

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: P520239

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520239
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-100D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

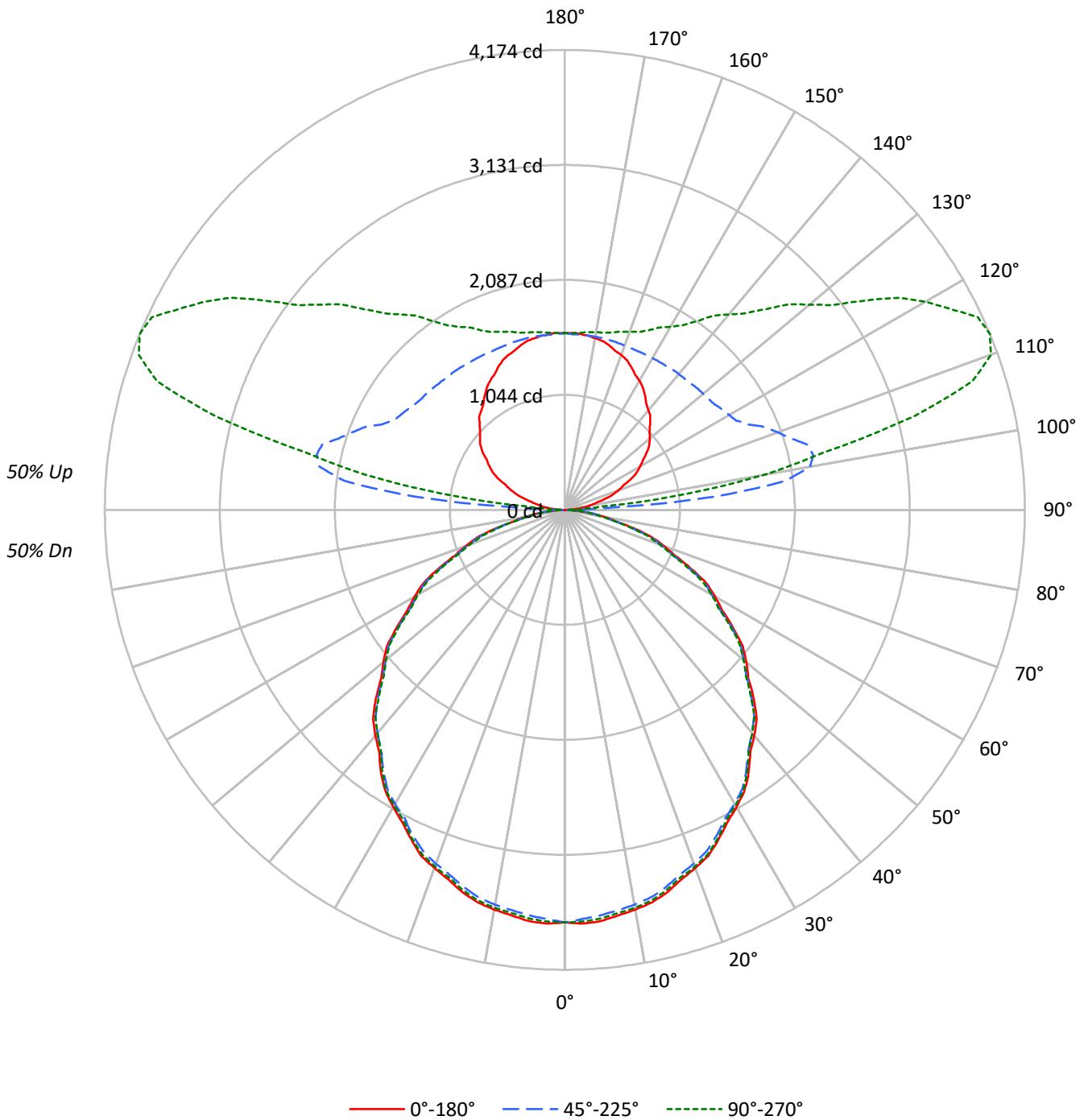
Lumens per Lamp: N/A
Luminaire Lumens: 20630.8 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 183.6
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: P520239
CATALOG NUMBER: SQ4-F-100U-100D-940-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P520239

CATALOG NUMBER: SQ4-F-100U-100D-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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39	35
3	81	71	64	58	74	66	60	55	56	51	47	47	43	40	38	36	33	29
4	74	63	55	49	68	59	52	46	50	44	40	42	38	34	34	31	29	25
5	68	56	48	42	62	52	45	40	44	39	35	37	33	30	31	27	25	22
6	63	50	42	36	57	47	40	34	40	34	30	34	29	26	28	24	22	19
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	25	22	19	17
8	54	41	33	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	14
10	47	34	27	22	43	32	26	21	28	23	19	24	19	17	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11514	11514	11514
5°	11566	11408	11495
10°	11507	11363	11451
15°	11437	11282	11372
20°	11320	11185	11278
25°	11196	11065	11153
30°	11060	10941	10996
35°	10921	10786	10843
40°	10739	10616	10626
45°	10550	10405	10371
50°	10278	10155	10131
55°	9976	9865	9796
60°	9673	9499	9467
65°	9200	8994	8919
70°	8549	8341	8180
75°	7633	7388	7236
80°	6280	6052	5781
85°	3716	4079	4171



TEST NUMBER: P520239

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.4	1.7
10°-20°	1006.3	4.9
20°-30°	1511.2	7.3
30°-40°	1803.4	8.7
40°-50°	1848.5	9.0
50°-60°	1646.1	8.0
60°-70°	1227.1	5.9
70°-80°	664.4	3.2
80°-90°	154.5	0.7
90°-100°	750.7	3.6
100°-110°	2072.6	10.0
110°-120°	2137.5	10.4
120°-130°	1717.7	8.3
130°-140°	1349.9	6.5
140°-150°	1035.3	5.0
150°-160°	744.1	3.6
160°-170°	455.0	2.2
170°-180°	153.4	0.7
0°-30°	2870.8	13.9
0°-40°	4674.2	22.7
0°-60°	8168.8	39.6
0°-90°	10214.8	49.5
90°-120°	4960.8	24.0
90°-150°	9063.6	43.9
90°-180°	10416.0	50.5
0°-180°	20630.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3744	3744	3744	3744	3744	
5°	3746	3739	3695	3728	3723	355
15°	3592	3580	3544	3572	3572	1012
25°	3299	3292	3261	3279	3287	1520
35°	2909	2896	2873	2878	2888	1816
45°	2426	2413	2392	2380	2385	1866
55°	1860	1863	1840	1822	1827	1665
65°	1264	1259	1236	1223	1226	1250
75°	642	635	622	609	609	684
85°	105	115	116	118	118	147
90°	5	10	20	23	26	10
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: P520239

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3743.9	3743.9	3743.9	3743.9	3743.9
2.5°	3758.4	3750.4	3717.3	3743.9	3739.9
5°	3746.5	3739.0	3695.2	3728.5	3723.4
7.5°	3711.6	3704.1	3665.3	3696.1	3691.5
10°	3684.9	3677.3	3638.6	3669.4	3666.8
12.5°	3649.9	3642.4	3603.6	3634.4	3632.0
15°	3592.3	3579.8	3543.6	3571.8	3571.8
17.5°	3516.3	3506.7	3473.1	3496.8	3497.3
20°	3458.8	3451.2	3417.6	3443.4	3445.9
22.5°	3401.2	3393.7	3355.9	3379.7	3384.3
25°	3299.4	3291.9	3260.9	3279.0	3286.6
27.5°	3194.6	3183.5	3153.0	3169.0	3174.5
30°	3114.5	3109.4	3081.0	3088.9	3096.4
32.5°	3030.1	3025.1	3000.8	3004.8	3018.3
35°	2908.9	2896.3	2872.9	2878.2	2888.2
37.5°	2765.5	2759.4	2736.7	2733.8	2743.4
40°	2675.0	2664.9	2644.2	2639.2	2646.7
42.5°	2576.3	2566.2	2541.4	2536.4	2546.0
45°	2425.7	2413.1	2392.3	2379.6	2384.6
47.5°	2257.2	2257.2	2235.6	2220.8	2228.4
50°	2148.2	2148.2	2122.5	2109.9	2117.4
52.5°	2035.1	2037.1	2009.5	2002.7	2000.2
55°	1860.5	1862.9	1839.9	1822.0	1827.0
57.5°	1691.8	1686.3	1659.4	1647.7	1650.2
60°	1572.6	1565.1	1544.4	1526.7	1539.2
62.5°	1451.4	1447.8	1427.2	1407.1	1405.6
65°	1264.3	1259.2	1236.0	1223.2	1225.7
67.5°	1078.2	1072.2	1051.0	1032.6	1039.2
70°	950.8	950.8	927.6	917.2	909.7
72.5°	833.6	823.6	806.3	791.9	786.3
75°	642.4	634.9	621.8	609.0	609.0
77.5°	467.7	461.1	452.8	444.0	441.5
80°	354.6	352.1	341.7	338.9	326.4
82.5°	249.8	249.3	243.0	236.4	235.9
85°	105.3	115.4	115.6	118.2	118.2
87.5°	19.5	32.6	32.9	29.3	29.8
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: P520239

CATALOG NUMBER: SQ4-F-100U-100D-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)