

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: P520229

Luminaire Tested: **SQ4-F-100U-100D-840-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520229
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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

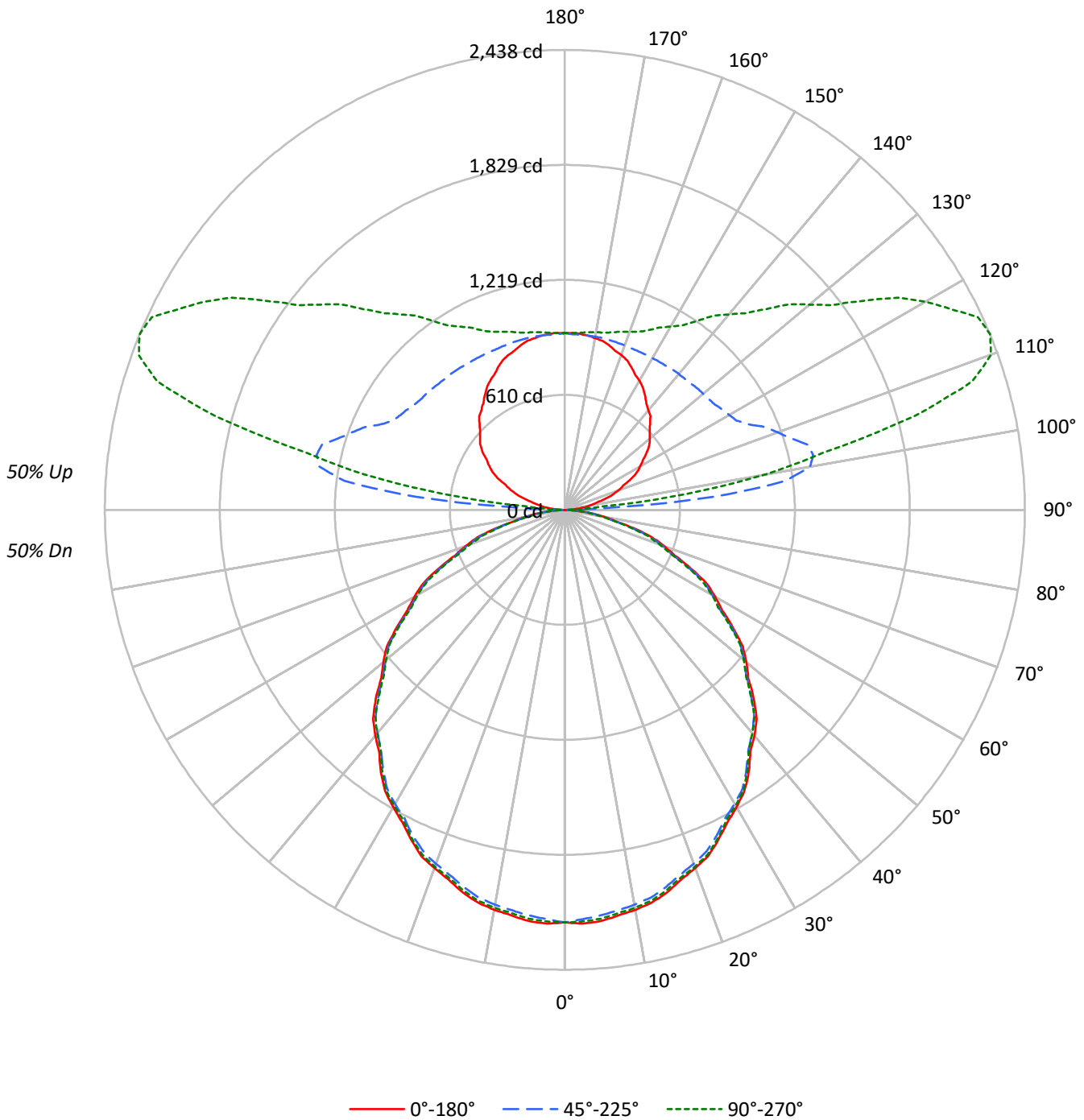
Lumens per Lamp: N/A
Luminaire Lumens: 12052.6 lumens
Efficiency: N/A
Efficacy: 133.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 90.2
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	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°	13453	13453	13453
5°	13514	13328	13431
10°	13445	13276	13380
15°	13364	13182	13288
20°	13226	13069	13177
25°	13081	12929	13030
30°	12922	12783	12847
35°	12760	12603	12670
40°	12547	12403	12415
45°	12327	12158	12118
50°	12009	11865	11836
55°	11654	11526	11445
60°	11301	11099	11062
65°	10750	10509	10422
70°	9990	9745	9557
75°	8919	8634	8456
80°	7339	7074	6751
85°	4340	4771	4877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.4	1.7
10°-20°	587.9	4.9
20°-30°	882.8	7.3
30°-40°	1053.6	8.7
40°-50°	1079.9	9.0
50°-60°	961.6	8.0
60°-70°	716.9	5.9
70°-80°	388.1	3.2
80°-90°	90.3	0.7
90°-100°	438.6	3.6
100°-110°	1210.8	10.0
110°-120°	1248.7	10.4
120°-130°	1003.5	8.3
130°-140°	788.6	6.5
140°-150°	604.8	5.0
150°-160°	434.7	3.6
160°-170°	265.8	2.2
170°-180°	89.6	0.7
0°-30°	1677.1	13.9
0°-40°	2730.7	22.7
0°-60°	4772.2	39.6
0°-90°	5967.5	49.5
90°-120°	2898.1	24.0
90°-150°	5295.0	43.9
90°-180°	6085.0	50.5
0°-180°	12052.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2187	2187	2187	2187	2187	
5°	2189	2184	2159	2178	2175	208
15°	2099	2091	2070	2087	2087	591
25°	1928	1923	1905	1916	1920	888
35°	1699	1692	1678	1681	1687	1061
45°	1417	1410	1398	1390	1393	1090
55°	1087	1088	1075	1064	1067	973
65°	739	736	722	715	716	730
75°	375	371	363	356	356	400
85°	62	67	68	69	69	86
90°	3	6	12	14	15	6
95°	64	237	796	327	213	69
105°	216	333	1332	2034	1915	230
115°	387	467	1073	2124	2416	380
125°	530	604	972	1646	1932	472
135°	638	707	946	1333	1503	494
145°	740	792	934	1135	1221	463
155°	835	862	926	1018	1050	385
165°	904	915	931	967	974	255
175°	936	938	932	946	942	89
180°	936	936	936	936	936	

TEST NUMBER: P520229

CATALOG NUMBER: SQ4-F-100U-100D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2187.2	2187.2	2187.2	2187.2	2187.2
2.5°	2195.7	2190.9	2171.6	2187.1	2184.9
5°	2188.7	2184.4	2158.7	2178.1	2175.3
7.5°	2168.3	2164.0	2141.3	2159.3	2156.6
10°	2152.7	2148.3	2125.7	2143.6	2142.2
12.5°	2132.3	2127.9	2105.3	2123.2	2121.7
15°	2098.7	2091.3	2070.1	2086.7	2086.7
17.5°	2054.3	2048.6	2029.0	2042.8	2043.1
20°	2020.6	2016.2	1996.6	2011.7	2013.1
22.5°	1987.0	1982.5	1960.5	1974.4	1977.1
25°	1927.5	1923.1	1905.1	1915.7	1920.0
27.5°	1866.3	1859.8	1841.9	1851.4	1854.5
30°	1819.4	1816.5	1799.9	1804.5	1808.9
32.5°	1770.2	1767.2	1753.1	1755.3	1763.3
35°	1699.4	1692.0	1678.4	1681.4	1687.4
37.5°	1615.5	1612.1	1598.8	1597.1	1602.7
40°	1562.7	1556.9	1544.7	1541.8	1546.2
42.5°	1505.1	1499.2	1484.6	1481.8	1487.4
45°	1417.1	1409.7	1397.7	1390.1	1393.1
47.5°	1318.7	1318.7	1306.0	1297.4	1301.8
50°	1255.0	1255.0	1240.0	1232.6	1236.9
52.5°	1189.0	1190.1	1173.9	1170.0	1168.5
55°	1086.8	1088.3	1074.8	1064.4	1067.3
57.5°	988.3	985.2	969.4	962.6	964.1
60°	918.7	914.3	902.2	891.8	899.2
62.5°	847.8	845.9	833.8	822.0	821.2
65°	738.6	735.7	722.1	714.6	716.1
67.5°	629.9	626.4	614.0	603.3	607.1
70°	555.5	555.5	541.9	535.8	531.4
72.5°	487.0	481.1	471.0	462.6	459.3
75°	375.3	370.9	363.3	355.8	355.8
77.5°	273.2	269.4	264.5	259.4	257.9
80°	207.2	205.7	199.7	198.0	190.6
82.5°	145.9	145.7	142.0	138.1	137.8
85°	61.5	67.4	67.6	69.1	69.1
87.5°	11.4	19.0	19.2	17.1	17.4
90°	3.0	5.9	12.0	13.6	14.9
92.5°	27.0	112.0	200.2	73.1	57.0
95°	64.4	237.3	795.7	327.0	212.8
97.5°	106.7	265.8	1178.7	907.5	657.2
100°	137.9	282.9	1320.1	1329.4	1080.4
102.5°	167.9	302.3	1347.7	1642.6	1406.5
105°	215.7	333.0	1332.1	2033.7	1915.0
107.5°	266.7	371.1	1257.8	2222.3	2265.7
110°	302.7	396.5	1200.2	2262.8	2403.5



TEST NUMBER: P520229

CATALOG NUMBER: SQ4-F-100U-100D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	335.0	425.3	1146.3	2230.8	2438.3
115°	386.6	467.2	1072.9	2124.0	2415.5
117.5°	431.6	511.8	1024.6	1973.5	2305.2
120°	461.6	540.6	1005.4	1871.7	2205.8
122.5°	490.3	565.9	989.9	1776.5	2093.1
125°	530.4	603.7	972.5	1645.8	1931.5
127.5°	564.6	637.8	962.3	1535.3	1781.7
130°	587.4	660.7	957.5	1467.6	1691.8
132.5°	609.0	678.7	952.7	1410.7	1613.8
135°	638.3	707.2	945.5	1333.0	1502.9
137.5°	671.3	734.0	941.9	1267.7	1412.7
140°	689.3	750.8	939.6	1224.2	1351.6
142.5°	709.7	766.5	937.1	1185.4	1297.7
145°	740.2	791.5	933.5	1134.8	1221.2
147.5°	769.6	814.4	930.3	1092.1	1159.2
150°	791.2	827.8	929.1	1066.7	1120.9
152.5°	808.0	842.2	927.9	1044.8	1089.7
155°	834.6	862.5	926.0	1018.2	1050.5
157.5°	859.2	880.6	926.3	998.8	1020.8
160°	873.6	892.7	927.6	987.8	1004.0
162.5°	885.5	902.3	928.8	978.1	990.8
165°	903.6	915.3	930.6	966.7	974.0
167.5°	917.4	924.4	932.0	959.6	962.0
170°	924.5	930.4	932.0	956.0	956.0
172.5°	930.6	934.0	932.0	951.2	950.0
175°	936.5	938.0	932.0	945.5	942.5
177.5°	939.0	937.8	931.7	940.1	937.8
180°	936.5	936.5	936.5	936.5	936.5

(END OF REPORT)