

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: P518930

Luminaire Tested: **SQ4-BB-150U-100D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518930  
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-835-1D-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

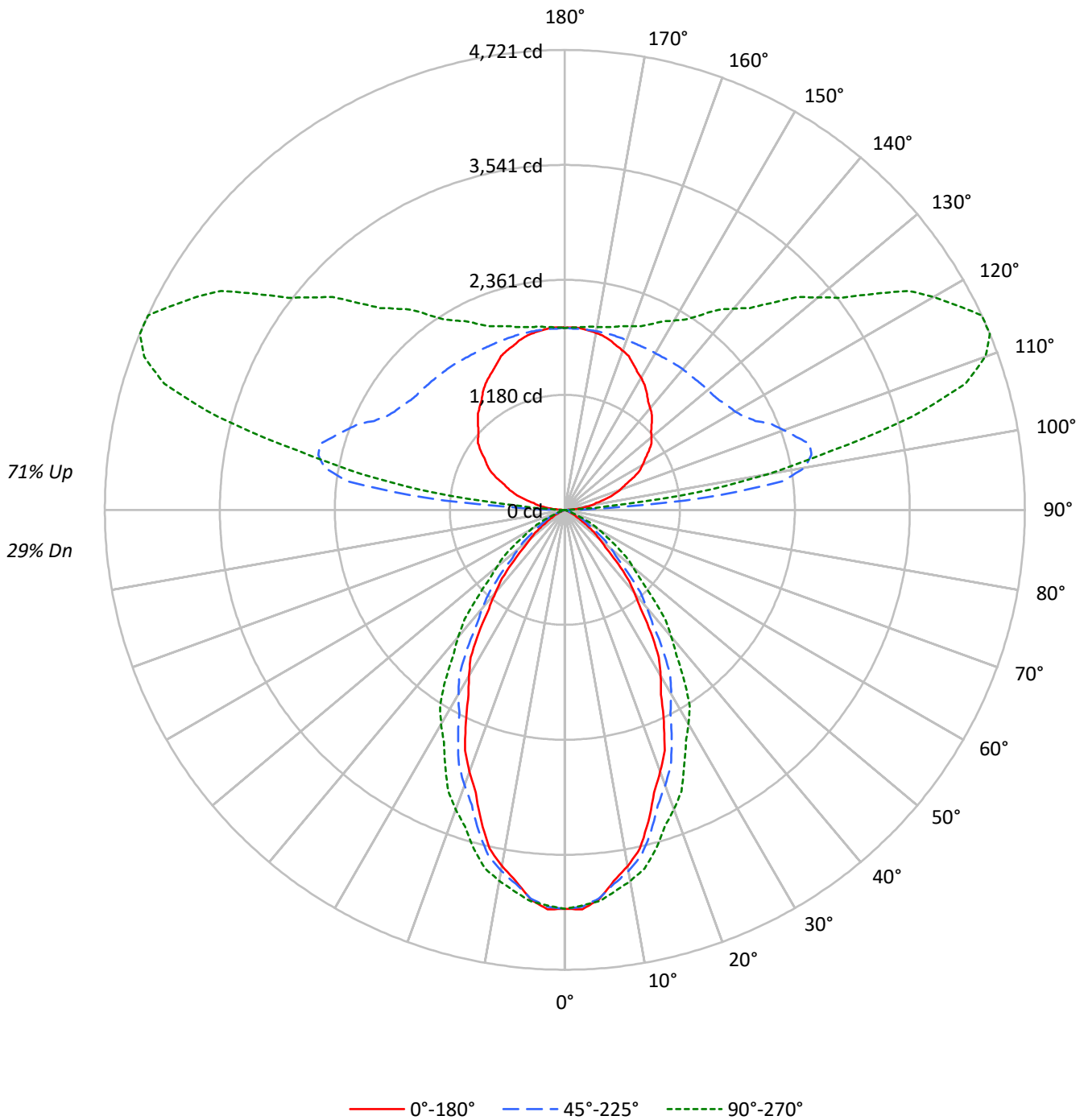
Lumens per Lamp: N/A  
Luminaire Lumens: 16937.6 lumens  
Efficiency: N/A  
Efficacy: 114.1 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

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	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°	18893	18893	18893
5°	18590	18544	18681
10°	17394	17626	18118
15°	15813	16314	17223
20°	14036	14766	16060
25°	12224	13192	14755
30°	10470	11621	13520
35°	8682	9864	12029
40°	6670	7887	10250
45°	4822	5972	8248
50°	3285	4451	6542
55°	2135	3219	5084
60°	1225	2267	3675
65°	324	1384	1860
70°	161	428	534
75°	71	36	0
80°	53	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	373.8	2.2
10°-20°	955.9	5.6
20°-30°	1196.6	7.1
30°-40°	1105.3	6.5
40°-50°	742.7	4.4
50°-60°	383.6	2.3
60°-70°	120.2	0.7
70°-80°	7.6	0.0
80°-90°	4.0	0.0
90°-100°	868.4	5.1
100°-110°	2348.1	13.9
110°-120°	2468.6	14.6
120°-130°	2005.2	11.8
130°-140°	1572.9	9.3
140°-150°	1207.2	7.1
150°-160°	868.2	5.1
160°-170°	530.4	3.1
170°-180°	178.8	1.1
0°-30°	2526.3	14.9
0°-40°	3631.5	21.4
0°-60°	4757.9	28.1
0°-90°	4889.6	28.9
90°-120°	5685.1	33.6
90°-150°	10470.5	61.8
90°-180°	12048.0	71.1
0°-180°	16937.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4096	4096	4096	4096	4096	
5°	4014	3974	4004	4019	4034	372
15°	3311	3299	3416	3531	3606	922
25°	2402	2421	2592	2769	2899	1101
35°	1542	1580	1752	1958	2136	955
45°	739	784	915	1094	1264	580
55°	266	310	400	514	632	248
65°	30	57	127	153	170	50
75°	4	4	2	0	0	6
85°	0	0	0	0	0	0
90°	4	12	26	28	26	9
95°	135	473	1444	747	444	141
105°	436	674	2605	3842	3685	460
115°	768	940	2160	4182	4721	759
125°	1052	1205	1947	3286	3860	938
135°	1261	1411	1895	2653	3003	975
145°	1466	1576	1869	2271	2444	917
155°	1655	1720	1853	2037	2104	764
165°	1802	1820	1861	1933	1943	508
175°	1871	1869	1863	1887	1883	178
180°	1869	1869	1869	1869	1869	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4095.6	4095.6	4095.6	4095.6	4095.6
2.5°	4105.1	4066.4	4076.6	4076.4	4065.5
5°	4014.4	3973.7	4004.5	4018.7	4034.2
7.5°	3844.8	3813.0	3872.1	3916.4	3948.6
10°	3713.2	3686.1	3762.8	3823.2	3867.8
12.5°	3561.0	3540.1	3632.8	3715.7	3772.7
15°	3311.0	3299.4	3416.0	3530.7	3606.2
17.5°	3043.1	3042.7	3175.8	3318.2	3409.3
20°	2859.2	2865.0	3007.8	3164.8	3271.4
22.5°	2675.3	2688.9	2841.4	3005.0	3127.1
25°	2401.5	2420.9	2591.7	2769.0	2898.8
27.5°	2138.4	2166.7	2346.4	2530.7	2688.8
30°	1965.6	1998.5	2181.6	2375.5	2538.2
32.5°	1796.0	1835.1	2013.5	2218.6	2384.5
35°	1541.6	1580.3	1751.6	1957.7	2136.0
37.5°	1278.8	1316.8	1484.1	1687.0	1879.6
40°	1107.6	1150.2	1309.7	1506.4	1702.1
42.5°	952.3	994.9	1144.9	1338.1	1522.9
45°	739.1	783.6	915.4	1093.7	1264.2
47.5°	562.3	610.8	726.4	887.6	1043.0
50°	457.7	506.1	620.2	762.3	911.5
52.5°	373.7	420.6	523.5	657.4	794.2
55°	265.5	310.1	400.3	513.9	632.1
57.5°	183.5	221.8	302.8	397.6	490.2
60°	132.8	169.6	245.7	322.7	398.3
62.5°	88.4	122.1	196.6	255.6	306.3
65°	29.7	56.8	126.8	153.0	170.4
67.5°	15.1	18.2	66.6	70.3	76.1
70°	11.9	11.9	31.7	33.8	39.6
72.5°	8.7	8.7	12.7	16.3	17.4
75°	4.0	4.0	2.0	0.0	0.0
77.5°	2.0	2.0	1.6	0.0	0.0
80°	2.0	2.0	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°	0.8	2.4	5.2	5.6	5.2
90°	4.0	11.9	26.1	28.1	26.1
92.5°	57.1	208.2	410.7	178.3	129.1
95°	134.8	473.1	1444.2	747.4	444.5
97.5°	216.4	542.5	2251.2	1863.0	1368.2
100°	277.6	570.6	2502.3	2609.6	2110.0
102.5°	333.9	609.6	2590.8	3175.7	2802.0
105°	436.5	674.5	2604.9	3842.4	3685.0
107.5°	531.4	748.6	2491.0	4258.3	4310.6
110°	605.5	802.1	2389.6	4369.9	4592.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	671.4	855.5	2296.3	4347.6	4720.9
115°	768.4	939.5	2160.3	4182.0	4720.9
117.5°	863.3	1023.8	2070.6	3929.0	4539.9
120°	921.3	1078.6	2017.5	3747.5	4370.9
122.5°	976.0	1130.2	1985.3	3552.9	4181.0
125°	1052.0	1205.4	1947.1	3285.7	3860.0
127.5°	1122.0	1272.7	1924.6	3067.7	3572.8
130°	1160.6	1316.0	1914.9	2933.0	3389.3
132.5°	1200.8	1354.6	1905.3	2811.5	3231.6
135°	1261.2	1410.7	1894.8	2653.0	3003.1
137.5°	1321.9	1463.2	1886.0	2524.4	2809.6
140°	1363.8	1495.5	1882.7	2441.7	2695.4
142.5°	1404.0	1527.9	1876.3	2366.9	2589.2
145°	1466.4	1576.5	1868.7	2270.9	2443.9
147.5°	1523.1	1620.6	1859.8	2183.9	2316.8
150°	1564.9	1651.5	1856.6	2136.6	2242.8
152.5°	1603.5	1679.1	1855.0	2092.7	2180.0
155°	1655.4	1720.3	1852.6	2037.1	2104.0
157.5°	1709.3	1754.6	1853.0	1998.4	2042.4
160°	1739.9	1777.3	1854.6	1974.0	2005.4
162.5°	1764.1	1795.1	1856.2	1954.5	1978.1
165°	1802.3	1820.0	1860.6	1933.2	1943.1
167.5°	1828.4	1840.6	1861.0	1915.0	1919.7
170°	1844.5	1850.4	1862.6	1906.9	1906.9
172.5°	1857.4	1858.6	1862.6	1897.2	1895.6
175°	1870.7	1868.7	1862.6	1886.7	1882.7
177.5°	1875.1	1870.4	1862.2	1878.2	1873.5
180°	1868.7	1868.7	1868.7	1868.7	1868.7

(END OF REPORT)