

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: P854191

Luminaire Tested: SQ2-PR1-075U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854191
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-935-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

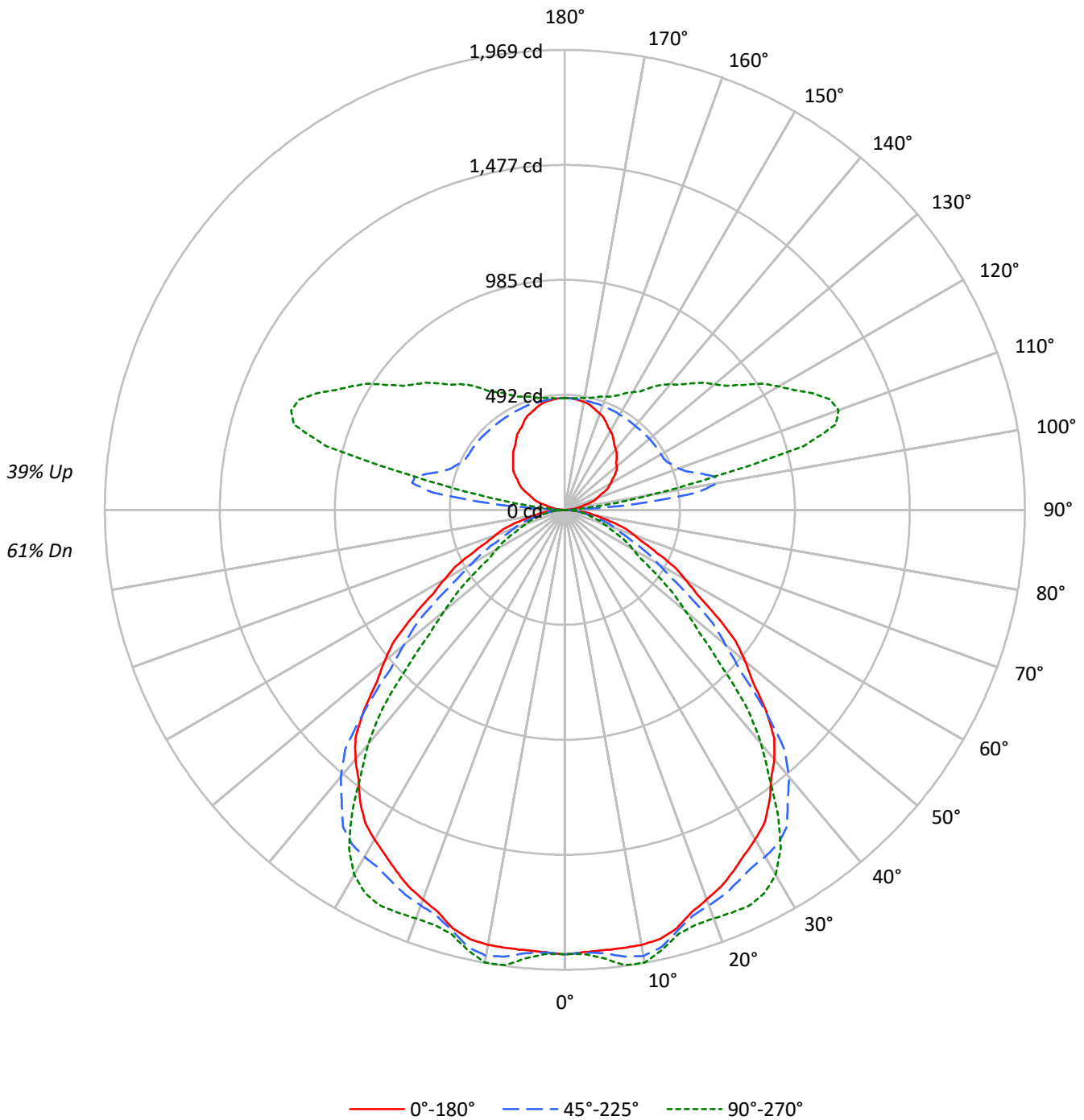
Lumens per Lamp: N/A
Luminaire Lumens: 7540.8 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	30721	30721	30721
5°	30681	30870	31246
10°	31004	31800	32277
15°	30994	31156	31415
20°	30493	30960	31993
25°	30407	31271	33309
30°	30374	31966	33629
35°	30086	32648	31310
40°	29392	31436	27554
45°	27811	27590	21790
50°	25284	22556	16905
55°	22221	18565	13157
60°	19226	14844	10834
65°	16600	12302	9486
70°	14922	10895	8422
75°	13674	9439	7742
80°	11901	7578	7578
85°	8614	6836	3594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 30065 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.7	2.4
10°-20°	531.9	7.1
20°-30°	822.2	10.9
30°-40°	988.9	13.1
40°-50°	888.0	11.8
50°-60°	594.9	7.9
60°-70°	346.0	4.6
70°-80°	177.7	2.4
80°-90°	44.3	0.6
90°-100°	181.0	2.4
100°-110°	600.0	8.0
110°-120°	595.5	7.9
120°-130°	485.0	6.4
130°-140°	394.2	5.2
140°-150°	306.1	4.1
150°-160°	220.6	2.9
160°-170°	135.1	1.8
170°-180°	45.6	0.6
0°-30°	1537.8	20.4
0°-40°	2526.8	33.5
0°-60°	4009.6	53.2
0°-90°	4577.7	60.7
90°-120°	1376.5	18.3
90°-150°	2561.8	34.0
90°-180°	2963.0	39.3
0°-180°	7540.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1903	1903	1903	1903	1903	
5°	1893	1925	1905	1909	1928	181
15°	1854	1930	1864	1870	1879	521
25°	1707	1775	1755	1820	1870	787
35°	1526	1540	1656	1624	1588	952
45°	1218	1317	1208	1019	954	932
55°	789	820	660	509	467	709
65°	434	444	322	262	248	439
75°	219	214	151	128	124	233
85°	46	37	37	25	19	58
90°	0	1	3	4	4	3
95°	26	76	328	117	78	29
105°	105	150	600	1133	1059	111
115°	187	224	484	1007	1177	185
125°	262	291	475	791	932	232
135°	313	345	471	679	766	242
145°	364	391	470	584	639	228
155°	415	430	473	522	541	191
165°	456	461	475	494	498	129
175°	477	477	478	480	480	45
180°	479	479	479	479	479	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1902.7	1902.7	1902.7	1902.7	1902.7
2.5°	1895.0	1917.7	1896.5	1898.2	1902.7
5°	1893.0	1925.3	1904.7	1909.0	1927.9
7.5°	1892.6	1938.5	1928.7	1940.5	1965.6
10°	1891.1	1946.1	1939.6	1942.1	1968.7
12.5°	1881.8	1945.9	1916.3	1913.9	1928.3
15°	1854.2	1930.1	1863.9	1870.0	1879.4
17.5°	1805.7	1885.0	1822.0	1843.4	1862.0
20°	1774.7	1852.5	1801.9	1829.7	1862.0
22.5°	1746.8	1824.5	1783.2	1822.3	1866.6
25°	1706.8	1775.1	1755.3	1820.4	1869.7
27.5°	1664.9	1705.1	1728.5	1815.8	1850.3
30°	1629.2	1655.8	1714.6	1790.5	1803.8
32.5°	1590.4	1606.4	1696.0	1735.5	1718.5
35°	1526.4	1539.7	1656.4	1624.5	1588.5
37.5°	1450.4	1477.7	1567.6	1475.8	1434.5
40°	1394.5	1440.1	1491.5	1354.7	1307.3
42.5°	1326.3	1399.1	1390.7	1216.3	1158.3
45°	1218.0	1316.7	1208.3	1018.7	954.3
47.5°	1090.4	1191.7	1014.4	845.1	784.7
50°	1006.6	1088.2	898.0	739.4	673.0
52.5°	921.3	980.1	798.7	640.2	579.9
55°	789.4	819.7	659.5	509.2	467.4
57.5°	668.4	687.7	538.8	411.3	380.5
60°	595.4	608.7	459.7	360.2	335.5
62.5°	528.7	539.0	396.1	316.9	298.3
65°	434.5	443.9	322.0	261.5	248.3
67.5°	359.6	364.5	264.9	217.3	204.8
70°	316.1	318.0	230.8	187.9	178.4
72.5°	277.4	274.7	198.2	163.2	156.7
75°	219.2	213.5	151.3	127.9	124.1
77.5°	163.7	157.6	106.3	98.5	98.5
80°	128.0	120.4	81.5	81.5	81.5
82.5°	95.4	84.8	62.8	62.8	61.3
85°	46.5	37.1	36.9	25.1	19.4
87.5°	12.4	12.6	5.2	5.4	5.4
90°	0.0	1.0	3.0	4.0	4.0
92.5°	7.9	30.6	90.2	29.2	24.6
95°	25.8	76.1	328.0	117.0	78.3
97.5°	47.4	100.1	572.5	333.9	211.0
100°	62.4	112.8	662.9	569.3	377.5
102.5°	79.1	127.9	657.3	870.1	657.3
105°	105.0	149.6	600.4	1132.8	1059.2
107.5°	131.6	171.3	546.0	1159.6	1215.6
110°	146.6	186.4	518.2	1133.1	1246.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	162.5	201.4	501.6	1086.3	1230.6
115°	187.3	224.1	483.5	1006.6	1177.1
117.5°	211.8	244.6	477.0	930.5	1109.3
120°	226.9	258.9	474.6	882.8	1056.2
122.5°	240.4	271.6	474.6	843.7	1003.9
125°	261.6	290.6	474.6	790.9	932.4
127.5°	279.0	307.5	473.4	751.0	871.9
130°	289.3	319.4	472.6	727.8	836.3
132.5°	298.8	329.6	471.8	708.5	806.1
135°	313.1	345.1	470.6	678.7	765.9
137.5°	328.6	359.4	469.5	650.0	726.9
140°	338.9	368.9	468.7	630.8	701.5
142.5°	348.4	377.6	469.5	611.6	674.6
145°	363.6	390.8	469.7	583.9	639.1
147.5°	380.1	402.8	469.9	560.4	601.4
150°	390.4	410.7	470.6	546.7	581.6
152.5°	399.9	419.5	471.4	535.5	563.4
155°	415.2	429.7	472.6	521.6	541.0
157.5°	430.0	441.3	473.8	511.8	525.5
160°	437.9	447.6	474.6	504.6	515.2
162.5°	445.9	453.2	474.6	499.8	508.1
165°	455.8	460.6	474.6	493.5	498.4
167.5°	464.9	467.4	475.6	487.9	490.5
170°	469.7	470.6	475.6	485.5	486.5
172.5°	472.8	473.8	476.4	483.1	483.3
175°	476.6	476.6	477.6	480.5	479.6
177.5°	478.6	478.6	477.8	479.3	477.8
180°	478.6	478.6	478.6	478.6	478.6



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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	19.63	20.54	20.50	21.43	22.54	16.35	17.27	17.22	18.15	19.26
	3H	20.86	21.68	21.75	22.57	23.71	17.42	18.24	18.30	19.13	20.27
	4H	21.32	22.09	22.22	22.99	24.14	17.82	18.59	18.72	19.49	20.64
	6H	21.64	22.35	22.55	23.25	24.42	18.16	18.87	19.07	19.77	20.93
	8H	21.72	22.40	22.64	23.32	24.48	18.25	18.92	19.16	19.84	21.00
	12H	21.75	22.39	22.68	23.31	24.50	18.26	18.90	19.18	19.81	21.00
4H	2H	19.71	20.48	20.62	21.38	22.53	16.93	17.70	17.83	18.60	19.75
	3H	21.19	21.83	22.10	22.76	23.92	18.20	18.84	19.11	19.77	20.93
	4H	21.79	22.37	22.71	23.29	24.48	18.71	19.29	19.63	20.21	21.40
	6H	22.24	22.74	23.18	23.69	24.88	19.15	19.64	20.08	20.59	21.79
	8H	22.38	22.84	23.31	23.78	24.99	19.27	19.74	20.21	20.68	21.88
	12H	22.43	22.85	23.39	23.81	25.02	19.29	19.71	20.25	20.67	21.88
8H	4H	21.82	22.28	22.76	23.23	24.43	19.02	19.48	19.96	20.43	21.63
	6H	22.37	22.75	23.33	23.74	24.94	19.55	19.94	20.52	20.92	22.13
	8H	22.56	22.90	23.54	23.88	25.10	19.74	20.08	20.71	21.06	22.28
	12H	22.67	22.97	23.65	23.94	25.21	19.80	20.10	20.78	21.07	22.34
12H	4H	21.78	22.20	22.73	23.16	24.37	19.04	19.45	19.99	20.42	21.63
	6H	22.35	22.69	23.33	23.67	24.89	19.61	19.95	20.59	20.93	22.15
	8H	22.57	22.87	23.54	23.84	25.11	19.82	20.12	20.80	21.09	22.36