

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: P854179

Luminaire Tested: SQ2-PR1-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854179
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-050U-100D-935-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

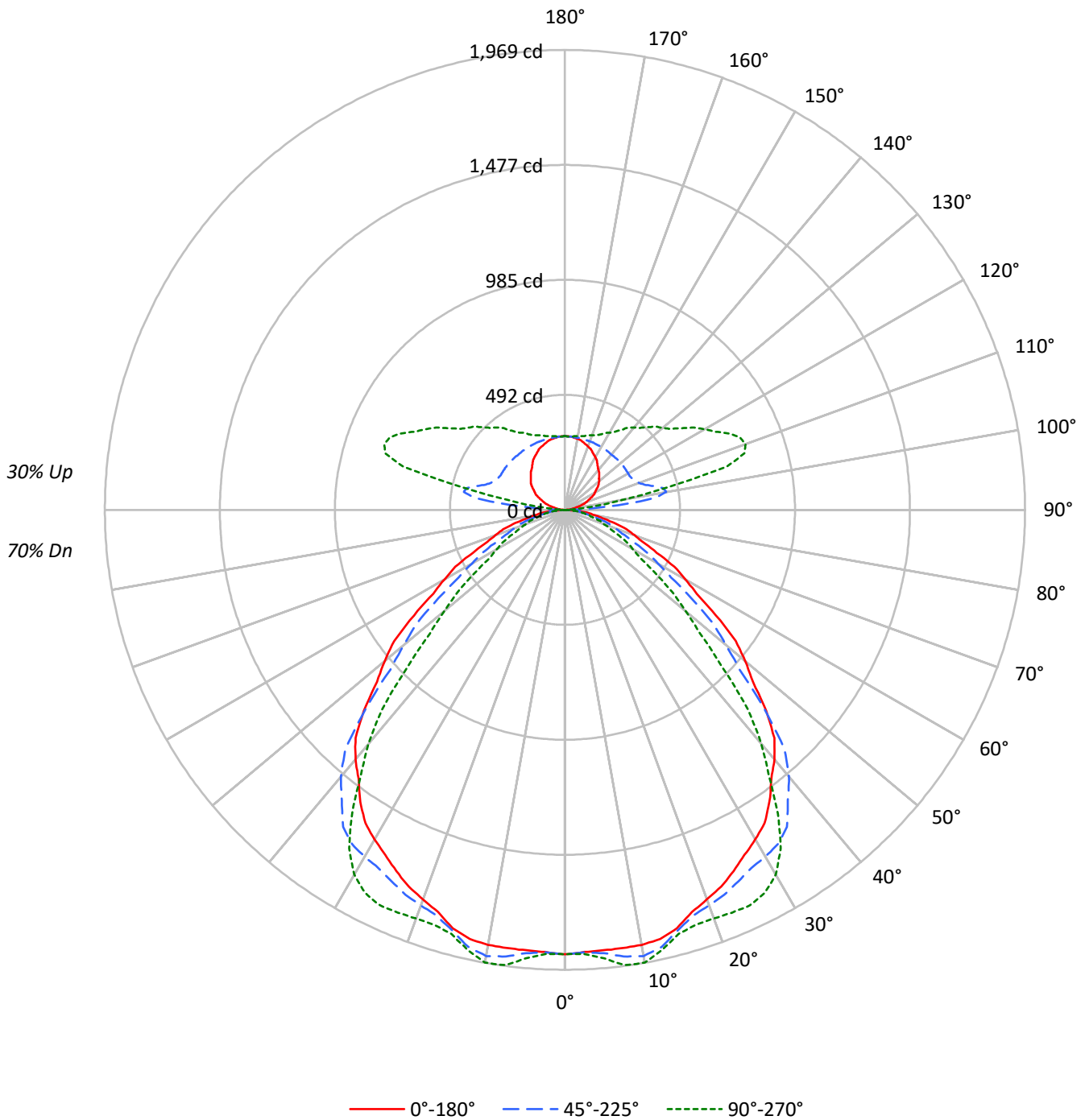
Lumens per Lamp: N/A
Luminaire Lumens: 6534.3 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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	75	75	75	70				
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	61				
2	95	88	82	77	89	83	78	73	75	71	67	67	64	61	60	58	56	52				
3	87	78	71	65	82	74	68	62	67	62	58	60	56	53	54	51	48	45				
4	80	69	62	56	75	66	59	54	60	54	50	54	50	46	49	45	42	39				
5	74	62	54	48	70	59	52	47	54	48	44	49	44	40	44	41	37	35				
6	68	56	48	42	64	54	46	41	49	43	38	45	40	36	40	36	33	31				
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	27				
8	59	47	39	33	56	45	37	33	41	35	31	37	32	29	34	30	27	25				
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	22				
10	51	39	32	27	49	38	31	26	35	29	25	32	27	24	29	25	22	20				

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	2.8
10°-20°	531.9	8.1
20°-30°	822.2	12.6
30°-40°	988.9	15.1
40°-50°	888.0	13.6
50°-60°	594.9	9.1
60°-70°	346.0	5.3
70°-80°	177.7	2.7
80°-90°	44.2	0.7
90°-100°	125.5	1.9
100°-110°	398.1	6.1
110°-120°	390.3	6.0
120°-130°	317.6	4.9
130°-140°	259.0	4.0
140°-150°	201.9	3.1
150°-160°	145.5	2.2
160°-170°	88.9	1.4
170°-180°	30.0	0.5
0°-30°	1537.8	23.5
0°-40°	2526.8	38.7
0°-60°	4009.6	61.4
0°-90°	4577.6	70.1
90°-120°	913.9	14.0
90°-150°	1692.4	25.9
90°-180°	1957.0	29.9
0°-180°	6534.3	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	3	3	2
95°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	



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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	5.2	5.2
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1



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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	20.38	21.39	21.16	22.18	23.14	17.11	18.12	17.88	18.91	19.86
	3H	21.63	22.53	22.41	23.33	24.32	18.19	19.09	18.97	19.89	20.87
	4H	22.09	22.94	22.89	23.74	24.74	18.59	19.44	19.40	20.25	21.25
	6H	22.41	23.19	23.23	24.01	25.02	18.93	19.71	19.75	20.53	21.54
	8H	22.50	23.24	23.32	24.07	25.09	19.02	19.76	19.85	20.60	21.61
	12H	22.53	23.24	23.36	24.07	25.10	19.03	19.74	19.87	20.57	21.61
4H	2H	20.48	21.33	21.29	22.14	23.13	17.70	18.54	18.50	19.35	20.35
	3H	21.97	22.67	22.79	23.51	24.52	18.98	19.68	19.80	20.52	21.53
	4H	22.57	23.20	23.40	24.04	25.09	19.49	20.12	20.32	20.96	22.01
	6H	23.03	23.58	23.88	24.44	25.49	19.93	20.48	20.78	21.34	22.39
	8H	23.16	23.67	24.02	24.53	25.59	20.06	20.57	20.91	21.43	22.49
	12H	23.22	23.68	24.09	24.56	25.63	20.08	20.55	20.96	21.42	22.49
8H	4H	22.60	23.12	23.46	23.97	25.03	19.80	20.32	20.66	21.18	22.24
	6H	23.16	23.58	24.04	24.48	25.54	20.34	20.77	21.22	21.67	22.73
	8H	23.35	23.73	24.25	24.63	25.70	20.53	20.91	21.42	21.80	22.88
	12H	23.46	23.80	24.36	24.68	25.81	20.60	20.93	21.49	21.82	22.95
12H	4H	22.57	23.03	23.44	23.91	24.97	19.83	20.29	20.70	21.17	22.23
	6H	23.14	23.52	24.03	24.42	25.49	20.40	20.78	21.30	21.68	22.75
	8H	23.36	23.69	24.25	24.58	25.71	20.62	20.95	21.51	21.84	22.97