

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: P853781

Luminaire Tested: SQ2-FA-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853781
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

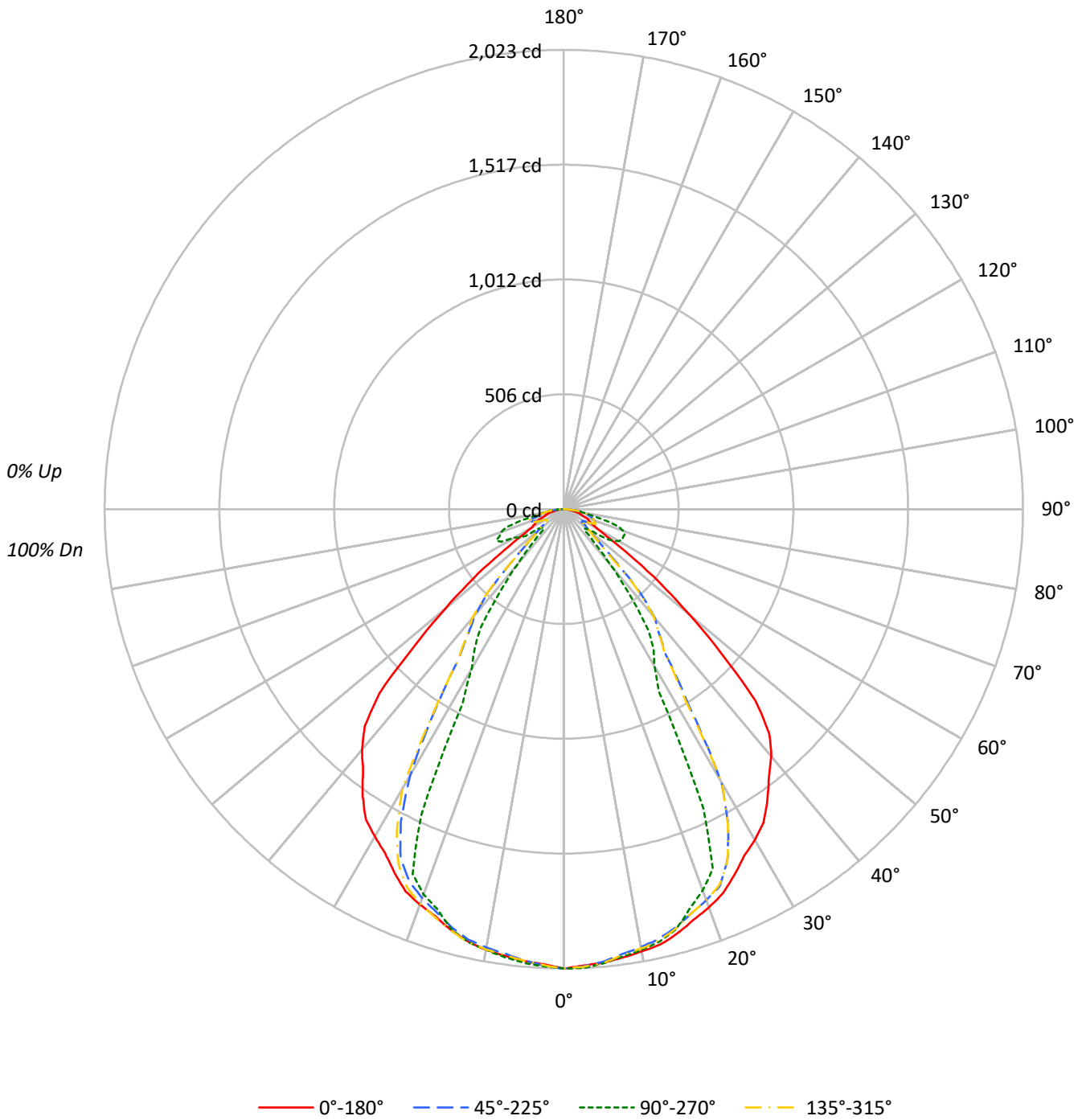
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2954.9 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	74	70	65	72	68	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57				
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				
7	74	63	56	50	73	62	55	50	61	55	50	59	54	50	58	53	49	48				
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	46	44				
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	32669	32669	32669	32669
5°	32496	32546	32373	32522
10°	32447	32323	32323	32323
15°	32343	32010	32087	32010
20°	32091	30728	31856	31017
25°	31670	25933	31452	26477
30°	31379	14879	31038	15077
35°	30829	12782	30437	12603
40°	29973	6721	29139	6658
45°	27247	2893	26270	2893
50°	17977	3489	17055	3258
55°	10052	6443	9537	5841
60°	5422	9068	5322	8131
65°	4779	11018	5012	12535
70°	4466	13180	4249	13903
75°	4186	11329	4286	11709
80°	3543	8089	3543	8517
85°	3112	4520	2834	5372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 27247 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.4	6.4
10°-20°	540.2	18.3
20°-30°	736.5	24.9
30°-40°	619.0	20.9
40°-50°	351.6	11.9
50°-60°	186.5	6.3
60°-70°	171.7	5.8
70°-80°	126.1	4.3
80°-90°	32.9	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1467.1	49.7
0°-40°	2086.1	70.6
0°-60°	2624.2	88.8
0°-90°	2954.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2954.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2023	2023	2023	2023	2023	
5°	2005	2008	1997	2007	2005	191
15°	1935	1915	1920	1915	1935	545
25°	1778	1456	1766	1486	1778	820
35°	1564	648	1544	639	1564	976
45°	1193	127	1150	127	1193	872
55°	357	229	339	208	357	344
65°	125	288	131	328	125	126
75°	67	182	69	188	67	69
85°	17	24	15	29	17	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4
2.5°	2012.4	2042.2	2016.0	2012.6	2023.4	2021.0	2017.3	2031.4	2007.5	2031.4	2012.4
5°	2005.0	2039.4	2000.5	1990.2	2008.1	1996.2	2006.6	2027.3	1997.4	2024.3	1994.4
7.5°	1992.5	2023.0	1976.4	1969.7	1987.3	1976.9	1981.2	2010.0	1984.9	2002.5	1975.4
10°	1979.1	2006.0	1959.3	1955.1	1971.5	1961.0	1965.4	1995.3	1971.5	1987.9	1960.8
12.5°	1964.5	1985.3	1938.5	1936.7	1950.7	1943.9	1945.8	1971.0	1951.9	1968.4	1942.5
15°	1934.9	1954.3	1907.4	1900.1	1915.0	1909.1	1912.0	1934.5	1919.6	1930.0	1907.4
17.5°	1898.2	1913.8	1867.1	1845.1	1845.7	1853.2	1867.1	1894.3	1880.8	1894.6	1862.5
20°	1867.7	1885.6	1834.1	1791.4	1788.4	1795.8	1834.1	1861.4	1854.0	1868.9	1823.5
22.5°	1832.3	1844.3	1797.5	1725.3	1715.1	1722.6	1792.6	1824.9	1822.2	1832.4	1775.9
25°	1777.7	1789.6	1704.4	1600.4	1455.7	1591.5	1707.5	1765.5	1765.5	1774.4	1699.9
27.5°	1722.1	1722.4	1568.3	1027.8	906.7	990.8	1566.2	1692.0	1706.3	1701.8	1555.2
30°	1683.1	1672.6	1390.1	830.9	798.1	818.9	1391.6	1640.9	1664.8	1648.4	1355.0
32.5°	1637.9	1608.4	1026.3	763.9	737.0	755.5	992.5	1580.3	1622.0	1586.5	1065.7
35°	1564.1	1486.5	782.8	675.4	648.5	672.4	776.7	1460.7	1544.2	1448.7	808.7
37.5°	1484.4	1181.5	689.1	537.9	480.1	526.3	685.7	1168.9	1452.1	1141.7	688.5
40°	1422.1	928.3	619.5	393.5	318.9	371.1	614.9	885.6	1382.5	952.8	604.3
42.5°	1339.1	815.4	497.4	249.9	195.6	228.7	477.0	796.6	1297.0	825.6	481.0
45°	1193.3	700.9	294.5	137.1	126.7	132.6	271.6	688.0	1150.5	673.1	300.6
47.5°	945.1	534.6	189.2	116.5	127.9	116.5	183.4	517.6	892.7	516.7	188.9
50°	715.7	417.3	146.5	118.0	138.9	118.0	141.9	403.0	679.0	440.3	145.0
52.5°	530.1	348.7	119.6	129.3	166.9	131.7	116.3	339.4	503.2	355.2	113.2
55°	357.1	273.5	96.1	170.7	228.9	175.2	96.1	265.6	338.8	262.7	93.1
57.5°	226.4	203.5	97.4	219.5	261.2	223.6	98.9	196.1	217.3	197.0	85.5
60°	167.9	160.4	108.3	233.0	280.8	236.0	109.9	154.4	164.8	152.9	91.6
62.5°	138.6	126.3	130.3	252.4	291.8	245.8	133.1	120.5	144.0	115.4	101.3
65°	125.1	81.9	154.1	255.6	288.4	255.6	155.6	77.5	131.2	83.5	137.3
67.5°	112.9	60.7	148.9	253.8	290.2	254.4	145.3	57.9	108.3	56.4	140.4
70°	94.6	54.3	140.4	258.4	279.2	249.4	140.4	52.7	90.0	51.2	164.8
72.5°	78.7	51.6	130.6	238.6	247.5	229.6	131.8	51.3	79.0	46.2	155.0
75°	67.1	50.7	125.1	190.5	181.6	181.6	122.1	49.3	68.7	46.3	120.5
77.5°	50.4	45.0	103.8	124.4	117.5	117.5	101.9	43.4	47.9	40.8	98.0
80°	38.1	41.1	85.5	91.5	87.0	87.0	82.4	39.6	38.1	38.1	80.9
82.5°	29.6	35.0	65.9	67.1	63.8	62.6	64.1	34.7	29.6	32.0	62.6
85°	16.8	24.2	35.1	28.9	24.4	22.9	33.6	22.7	15.3	22.7	33.6
87.5°	6.1	10.9	4.9	4.9	4.9	4.9	4.9	10.9	6.1	9.7	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2023.4	2023.4	2023.4	2023.4	2023.4	2023.4
2.5°	2007.7	2016.0	2016.0	2011.2	2035.1	2012.4
5°	1987.2	2006.6	1997.6	1997.4	2027.4	2005.0
7.5°	1972.8	1991.0	1982.7	1980.9	2010.4	1992.5
10°	1958.0	1971.5	1965.5	1970.0	1997.0	1979.1
12.5°	1937.4	1953.2	1947.2	1954.1	1978.8	1964.5
15°	1901.6	1915.0	1918.0	1921.1	1949.8	1934.9
17.5°	1842.5	1849.1	1864.0	1885.1	1914.9	1898.2
20°	1796.2	1805.2	1814.1	1850.9	1885.6	1867.7
22.5°	1743.4	1740.5	1761.3	1804.5	1847.8	1832.3
25°	1601.1	1486.2	1613.1	1724.3	1782.2	1777.7
27.5°	1114.8	967.4	1097.8	1591.5	1713.2	1722.1
30°	877.4	808.7	875.9	1420.6	1662.2	1683.1
32.5°	779.0	731.8	772.7	1081.3	1597.9	1637.9
35°	672.2	639.4	672.2	808.7	1471.6	1564.1
37.5°	538.0	470.9	536.8	698.9	1189.6	1484.4
40°	400.9	315.9	389.0	625.6	950.7	1422.1
42.5°	267.1	203.6	252.8	492.6	822.3	1339.1
45°	144.6	126.7	138.6	297.6	671.1	1193.3
47.5°	113.4	119.9	113.4	187.7	513.4	945.1
50°	108.8	129.7	108.8	145.0	424.7	715.7
52.5°	118.6	140.7	117.4	114.4	346.6	530.1
55°	134.4	207.5	135.9	93.1	254.1	357.1
57.5°	191.4	233.5	193.5	88.2	195.7	226.4
60°	196.6	251.8	195.1	93.1	151.4	167.9
62.5°	232.5	311.6	232.2	106.5	112.6	138.6
65°	298.2	328.1	301.2	135.8	80.4	125.1
67.5°	283.1	304.3	280.1	145.6	55.3	112.9
70°	278.1	294.5	275.1	166.3	51.3	94.6
72.5°	259.5	261.5	254.1	154.1	46.2	78.7
75°	201.1	187.7	193.7	132.8	46.3	67.1
77.5°	125.0	119.6	120.5	101.3	40.8	50.4
80°	94.5	91.6	90.1	85.5	38.1	38.1
82.5°	70.1	67.1	65.6	65.9	32.0	29.6
85°	32.0	29.0	27.5	38.1	22.8	16.8
87.5°	6.1	6.1	4.9	6.1	8.5	6.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

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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	16.11	17.42	16.48	17.74	18.05	14.97	16.28	15.34	16.59	16.91
	3H	16.84	18.01	17.22	18.34	18.71	21.15	22.32	21.53	22.65	23.01
	4H	17.26	18.36	17.67	18.71	19.10	22.44	23.54	22.84	23.89	24.27
	6H	17.64	18.65	18.05	19.02	19.41	23.06	24.08	23.48	24.45	24.84
	8H	17.76	18.72	18.19	19.12	19.52	23.20	24.16	23.63	24.55	24.95
	12H	17.85	18.77	18.28	19.15	19.58	23.25	24.17	23.68	24.55	24.98
4H	2H	16.55	17.65	16.95	18.00	18.38	15.54	16.64	15.95	16.99	17.38
	3H	17.57	18.49	17.99	18.89	19.29	21.90	22.81	22.31	23.21	23.62
	4H	18.15	18.97	18.58	19.39	19.83	23.36	24.18	23.79	24.60	25.04
	6H	18.64	19.35	19.10	19.80	20.26	24.11	24.83	24.58	25.27	25.74
	8H	18.82	19.48	19.28	19.93	20.40	24.29	24.95	24.75	25.40	25.87
	12H	18.95	19.54	19.44	20.02	20.50	24.37	24.96	24.85	25.44	25.91
8H	4H	19.27	19.94	19.74	20.38	20.85	23.51	24.17	23.97	24.62	25.09
	6H	19.89	20.43	20.39	20.93	21.41	24.40	24.94	24.90	25.44	25.92
	8H	20.12	20.61	20.64	21.12	21.62	24.64	25.13	25.17	25.65	26.14
	12H	20.32	20.74	20.83	21.24	21.81	24.79	25.21	25.30	25.71	26.28
12H	4H	19.44	20.03	19.92	20.51	20.98	23.49	24.08	23.97	24.56	25.03
	6H	20.16	20.65	20.68	21.16	21.66	24.40	24.89	24.92	25.41	25.90
	8H	20.48	20.91	21.00	21.40	21.98	24.71	25.13	25.22	25.63	26.20