

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: P853779

Luminaire Tested: SQ2-FA-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853779
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-930-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

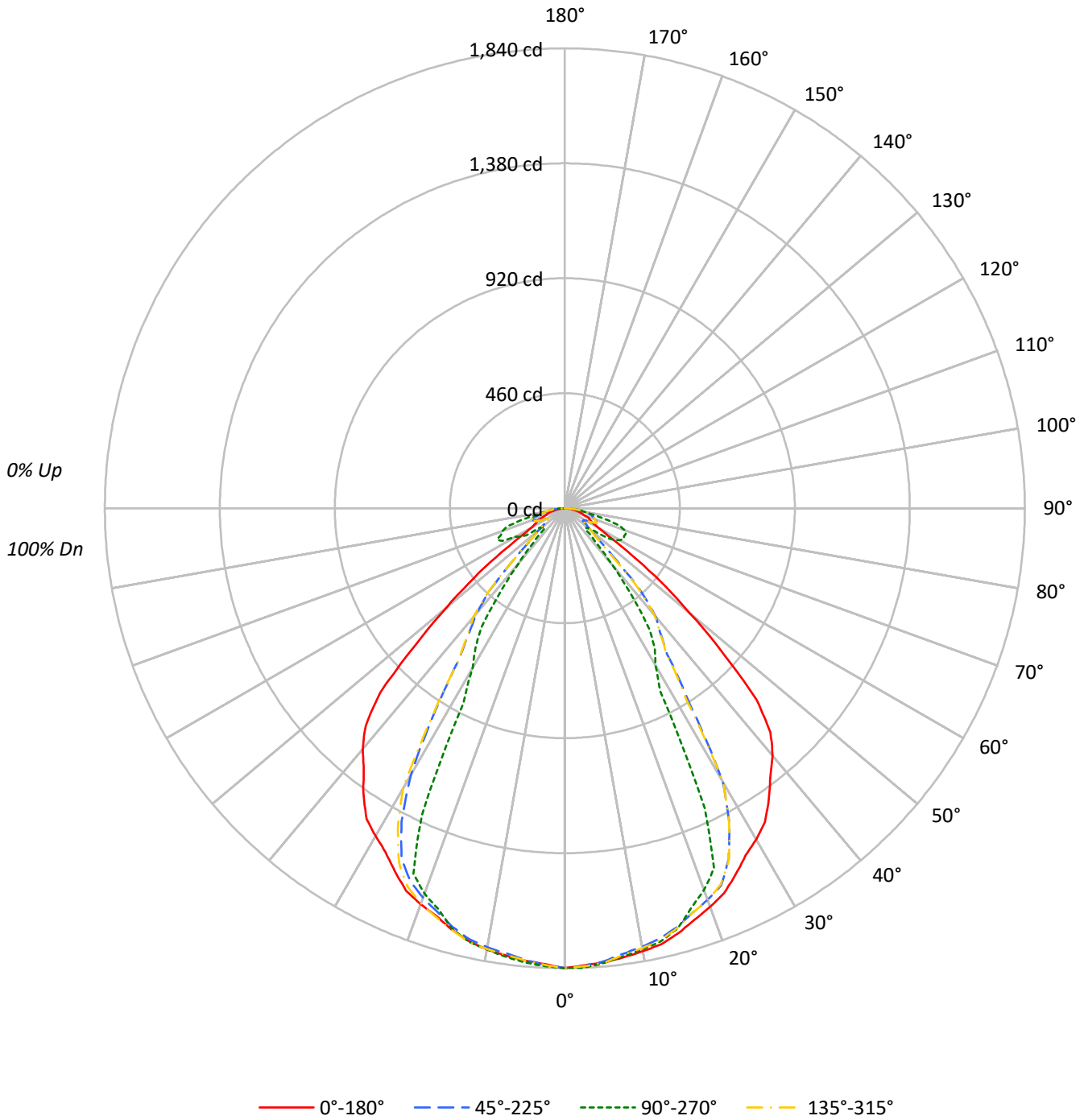
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2686.8 lumens
Efficiency: N/A
Efficacy: 100.6 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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	74	70	65	72	68	65	63				63
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57				57
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				52
7	74	63	56	50	73	62	55	50	61	55	50	59	54	50	58	53	49	48				48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	46	44				44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				41
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38				38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	29705	29705	29705	29705
5°	29548	29593	29436	29571
10°	29503	29390	29390	29390
15°	29407	29107	29175	29107
20°	29180	27940	28965	28203
25°	28796	23580	28598	24075
30°	28532	13528	28221	13711
35°	28032	11623	27675	11458
40°	27255	6112	26494	6053
45°	24775	2630	23889	2630
50°	16345	3172	15508	2961
55°	9140	5858	8670	5312
60°	4928	8244	4837	7392
65°	4348	10017	4558	11396
70°	4060	11986	3866	12642
75°	3805	10299	3893	10649
80°	3226	7355	3226	7736
85°	2834	4113	2575	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.1	6.4
10°-20°	491.2	18.3
20°-30°	669.7	24.9
30°-40°	562.8	20.9
40°-50°	319.7	11.9
50°-60°	169.6	6.3
60°-70°	156.2	5.8
70°-80°	114.6	4.3
80°-90°	29.9	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°	1334.0	49.7
0°-40°	1896.8	70.6
0°-60°	2386.1	88.8
0°-90°	2686.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2686.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1840	1840	1840	1840	1840	
5°	1823	1826	1816	1824	1823	173
15°	1759	1741	1745	1741	1759	496
25°	1616	1324	1605	1351	1616	745
35°	1422	590	1404	581	1422	888
45°	1085	115	1046	115	1085	793
55°	325	208	308	189	325	313
65°	114	262	119	298	114	114
75°	61	165	62	171	61	63
85°	15	22	14	26	15	18
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°	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8
2.5°	1829.8	1856.9	1833.1	1830.0	1839.8	1837.6	1834.2	1847.1	1825.4	1847.1	1829.8
5°	1823.1	1854.3	1819.0	1809.6	1825.9	1815.1	1824.5	1843.3	1816.2	1840.6	1813.4
7.5°	1811.8	1839.4	1797.0	1791.0	1807.0	1797.5	1801.5	1827.6	1804.8	1820.8	1796.2
10°	1799.5	1824.0	1781.5	1777.7	1792.6	1783.1	1787.1	1814.3	1792.6	1807.5	1782.9
12.5°	1786.2	1805.2	1762.6	1761.0	1773.7	1767.5	1769.3	1792.2	1774.8	1789.8	1766.2
15°	1759.3	1776.9	1734.3	1727.7	1741.3	1735.8	1738.5	1759.0	1745.4	1754.9	1734.3
17.5°	1726.0	1740.1	1697.7	1677.7	1678.3	1685.1	1697.7	1722.4	1710.2	1722.7	1693.5
20°	1698.3	1714.5	1667.7	1628.8	1626.1	1632.9	1667.7	1692.6	1685.8	1699.3	1658.0
22.5°	1666.1	1676.9	1634.4	1568.7	1559.5	1566.3	1630.0	1659.4	1656.9	1666.1	1614.7
25°	1616.4	1627.3	1549.8	1455.2	1323.6	1447.1	1552.6	1605.3	1605.3	1613.4	1545.6
27.5°	1565.9	1566.2	1426.0	934.6	824.4	900.9	1424.1	1538.4	1551.5	1547.4	1414.1
30°	1530.4	1520.9	1264.0	755.5	725.6	744.6	1265.4	1492.0	1513.7	1498.8	1232.1
32.5°	1489.3	1462.4	933.2	694.6	670.1	687.0	902.4	1436.9	1474.9	1442.6	969.0
35°	1422.2	1351.6	711.8	614.1	589.7	611.4	706.2	1328.1	1404.1	1317.3	735.4
37.5°	1349.7	1074.3	626.6	489.1	436.5	478.6	623.5	1062.8	1320.3	1038.1	626.0
40°	1293.1	844.1	563.3	357.8	290.0	337.5	559.1	805.3	1257.0	866.3	549.4
42.5°	1217.6	741.5	452.3	227.3	177.9	208.0	433.7	724.3	1179.3	750.7	437.3
45°	1085.0	637.3	267.8	124.7	115.2	120.6	247.0	625.6	1046.2	612.0	273.3
47.5°	859.4	486.1	172.0	106.0	116.3	106.0	166.8	470.6	811.7	469.8	171.8
50°	650.7	379.4	133.2	107.3	126.3	107.3	129.0	366.4	617.4	400.4	131.8
52.5°	482.0	317.0	108.8	117.6	151.8	119.8	105.7	308.6	457.6	323.0	103.0
55°	324.7	248.7	87.4	155.2	208.1	159.3	87.4	241.5	308.0	238.8	84.6
57.5°	205.9	185.0	88.5	199.5	237.5	203.3	89.9	178.3	197.6	179.1	77.7
60°	152.6	145.8	98.5	211.9	255.3	214.6	99.9	140.4	149.8	139.0	83.2
62.5°	126.0	114.9	118.5	229.5	265.3	223.5	121.0	109.5	131.0	104.9	92.1
65°	113.8	74.4	140.1	232.4	262.2	232.4	141.5	70.5	119.3	75.9	124.9
67.5°	102.7	55.2	135.4	230.8	263.9	231.3	132.1	52.7	98.5	51.3	127.6
70°	86.0	49.4	127.6	234.9	253.9	226.8	127.6	47.9	81.9	46.6	149.8
72.5°	71.6	46.9	118.8	216.9	225.0	208.8	119.9	46.6	71.9	42.0	141.0
75°	61.0	46.1	113.8	173.2	165.1	165.1	111.0	44.8	62.4	42.1	109.6
77.5°	45.8	40.9	94.3	113.1	106.8	106.8	92.7	39.5	43.6	37.1	89.1
80°	34.7	37.4	77.7	83.2	79.1	79.1	74.9	36.0	34.7	34.7	73.5
82.5°	26.9	31.8	59.9	61.0	58.0	56.9	58.3	31.5	26.9	29.1	56.9
85°	15.3	22.0	31.9	26.3	22.2	20.8	30.5	20.7	13.9	20.7	30.5
87.5°	5.5	9.9	4.4	4.4	4.4	4.4	4.4	9.9	5.5	8.8	5.5
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°	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8
2.5°	1825.5	1833.1	1833.1	1828.7	1850.4	1829.8
5°	1806.9	1824.5	1816.4	1816.2	1843.5	1823.1
7.5°	1793.8	1810.4	1802.8	1801.2	1828.0	1811.8
10°	1780.4	1792.6	1787.2	1791.2	1815.8	1799.5
12.5°	1761.6	1776.0	1770.5	1776.8	1799.3	1786.2
15°	1729.1	1741.3	1744.0	1746.8	1772.9	1759.3
17.5°	1675.4	1681.3	1694.9	1714.1	1741.2	1726.0
20°	1633.2	1641.4	1649.5	1683.0	1714.5	1698.3
22.5°	1585.3	1582.5	1601.5	1640.8	1680.2	1666.1
25°	1455.9	1351.4	1466.7	1567.8	1620.5	1616.4
27.5°	1013.7	879.7	998.2	1447.1	1557.8	1565.9
30°	797.8	735.4	796.4	1291.7	1511.4	1530.4
32.5°	708.3	665.4	702.6	983.2	1453.0	1489.3
35°	611.2	581.3	611.2	735.4	1338.0	1422.2
37.5°	489.2	428.2	488.1	635.5	1081.7	1349.7
40°	364.5	287.2	353.7	568.9	864.4	1293.1
42.5°	242.9	185.1	229.9	447.9	747.7	1217.6
45°	131.4	115.2	126.0	270.6	610.2	1085.0
47.5°	103.1	109.1	103.1	170.7	466.8	859.4
50°	98.9	117.9	98.9	131.8	386.2	650.7
52.5°	107.8	127.9	106.8	104.1	315.1	482.0
55°	122.2	188.7	123.6	84.6	231.1	324.7
57.5°	174.0	212.3	175.9	80.2	178.0	205.9
60°	178.7	228.9	177.4	84.6	137.7	152.6
62.5°	211.4	283.3	211.1	96.8	102.4	126.0
65°	271.2	298.3	273.9	123.5	73.1	113.8
67.5°	257.4	276.7	254.7	132.4	50.3	102.7
70°	252.9	267.8	250.1	151.2	46.7	86.0
72.5°	235.9	237.8	231.0	140.1	42.0	71.6
75°	182.9	170.7	176.1	120.7	42.1	61.0
77.5°	113.7	108.8	109.6	92.1	37.1	45.8
80°	86.0	83.2	81.9	77.7	34.7	34.7
82.5°	63.8	61.0	59.7	59.9	29.1	26.9
85°	29.1	26.4	25.0	34.7	20.7	15.3
87.5°	5.5	5.5	4.5	5.5	7.7	5.5
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	15.78	17.09	16.15	17.41	17.72	14.64	15.95	15.00	16.26	16.58
	3H	16.51	17.68	16.89	18.01	18.38	20.82	21.99	21.20	22.32	22.68
	4H	16.93	18.03	17.34	18.38	18.77	22.11	23.21	22.51	23.56	23.94
	6H	17.31	18.32	17.72	18.69	19.08	22.73	23.75	23.15	24.12	24.51
	8H	17.44	18.40	17.87	18.79	19.19	22.87	23.83	23.30	24.22	24.62
	12H	17.52	18.44	17.95	18.82	19.25	22.92	23.84	23.35	24.22	24.65
4H	2H	16.22	17.32	16.62	17.67	18.05	15.21	16.31	15.62	16.66	17.04
	3H	17.24	18.16	17.66	18.56	18.96	21.57	22.48	21.98	22.88	23.28
	4H	17.82	18.64	18.25	19.06	19.50	23.03	23.85	23.46	24.27	24.71
	6H	18.31	19.02	18.77	19.47	19.93	23.78	24.50	24.25	24.94	25.41
	8H	18.49	19.15	18.96	19.60	20.07	23.96	24.62	24.42	25.07	25.54
	12H	18.62	19.21	19.11	19.69	20.17	24.04	24.63	24.52	25.11	25.58
8H	4H	18.94	19.61	19.41	20.05	20.52	23.18	23.84	23.64	24.29	24.76
	6H	19.56	20.10	20.06	20.60	21.08	24.07	24.61	24.57	25.11	25.59
	8H	19.79	20.28	20.31	20.79	21.29	24.31	24.80	24.83	25.31	25.81
	12H	19.99	20.41	20.50	20.91	21.48	24.46	24.88	24.97	25.38	25.95
12H	4H	19.11	19.69	19.59	20.18	20.65	23.16	23.75	23.64	24.23	24.70
	6H	19.83	20.32	20.35	20.83	21.33	24.07	24.56	24.59	25.07	25.57
	8H	20.15	20.58	20.67	21.08	21.65	24.38	24.80	24.89	25.30	25.87