

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: P520179

Luminaire Tested: **SQ4-F-100U-050D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520179
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-840-1D-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

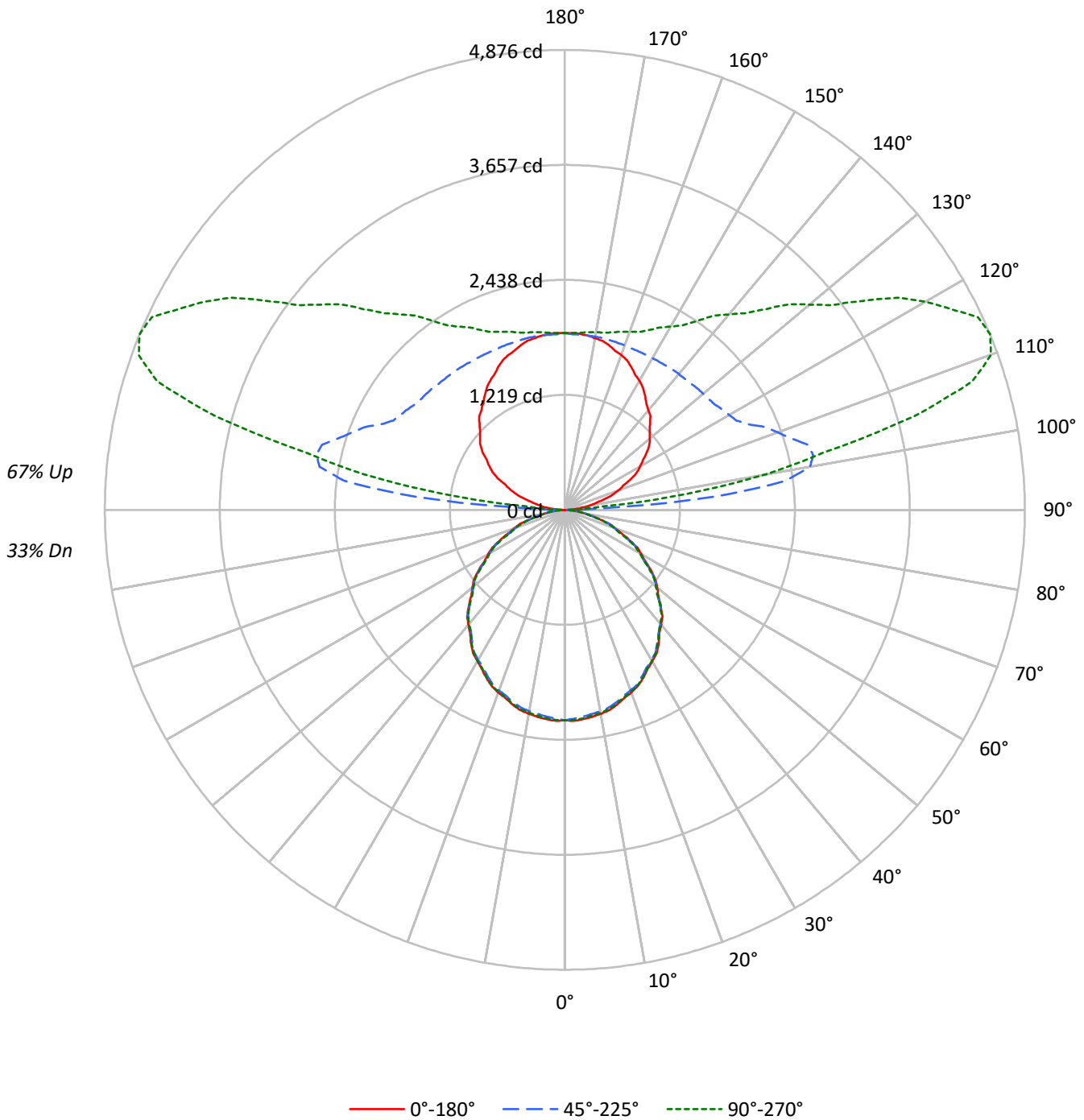
Lumens per Lamp: N/A
Luminaire Lumens: 18265.8 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

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



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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°	6864	6864	6864
5°	6881	6798	6853
10°	6858	6774	6821
15°	6811	6726	6783
20°	6747	6669	6718
25°	6672	6590	6651
30°	6579	6526	6568
35°	6506	6428	6462
40°	6382	6321	6334
45°	6251	6199	6199
50°	6118	6061	6033
55°	5976	5896	5863
60°	5752	5661	5624
65°	5480	5371	5306
70°	5105	4997	4890
75°	4579	4438	4331
80°	3703	3652	3546
85°	2212	2530	2636



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.6	1.2
10°-20°	599.7	3.3
20°-30°	900.7	4.9
30°-40°	1075.2	5.9
40°-50°	1101.8	6.0
50°-60°	982.6	5.4
60°-70°	731.8	4.0
70°-80°	397.3	2.2
80°-90°	95.9	0.5
90°-100°	877.2	4.8
100°-110°	2421.6	13.3
110°-120°	2497.4	13.7
120°-130°	2006.9	11.0
130°-140°	1577.2	8.6
140°-150°	1209.6	6.6
150°-160°	869.4	4.8
160°-170°	531.7	2.9
170°-180°	179.2	1.0
0°-30°	1711.0	9.4
0°-40°	2786.3	15.3
0°-60°	4870.7	26.7
0°-90°	6095.6	33.4
90°-120°	5796.2	31.7
90°-150°	10589.9	58.0
90°-180°	12170.0	66.6
0°-180°	18265.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2232	2232	2232	2232	2232	
5°	2229	2226	2202	2223	2220	212
15°	2139	2134	2112	2130	2130	603
25°	1966	1960	1942	1954	1960	905
35°	1733	1727	1712	1712	1721	1081
45°	1437	1440	1425	1422	1425	1109
55°	1114	1114	1100	1091	1094	993
65°	753	750	738	729	729	746
75°	385	382	374	367	364	407
85°	63	69	72	75	75	88
90°	6	12	24	27	30	11
95°	129	475	1591	654	426	138
105°	432	666	2664	4067	3830	459
115°	773	934	2146	4248	4831	760
125°	1061	1207	1945	3292	3863	944
135°	1277	1414	1891	2666	3006	988
145°	1480	1583	1867	2270	2442	927
155°	1669	1725	1852	2036	2101	769
165°	1807	1830	1861	1933	1948	509
175°	1873	1876	1864	1891	1885	178
180°	1873	1873	1873	1873	1873	

TEST NUMBER: P520179

CATALOG NUMBER: SQ4-F-100U-050D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2231.9	2231.9	2231.9	2231.9	2231.9
2.5°	2239.1	2234.5	2215.3	2231.9	2229.6
5°	2229.0	2226.1	2202.1	2223.0	2220.0
7.5°	2212.9	2207.0	2183.6	2203.8	2200.9
10°	2196.1	2190.3	2169.2	2187.1	2184.2
12.5°	2174.6	2171.1	2147.7	2165.7	2165.1
15°	2139.3	2133.5	2112.4	2130.4	2130.4
17.5°	2092.7	2089.3	2068.8	2086.1	2083.8
20°	2061.6	2055.8	2037.8	2052.7	2052.7
22.5°	2023.4	2019.9	2001.9	2014.5	2016.9
25°	1966.1	1960.2	1942.1	1954.3	1960.1
27.5°	1902.7	1898.1	1883.0	1890.9	1894.9
30°	1852.5	1852.5	1837.6	1840.8	1849.5
32.5°	1807.1	1807.1	1789.8	1792.8	1797.0
35°	1733.0	1727.2	1712.1	1712.3	1721.1
37.5°	1646.9	1644.1	1634.4	1632.6	1635.0
40°	1589.6	1586.7	1574.6	1577.6	1577.6
42.5°	1532.2	1529.3	1517.2	1513.2	1517.8
45°	1437.2	1440.1	1425.2	1422.3	1425.2
47.5°	1343.4	1343.4	1331.4	1323.2	1327.8
50°	1278.8	1278.8	1266.9	1260.9	1260.9
52.5°	1211.9	1214.2	1199.9	1191.6	1194.0
55°	1114.5	1114.5	1099.6	1090.7	1093.5
57.5°	1007.0	1007.0	992.0	983.2	988.4
60°	935.2	935.2	920.3	911.4	914.3
62.5°	863.5	863.5	848.6	839.6	840.2
65°	753.0	750.0	738.1	729.1	729.1
67.5°	646.6	639.0	629.9	617.9	617.9
70°	567.7	564.8	555.7	543.8	543.8
72.5°	496.0	490.8	481.7	472.1	472.1
75°	385.4	382.5	373.5	367.4	364.5
77.5°	276.1	273.7	273.1	264.8	267.1
80°	209.1	209.1	206.2	200.2	200.2
82.5°	149.4	151.8	146.4	145.1	142.8
85°	62.7	68.6	71.7	74.7	74.7
87.5°	13.1	21.3	21.5	24.6	25.1
90°	6.0	11.9	23.9	27.0	30.0
92.5°	53.9	223.9	400.4	146.1	113.9
95°	128.9	474.6	1591.4	654.2	425.6
97.5°	213.4	531.6	2357.4	1814.9	1314.5
100°	275.7	565.8	2640.2	2658.9	2160.7
102.5°	335.6	604.6	2695.4	3285.3	2812.9
105°	431.6	665.9	2664.3	4067.4	3830.1
107.5°	533.5	742.1	2515.6	4444.6	4531.3
110°	605.4	793.0	2400.5	4525.8	4807.0



TEST NUMBER: P520179

CATALOG NUMBER: SQ4-F-100U-050D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	670.1	850.6	2292.6	4461.7	4876.5
115°	773.2	934.4	2145.8	4247.9	4831.0
117.5°	863.1	1023.6	2049.3	3947.0	4610.5
120°	923.0	1081.3	2010.9	3743.3	4411.4
122.5°	980.6	1131.8	1979.7	3553.2	4186.1
125°	1060.9	1207.4	1945.0	3291.6	3863.0
127.5°	1129.2	1275.8	1924.6	3070.4	3563.4
130°	1174.8	1321.3	1915.0	2935.2	3383.5
132.5°	1217.9	1357.4	1905.4	2821.5	3227.6
135°	1276.7	1414.4	1891.1	2665.9	3005.9
137.5°	1342.6	1468.0	1883.9	2535.4	2825.5
140°	1378.6	1501.6	1879.0	2448.3	2703.2
142.5°	1419.3	1533.0	1874.3	2370.9	2595.3
145°	1480.5	1583.0	1867.1	2269.6	2442.5
147.5°	1539.2	1628.8	1860.5	2184.2	2318.4
150°	1582.4	1655.7	1858.0	2133.2	2241.7
152.5°	1615.9	1684.5	1855.7	2089.7	2179.3
155°	1669.3	1725.0	1852.1	2036.4	2100.8
157.5°	1718.5	1761.2	1852.7	1997.5	2041.4
160°	1747.2	1785.2	1855.1	1975.7	2007.9
162.5°	1771.2	1804.5	1857.5	1956.4	1981.6
165°	1807.1	1830.5	1861.1	1933.3	1948.0
167.5°	1834.7	1848.8	1864.1	1919.3	1924.0
170°	1849.0	1860.8	1864.1	1912.1	1912.1
172.5°	1861.1	1868.1	1864.1	1902.4	1900.0
175°	1873.1	1876.0	1864.1	1890.9	1885.1
177.5°	1877.8	1875.6	1863.5	1880.1	1875.5
180°	1873.1	1873.1	1873.1	1873.1	1873.1

(END OF REPORT)