

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: P520203

Luminaire Tested: **SQ4-F-100U-075D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520203
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-840-1D-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

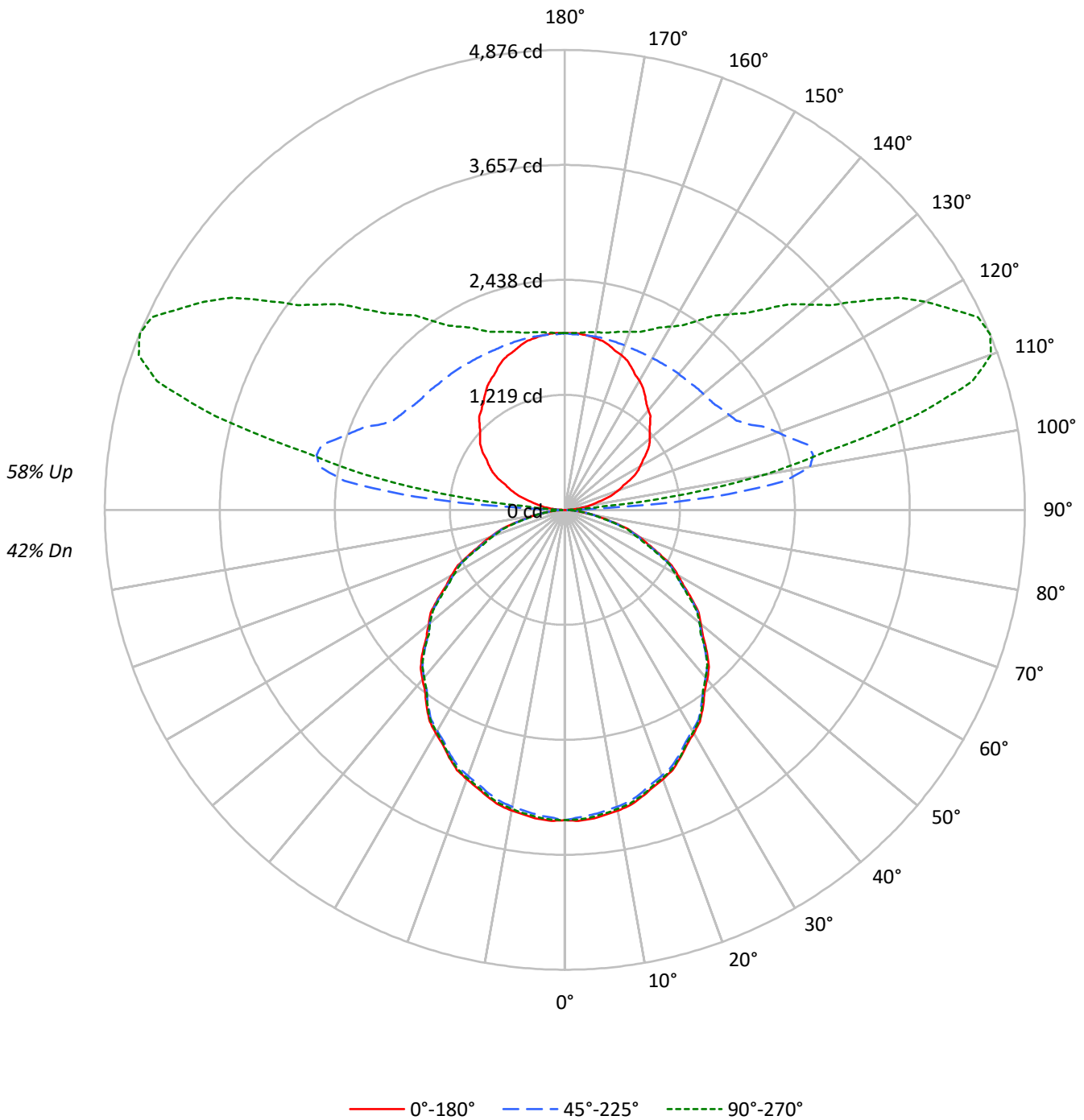
Lumens per Lamp: N/A
Luminaire Lumens: 21152.8 lumens
Efficiency: N/A
Efficacy: 135.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

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°	10115	10115	10115
5°	10154	10025	10098
10°	10113	9982	10057
15°	10035	9912	9997
20°	9945	9827	9905
25°	9835	9734	9805
30°	9710	9604	9657
35°	9583	9482	9527
40°	9422	9326	9314
45°	9260	9143	9169
50°	9002	8931	8931
55°	8793	8682	8601
60°	8510	8364	8290
65°	8051	7898	7790
70°	7561	7373	7186
75°	6803	6556	6414
80°	5439	5333	5281
85°	3260	3684	3790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.4	1.5
10°-20°	883.8	4.2
20°-30°	1327.8	6.3
30°-40°	1584.4	7.5
40°-50°	1624.9	7.7
50°-60°	1447.9	6.8
60°-70°	1079.6	5.1
70°-80°	585.4	2.8
80°-90°	138.4	0.7
90°-100°	877.2	4.1
100°-110°	2421.6	11.4
110°-120°	2497.4	11.8
120°-130°	2006.9	9.5
130°-140°	1577.2	7.5
140°-150°	1209.6	5.7
150°-160°	869.4	4.1
160°-170°	531.7	2.5
170°-180°	179.2	0.8
0°-30°	2522.1	11.9
0°-40°	4106.5	19.4
0°-60°	7179.3	33.9
0°-90°	8982.6	42.5
90°-120°	5796.2	27.4
90°-150°	10589.9	50.1
90°-180°	12170.0	57.5
0°-180°	21152.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3289	3289	3289	3289	3289	
5°	3289	3283	3247	3274	3271	312
15°	3152	3146	3113	3137	3140	889
25°	2898	2896	2868	2884	2890	1335
35°	2552	2547	2526	2526	2538	1595
45°	2129	2120	2102	2102	2108	1639
55°	1640	1637	1619	1604	1604	1465
65°	1106	1106	1085	1073	1070	1101
75°	572	561	552	543	540	601
85°	92	98	104	104	107	128
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3289.0	3289.0	3289.0	3289.0	3289.0
2.5°	3300.9	3293.9	3265.2	3288.9	3286.7
5°	3289.0	3283.2	3247.3	3274.1	3271.1
7.5°	3262.2	3255.8	3220.4	3247.3	3246.7
10°	3238.3	3229.6	3196.6	3223.4	3220.4
12.5°	3207.4	3198.6	3165.6	3192.4	3189.4
15°	3151.8	3146.0	3113.1	3137.0	3139.9
17.5°	3088.7	3077.6	3048.1	3071.5	3074.3
20°	3038.6	3029.8	3002.8	3023.7	3026.6
22.5°	2986.0	2977.3	2950.3	2971.2	2974.1
25°	2898.4	2895.5	2868.5	2883.6	2889.5
27.5°	2803.6	2795.4	2773.8	2785.2	2791.1
30°	2734.4	2728.6	2704.6	2713.6	2719.5
32.5°	2662.9	2659.3	2637.8	2642.1	2650.3
35°	2552.5	2546.7	2525.7	2525.9	2537.6
37.5°	2430.2	2423.8	2406.4	2403.5	2408.2
40°	2346.8	2338.0	2322.9	2319.9	2319.9
42.5°	2260.9	2254.5	2234.6	2229.4	2236.4
45°	2129.1	2120.4	2102.2	2102.3	2108.2
47.5°	1986.5	1983.1	1962.1	1952.6	1954.9
50°	1881.6	1887.4	1866.7	1855.0	1866.7
52.5°	1790.9	1787.4	1768.8	1757.0	1761.7
55°	1640.0	1637.1	1619.2	1604.2	1604.2
57.5°	1488.6	1481.0	1462.3	1451.2	1460.0
60°	1383.6	1380.6	1359.8	1339.1	1347.8
62.5°	1278.6	1273.4	1252.4	1238.8	1245.2
65°	1106.3	1106.3	1085.4	1073.4	1070.5
67.5°	955.4	941.5	929.7	915.4	911.2
70°	840.9	829.3	820.0	807.9	799.2
72.5°	728.8	721.8	707.9	695.9	694.2
75°	572.5	560.8	551.7	542.6	539.8
77.5°	407.3	405.0	396.6	391.9	393.6
80°	307.1	307.1	301.1	301.1	298.2
82.5°	216.5	218.9	217.7	212.9	212.3
85°	92.4	98.3	104.4	104.4	107.4
87.5°	17.9	30.7	31.0	31.6	32.2
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



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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)