

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: P518727

Luminaire Tested: **SQ4-BB-100U-075D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518727  
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-075D-940-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

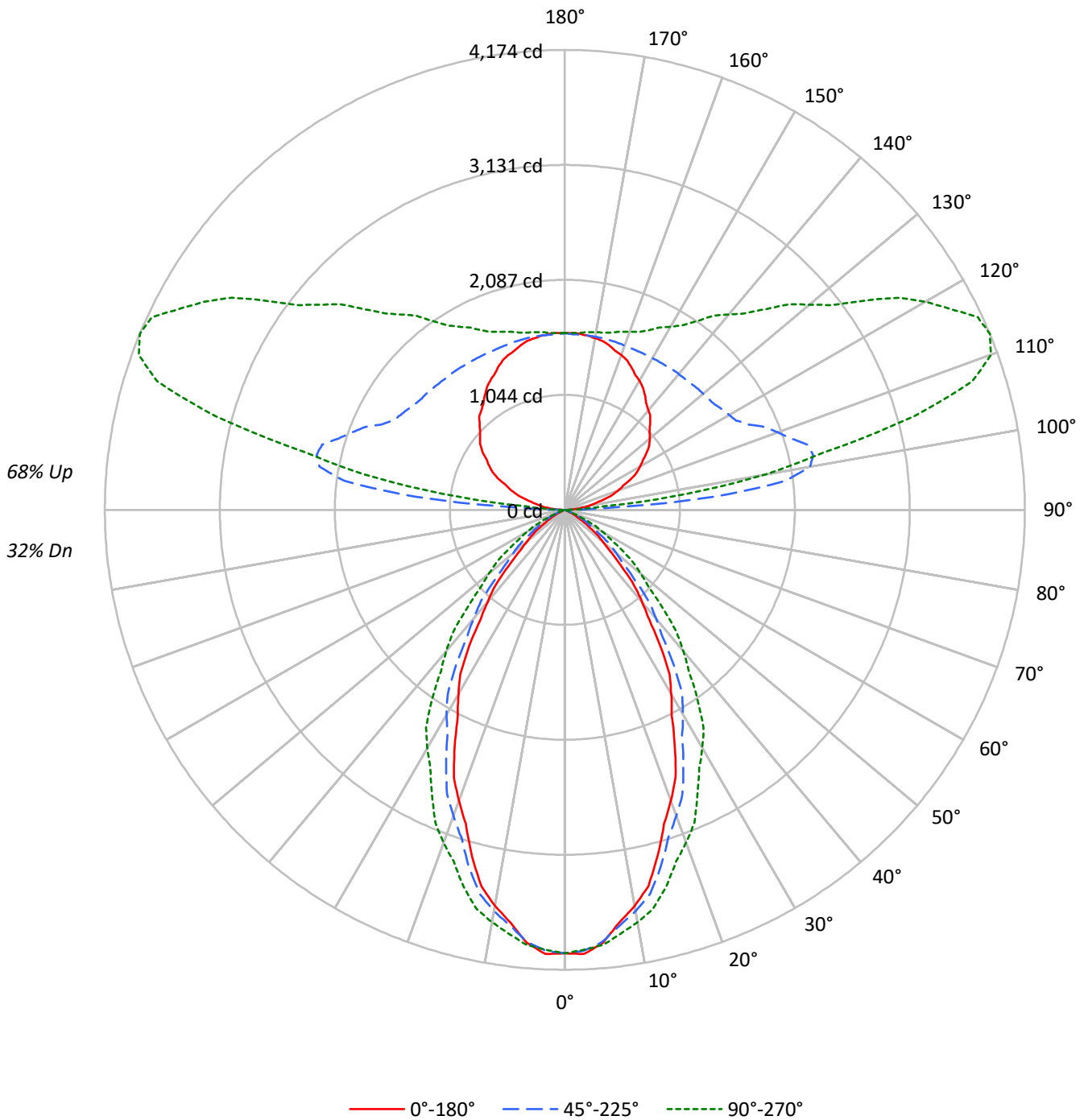
Lumens per Lamp: N/A  
Luminaire Lumens: 15220.3 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 153.4  
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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	32
1	95	91	88	85	85	82	79	77	66	64	62	50	49	48	36	36	35	29
2	87	81	75	71	78	73	69	65	59	56	53	46	44	42	33	32	31	26
3	80	72	66	60	72	65	60	56	53	49	46	41	39	37	31	29	28	23
4	74	64	57	52	67	59	53	48	48	44	40	38	35	33	28	27	25	21
5	68	58	51	45	62	53	47	42	43	39	36	34	31	29	26	24	23	19
6	63	52	45	40	57	48	42	37	39	35	32	31	28	26	24	22	21	18
7	59	48	40	35	53	44	37	33	36	32	28	29	26	24	22	20	19	16
8	55	43	36	32	49	40	34	30	33	29	25	27	24	21	21	19	17	15
9	51	40	33	28	46	37	31	27	31	26	23	25	22	19	19	17	16	14
10	48	37	30	26	43	34	28	24	28	24	21	23	20	18	18	16	15	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12377	12377	12377
5°	12178	12148	12238
10°	11394	11546	11869
15°	10359	10687	11282
20°	9195	9673	10520
25°	8008	8642	9666
30°	6859	7613	8857
35°	5687	6462	7880
40°	4370	5167	6715
45°	3158	3912	5403
50°	2152	2916	4285
55°	1399	2109	3330
60°	803	1485	2407
65°	212	907	1218
70°	105	281	350
75°	46	23	0
80°	34	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	367.3	2.4
10°-20°	939.3	6.2
20°-30°	1175.8	7.7
30°-40°	1086.1	7.1
40°-50°	729.8	4.8
50°-60°	377.0	2.5
60°-70°	118.1	0.8
70°-80°	7.5	0.0
80°-90°	3.4	0.0
90°-100°	750.7	4.9
100°-110°	2072.5	13.6
110°-120°	2137.5	14.0
120°-130°	1717.6	11.3
130°-140°	1349.9	8.9
140°-150°	1035.3	6.8
150°-160°	744.1	4.9
160°-170°	455.0	3.0
170°-180°	153.4	1.0
0°-30°	2482.4	16.3
0°-40°	3568.5	23.4
0°-60°	4675.2	30.7
0°-90°	4804.2	31.6
90°-120°	4960.7	32.6
90°-150°	9063.6	59.5
90°-180°	10416.0	68.4
0°-180°	15220.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4024	4024	4024	4024	4024	
5°	3945	3905	3935	3949	3964	366
15°	3254	3242	3357	3469	3544	906
25°	2360	2379	2547	2721	2848	1082
35°	1515	1553	1721	1924	2099	938
45°	726	770	900	1075	1242	570
55°	261	305	393	505	621	243
65°	29	56	125	150	167	49
75°	4	4	2	0	0	6
85°	0	0	0	0	0	1
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4024.5	4024.5	4024.5	4024.5	4024.5
2.5°	4033.9	3995.8	4005.8	4005.6	3994.9
5°	3944.7	3904.7	3935.0	3948.9	3964.2
7.5°	3778.0	3746.8	3804.9	3848.4	3880.0
10°	3648.7	3622.1	3697.4	3756.8	3800.6
12.5°	3499.2	3478.6	3569.7	3651.2	3707.1
15°	3253.5	3242.1	3356.7	3469.4	3543.6
17.5°	2990.3	2989.9	3120.7	3260.6	3350.1
20°	2809.6	2815.3	2955.6	3109.8	3214.5
22.5°	2628.9	2642.2	2792.0	2952.9	3072.8
25°	2359.8	2378.8	2546.7	2721.0	2848.5
27.5°	2101.2	2129.0	2305.7	2486.8	2642.1
30°	1931.5	1963.8	2143.7	2334.2	2494.1
32.5°	1764.8	1803.2	1978.6	2180.1	2343.1
35°	1514.8	1552.9	1721.2	1923.8	2098.9
37.5°	1256.6	1293.9	1458.3	1657.7	1847.0
40°	1088.4	1130.3	1287.0	1480.2	1672.5
42.5°	935.7	977.6	1125.0	1314.9	1496.5
45°	726.2	770.0	899.5	1074.7	1242.2
47.5°	552.6	600.2	713.8	872.2	1024.9
50°	449.8	497.4	609.4	749.0	895.6
52.5°	367.2	413.3	514.4	646.0	780.4
55°	260.9	304.7	393.3	505.0	621.1
57.5°	180.3	218.0	297.5	390.7	481.7
60°	130.5	166.6	241.4	317.1	391.4
62.5°	86.8	120.0	193.1	251.1	301.0
65°	29.2	55.9	124.6	150.3	167.4
67.5°	14.8	17.8	65.4	69.1	74.8
70°	11.7	11.7	31.2	33.2	38.9
72.5°	8.6	8.6	12.5	16.0	17.1
75°	3.9	3.9	1.9	0.0	0.0
77.5°	1.9	1.9	1.6	0.0	0.0
80°	1.9	1.9	0.0	0.0	0.0
82.5°	0.4	0.4	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)