

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: P520171

Luminaire Tested: **SQ4-F-100U-050D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520171  
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-830-1D-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**

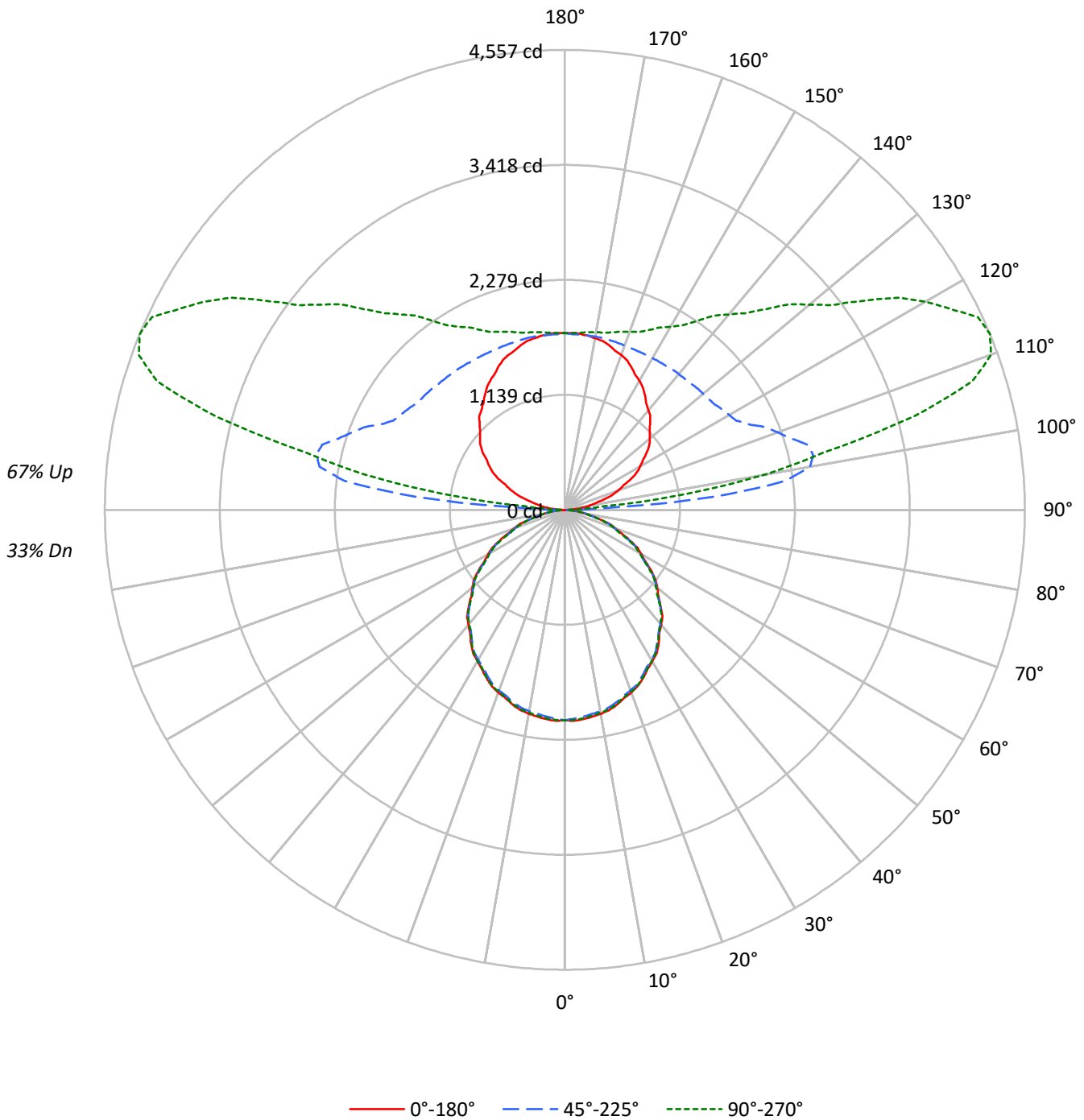
Lumens per Lamp: N/A  
Luminaire Lumens: 17069.2 lumens  
Efficiency: N/A  
Efficacy: 130.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

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



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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	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°	6415	6415	6415
5°	6430	6353	6405
10°	6409	6330	6374
15°	6365	6285	6338
20°	6306	6232	6278
25°	6234	6159	6216
30°	6147	6098	6138
35°	6080	6007	6038
40°	5963	5908	5919
45°	5841	5793	5793
50°	5718	5664	5638
55°	5584	5510	5479
60°	5375	5290	5255
65°	5121	5018	4958
70°	4770	4670	4570
75°	4280	4148	4048
80°	3461	3413	3314
85°	2071	2368	2463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.8	1.2
10°-20°	560.4	3.3
20°-30°	841.7	4.9
30°-40°	1004.8	5.9
40°-50°	1029.6	6.0
50°-60°	918.3	5.4
60°-70°	683.9	4.0
70°-80°	371.2	2.2
80°-90°	89.6	0.5
90°-100°	819.7	4.8
100°-110°	2262.9	13.3
110°-120°	2333.8	13.7
120°-130°	1875.4	11.0
130°-140°	1473.9	8.6
140°-150°	1130.4	6.6
150°-160°	812.4	4.8
160°-170°	496.8	2.9
170°-180°	167.5	1.0
0°-30°	1599.0	9.4
0°-40°	2603.7	15.3
0°-60°	4551.6	26.7
0°-90°	5696.3	33.4
90°-120°	5416.4	31.7
90°-150°	9896.1	58.0
90°-180°	11373.0	66.6
0°-180°	17069.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2086	2086	2086	2086	2086	
5°	2083	2080	2058	2077	2075	198
15°	1999	1994	1974	1991	1991	563
25°	1837	1832	1815	1826	1832	846
35°	1620	1614	1600	1600	1608	1011
45°	1343	1346	1332	1329	1332	1036
55°	1042	1042	1028	1019	1022	928
65°	704	701	690	681	681	697
75°	360	357	349	343	341	381
85°	59	64	67	70	70	82
90°	6	11	22	25	28	10
95°	120	444	1487	611	398	129
105°	403	622	2490	3801	3579	429
115°	722	873	2005	3970	4514	710
125°	991	1128	1818	3076	3610	882
135°	1193	1322	1767	2491	2809	923
145°	1384	1479	1745	2121	2282	866
155°	1560	1612	1731	1903	1963	719
165°	1689	1711	1739	1807	1820	476
175°	1750	1753	1742	1767	1762	166
180°	1750	1750	1750	1750	1750	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2085.8	2085.8	2085.8	2085.8	2085.8
2.5°	2092.5	2088.1	2070.1	2085.7	2083.5
5°	2082.9	2080.3	2057.8	2077.3	2074.6
7.5°	2067.9	2062.4	2040.5	2059.5	2056.7
10°	2052.3	2046.8	2027.1	2043.8	2041.1
12.5°	2032.2	2028.9	2007.0	2023.8	2023.2
15°	1999.2	1993.7	1974.1	1990.8	1990.8
17.5°	1955.6	1952.4	1933.4	1949.4	1947.3
20°	1926.7	1921.1	1904.3	1918.3	1918.3
22.5°	1890.9	1887.6	1870.7	1882.6	1884.7
25°	1837.2	1831.8	1814.9	1826.2	1831.7
27.5°	1778.1	1773.7	1759.6	1767.0	1770.8
30°	1731.1	1731.1	1717.2	1720.2	1728.4
32.5°	1688.7	1688.7	1672.5	1675.4	1679.3
35°	1619.5	1614.0	1599.9	1600.1	1608.3
37.5°	1539.0	1536.3	1527.3	1525.7	1527.9
40°	1485.4	1482.7	1471.5	1474.3	1474.3
42.5°	1431.9	1429.1	1417.9	1414.1	1418.4
45°	1343.0	1345.8	1331.9	1329.1	1331.9
47.5°	1255.3	1255.3	1244.2	1236.5	1240.9
50°	1195.1	1195.1	1183.9	1178.3	1178.3
52.5°	1132.5	1134.7	1121.3	1113.6	1115.7
55°	1041.5	1041.5	1027.6	1019.2	1021.9
57.5°	941.0	941.0	927.0	918.7	923.6
60°	873.9	873.9	860.0	851.7	854.4
62.5°	807.0	807.0	793.0	784.6	785.2
65°	703.7	700.9	689.6	681.3	681.3
67.5°	604.3	597.2	588.6	577.4	577.4
70°	530.5	527.7	519.4	508.2	508.2
72.5°	463.5	458.6	450.1	441.2	441.2
75°	360.2	357.4	349.1	343.3	340.7
77.5°	258.0	255.8	255.2	247.4	249.7
80°	195.4	195.4	192.7	187.1	187.1
82.5°	139.6	141.8	136.9	135.7	133.5
85°	58.7	64.1	67.1	69.8	69.8
87.5°	12.3	19.9	20.1	22.9	23.5
90°	5.6	11.1	22.4	25.2	28.0
92.5°	50.5	209.2	374.1	136.5	106.4
95°	120.4	443.6	1487.1	611.2	397.7
97.5°	199.4	496.8	2202.9	1696.0	1228.3
100°	257.7	528.7	2467.3	2484.7	2019.2
102.5°	313.7	565.0	2518.8	3070.0	2628.6
105°	403.3	622.3	2489.7	3801.0	3579.1
107.5°	498.5	693.4	2350.8	4153.4	4234.4
110°	565.7	740.9	2243.3	4229.2	4492.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	626.2	794.9	2142.4	4169.4	4557.1
115°	722.5	873.2	2005.2	3969.6	4514.5
117.5°	806.6	956.7	1915.0	3688.4	4308.4
120°	862.6	1010.5	1879.2	3498.1	4122.5
122.5°	916.3	1057.7	1850.0	3320.3	3911.9
125°	991.4	1128.3	1817.6	3076.0	3610.0
127.5°	1055.3	1192.2	1798.5	2869.3	3329.9
130°	1097.8	1234.7	1789.6	2742.9	3161.8
132.5°	1138.2	1268.5	1780.6	2636.7	3016.2
135°	1193.0	1321.8	1767.1	2491.3	2809.0
137.5°	1254.6	1371.8	1760.4	2369.3	2640.4
140°	1288.3	1403.3	1756.0	2287.9	2526.1
142.5°	1326.3	1432.6	1751.5	2215.6	2425.3
145°	1383.5	1479.3	1744.8	2120.9	2282.4
147.5°	1438.4	1522.2	1738.6	2041.2	2166.5
150°	1478.7	1547.1	1736.4	1993.5	2094.9
152.5°	1510.0	1574.1	1734.1	1952.8	2036.6
155°	1559.9	1611.9	1730.7	1903.0	1963.2
157.5°	1605.9	1645.9	1731.3	1866.7	1907.7
160°	1632.7	1668.3	1733.5	1846.3	1876.3
162.5°	1655.2	1686.3	1735.8	1828.2	1851.7
165°	1688.8	1710.7	1739.1	1806.7	1820.4
167.5°	1714.5	1727.7	1741.9	1793.6	1798.0
170°	1728.0	1738.9	1741.9	1786.7	1786.7
172.5°	1739.1	1745.8	1741.9	1777.7	1775.5
175°	1750.3	1753.1	1741.9	1767.0	1761.6
177.5°	1754.9	1752.7	1741.4	1757.0	1752.6
180°	1750.3	1750.3	1750.3	1750.3	1750.3

(END OF REPORT)