

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: P854227

Luminaire Tested: SQ2-PR1-125U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854227
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PR1-125U-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

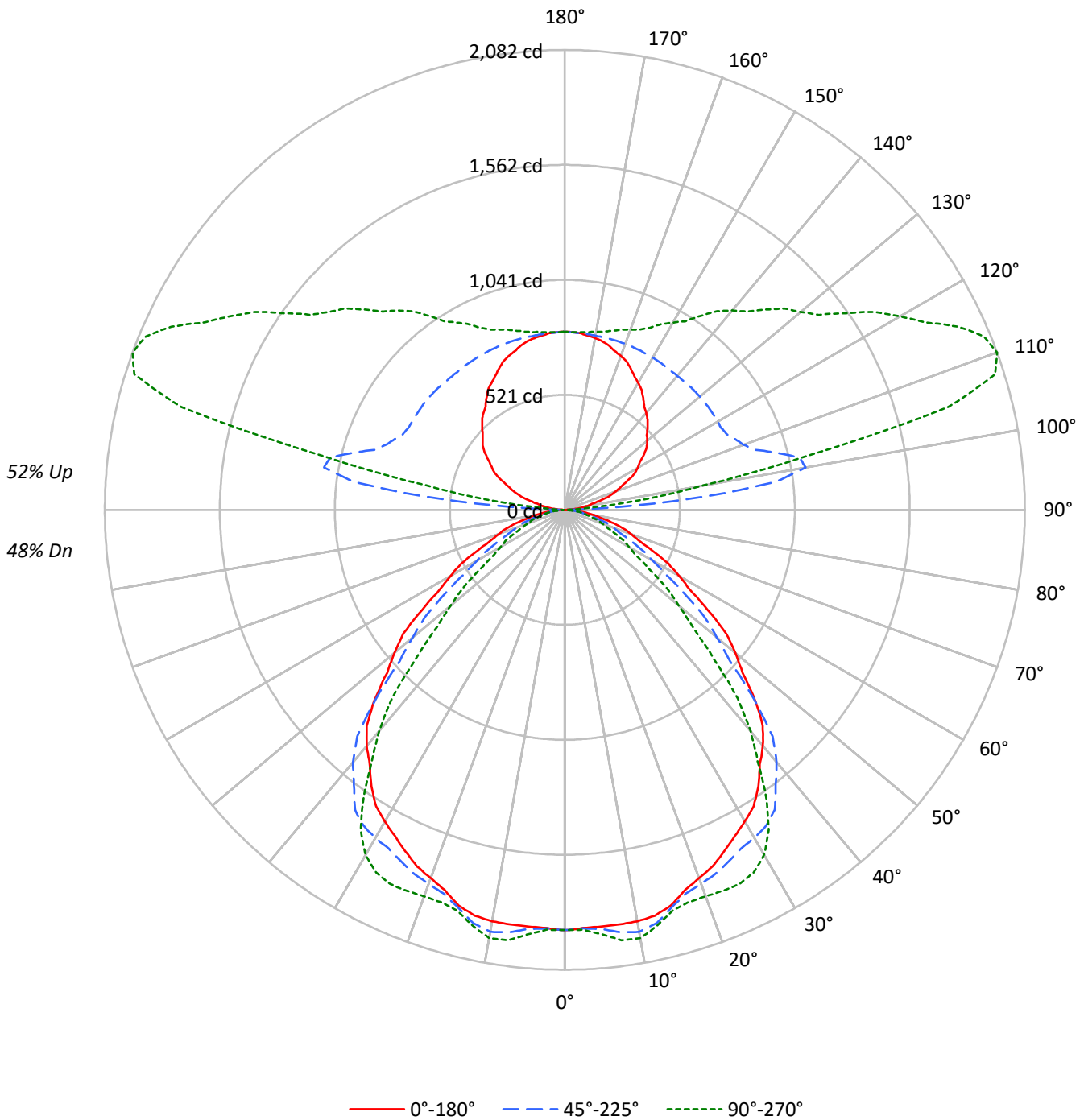
Lumens per Lamp: N/A
Luminaire Lumens: 9548.2 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 81.5
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	0
RCR																		
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	98	94	90	87	90	87	83	81	73	71	69	60	59	58	49	48	47	42
2	90	83	77	72	82	76	71	67	65	61	58	54	51	49	44	42	40	36
3	82	73	66	61	75	68	62	57	57	53	49	48	45	42	39	37	35	31
4	75	65	57	52	69	60	54	49	51	46	42	43	39	36	35	33	31	27
5	69	58	50	45	64	54	47	42	46	41	37	39	35	32	32	29	27	24
6	64	52	44	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21
7	59	47	40	34	54	44	37	32	38	33	29	32	28	25	27	24	21	19
8	55	43	35	30	51	40	33	29	35	29	25	29	25	22	25	22	19	17
9	51	39	32	27	47	37	30	26	32	27	23	27	23	20	23	20	17	15
10	48	36	29	24	44	34	27	23	29	24	21	25	21	18	21	18	16	14

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	1.9
10°-20°	531.9	5.6
20°-30°	822.2	8.6
30°-40°	988.9	10.4
40°-50°	888.0	9.3
50°-60°	594.9	6.2
60°-70°	346.0	3.6
70°-80°	177.7	1.9
80°-90°	44.7	0.5
90°-100°	308.2	3.2
100°-110°	1003.2	10.5
110°-120°	992.4	10.4
120°-130°	811.0	8.5
130°-140°	662.8	6.9
140°-150°	516.3	5.4
150°-160°	372.1	3.9
160°-170°	227.4	2.4
170°-180°	76.7	0.8
0°-30°	1537.8	16.1
0°-40°	2526.8	26.5
0°-60°	4009.6	42.0
0°-90°	4578.1	47.9
90°-120°	2303.8	24.1
90°-150°	4293.8	45.0
90°-180°	4970.0	52.1
0°-180°	9548.2	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	3	7	6	6	4
95°	42	127	565	201	124	48
105°	170	246	994	1898	1797	182
115°	315	376	810	1668	1963	312
125°	438	488	799	1317	1553	390
135°	529	584	795	1137	1282	409
145°	618	664	793	979	1072	387
155°	706	729	798	877	910	325
165°	770	777	800	830	839	217
175°	803	803	803	808	806	76
180°	806	806	806	806	806	



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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	13.0	6.0	5.8	5.8
90°	0.0	2.9	6.9	5.9	5.9
92.5°	14.3	51.3	163.9	54.0	41.6
95°	41.6	126.9	564.8	201.4	123.9
97.5°	78.3	165.1	958.5	583.8	356.3
100°	102.1	187.3	1106.8	986.9	640.1
102.5°	129.0	211.2	1088.5	1460.1	1110.1
105°	170.4	246.0	993.8	1898.2	1797.4
107.5°	215.2	286.3	903.9	1936.2	2042.9
110°	247.7	312.6	861.0	1889.0	2081.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	274.7	338.8	834.1	1803.8	2052.4
115°	315.1	376.1	809.5	1668.3	1962.9
117.5°	356.7	411.7	800.0	1544.3	1837.4
120°	380.5	434.7	797.6	1468.0	1751.8
122.5°	403.5	457.0	798.4	1401.7	1666.2
125°	438.0	488.3	798.6	1317.2	1552.7
127.5°	467.5	519.0	798.4	1253.9	1450.2
130°	486.5	538.8	797.6	1217.8	1393.1
132.5°	503.2	557.8	796.8	1184.2	1348.7
135°	529.1	584.3	794.7	1136.8	1282.2
137.5°	554.5	610.1	792.5	1088.7	1217.8
140°	572.7	626.0	791.7	1056.0	1178.1
142.5°	590.1	641.1	791.7	1024.8	1133.7
145°	618.3	663.8	792.7	979.1	1072.1
147.5°	645.6	685.2	794.1	940.2	1012.1
150°	663.9	698.7	795.7	916.9	978.0
152.5°	682.1	710.8	796.4	899.2	947.8
155°	705.5	728.7	797.6	876.7	909.6
157.5°	727.7	744.3	798.8	860.0	883.0
160°	741.2	754.7	799.6	849.6	868.0
162.5°	753.0	763.5	799.6	840.7	854.5
165°	769.9	776.7	799.6	829.6	839.2
167.5°	781.8	786.0	799.8	821.1	826.2
170°	789.7	791.6	800.6	815.5	817.4
172.5°	795.3	796.4	802.2	812.3	811.9
175°	802.6	802.6	802.6	808.5	806.5
177.5°	805.6	804.8	804.0	807.9	804.8
180°	805.6	805.6	805.6	805.6	805.6



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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	18.48	19.29	19.47	20.28	21.58	15.21	16.01	16.19	17.00	18.31
	3H	19.71	20.43	20.71	21.43	22.76	16.27	16.99	17.26	17.99	19.31
	4H	20.16	20.84	21.17	21.84	23.18	16.67	17.35	17.67	18.35	19.68
	6H	20.48	21.10	21.49	22.11	23.45	17.00	17.62	18.01	18.63	19.97
	8H	20.56	21.15	21.58	22.17	23.52	17.08	17.67	18.10	18.70	20.04
	12H	20.58	21.15	21.61	22.17	23.53	17.09	17.65	18.11	18.67	20.03
4H	2H	18.56	19.23	19.57	20.24	21.57	15.77	16.45	16.78	17.45	18.79
	3H	20.02	20.58	21.04	21.62	22.96	17.03	17.59	18.05	18.63	19.97
	4H	20.61	21.13	21.64	22.15	23.52	17.54	18.05	18.57	19.07	20.44
	6H	21.06	21.51	22.10	22.55	23.92	17.97	18.41	19.01	19.46	20.82
	8H	21.20	21.61	22.24	22.65	24.03	18.09	18.50	19.13	19.54	20.92
	12H	21.25	21.62	22.30	22.67	24.06	18.11	18.48	19.17	19.54	20.92
8H	4H	20.64	21.05	21.68	22.09	23.47	17.84	18.25	18.88	19.29	20.67
	6H	21.18	21.52	22.25	22.61	23.98	18.37	18.71	19.44	19.79	21.17
	8H	21.38	21.68	22.45	22.75	24.15	18.56	18.86	19.63	19.92	21.32
	12H	21.48	21.75	22.56	22.81	24.25	18.62	18.88	19.69	19.94	21.38
12H	4H	20.59	20.96	21.65	22.02	23.40	17.85	18.22	18.91	19.28	20.66
	6H	21.17	21.47	22.24	22.54	23.93	18.43	18.73	19.50	19.80	21.19
	8H	21.38	21.64	22.45	22.70	24.14	18.64	18.90	19.71	19.96	21.40