

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: P520199

Luminaire Tested: **SQ4-F-100U-075D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520199
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-18)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-100U-075D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

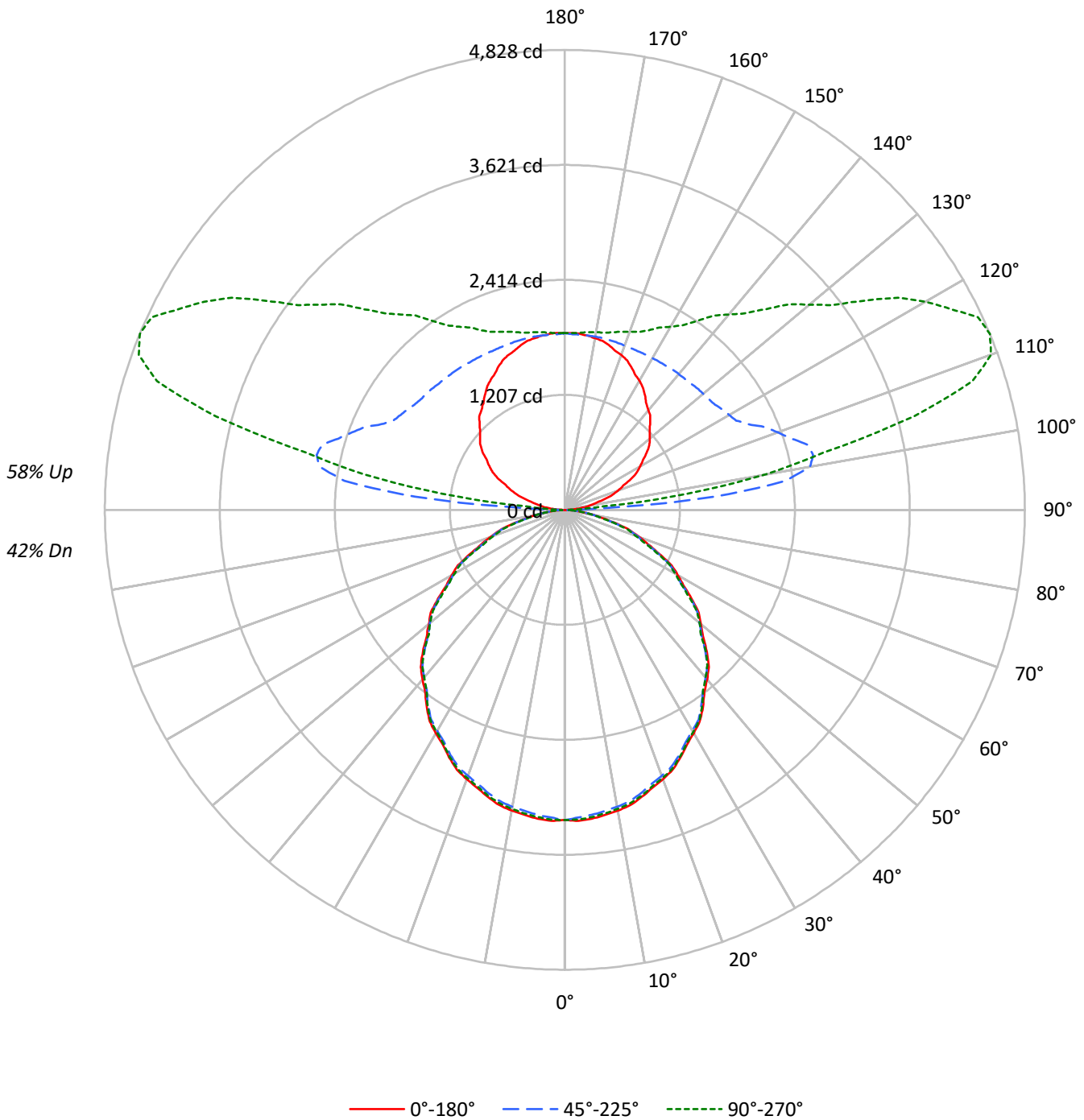
Lumens per Lamp: N/A
Luminaire Lumens: 20942.1 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 156
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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	42
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	42	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	31	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	38	42	37	33	34	30	27	27	24	22	19
6	61	49	41	36	56	45	38	33	38	33	29	31	27	24	24	22	19	16
7	57	45	37	31	52	41	34	29	34	29	25	28	24	21	22	19	17	14
8	53	40	33	27	48	37	30	26	31	26	22	26	22	19	20	18	15	13
9	49	37	29	24	45	34	27	23	29	23	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	20	26	21	18	22	18	15	17	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10014	10014	10014
5°	10053	9925	9998
10°	10012	9883	9957
15°	9935	9813	9897
20°	9845	9729	9807
25°	9737	9637	9707
30°	9614	9509	9561
35°	9488	9388	9432
40°	9328	9233	9221
45°	9168	9052	9078
50°	8913	8842	8842
55°	8706	8595	8516
60°	8425	8280	8208
65°	7971	7820	7712
70°	7486	7300	7114
75°	6735	6490	6349
80°	5386	5281	5228
85°	3229	3645	3751



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.4	1.5
10°-20°	875.0	4.2
20°-30°	1314.6	6.3
30°-40°	1568.6	7.5
40°-50°	1608.7	7.7
50°-60°	1433.4	6.8
60°-70°	1068.8	5.1
70°-80°	579.6	2.8
80°-90°	137.0	0.7
90°-100°	868.4	4.1
100°-110°	2397.5	11.4
110°-120°	2472.6	11.8
120°-130°	1986.9	9.5
130°-140°	1561.5	7.5
140°-150°	1197.6	5.7
150°-160°	860.7	4.1
160°-170°	526.4	2.5
170°-180°	177.5	0.8
0°-30°	2497.0	11.9
0°-40°	4065.6	19.4
0°-60°	7107.7	33.9
0°-90°	8893.1	42.5
90°-120°	5738.4	27.4
90°-150°	10484.4	50.1
90°-180°	12049.0	57.5
0°-180°	20942.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3256	3256	3256	3256	3256	
5°	3256	3250	3215	3241	3238	309
15°	3120	3115	3082	3106	3109	880
25°	2870	2867	2840	2855	2861	1322
35°	2527	2521	2500	2501	2512	1579
45°	2108	2099	2081	2081	2087	1622
55°	1624	1621	1603	1588	1588	1450
65°	1095	1095	1075	1063	1060	1090
75°	567	555	546	537	534	595
85°	92	97	103	103	106	127
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	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3256.3	3256.3	3256.3	3256.3	3256.3
2.5°	3268.1	3261.2	3232.6	3256.3	3253.9
5°	3256.3	3250.5	3214.9	3241.4	3238.5
7.5°	3229.7	3223.4	3188.4	3214.9	3214.3
10°	3206.1	3197.4	3164.7	3191.2	3188.4
12.5°	3175.4	3166.7	3134.0	3160.5	3157.7
15°	3120.5	3114.7	3082.1	3105.8	3108.6
17.5°	3057.9	3046.9	3017.7	3040.8	3043.7
20°	3008.3	2999.6	2972.8	2993.6	2996.5
22.5°	2956.3	2947.7	2920.9	2941.7	2944.5
25°	2869.5	2866.7	2840.0	2854.9	2860.7
27.5°	2775.6	2767.6	2746.1	2757.4	2763.2
30°	2707.2	2701.3	2677.6	2686.6	2692.4
32.5°	2636.3	2632.9	2611.5	2615.8	2623.9
35°	2527.1	2521.3	2500.5	2500.8	2512.3
37.5°	2406.0	2399.6	2382.4	2379.6	2384.2
40°	2323.4	2314.7	2299.8	2296.8	2296.8
42.5°	2238.3	2231.9	2212.4	2207.2	2214.1
45°	2107.9	2099.2	2081.3	2081.4	2087.2
47.5°	1966.7	1963.3	1942.5	1933.2	1935.5
50°	1862.8	1868.6	1848.1	1836.6	1848.1
52.5°	1773.1	1769.6	1751.2	1739.5	1744.1
55°	1623.7	1620.8	1603.0	1588.3	1588.3
57.5°	1473.7	1466.3	1447.8	1436.7	1445.4
60°	1369.8	1367.0	1346.2	1325.7	1334.4
62.5°	1265.9	1260.7	1239.9	1226.4	1232.8
65°	1095.3	1095.3	1074.6	1062.7	1059.8
67.5°	945.9	932.0	920.5	906.2	902.2
70°	832.5	821.0	811.9	799.8	791.2
72.5°	721.5	714.6	700.8	689.0	687.3
75°	566.8	555.3	546.2	537.2	534.3
77.5°	403.3	401.0	392.6	387.9	389.7
80°	304.1	304.1	298.2	298.1	295.2
82.5°	214.3	216.6	215.5	210.8	210.2
85°	91.5	97.3	103.3	103.4	106.3
87.5°	17.7	30.4	30.7	31.3	31.9
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)