

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: P518695

Luminaire Tested: **SQ4-BB-100U-050D-930-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518695  
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-930-1D-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, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

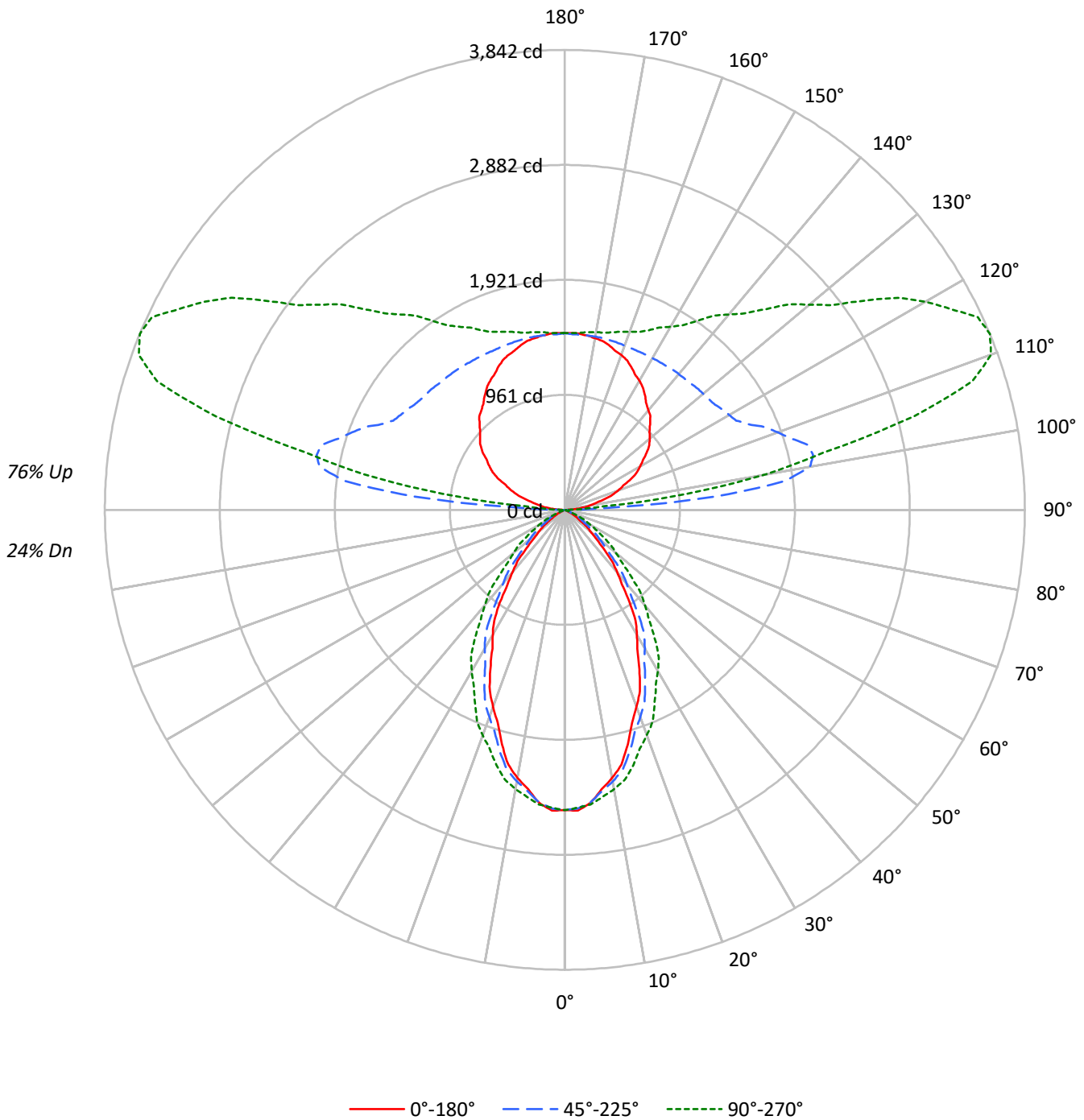
Lumens per Lamp: N/A  
Luminaire Lumens: 12583.4 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

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°	7714	7714	7714
5°	7590	7572	7628
10°	7102	7197	7397
15°	6456	6661	7032
20°	5731	6029	6557
25°	4991	5386	6025
30°	4275	4745	5520
35°	3545	4028	4911
40°	2724	3220	4185
45°	1969	2439	3367
50°	1341	1817	2671
55°	872	1314	2076
60°	500	926	1500
65°	132	565	760
70°	66	174	219
75°	29	14	0
80°	21	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.9	1.8
10°-20°	585.4	4.7
20°-30°	732.9	5.8
30°-40°	676.9	5.4
40°-50°	454.9	3.6
50°-60°	234.9	1.9
60°-70°	73.6	0.6
70°-80°	4.6	0.0
80°-90°	3.1	0.0
90°-100°	691.1	5.5
100°-110°	1907.8	15.2
110°-120°	1967.5	15.6
120°-130°	1581.1	12.6
130°-140°	1242.6	9.9
140°-150°	953.0	7.6
150°-160°	684.9	5.4
160°-170°	418.9	3.3
170°-180°	141.2	1.1
0°-30°	1547.2	12.3
0°-40°	2224.2	17.7
0°-60°	2914.0	23.2
0°-90°	2995.3	23.8
90°-120°	4566.4	36.3
90°-150°	8343.0	66.3
90°-180°	9588.0	76.2
0°-180°	12583.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2508	2508	2508	2508	2508	
5°	2459	2434	2453	2461	2471	228
15°	2028	2021	2092	2162	2209	565
25°	1471	1483	1587	1696	1775	674
35°	944	968	1073	1199	1308	585
45°	453	480	561	670	774	356
55°	163	190	245	315	387	152
65°	18	35	78	94	104	31
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	5	9	19	21	24	7
95°	102	374	1254	515	335	109
105°	340	525	2099	3204	3017	362
115°	609	736	1690	3347	3806	599
125°	836	951	1532	2593	3043	744
135°	1006	1114	1490	2100	2368	778
145°	1166	1247	1471	1788	1924	730
155°	1315	1359	1459	1604	1655	606
165°	1424	1442	1466	1523	1535	401
175°	1476	1478	1469	1490	1485	140
180°	1476	1476	1476	1476	1476	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2508.4	2508.4	2508.4	2508.4	2508.4
2.5°	2514.2	2490.5	2496.7	2496.6	2489.9
5°	2458.6	2433.7	2452.6	2461.3	2470.8
7.5°	2354.8	2335.3	2371.5	2398.6	2418.3
10°	2274.2	2257.6	2304.5	2341.5	2368.8
12.5°	2181.0	2168.2	2224.9	2275.7	2310.6
15°	2027.8	2020.7	2092.1	2162.4	2208.6
17.5°	1863.8	1863.5	1945.1	2032.2	2088.0
20°	1751.1	1754.7	1842.2	1938.3	2003.6
22.5°	1638.5	1646.8	1740.2	1840.5	1915.2
25°	1470.8	1482.7	1587.3	1695.9	1775.4
27.5°	1309.7	1327.0	1437.1	1549.9	1646.8
30°	1203.8	1224.0	1336.1	1454.9	1554.5
32.5°	1100.0	1123.9	1233.2	1358.8	1460.4
35°	944.1	967.9	1072.8	1199.0	1308.2
37.5°	783.2	806.5	908.9	1033.2	1151.2
40°	678.4	704.5	802.1	922.6	1042.4
42.5°	583.2	609.3	701.2	819.5	932.7
45°	452.7	479.9	560.7	669.8	774.2
47.5°	344.4	374.1	444.9	543.6	638.8
50°	280.3	310.0	379.8	466.9	558.2
52.5°	228.9	257.6	320.6	402.6	486.4
55°	162.6	189.9	245.1	314.7	387.1
57.5°	112.4	135.9	185.4	243.5	300.2
60°	81.3	103.9	150.5	197.6	243.9
62.5°	54.1	74.8	120.4	156.5	187.6
65°	18.2	34.8	77.7	93.7	104.4
67.5°	9.2	11.1	40.8	43.0	46.6
70°	7.3	7.3	19.4	20.7	24.3
72.5°	5.3	5.3	7.8	10.0	10.7
75°	2.4	2.4	1.2	0.0	0.0
77.5°	1.2	1.2	1.0	0.0	0.0
80°	1.2	1.2	0.0	0.0	0.0
82.5°	0.2	0.2	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	1.9	3.8	4.3	4.7
90°	4.7	9.3	18.9	21.3	23.6
92.5°	42.5	176.4	315.4	115.1	89.7
95°	101.5	373.9	1253.7	515.3	335.3
97.5°	168.1	418.8	1857.2	1429.9	1035.6
100°	217.2	445.8	2080.1	2094.8	1702.3
102.5°	264.4	476.4	2123.5	2588.2	2216.1
105°	340.0	524.7	2099.0	3204.4	3017.4
107.5°	420.3	584.6	1981.9	3501.6	3569.9
110°	476.9	624.7	1891.2	3565.5	3787.1

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	527.9	670.1	1806.2	3515.0	3841.9
115°	609.1	736.1	1690.5	3346.6	3806.0
117.5°	680.0	806.5	1614.5	3109.6	3632.2
120°	727.2	851.9	1584.3	2949.1	3475.5
122.5°	772.5	891.7	1559.7	2799.3	3297.9
125°	835.8	951.2	1532.3	2593.2	3043.4
127.5°	889.6	1005.1	1516.3	2419.0	2807.3
130°	925.5	1041.0	1508.7	2312.4	2665.6
132.5°	959.5	1069.4	1501.2	2222.9	2542.8
135°	1005.8	1114.3	1489.8	2100.3	2368.1
137.5°	1057.7	1156.6	1484.2	1997.4	2226.0
140°	1086.1	1183.0	1480.4	1928.8	2129.7
142.5°	1118.2	1207.8	1476.6	1867.8	2044.7
145°	1166.4	1247.2	1470.9	1788.0	1924.3
147.5°	1212.6	1283.3	1465.7	1720.8	1826.5
150°	1246.6	1304.3	1463.8	1680.6	1766.1
152.5°	1273.1	1327.1	1462.0	1646.3	1717.0
155°	1315.1	1359.0	1459.1	1604.3	1655.1
157.5°	1353.8	1387.5	1459.6	1573.7	1608.3
160°	1376.5	1406.5	1461.5	1556.5	1581.9
162.5°	1395.4	1421.7	1463.4	1541.3	1561.1
165°	1423.7	1442.2	1466.2	1523.1	1534.7
167.5°	1445.4	1456.5	1468.6	1512.1	1515.8
170°	1456.8	1466.0	1468.6	1506.3	1506.3
172.5°	1466.2	1471.7	1468.6	1498.7	1496.9
175°	1475.7	1478.0	1468.6	1489.7	1485.1
177.5°	1479.4	1477.6	1468.1	1481.2	1477.5
180°	1475.7	1475.7	1475.7	1475.7	1475.7

(END OF REPORT)