

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

(formerly Eaton)

Brand: CORELITE

Report Number: P520191

Luminaire Tested: **SQ4-F-100U-050D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520191
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-17)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-050D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

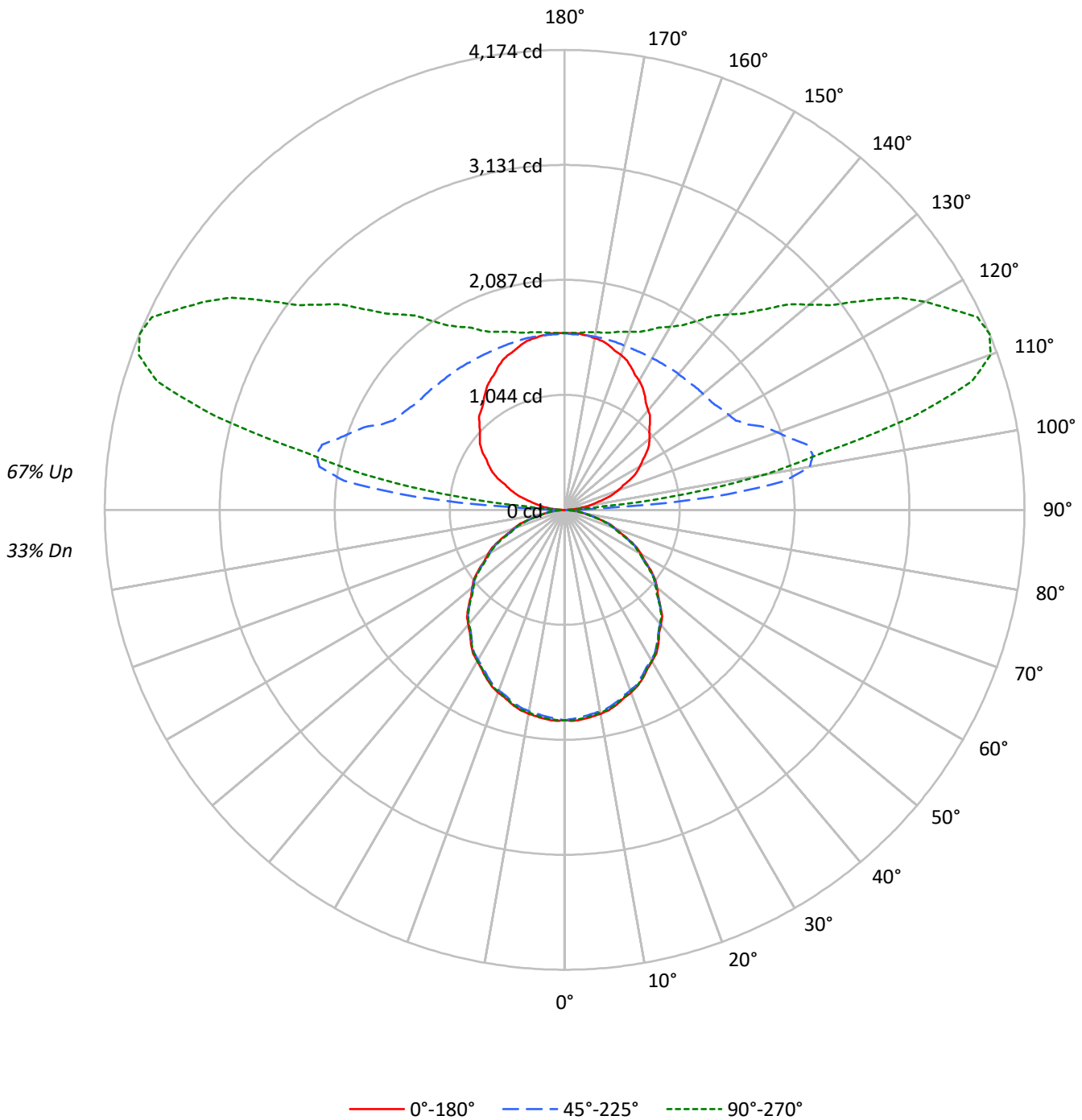
Lumens per Lamp: N/A
Luminaire Lumens: 15633.1 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 131.2
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



TEST NUMBER: P520191
CATALOG NUMBER: SQ4-F-100U-050D-940-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P520191

CATALOG NUMBER: SQ4-F-100U-050D-940-1D-UNV-STD-W-12

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	78	72	67	77	71	66	61	57	53	50	44	41	39	32	30	29	23
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	39	34	31	31	27	24	22	20	18	15
6	60	48	40	35	54	44	37	32	35	30	27	28	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	20	23	19	17	17	14	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5875	5875	5875
5°	5889	5818	5866
10°	5870	5798	5838
15°	5830	5756	5805
20°	5775	5708	5750
25°	5710	5640	5693
30°	5630	5585	5621
35°	5568	5501	5530
40°	5462	5410	5421
45°	5350	5306	5306
50°	5237	5188	5163
55°	5115	5046	5019
60°	4923	4845	4813
65°	4689	4597	4541
70°	4369	4277	4185
75°	3920	3799	3707
80°	3170	3124	3036
85°	1895	2163	2255



TEST NUMBER: P520191

CATALOG NUMBER: SQ4-F-100U-050D-940-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.2	1.2
10°-20°	513.3	3.3
20°-30°	770.9	4.9
30°-40°	920.2	5.9
40°-50°	943.0	6.0
50°-60°	841.0	5.4
60°-70°	626.3	4.0
70°-80°	340.0	2.2
80°-90°	82.0	0.5
90°-100°	750.7	4.8
100°-110°	2072.6	13.3
110°-120°	2137.5	13.7
120°-130°	1717.7	11.0
130°-140°	1349.9	8.6
140°-150°	1035.3	6.6
150°-160°	744.1	4.8
160°-170°	455.0	2.9
170°-180°	153.4	1.0
0°-30°	1464.4	9.4
0°-40°	2384.7	15.3
0°-60°	4168.7	26.7
0°-90°	5217.0	33.4
90°-120°	4960.8	31.7
90°-150°	9063.6	58.0
90°-180°	10416.0	66.6
0°-180°	15633.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1910	1910	1910	1910	1910	
5°	1908	1905	1885	1903	1900	181
15°	1831	1826	1808	1823	1823	516
25°	1683	1678	1662	1672	1678	775
35°	1483	1478	1465	1466	1473	926
45°	1230	1233	1220	1217	1220	949
55°	954	954	941	934	936	850
65°	644	642	632	624	624	638
75°	330	327	320	314	312	349
85°	54	59	61	64	64	75
90°	5	10	20	23	26	9
95°	110	406	1362	560	364	118
105°	369	570	2280	3481	3278	393
115°	662	800	1836	3636	4135	650
125°	908	1033	1665	2817	3306	808
135°	1093	1210	1618	2282	2573	845
145°	1267	1355	1598	1942	2090	793
155°	1429	1476	1585	1743	1798	658
165°	1547	1567	1593	1655	1667	436
175°	1603	1606	1595	1618	1613	152
180°	1603	1603	1603	1603	1603	

TEST NUMBER: P520191

CATALOG NUMBER: SQ4-F-100U-050D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1910.3	1910.3	1910.3	1910.3	1910.3
2.5°	1916.4	1912.5	1896.0	1910.3	1908.2
5°	1907.7	1905.3	1884.7	1902.6	1900.0
7.5°	1893.9	1888.9	1868.9	1886.2	1883.7
10°	1879.6	1874.6	1856.5	1871.8	1869.4
12.5°	1861.2	1858.2	1838.2	1853.5	1853.0
15°	1831.0	1826.0	1808.0	1823.3	1823.3
17.5°	1791.1	1788.1	1770.7	1785.5	1783.5
20°	1764.5	1759.5	1744.0	1756.9	1756.9
22.5°	1731.8	1728.8	1713.4	1724.1	1726.2
25°	1682.7	1677.7	1662.2	1672.5	1677.6
27.5°	1628.5	1624.4	1611.6	1618.3	1621.9
30°	1585.5	1585.5	1572.8	1575.4	1582.9
32.5°	1546.6	1546.6	1531.8	1534.4	1538.0
35°	1483.2	1478.2	1465.3	1465.5	1473.0
37.5°	1409.6	1407.1	1398.8	1397.3	1399.3
40°	1360.5	1358.0	1347.6	1350.2	1350.2
42.5°	1311.4	1308.9	1298.5	1295.1	1299.1
45°	1230.0	1232.6	1219.9	1217.3	1219.9
47.5°	1149.7	1149.7	1139.5	1132.5	1136.4
50°	1094.5	1094.5	1084.3	1079.1	1079.1
52.5°	1037.2	1039.2	1027.0	1019.9	1021.9
55°	953.9	953.9	941.1	933.5	936.0
57.5°	861.8	861.8	849.0	841.4	845.9
60°	800.4	800.4	787.7	780.1	782.5
62.5°	739.0	739.0	726.2	718.6	719.1
65°	644.4	641.9	631.7	624.0	624.0
67.5°	553.4	546.9	539.1	528.8	528.8
70°	485.9	483.4	475.7	465.4	465.4
72.5°	424.5	420.0	412.3	404.1	404.1
75°	329.9	327.4	319.7	314.5	312.0
77.5°	236.3	234.3	233.7	226.6	228.7
80°	179.0	179.0	176.4	171.4	171.4
82.5°	127.9	129.9	125.3	124.2	122.3
85°	53.7	58.7	61.3	63.9	63.9
87.5°	11.2	18.2	18.4	21.0	21.5
90°	5.1	10.2	20.5	23.1	25.6
92.5°	46.2	191.6	342.7	125.0	97.4
95°	110.3	406.3	1362.0	559.8	364.2
97.5°	182.6	454.9	2017.6	1553.4	1125.0
100°	235.9	484.2	2259.8	2275.7	1849.3
102.5°	287.3	517.5	2307.0	2811.8	2407.5
105°	369.4	570.0	2280.2	3481.2	3278.0
107.5°	456.5	635.2	2153.0	3803.9	3878.2
110°	518.2	678.6	2054.5	3873.4	4114.2



TEST NUMBER: P520191

CATALOG NUMBER: SQ4-F-100U-050D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	573.5	728.0	1962.2	3818.6	4173.7
115°	661.8	799.7	1836.5	3635.7	4134.7
117.5°	738.7	876.2	1753.9	3378.1	3945.9
120°	790.0	925.4	1721.0	3203.8	3775.6
122.5°	839.3	968.6	1694.4	3041.1	3582.8
125°	908.0	1033.4	1664.7	2817.2	3306.3
127.5°	966.5	1091.9	1647.2	2627.9	3049.8
130°	1005.4	1130.9	1639.0	2512.1	2895.8
132.5°	1042.4	1161.7	1630.8	2414.9	2762.5
135°	1092.7	1210.5	1618.5	2281.7	2572.7
137.5°	1149.1	1256.4	1612.3	2169.9	2418.2
140°	1179.8	1285.2	1608.3	2095.4	2313.6
142.5°	1214.8	1312.1	1604.1	2029.2	2221.3
145°	1267.1	1354.8	1598.0	1942.4	2090.4
147.5°	1317.3	1394.1	1592.3	1869.4	1984.3
150°	1354.3	1417.0	1590.3	1825.8	1918.6
152.5°	1383.0	1441.7	1588.2	1788.5	1865.3
155°	1428.7	1476.3	1585.1	1742.9	1798.0
157.5°	1470.8	1507.4	1585.6	1709.7	1747.3
160°	1495.4	1527.9	1587.7	1691.0	1718.6
162.5°	1515.9	1544.5	1589.8	1674.4	1695.9
165°	1546.6	1566.7	1592.8	1654.7	1667.2
167.5°	1570.3	1582.3	1595.4	1642.7	1646.7
170°	1582.6	1592.6	1595.4	1636.5	1636.5
172.5°	1592.8	1598.9	1595.4	1628.2	1626.2
175°	1603.1	1605.6	1595.4	1618.4	1613.3
177.5°	1607.2	1605.2	1594.9	1609.2	1605.1
180°	1603.1	1603.1	1603.1	1603.1	1603.1

(END OF REPORT)