

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: P520223

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520223
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-835-1D-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

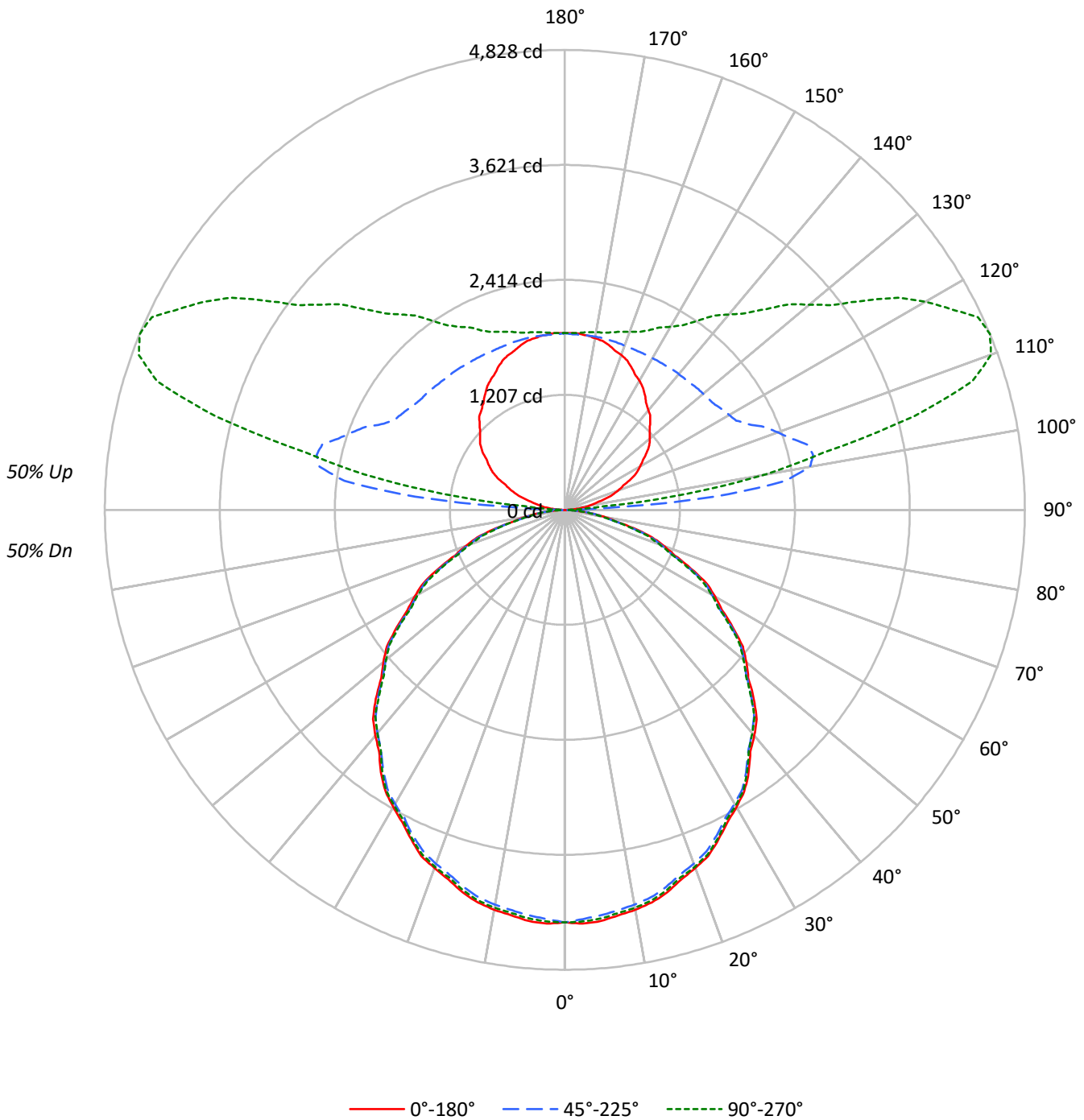
Lumens per Lamp: N/A
Luminaire Lumens: 23865.0 lumens
Efficiency: N/A
Efficacy: 130.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

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



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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°	13319	13319	13319
5°	13379	13196	13297
10°	13311	13144	13246
15°	13231	13051	13155
20°	13094	12939	13046
25°	12951	12800	12901
30°	12793	12656	12720
35°	12633	12477	12544
40°	12423	12280	12291
45°	12204	12036	11997
50°	11889	11747	11719
55°	11539	11412	11332
60°	11190	10988	10952
65°	10643	10405	10318
70°	9889	9649	9462
75°	8830	8547	8371
80°	7265	7001	6686
85°	4301	4721	4824



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.8	1.7
10°-20°	1164.0	4.9
20°-30°	1748.0	7.3
30°-40°	2086.1	8.7
40°-50°	2138.3	9.0
50°-60°	1904.1	8.0
60°-70°	1419.4	5.9
70°-80°	768.5	3.2
80°-90°	178.8	0.7
90°-100°	868.4	3.6
100°-110°	2397.5	10.0
110°-120°	2472.6	10.4
120°-130°	1986.9	8.3
130°-140°	1561.5	6.5
140°-150°	1197.6	5.0
150°-160°	860.7	3.6
160°-170°	526.4	2.2
170°-180°	177.5	0.7
0°-30°	3320.8	13.9
0°-40°	5406.9	22.7
0°-60°	9449.4	39.6
0°-90°	11816.1	49.5
90°-120°	5738.4	24.0
90°-150°	10484.4	43.9
90°-180°	12049.0	50.5
0°-180°	23865.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4331	4331	4331	4331	4331	
5°	4334	4325	4274	4313	4307	411
15°	4156	4141	4099	4132	4132	1171
25°	3817	3808	3772	3793	3802	1759
35°	3365	3350	3323	3330	3341	2100
45°	2806	2791	2767	2753	2758	2159
55°	2152	2155	2128	2108	2113	1926
65°	1462	1457	1430	1415	1418	1446
75°	743	734	719	704	704	791
85°	122	134	134	137	137	170
90°	6	12	24	27	30	12
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4330.9	4330.9	4330.9	4330.9	4330.9
2.5°	4347.5	4338.2	4300.0	4330.8	4326.1
5°	4333.9	4325.1	4274.4	4313.0	4307.1
7.5°	4293.4	4284.7	4239.9	4275.5	4270.2
10°	4262.5	4253.8	4209.0	4244.6	4241.7
12.5°	4222.1	4213.4	4168.6	4204.2	4201.3
15°	4155.5	4140.9	4099.0	4131.7	4131.7
17.5°	4067.5	4056.5	4017.6	4044.9	4045.5
20°	4000.9	3992.2	3953.4	3983.2	3986.1
22.5°	3934.4	3925.6	3882.0	3909.5	3914.7
25°	3816.6	3807.9	3772.1	3793.1	3801.8
27.5°	3695.4	3682.6	3647.2	3665.7	3672.2
30°	3602.6	3596.8	3564.0	3573.1	3581.8
32.5°	3505.1	3499.3	3471.2	3475.8	3491.5
35°	3364.8	3350.3	3323.2	3329.5	3341.1
37.5°	3199.0	3192.0	3165.7	3162.4	3173.4
40°	3094.3	3082.7	3058.7	3052.9	3061.6
42.5°	2980.2	2968.6	2939.8	2934.1	2945.1
45°	2806.0	2791.4	2767.4	2752.6	2758.5
47.5°	2611.0	2611.0	2586.0	2569.0	2577.7
50°	2485.0	2485.0	2455.3	2440.6	2449.3
52.5°	2354.2	2356.5	2324.5	2316.6	2313.8
55°	2152.1	2154.9	2128.3	2107.6	2113.4
57.5°	1957.1	1950.6	1919.6	1906.0	1908.9
60°	1819.2	1810.4	1786.5	1765.9	1780.5
62.5°	1678.8	1674.8	1650.9	1627.7	1625.9
65°	1462.5	1456.6	1429.8	1415.0	1417.9
67.5°	1247.2	1240.3	1215.7	1194.5	1202.1
70°	1099.8	1099.8	1073.1	1061.0	1052.3
72.5°	964.3	952.7	932.8	916.0	909.6
75°	743.1	734.4	719.3	704.5	704.5
77.5°	541.0	533.5	523.7	513.5	510.7
80°	410.2	407.3	395.3	392.1	377.5
82.5°	288.9	288.3	281.2	273.5	272.9
85°	121.9	133.5	133.8	136.7	136.7
87.5°	22.6	37.8	38.0	33.9	34.5
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



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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)