

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: P518703

Luminaire Tested: **SQ4-BB-100U-050D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518703
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-940-1D-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, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

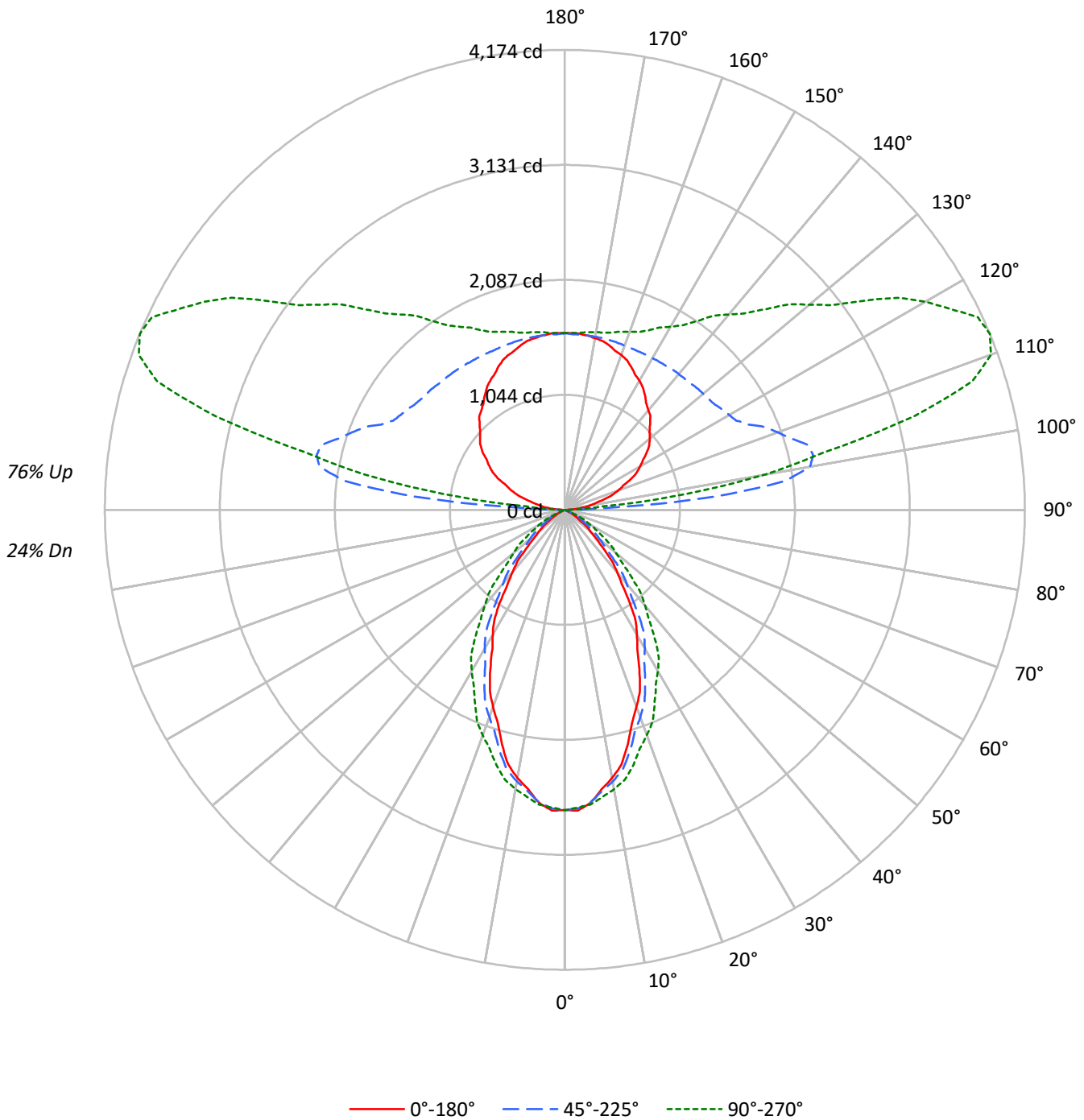
Lumens per Lamp: N/A
Luminaire Lumens: 13670.1 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

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°	8380	8380	8380
5°	8246	8225	8287
10°	7715	7818	8036
15°	7014	7236	7639
20°	6226	6550	7124
25°	5422	5851	6545
30°	4644	5155	5997
35°	3851	4375	5336
40°	2959	3498	4547
45°	2139	2649	3658
50°	1457	1974	2901
55°	947	1428	2255
60°	543	1006	1630
65°	144	614	825
70°	71	190	237
75°	31	15	0
80°	23	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.7	1.8
10°-20°	636.0	4.7
20°-30°	796.2	5.8
30°-40°	735.4	5.4
40°-50°	494.2	3.6
50°-60°	255.2	1.9
60°-70°	79.9	0.6
70°-80°	5.0	0.0
80°-90°	3.4	0.0
90°-100°	750.7	5.5
100°-110°	2072.5	15.2
110°-120°	2137.5	15.6
120°-130°	1717.6	12.6
130°-140°	1349.9	9.9
140°-150°	1035.3	7.6
150°-160°	744.1	5.4
160°-170°	455.0	3.3
170°-180°	153.4	1.1
0°-30°	1680.8	12.3
0°-40°	2416.2	17.7
0°-60°	3165.6	23.2
0°-90°	3254.0	23.8
90°-120°	4960.7	36.3
90°-150°	9063.6	66.3
90°-180°	10416.0	76.2
0°-180°	13670.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2725	2725	2725	2725	2725	
5°	2671	2644	2664	2674	2684	248
15°	2203	2195	2273	2349	2399	614
25°	1598	1611	1724	1842	1929	733
35°	1026	1052	1165	1303	1421	635
45°	492	521	609	728	841	386
55°	177	206	266	342	421	165
65°	20	38	84	102	113	33
75°	3	3	1	0	0	4
85°	0	0	0	0	0	0
90°	5	10	20	23	26	8
95°	110	406	1362	560	364	118
105°	369	570	2280	3481	3278	393
115°	662	800	1836	3636	4135	650
125°	908	1033	1665	2817	3306	808
135°	1093	1210	1618	2282	2573	845
145°	1267	1355	1598	1942	2090	793
155°	1429	1476	1585	1743	1798	658
165°	1547	1567	1593	1655	1667	436
175°	1603	1606	1595	1618	1613	152
180°	1603	1603	1603	1603	1603	



TEST NUMBER: P518703

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2725.0	2725.0	2725.0	2725.0	2725.0
2.5°	2731.4	2705.6	2712.4	2712.2	2705.0
5°	2671.0	2643.9	2664.4	2673.8	2684.2
7.5°	2558.1	2537.0	2576.3	2605.8	2627.2
10°	2470.6	2452.5	2503.5	2543.8	2573.4
12.5°	2369.3	2355.4	2417.1	2472.2	2510.1
15°	2203.0	2195.2	2272.8	2349.1	2399.4
17.5°	2024.7	2024.5	2113.0	2207.8	2268.3
20°	1902.4	1906.2	2001.3	2105.7	2176.6
22.5°	1780.0	1789.1	1890.5	1999.4	2080.6
25°	1597.8	1610.7	1724.4	1842.4	1928.7
27.5°	1422.8	1441.6	1561.2	1683.8	1789.0
30°	1307.8	1329.7	1451.5	1580.5	1688.8
32.5°	1195.0	1221.0	1339.7	1476.2	1586.5
35°	1025.7	1051.5	1165.4	1302.6	1421.2
37.5°	850.9	876.1	987.4	1122.5	1250.6
40°	737.0	765.3	871.4	1002.3	1132.5
42.5°	633.6	662.0	761.7	890.3	1013.3
45°	491.7	521.4	609.1	727.7	841.1
47.5°	374.1	406.4	483.3	590.6	694.0
50°	304.5	336.8	412.6	507.2	606.4
52.5°	248.6	279.8	348.3	437.4	528.4
55°	176.7	206.3	266.3	341.9	420.6
57.5°	122.1	147.6	201.4	264.5	326.2
60°	88.3	112.8	163.5	214.7	265.0
62.5°	58.8	81.2	130.8	170.0	203.8
65°	19.8	37.8	84.4	101.8	113.4
67.5°	10.0	12.1	44.3	46.8	50.6
70°	7.9	7.9	21.1	22.5	26.4
72.5°	5.8	5.8	8.4	10.8	11.6
75°	2.6	2.6	1.3	0.0	0.0
77.5°	1.3	1.3	1.1	0.0	0.0
80°	1.3	1.3	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°	1.0	2.0	4.1	4.6	5.1
90°	5.1	10.1	20.5	23.1	25.6
92.5°	46.2	191.6	342.7	125.1	97.5
95°	110.3	406.2	1362.0	559.8	364.2
97.5°	182.6	455.0	2017.6	1553.3	1125.0
100°	236.0	484.3	2259.7	2275.7	1849.3
102.5°	287.3	517.5	2306.9	2811.8	2407.5
105°	369.4	570.0	2280.2	3481.2	3278.0
107.5°	456.6	635.1	2153.0	3804.0	3878.2
110°	518.1	678.6	2054.5	3873.4	4114.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	573.5	728.0	1962.2	3818.6	4173.7
115°	661.8	799.7	1836.5	3635.6	4134.7
117.5°	738.7	876.1	1753.9	3378.1	3945.9
120°	790.0	925.4	1721.1	3203.8	3775.6
122.5°	839.3	968.7	1694.4	3041.0	3582.7
125°	908.0	1033.4	1664.7	2817.2	3306.2
127.5°	966.5	1091.9	1647.2	2627.9	3049.7
130°	1005.5	1130.9	1639.0	2512.1	2895.8
132.5°	1042.4	1161.8	1630.8	2414.9	2762.5
135°	1092.7	1210.5	1618.5	2281.7	2572.7
137.5°	1149.1	1256.4	1612.3	2170.0	2418.2
140°	1179.9	1285.2	1608.2	2095.4	2313.6
142.5°	1214.8	1312.1	1604.1	2029.1	2221.3
145°	1267.1	1354.9	1598.0	1942.5	2090.4
147.5°	1317.4	1394.1	1592.3	1869.4	1984.2
150°	1354.3	1417.0	1590.3	1825.8	1918.6
152.5°	1383.0	1441.7	1588.2	1788.5	1865.2
155°	1428.7	1476.3	1585.1	1742.9	1798.0
157.5°	1470.7	1507.4	1585.7	1709.6	1747.2
160°	1495.4	1528.0	1587.7	1690.9	1718.5
162.5°	1515.9	1544.5	1589.8	1674.4	1695.9
165°	1546.7	1566.7	1592.8	1654.7	1667.2
167.5°	1570.3	1582.3	1595.4	1642.7	1646.7
170°	1582.6	1592.6	1595.4	1636.4	1636.4
172.5°	1592.8	1598.9	1595.4	1628.2	1626.2
175°	1603.1	1605.6	1595.4	1618.4	1613.4
177.5°	1607.2	1605.2	1594.9	1609.2	1605.1
180°	1603.1	1603.1	1603.1	1603.1	1603.1

(END OF REPORT)