

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: P518946

Luminaire Tested: **SQ4-BB-150U-100D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518946  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, 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-150U-100D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

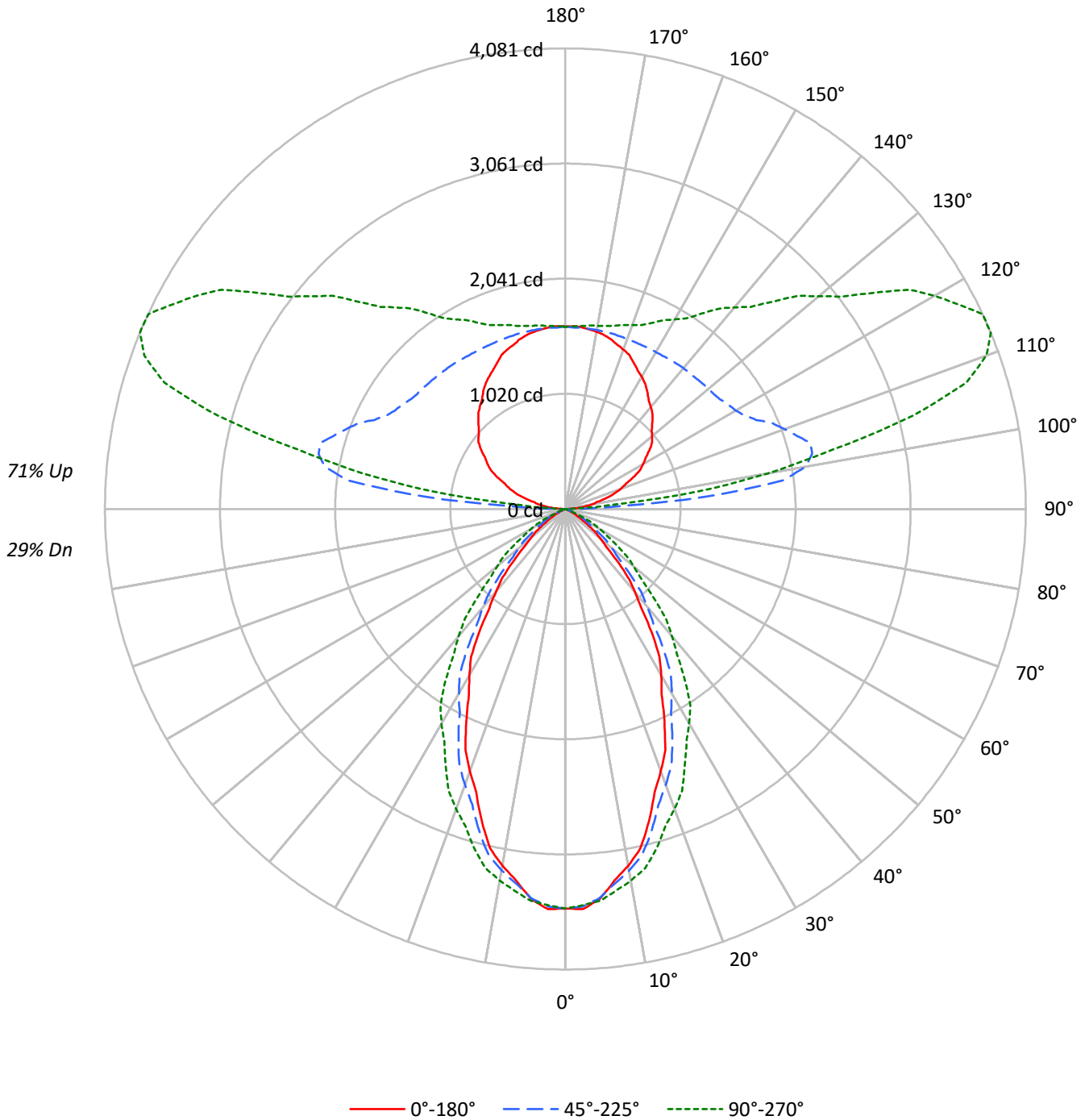
Lumens per Lamp: N/A  
Luminaire Lumens: 14642.2 lumens  
Efficiency: N/A  
Efficacy: 98.7 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 148.4  
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	102	102	102	102	91	91	91	91	72	72	72	53	53	53	37	37	37	29
1	94	90	87	84	84	81	78	76	64	62	61	48	47	46	34	33	33	26
2	86	80	75	70	77	72	68	64	57	54	52	44	42	40	31	30	29	24
3	80	71	65	60	71	64	59	55	52	48	45	40	37	35	29	27	26	21
4	73	64	57	51	66	58	52	47	46	42	39	36	33	31	26	25	24	19
5	68	57	50	45	61	52	46	41	42	38	34	33	30	28	24	23	21	18
6	63	52	44	39	56	47	41	36	38	34	30	30	27	25	22	21	19	16
7	58	47	40	35	52	43	37	32	35	30	27	28	25	22	21	19	18	15
8	54	43	36	31	49	39	33	29	32	28	24	26	22	20	19	17	16	14
9	50	39	32	28	45	36	30	26	30	25	22	24	21	18	18	16	15	13
10	47	36	29	25	43	33	27	23	27	23	20	22	19	17	17	15	14	12

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

	0°	45°	90°
0°	16333	16333	16333
5°	16070	16031	16150
10°	15036	15237	15662
15°	13670	14104	14889
20°	12134	12765	13883
25°	10567	11404	12756
30°	9051	10046	11688
35°	7505	8527	10399
40°	5766	6818	8861
45°	4168	5163	7129
50°	2840	3847	5655
55°	1846	2783	4395
60°	1059	1960	3177
65°	281	1196	1608
70°	139	370	463
75°	61	30	0
80°	45	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	323.1	2.2
10°-20°	826.3	5.6
20°-30°	1034.5	7.1
30°-40°	955.5	6.5
40°-50°	642.1	4.4
50°-60°	331.6	2.3
60°-70°	103.9	0.7
70°-80°	6.6	0.0
80°-90°	3.5	0.0
90°-100°	750.7	5.1
100°-110°	2029.9	13.9
110°-120°	2134.1	14.6
120°-130°	1733.5	11.8
130°-140°	1359.8	9.3
140°-150°	1043.6	7.1
150°-160°	750.6	5.1
160°-170°	458.5	3.1
170°-180°	154.6	1.1
0°-30°	2183.9	14.9
0°-40°	3139.4	21.4
0°-60°	4113.1	28.1
0°-90°	4227.0	28.9
90°-120°	4914.7	33.6
90°-150°	9051.5	61.8
90°-180°	10415.0	71.1
0°-180°	14642.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3541	3541	3541	3541	3541	
5°	3470	3435	3462	3474	3488	322
15°	2862	2852	2953	3052	3118	797
25°	2076	2093	2240	2394	2506	952
35°	1333	1366	1514	1692	1846	826
45°	639	677	791	946	1093	502
55°	230	268	346	444	546	214
65°	26	49	110	132	147	43
75°	3	3	2	0	0	5
85°	0	0	0	0	0	0
90°	4	10	23	24	23	8
95°	116	409	1248	646	384	122
105°	377	583	2252	3322	3186	397
115°	664	812	1868	3615	4081	656
125°	909	1042	1683	2840	3337	811
135°	1090	1220	1638	2294	2596	843
145°	1268	1363	1615	1963	2113	793
155°	1431	1487	1602	1761	1819	660
165°	1558	1573	1608	1671	1680	439
175°	1617	1616	1610	1631	1628	154
180°	1615	1615	1615	1615	1615	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3540.6	3540.6	3540.6	3540.6	3540.6
2.5°	3548.8	3515.3	3524.2	3523.9	3514.6
5°	3470.4	3435.2	3461.8	3474.1	3487.5
7.5°	3323.7	3296.3	3347.4	3385.7	3413.5
10°	3210.0	3186.6	3252.8	3305.1	3343.6
12.5°	3078.5	3060.4	3140.5	3212.1	3261.4
15°	2862.3	2852.2	2953.1	3052.2	3117.5
17.5°	2630.7	2630.4	2745.5	2868.5	2947.2
20°	2471.7	2476.8	2600.2	2735.9	2828.0
22.5°	2312.8	2324.5	2456.3	2597.8	2703.3
25°	2076.1	2092.8	2240.5	2393.8	2506.0
27.5°	1848.6	1873.0	2028.4	2187.8	2324.4
30°	1699.2	1727.7	1885.9	2053.6	2194.2
32.5°	1552.6	1586.4	1740.7	1918.0	2061.3
35°	1332.6	1366.1	1514.2	1692.4	1846.5
37.5°	1105.5	1138.3	1283.0	1458.4	1624.9
40°	957.5	994.4	1132.2	1302.2	1471.4
42.5°	823.2	860.1	989.7	1156.8	1316.5
45°	638.9	677.4	791.4	945.5	1092.8
47.5°	486.1	528.0	628.0	767.4	901.7
50°	395.7	437.6	536.1	659.0	787.9
52.5°	323.1	363.6	452.6	568.3	686.5
55°	229.5	268.1	346.0	444.3	546.4
57.5°	158.6	191.8	261.7	343.7	423.8
60°	114.8	146.6	212.4	279.0	344.3
62.5°	76.4	105.5	169.9	220.9	264.8
65°	25.7	49.1	109.6	132.2	147.3
67.5°	13.0	15.7	57.6	60.8	65.8
70°	10.3	10.3	27.4	29.2	34.3
72.5°	7.5	7.5	11.0	14.1	15.1
75°	3.4	3.4	1.7	0.0	0.0
77.5°	1.7	1.7	1.4	0.0	0.0
80°	1.7	1.7	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°	0.7	2.1	4.5	4.9	4.5
90°	3.5	10.3	22.6	24.3	22.6
92.5°	49.4	180.0	355.1	154.1	111.6
95°	116.5	408.9	1248.5	646.1	384.3
97.5°	187.1	469.0	1946.1	1610.6	1182.8
100°	240.0	493.3	2163.2	2255.9	1824.1
102.5°	288.7	527.0	2239.7	2745.3	2422.3
105°	377.3	583.1	2251.8	3321.6	3185.6
107.5°	459.4	647.1	2153.4	3681.2	3726.4
110°	523.4	693.4	2065.8	3777.7	3969.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	580.4	739.6	1985.1	3758.4	4081.1
115°	664.3	812.2	1867.6	3615.3	4081.1
117.5°	746.3	885.1	1790.0	3396.5	3924.6
120°	796.4	932.4	1744.1	3239.6	3778.6
122.5°	843.7	977.0	1716.3	3071.4	3614.4
125°	909.4	1042.1	1683.2	2840.4	3336.9
127.5°	969.9	1100.2	1663.8	2652.0	3088.6
130°	1003.3	1137.6	1655.4	2535.6	2930.0
132.5°	1038.1	1171.1	1647.1	2430.5	2793.7
135°	1090.3	1219.5	1638.0	2293.5	2596.1
137.5°	1142.8	1264.9	1630.4	2182.3	2428.9
140°	1179.0	1292.9	1627.6	2110.8	2330.1
142.5°	1213.7	1320.8	1622.0	2046.2	2238.3
145°	1267.6	1362.9	1615.4	1963.1	2112.7
147.5°	1316.7	1401.0	1607.8	1887.9	2002.8
150°	1352.8	1427.7	1605.0	1847.0	1938.8
152.5°	1386.2	1451.5	1603.6	1809.1	1884.6
155°	1431.1	1487.2	1601.5	1761.1	1818.9
157.5°	1477.7	1516.8	1601.9	1727.6	1765.7
160°	1504.1	1536.4	1603.2	1706.5	1733.7
162.5°	1525.0	1551.9	1604.6	1689.6	1710.0
165°	1558.0	1573.3	1608.5	1671.3	1679.8
167.5°	1580.6	1591.2	1608.8	1655.5	1659.6
170°	1594.5	1599.6	1610.2	1648.5	1648.5
172.5°	1605.7	1606.7	1610.2	1640.1	1638.7
175°	1617.2	1615.5	1610.2	1631.0	1627.6
177.5°	1621.0	1616.9	1609.9	1623.7	1619.6
180°	1615.4	1615.4	1615.4	1615.4	1615.4

(END OF REPORT)