

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: P854192

Luminaire Tested: SQ2-PR1-075U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854192
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-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

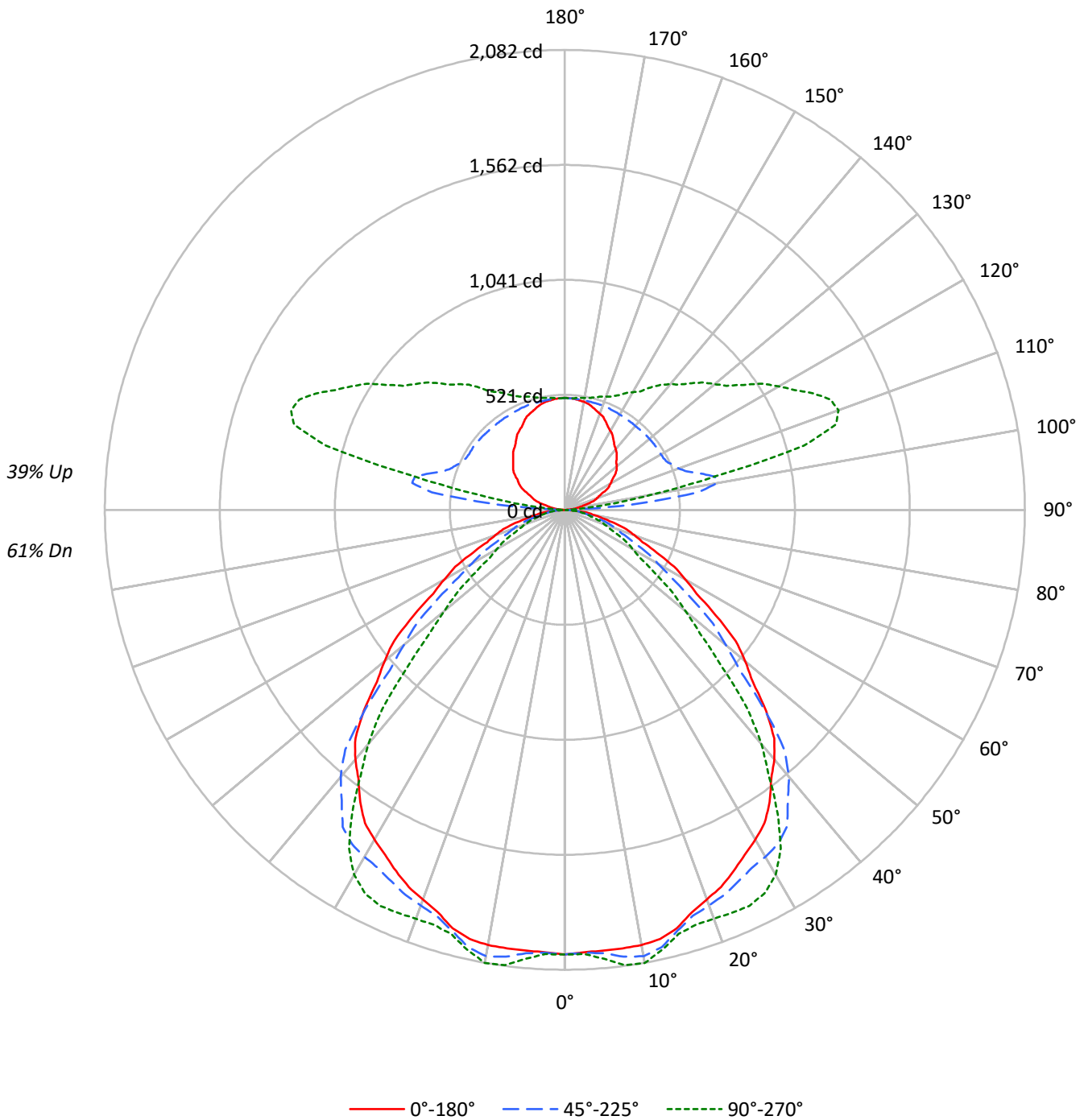
Lumens per Lamp: N/A
Luminaire Lumens: 7976.3 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 60.9
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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	66	66	66	61	
1	101	97	93	90	94	91	88	85	80	77	75	69	67	66	60	58	57	57	57	57	53	
2	93	85	80	75	86	80	75	71	71	67	63	62	59	56	53	51	49	49	49	49	45	
3	85	76	69	63	79	71	65	60	63	58	54	55	51	48	48	45	43	43	43	43	39	
4	78	68	60	54	73	64	57	52	56	51	47	50	45	42	43	40	37	37	37	37	34	
5	72	61	53	47	67	57	50	45	51	45	41	45	40	37	39	36	33	33	33	33	30	
6	66	55	47	41	62	52	44	39	46	40	36	41	36	33	36	32	29	29	29	29	27	
7	62	49	42	36	58	47	40	35	42	36	32	37	32	29	33	29	26	26	26	26	24	
8	57	45	37	32	54	43	36	31	38	33	28	34	29	26	30	26	24	24	24	24	21	
9	53	41	34	29	50	39	32	28	35	30	26	31	27	23	28	24	21	21	21	21	19	
10	50	38	31	26	47	36	29	25	32	27	23	29	25	21	26	22	20	20	20	20	18	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32495	32495	32495
5°	32454	32653	33052
10°	32795	33636	34141
15°	32784	32956	33230
20°	32254	32747	33840
25°	32163	33077	35234
30°	32130	33812	35572
35°	31824	34535	33119
40°	31091	33253	29145
45°	29419	29186	23048
50°	26746	23860	17882
55°	23505	19634	13917
60°	20337	15700	11460
65°	17559	13012	10032
70°	15786	11523	8908
75°	14460	9981	8191
80°	12590	8015	8015
85°	9114	7225	3798

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 31800 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.4	2.4
10°-20°	562.6	7.1
20°-30°	869.7	10.9
30°-40°	1046.1	13.1
40°-50°	939.3	11.8
50°-60°	629.2	7.9
60°-70°	366.0	4.6
70°-80°	188.0	2.4
80°-90°	46.9	0.6
90°-100°	191.4	2.4
100°-110°	634.6	8.0
110°-120°	629.9	7.9
120°-130°	513.0	6.4
130°-140°	417.0	5.2
140°-150°	323.8	4.1
150°-160°	233.3	2.9
160°-170°	142.9	1.8
170°-180°	48.3	0.6
0°-30°	1626.7	20.4
0°-40°	2672.8	33.5
0°-60°	4241.3	53.2
0°-90°	4842.1	60.7
90°-120°	1456.0	18.3
90°-150°	2709.8	34.0
90°-180°	3134.0	39.3
0°-180°	7976.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2013	2013	2013	2013	2013	
5°	2002	2036	2015	2019	2039	191
15°	1961	2042	1972	1978	1988	551
25°	1805	1878	1857	1926	1978	833
35°	1615	1629	1752	1718	1680	1007
45°	1288	1393	1278	1078	1009	986
55°	835	867	698	539	494	750
65°	460	470	341	277	263	465
75°	232	226	160	135	131	246
85°	49	39	39	26	20	61
90°	0	1	3	4	4	3
95°	27	80	347	124	83	31
105°	111	158	635	1198	1120	117
115°	198	237	512	1065	1245	196
125°	277	307	502	837	986	246
135°	331	365	498	718	810	256
145°	385	413	497	618	676	241
155°	439	454	500	552	572	202
165°	482	487	502	522	527	136
175°	504	504	505	508	507	48
180°	506	506	506	506	506	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2012.6	2012.6	2012.6	2012.6	2012.6
2.5°	2004.4	2028.5	2006.1	2007.8	2012.6
5°	2002.4	2036.5	2014.7	2019.2	2039.3
7.5°	2002.0	2050.5	2040.1	2052.6	2079.1
10°	2000.3	2058.5	2051.6	2054.3	2082.4
12.5°	1990.5	2058.3	2027.0	2024.5	2039.7
15°	1961.3	2041.6	1971.6	1978.0	1988.0
17.5°	1910.0	1993.9	1927.3	1949.9	1969.5
20°	1877.2	1959.5	1905.9	1935.4	1969.5
22.5°	1847.7	1929.9	1886.2	1927.5	1974.5
25°	1805.4	1877.6	1856.7	1925.6	1977.8
27.5°	1761.1	1803.6	1828.4	1920.7	1957.2
30°	1723.4	1751.4	1813.6	1894.0	1908.0
32.5°	1682.3	1699.2	1793.9	1835.8	1817.7
35°	1614.6	1628.7	1752.1	1718.4	1680.3
37.5°	1534.2	1563.1	1658.1	1561.1	1517.4
40°	1475.1	1523.3	1577.7	1432.9	1382.8
42.5°	1402.9	1479.9	1471.0	1286.6	1225.2
45°	1288.4	1392.7	1278.2	1077.6	1009.4
47.5°	1153.4	1260.5	1073.0	893.9	830.1
50°	1064.8	1151.0	949.9	782.1	711.9
52.5°	974.5	1036.7	844.9	677.2	613.4
55°	835.0	867.1	697.5	538.6	494.4
57.5°	707.0	727.4	569.9	435.0	402.5
60°	629.8	643.9	486.2	381.0	354.9
62.5°	559.3	570.1	418.9	335.2	315.5
65°	459.6	469.6	340.6	276.6	262.6
67.5°	380.4	385.6	280.2	229.9	216.6
70°	334.4	336.4	244.1	198.8	188.7
72.5°	293.4	290.6	209.7	172.6	165.8
75°	231.8	225.8	160.0	135.3	131.3
77.5°	173.2	166.7	112.4	104.2	104.2
80°	135.4	127.4	86.2	86.2	86.2
82.5°	100.9	89.7	66.5	66.4	64.8
85°	49.2	39.2	39.0	26.5	20.5
87.5°	13.1	13.3	5.6	5.8	5.8
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.4	95.4	30.9	26.0
95°	27.2	80.5	346.9	123.8	82.8
97.5°	50.1	105.8	605.6	353.2	223.2
100°	66.0	119.3	701.2	602.2	399.3
102.5°	83.6	135.3	695.3	920.3	695.3
105°	111.1	158.2	635.1	1198.3	1120.4
107.5°	139.2	181.2	577.5	1226.5	1285.8
110°	155.1	197.1	548.1	1198.6	1318.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.9	213.1	530.5	1149.0	1301.7
115°	198.1	237.0	511.5	1064.8	1245.1
117.5°	224.1	258.7	504.5	984.2	1173.4
120°	240.0	273.8	502.0	933.8	1117.2
122.5°	254.3	287.3	502.0	892.4	1061.9
125°	276.7	307.4	502.0	836.6	986.2
127.5°	295.1	325.3	500.8	794.4	922.3
130°	306.0	337.8	499.9	769.8	884.6
132.5°	316.1	348.7	499.1	749.4	852.7
135°	331.2	365.0	497.8	717.9	810.2
137.5°	347.5	380.1	496.6	687.5	768.9
140°	358.4	390.2	495.7	667.2	742.0
142.5°	368.5	399.5	496.6	646.9	713.5
145°	384.6	413.3	496.8	617.6	676.0
147.5°	402.0	426.0	497.0	592.7	636.2
150°	412.9	434.5	497.8	578.3	615.2
152.5°	423.0	443.7	498.7	566.4	595.9
155°	439.1	454.5	499.9	551.8	572.2
157.5°	454.9	466.8	501.2	541.3	555.9
160°	463.2	473.5	502.0	533.7	545.0
162.5°	471.6	479.4	502.0	528.6	537.5
165°	482.1	487.2	502.0	522.1	527.2
167.5°	491.8	494.4	503.1	516.1	518.8
170°	496.8	497.8	503.1	513.6	514.6
172.5°	500.1	501.2	503.9	511.0	511.3
175°	504.1	504.1	505.2	508.3	507.3
177.5°	506.2	506.2	505.4	507.0	505.4
180°	506.2	506.2	506.2	506.2	506.2



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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	19.82	20.74	20.69	21.62	22.73	16.55	17.46	17.42	18.34	19.46
	3H	21.06	21.88	21.94	22.77	23.91	17.62	18.43	18.50	19.33	20.47
	4H	21.51	22.28	22.41	23.18	24.33	18.02	18.79	18.92	19.69	20.84
	6H	21.83	22.54	22.74	23.45	24.61	18.35	19.06	19.26	19.97	21.13
	8H	21.92	22.59	22.84	23.51	24.68	18.44	19.11	19.36	20.04	21.20
	12H	21.95	22.59	22.87	23.51	24.69	18.45	19.09	19.37	20.01	21.19
4H	2H	19.91	20.68	20.81	21.58	22.73	17.12	17.89	18.03	18.79	19.94
	3H	21.38	22.02	22.30	22.95	24.12	18.39	19.03	19.31	19.96	21.13
	4H	21.98	22.56	22.91	23.49	24.68	18.90	19.48	19.83	20.41	21.60
	6H	22.44	22.94	23.37	23.88	25.08	19.34	19.84	20.28	20.79	21.98
	8H	22.57	23.04	23.51	23.98	25.18	19.47	19.93	20.41	20.87	22.08
	12H	22.63	23.04	23.58	24.01	25.22	19.49	19.91	20.45	20.87	22.08
8H	4H	22.01	22.48	22.95	23.42	24.62	19.21	19.68	20.15	20.62	21.83
	6H	22.56	22.95	23.53	23.93	25.14	19.75	20.13	20.72	21.12	22.32
	8H	22.76	23.10	23.73	24.08	25.30	19.93	20.27	20.91	21.25	22.47
	12H	22.87	23.17	23.84	24.13	25.40	20.00	20.30	20.98	21.27	22.54
12H	4H	21.97	22.39	22.93	23.35	24.56	19.23	19.65	20.19	20.61	21.82
	6H	22.55	22.89	23.52	23.86	25.09	19.81	20.15	20.78	21.13	22.35
	8H	22.76	23.06	23.74	24.03	25.30	20.02	20.32	21.00	21.29	22.56