

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: P518683

Luminaire Tested: **SQ4-BB-100U-050D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518683
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-830-1D-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

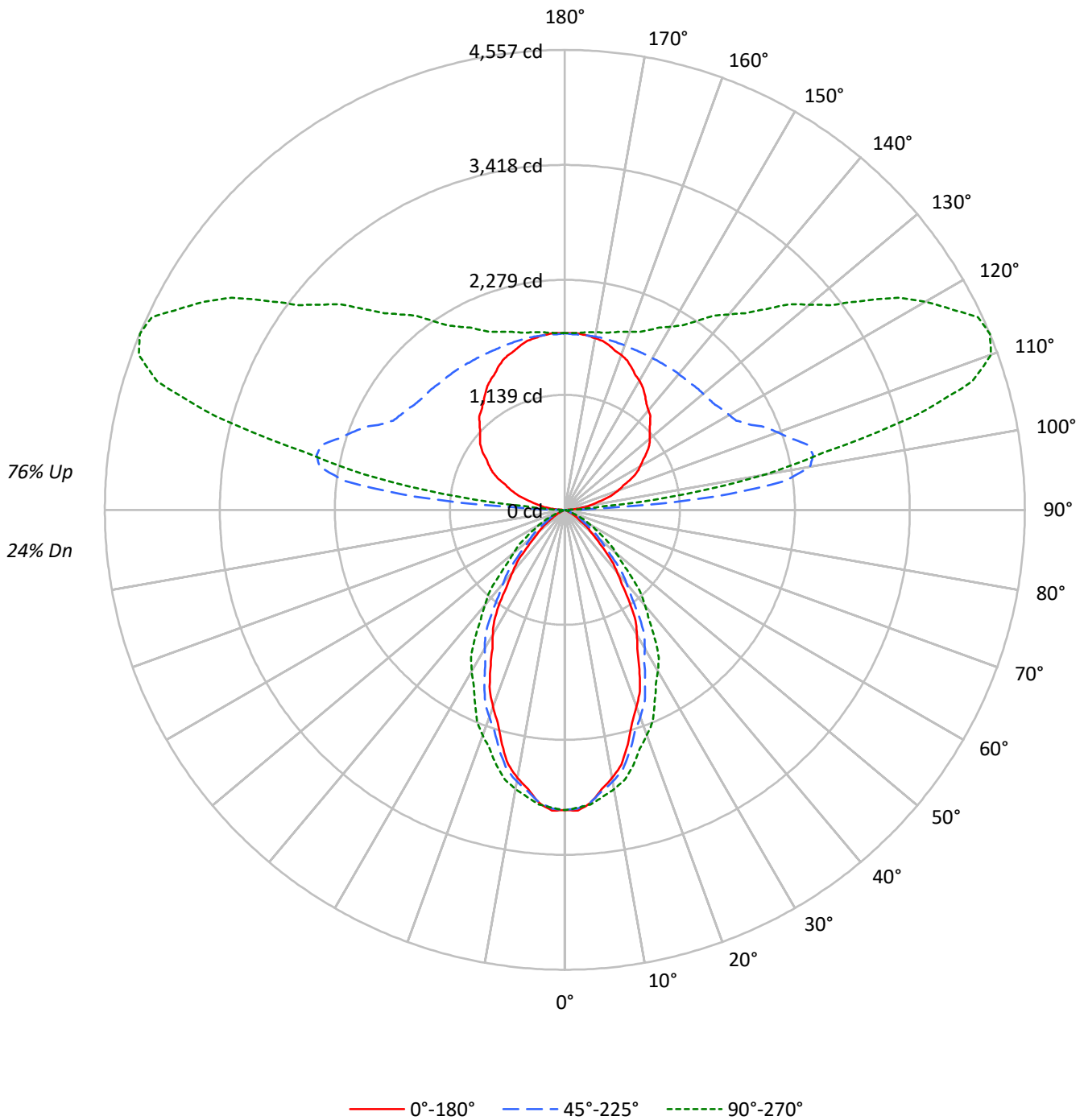
Lumens per Lamp: N/A
Luminaire Lumens: 14925.8 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

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°	9150	9150	9150
5°	9003	8981	9048
10°	8424	8536	8775
15°	7658	7901	8341
20°	6798	7151	7778
25°	5920	6389	7146
30°	5071	5628	6548
35°	4205	4777	5826
40°	3231	3820	4964
45°	2335	2892	3994
50°	1591	2155	3168
55°	1034	1559	2462
60°	593	1098	1779
65°	157	670	901
70°	77	207	259
75°	34	17	0
80°	25	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.5	1.8
10°-20°	694.4	4.7
20°-30°	869.3	5.8
30°-40°	803.0	5.4
40°-50°	539.5	3.6
50°-60°	278.7	1.9
60°-70°	87.3	0.6
70°-80°	5.5	0.0
80°-90°	3.7	0.0
90°-100°	819.7	5.5
100°-110°	2262.9	15.2
110°-120°	2333.8	15.6
120°-130°	1875.4	12.6
130°-140°	1473.9	9.9
140°-150°	1130.4	7.6
150°-160°	812.4	5.4
160°-170°	496.8	3.3
170°-180°	167.5	1.1
0°-30°	1835.2	12.3
0°-40°	2638.2	17.7
0°-60°	3456.4	23.2
0°-90°	3552.9	23.8
90°-120°	5416.4	36.3
90°-150°	9896.1	66.3
90°-180°	11373.0	76.2
0°-180°	14925.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2975	2975	2975	2975	2975	
5°	2916	2887	2909	2920	2931	270
15°	2405	2397	2482	2565	2620	670
25°	1745	1759	1883	2012	2106	800
35°	1120	1148	1272	1422	1552	694
45°	537	569	665	794	918	422
55°	193	225	291	373	459	180
65°	22	41	92	111	124	36
75°	3	3	1	0	0	4
85°	0	0	0	0	0	0
90°	6	11	22	25	28	9
95°	120	444	1487	611	398	129
105°	403	622	2490	3801	3579	429
115°	722	873	2005	3970	4514	710
125°	991	1128	1818	3076	3610	882
135°	1193	1322	1767	2491	2809	923
145°	1384	1479	1745	2121	2282	866
155°	1560	1612	1731	1903	1963	719
165°	1689	1711	1739	1807	1820	476
175°	1750	1753	1742	1767	1762	166
180°	1750	1750	1750	1750	1750	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2975.3	2975.3	2975.3	2975.3	2975.3
2.5°	2982.3	2954.1	2961.5	2961.3	2953.5
5°	2916.3	2886.8	2909.1	2919.5	2930.7
7.5°	2793.1	2770.0	2813.0	2845.2	2868.5
10°	2697.5	2677.8	2733.5	2777.4	2809.8
12.5°	2587.0	2571.8	2639.1	2699.3	2740.7
15°	2405.3	2396.9	2481.6	2564.9	2619.8
17.5°	2210.7	2210.4	2307.2	2410.6	2476.7
20°	2077.1	2081.4	2185.1	2299.1	2376.5
22.5°	1943.5	1953.4	2064.2	2183.1	2271.7
25°	1744.6	1758.7	1882.8	2011.6	2105.9
27.5°	1553.5	1574.0	1704.6	1838.5	1953.3
30°	1427.9	1451.9	1584.8	1725.7	1843.9
32.5°	1304.7	1333.1	1462.8	1611.8	1732.2
35°	1119.9	1148.0	1272.5	1422.2	1551.7
37.5°	929.0	956.6	1078.1	1225.6	1365.5
40°	804.7	835.6	951.5	1094.3	1236.5
42.5°	691.8	722.8	831.7	972.1	1106.4
45°	536.9	569.3	665.0	794.5	918.4
47.5°	408.5	443.7	527.7	644.8	757.7
50°	332.5	367.7	450.5	553.8	662.1
52.5°	271.5	305.5	380.3	477.6	576.9
55°	192.9	225.3	290.8	373.3	459.2
57.5°	133.3	161.2	219.9	288.8	356.1
60°	96.4	123.2	178.5	234.4	289.3
62.5°	64.2	88.7	142.8	185.7	222.5
65°	21.6	41.3	92.1	111.1	123.8
67.5°	10.9	13.2	48.4	51.1	55.3
70°	8.6	8.6	23.0	24.6	28.8
72.5°	6.3	6.3	9.2	11.8	12.7
75°	2.9	2.9	1.4	0.0	0.0
77.5°	1.4	1.4	1.2	0.0	0.0
80°	1.4	1.4	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°	1.1	2.2	4.5	5.1	5.6
90°	5.6	11.1	22.4	25.3	28.0
92.5°	50.4	209.2	374.2	136.5	106.4
95°	120.4	443.5	1487.1	611.3	397.7
97.5°	199.4	496.8	2202.9	1696.0	1228.3
100°	257.7	528.7	2467.3	2484.7	2019.2
102.5°	313.7	565.0	2518.8	3070.0	2628.6
105°	403.3	622.3	2489.7	3800.9	3579.1
107.5°	498.5	693.5	2350.8	4153.4	4234.5
110°	565.7	741.0	2243.3	4229.2	4492.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	626.2	794.9	2142.4	4169.3	4557.1
115°	722.5	873.2	2005.2	3969.6	4514.5
117.5°	806.6	956.6	1915.0	3688.4	4308.4
120°	862.6	1010.4	1879.2	3498.1	4122.4
122.5°	916.3	1057.6	1850.1	3320.4	3911.8
125°	991.4	1128.3	1817.6	3076.0	3609.9
127.5°	1055.3	1192.2	1798.5	2869.3	3329.9
130°	1097.8	1234.7	1789.6	2742.9	3161.8
132.5°	1138.2	1268.5	1780.6	2636.7	3016.2
135°	1193.0	1321.7	1767.2	2491.3	2809.0
137.5°	1254.7	1371.9	1760.4	2369.3	2640.4
140°	1288.3	1403.3	1756.0	2287.9	2526.1
142.5°	1326.4	1432.6	1751.5	2215.5	2425.3
145°	1383.5	1479.3	1744.8	2120.9	2282.5
147.5°	1438.4	1522.2	1738.6	2041.1	2166.5
150°	1478.7	1547.2	1736.4	1993.5	2094.8
152.5°	1510.1	1574.1	1734.1	1952.8	2036.6
155°	1559.9	1611.9	1730.8	1903.0	1963.2
157.5°	1605.8	1645.8	1731.3	1866.7	1907.8
160°	1632.7	1668.3	1733.6	1846.3	1876.4
162.5°	1655.1	1686.4	1735.8	1828.2	1851.7
165°	1688.7	1710.7	1739.2	1806.7	1820.4
167.5°	1714.5	1727.7	1742.0	1793.6	1798.0
170°	1728.0	1738.9	1742.0	1786.8	1786.8
172.5°	1739.2	1745.7	1742.0	1777.8	1775.6
175°	1750.4	1753.1	1742.0	1767.0	1761.6
177.5°	1754.8	1752.6	1741.4	1757.0	1752.6
180°	1750.4	1750.4	1750.4	1750.4	1750.4

(END OF REPORT)