

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: P520175

Luminaire Tested: **SQ4-F-100U-050D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520175
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-835-1D-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

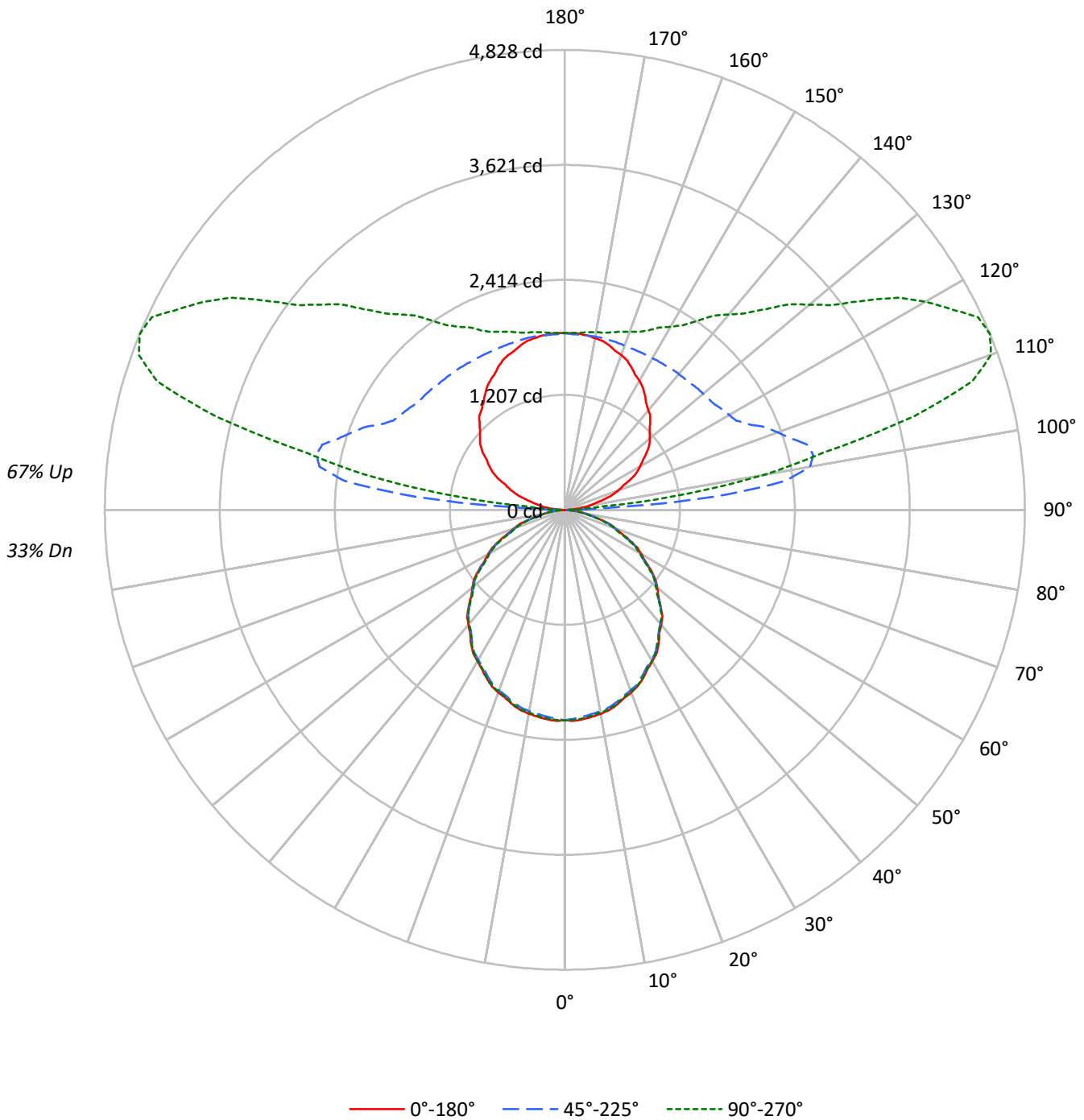
Lumens per Lamp: N/A
Luminaire Lumens: 18083.9 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

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: P520175
CATALOG NUMBER: SQ4-F-100U-050D-835-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P520175

CATALOG NUMBER: SQ4-F-100U-050D-835-1D-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°	6796	6796	6796
5°	6813	6731	6785
10°	6790	6707	6753
15°	6743	6659	6715
20°	6680	6603	6651
25°	6605	6525	6585
30°	6513	6461	6503
35°	6441	6364	6397
40°	6318	6259	6270
45°	6189	6137	6137
50°	6058	6001	5972
55°	5916	5837	5805
60°	5695	5604	5568
65°	5425	5317	5253
70°	5054	4947	4841
75°	4534	4394	4288
80°	3668	3615	3510
85°	2191	2505	2611



TEST NUMBER: P520175

CATALOG NUMBER: SQ4-F-100U-050D-835-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.5	1.2
10°-20°	593.7	3.3
20°-30°	891.8	4.9
30°-40°	1064.5	5.9
40°-50°	1090.8	6.0
50°-60°	972.8	5.4
60°-70°	724.5	4.0
70°-80°	393.3	2.2
80°-90°	94.9	0.5
90°-100°	868.4	4.8
100°-110°	2397.5	13.3
110°-120°	2472.6	13.7
120°-130°	1986.9	11.0
130°-140°	1561.5	8.6
140°-150°	1197.6	6.6
150°-160°	860.7	4.8
160°-170°	526.4	2.9
170°-180°	177.5	1.0
0°-30°	1694.0	9.4
0°-40°	2758.5	15.3
0°-60°	4822.2	26.7
0°-90°	6034.9	33.4
90°-120°	5738.4	31.7
90°-150°	10484.4	58.0
90°-180°	12049.0	66.6
0°-180°	18083.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2210	2210	2210	2210	2210	
5°	2207	2204	2180	2201	2198	210
15°	2118	2112	2091	2109	2109	597
25°	1946	1941	1923	1935	1941	896
35°	1716	1710	1695	1695	1704	1071
45°	1423	1426	1411	1408	1411	1098
55°	1103	1103	1089	1080	1083	983
65°	746	743	731	722	722	738
75°	382	379	370	364	361	403
85°	62	68	71	74	74	87
90°	6	12	24	27	30	11
95°	128	470	1576	648	421	137
105°	427	659	2638	4027	3792	455
115°	766	925	2124	4206	4783	752
125°	1050	1195	1926	3259	3824	935
135°	1264	1400	1872	2639	2976	978
145°	1466	1567	1848	2247	2418	918
155°	1653	1708	1834	2016	2080	762
165°	1789	1812	1842	1914	1929	504
175°	1854	1857	1846	1872	1866	176
180°	1854	1854	1854	1854	1854	

TEST NUMBER: P520175

CATALOG NUMBER: SQ4-F-100U-050D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2209.8	2209.8	2209.8	2209.8	2209.8
2.5°	2216.9	2212.2	2193.2	2209.7	2207.4
5°	2206.8	2203.9	2180.2	2200.8	2197.9
7.5°	2190.8	2185.0	2161.8	2181.8	2179.0
10°	2174.3	2168.4	2147.6	2165.3	2162.4
12.5°	2153.0	2149.5	2126.3	2144.1	2143.5
15°	2118.0	2112.2	2091.4	2109.2	2109.2
17.5°	2071.9	2068.5	2048.2	2065.3	2063.0
20°	2041.1	2035.3	2017.5	2032.3	2032.3
22.5°	2003.3	1999.8	1982.0	1994.5	1996.8
25°	1946.5	1940.7	1922.8	1934.7	1940.6
27.5°	1883.8	1879.1	1864.2	1872.0	1876.1
30°	1834.1	1834.1	1819.3	1822.4	1831.1
32.5°	1789.1	1789.1	1771.9	1775.0	1779.0
35°	1715.7	1709.9	1695.0	1695.2	1703.9
37.5°	1630.5	1627.7	1618.1	1616.4	1618.7
40°	1573.7	1570.9	1559.0	1561.9	1561.9
42.5°	1516.9	1514.1	1502.2	1498.1	1502.8
45°	1422.9	1425.7	1411.0	1408.2	1411.0
47.5°	1330.0	1330.0	1318.2	1310.0	1314.6
50°	1266.1	1266.1	1254.3	1248.3	1248.3
52.5°	1199.8	1202.1	1188.0	1179.8	1182.1
55°	1103.4	1103.4	1088.6	1079.8	1082.7
57.5°	996.9	996.9	982.1	973.3	978.6
60°	925.9	925.9	911.1	902.3	905.2
62.5°	854.9	854.9	840.1	831.2	831.8
65°	745.5	742.6	730.7	721.8	721.8
67.5°	640.1	632.7	623.6	611.7	611.7
70°	562.1	559.2	550.2	538.4	538.4
72.5°	491.1	485.8	476.9	467.4	467.4
75°	381.6	378.7	369.8	363.8	360.9
77.5°	273.3	271.1	270.4	262.2	264.5
80°	207.1	207.1	204.1	198.2	198.2
82.5°	147.9	150.2	145.0	143.7	141.4
85°	62.1	67.9	71.0	74.0	74.0
87.5°	13.0	21.1	21.3	24.3	24.8
90°	5.9	11.8	23.7	26.8	29.7
92.5°	53.4	221.7	396.4	144.6	112.8
95°	127.6	469.9	1575.5	647.6	421.3
97.5°	211.3	526.4	2333.9	1796.8	1301.3
100°	272.9	560.2	2614.0	2632.4	2139.3
102.5°	332.3	598.7	2668.5	3252.6	2784.8
105°	427.2	659.3	2637.8	4026.9	3791.9
107.5°	528.1	734.7	2490.6	4400.3	4486.2
110°	599.4	785.0	2376.6	4480.7	4759.1



TEST NUMBER: P520175

CATALOG NUMBER: SQ4-F-100U-050D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	663.5	842.1	2269.8	4417.2	4828.0
115°	765.5	925.0	2124.4	4205.6	4782.9
117.5°	854.5	1013.5	2028.9	3907.7	4564.6
120°	913.8	1070.5	1990.9	3706.0	4367.5
122.5°	970.8	1120.5	1960.0	3517.8	4144.3
125°	1050.4	1195.4	1925.6	3258.8	3824.5
127.5°	1118.0	1263.0	1905.4	3039.9	3527.8
130°	1163.1	1308.1	1895.9	2905.9	3349.8
132.5°	1205.9	1343.9	1886.4	2793.5	3195.5
135°	1263.9	1400.3	1872.2	2639.4	2976.0
137.5°	1329.2	1453.4	1865.1	2510.1	2797.3
140°	1364.8	1486.7	1860.3	2423.9	2676.2
142.5°	1405.2	1517.8	1855.6	2347.2	2569.5
145°	1465.7	1567.2	1848.5	2247.0	2418.1
147.5°	1523.9	1612.6	1841.9	2162.4	2295.3
150°	1566.6	1639.1	1839.6	2112.0	2219.3
152.5°	1599.9	1667.7	1837.2	2068.9	2157.7
155°	1652.7	1707.8	1833.6	2016.0	2079.9
157.5°	1701.3	1743.7	1834.2	1977.6	2021.2
160°	1729.7	1767.5	1836.6	1956.0	1987.9
162.5°	1753.5	1786.6	1839.0	1936.9	1961.8
165°	1789.1	1812.3	1842.5	1914.0	1928.6
167.5°	1816.4	1830.4	1845.5	1900.2	1904.8
170°	1830.6	1842.3	1845.5	1893.0	1893.0
172.5°	1842.5	1849.5	1845.5	1883.5	1881.1
175°	1854.4	1857.3	1845.5	1872.1	1866.3
177.5°	1859.1	1856.9	1844.9	1861.4	1856.8
180°	1854.4	1854.4	1854.4	1854.4	1854.4

(END OF REPORT)