

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: P518691

Luminaire Tested: **SQ4-BB-100U-050D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518691
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-BB-100U-050D-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

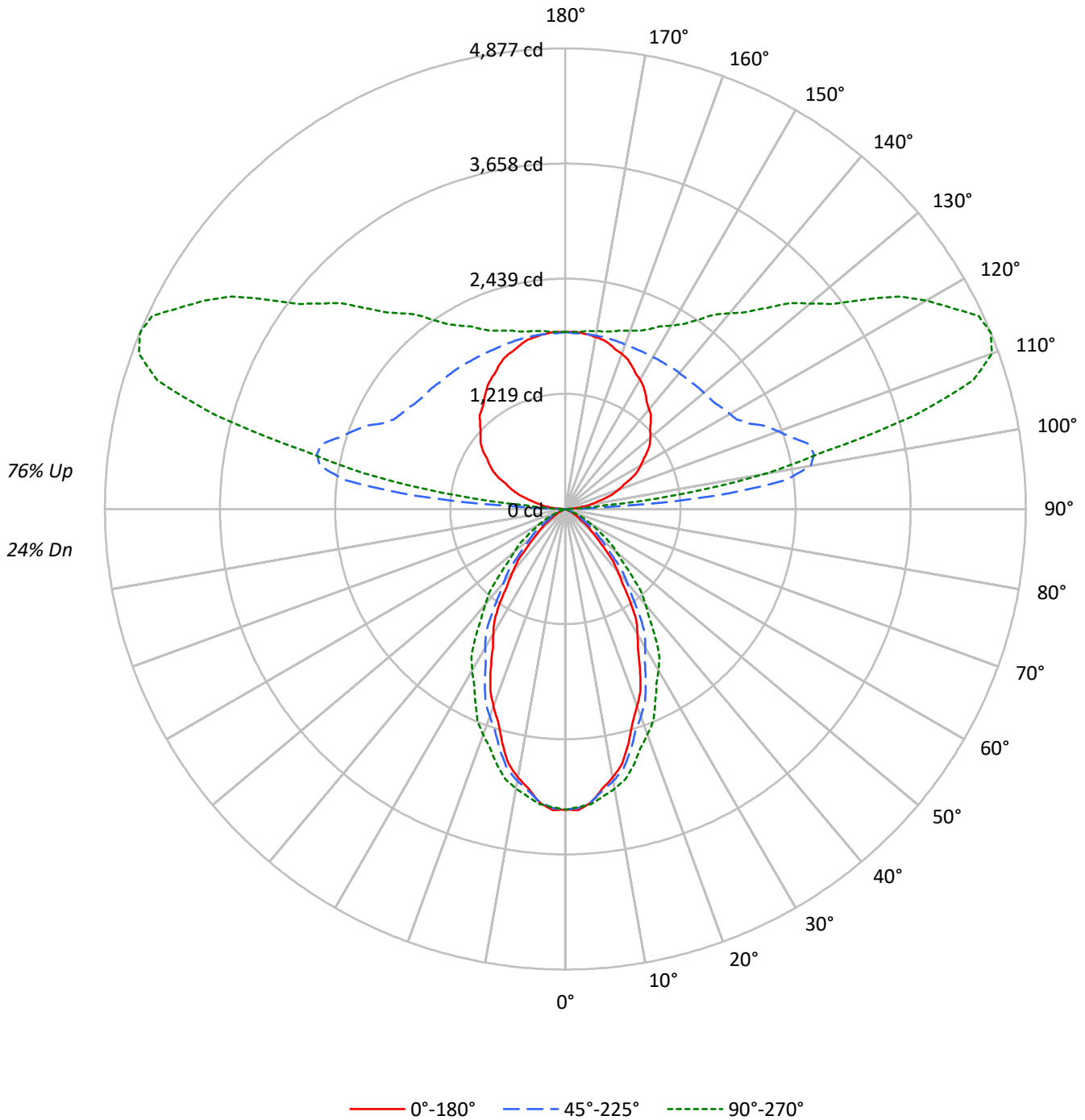
Lumens per Lamp: N/A
Luminaire Lumens: 15972.2 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 127.4
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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	93	89	86	82	82	79	77	74	61	60	58	45	44	43	30	29	29	22
2	85	79	73	69	76	70	66	62	55	52	49	40	39	37	27	26	25	20
3	78	70	63	58	70	63	57	53	49	45	42	36	34	32	25	24	23	18
4	72	62	55	50	64	56	50	45	44	40	37	33	31	28	23	21	20	16
5	66	56	49	43	59	50	44	39	40	36	32	30	27	25	21	19	18	15
6	61	50	43	38	55	45	39	35	36	32	28	27	25	22	19	18	17	13
7	57	46	38	33	51	41	35	31	33	29	25	25	22	20	18	16	15	12
8	53	41	34	30	47	38	31	27	30	26	23	23	20	18	17	15	14	11
9	49	38	31	26	44	34	28	24	28	23	20	21	19	17	16	14	13	10
10	46	35	28	24	41	32	26	22	26	21	19	20	17	15	15	13	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9792	9792	9792
5°	9634	9611	9682
10°	9014	9135	9390
15°	8195	8455	8926
20°	7274	7653	8323
25°	6335	6837	7647
30°	5426	6022	7007
35°	4499	5112	6234
40°	3457	4088	5312
45°	2499	3095	4274
50°	1702	2307	3390
55°	1107	1669	2635
60°	635	1175	1904
65°	168	718	964
70°	83	221	277
75°	37	18	0
80°	27	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.6	1.8
10°-20°	743.1	4.7
20°-30°	930.3	5.8
30°-40°	859.2	5.4
40°-50°	577.4	3.6
50°-60°	298.2	1.9
60°-70°	93.4	0.6
70°-80°	5.9	0.0
80°-90°	4.0	0.0
90°-100°	877.2	5.5
100°-110°	2421.6	15.2
110°-120°	2497.4	15.6
120°-130°	2006.9	12.6
130°-140°	1577.2	9.9
140°-150°	1209.7	7.6
150°-160°	869.4	5.4
160°-170°	531.7	3.3
170°-180°	179.2	1.1
0°-30°	1963.9	12.3
0°-40°	2823.1	17.7
0°-60°	3698.7	23.2
0°-90°	3802.0	23.8
90°-120°	5796.2	36.3
90°-150°	10589.9	66.3
90°-180°	12170.0	76.2
0°-180°	15972.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3184	3184	3184	3184	3184	
5°	3121	3089	3113	3124	3136	289
15°	2574	2565	2656	2745	2804	717
25°	1867	1882	2015	2153	2254	856
35°	1198	1228	1362	1522	1660	742
45°	575	609	712	850	983	451
55°	206	241	311	400	491	193
65°	23	44	99	119	132	39
75°	3	3	2	0	0	4
85°	0	0	0	0	0	0
90°	6	12	24	27	30	9
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	1831	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°	3183.9	3183.9	3183.9	3183.9	3183.9
2.5°	3191.3	3161.2	3169.1	3168.9	3160.5
5°	3120.8	3089.1	3113.1	3124.1	3136.2
7.5°	2988.9	2964.2	3010.2	3044.6	3069.6
10°	2886.6	2865.6	2925.1	2972.1	3006.8
12.5°	2768.3	2752.1	2824.1	2888.6	2932.8
15°	2573.9	2564.9	2655.6	2744.7	2803.5
17.5°	2365.7	2365.4	2468.9	2579.6	2650.3
20°	2222.7	2227.3	2338.3	2460.3	2543.1
22.5°	2079.8	2090.3	2208.9	2336.1	2431.0
25°	1866.9	1882.0	2014.8	2152.6	2253.5
27.5°	1662.4	1684.3	1824.1	1967.4	2090.3
30°	1528.0	1553.6	1695.9	1846.7	1973.2
32.5°	1396.2	1426.6	1565.3	1724.7	1853.7
35°	1198.4	1228.5	1361.7	1521.9	1660.5
37.5°	994.1	1023.7	1153.7	1311.5	1461.2
40°	861.1	894.2	1018.2	1171.1	1323.2
42.5°	740.3	773.4	890.0	1040.2	1183.9
45°	574.6	609.2	711.6	850.2	982.8
47.5°	437.2	474.8	564.7	690.1	810.8
50°	355.8	393.5	482.1	592.6	708.6
52.5°	290.5	327.0	407.0	511.0	617.4
55°	206.4	241.0	311.2	399.5	491.4
57.5°	142.6	172.5	235.4	309.1	381.1
60°	103.2	131.8	191.0	250.9	309.6
62.5°	68.7	94.9	152.8	198.7	238.1
65°	23.1	44.2	98.6	118.9	132.5
67.5°	11.7	14.1	51.8	54.6	59.1
70°	9.2	9.2	24.6	26.3	30.8
72.5°	6.8	6.8	9.9	12.7	13.6
75°	3.1	3.1	1.5	0.0	0.0
77.5°	1.5	1.5	1.2	0.0	0.0
80°	1.5	1.5	0.0	0.0	0.0
82.5°	0.3	0.3	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	2.4	4.8	5.4	6.0
90°	6.0	11.9	24.0	27.0	30.0
92.5°	53.9	223.9	400.4	146.1	113.9
95°	128.9	474.6	1591.4	654.1	425.6
97.5°	213.4	531.6	2357.4	1814.9	1314.4
100°	275.7	565.8	2640.3	2658.9	2160.8
102.5°	335.7	604.7	2695.4	3285.3	2812.9
105°	431.6	666.0	2664.2	4067.4	3830.0
107.5°	533.4	742.1	2515.6	4444.6	4531.3
110°	605.4	792.9	2400.5	4525.7	4807.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	670.1	850.6	2292.6	4461.6	4876.6
115°	773.2	934.4	2145.8	4247.9	4831.0
117.5°	863.1	1023.7	2049.3	3947.0	4610.4
120°	923.0	1081.3	2010.9	3743.3	4411.4
122.5°	980.6	1131.8	1979.8	3553.1	4186.1
125°	1060.9	1207.4	1945.0	3291.6	3863.0
127.5°	1129.2	1275.7	1924.6	3070.4	3563.3
130°	1174.8	1321.3	1915.0	2935.2	3383.5
132.5°	1217.9	1357.4	1905.4	2821.5	3227.7
135°	1276.7	1414.4	1891.0	2666.0	3005.9
137.5°	1342.6	1468.0	1883.9	2535.4	2825.5
140°	1378.6	1501.6	1879.1	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	1628.9	1860.5	2184.2	2318.4
150°	1582.4	1655.6	1858.1	2133.3	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°	1718.4	1761.2	1852.7	1997.5	2041.5
160°	1747.2	1785.3	1855.1	1975.7	2007.9
162.5°	1771.2	1804.6	1857.5	1956.4	1981.6
165°	1807.1	1830.6	1861.1	1933.3	1948.0
167.5°	1834.7	1848.8	1864.1	1919.3	1924.0
170°	1849.1	1860.8	1864.1	1912.0	1912.0
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°	1877.9	1875.5	1863.5	1880.2	1875.5
180°	1873.1	1873.1	1873.1	1873.1	1873.1

(END OF REPORT)