5°	9.0	13.5	6.5	5.0	5.0
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.3	21.2	67.7	22.5	15.8
95°	16.2	48.8	219.2	81.3	52.4
97.5°	30.1	63.3	371.3	232.0	142.4
100°	40.0	71.7	423.1	385.8	250.6
102.5°	50.7	80.9	414.0	566.5	433.6
105°	66.7	93.7	377.4	718.8	689.0
107.5°	82.7	107.7	342.5	734.7	775.0
110°	93.4	117.6	325.0	716.5	791.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	104.1	126.8	315.1	684.9	779.6
115°	119.1	141.5	305.0	633.4	745.3
117.5°	133.8	155.0	301.0	583.9	696.7
120°	143.0	163.5	300.2	553.3	662.3
122.5°	152.1	171.9	300.2	528.8	630.3
125°	164.9	184.4	300.2	496.6	585.2
127.5°	176.1	194.9	300.2	471.7	547.2
130°	183.0	202.5	300.2	457.1	525.1
132.5°	189.8	209.4	299.4	445.5	506.8
135°	199.2	218.7	298.3	427.2	481.3
137.5°	208.3	228.8	298.1	409.8	458.0
140°	214.4	234.9	297.3	397.4	441.2
142.5°	222.1	241.8	298.1	385.2	426.0
145°	232.5	250.2	298.3	368.6	401.2
147.5°	243.0	258.1	298.5	354.0	380.6
150°	250.6	262.8	299.2	345.5	366.9
152.5°	256.7	267.4	299.2	338.5	356.2
155°	264.9	274.3	299.2	329.1	342.1
157.5°	273.7	280.0	300.2	323.3	332.2
160°	278.3	283.9	300.2	319.4	326.9
162.5°	282.9	287.0	300.2	316.3	321.5
165°	288.8	291.6	300.2	311.7	314.5
167.5°	294.3	295.0	301.2	308.5	310.9
170°	297.3	297.3	301.2	306.9	307.8
172.5°	298.9	299.6	301.2	305.4	305.5
175°	302.1	301.2	302.1	304.0	303.1
177.5°	303.1	302.3	302.3	303.8	302.3
180°	303.1	303.1	303.1	303.1	303.1



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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	20.73	21.75	21.51	22.54	23.50	17.22	18.23	18.00	19.02	19.98
	3H	22.07	22.97	22.86	23.77	24.77	18.44	19.34	19.23	20.14	21.13
	4H	22.45	23.30	23.26	24.11	25.11	18.89	19.74	19.70	20.55	21.56
	6H	22.66	23.44	23.48	24.26	25.28	19.22	20.00	20.03	20.82	21.83
	8H	22.70	23.44	23.53	24.28	25.30	19.30	20.04	20.12	20.88	21.89
	12H	22.70	23.41	23.53	24.24	25.28	19.31	20.02	20.14	20.85	21.89
4H	2H	20.86	21.71	21.67	22.52	23.52	17.92	18.77	18.73	19.58	20.59
	3H	22.42	23.12	23.24	23.97	24.98	19.32	20.03	20.15	20.87	21.89
	4H	22.93	23.57	23.76	24.41	25.46	19.88	20.52	20.71	21.36	22.41
	6H	23.27	23.82	24.12	24.69	25.74	20.29	20.84	21.14	21.71	22.76
	8H	23.35	23.87	24.21	24.73	25.79	20.40	20.91	21.25	21.77	22.84
	12H	23.37	23.84	24.25	24.72	25.79	20.42	20.89	21.30	21.77	22.84
8H	4H	22.98	23.49	23.83	24.36	25.42	20.21	20.73	21.07	21.59	22.65
	6H	23.42	23.85	24.30	24.75	25.81	20.72	21.15	21.61	22.05	23.12
	8H	23.57	23.94	24.46	24.84	25.92	20.89	21.26	21.78	22.16	23.24
	12H	23.64	23.97	24.53	24.86	26.00	20.95	21.29	21.85	22.18	23.31
12H	4H	22.94	23.41	23.82	24.29	25.36	20.24	20.70	21.11	21.58	22.65
	6H	23.41	23.79	24.31	24.69	25.77	20.79	21.17	21.68	22.07	23.15
	8H	23.58	23.91	24.48	24.80	25.94	20.98	21.31	21.88	22.20	23.34