

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: P518687

Luminaire Tested: **SQ4-BB-100U-050D-835-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518687  
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-835-1D-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

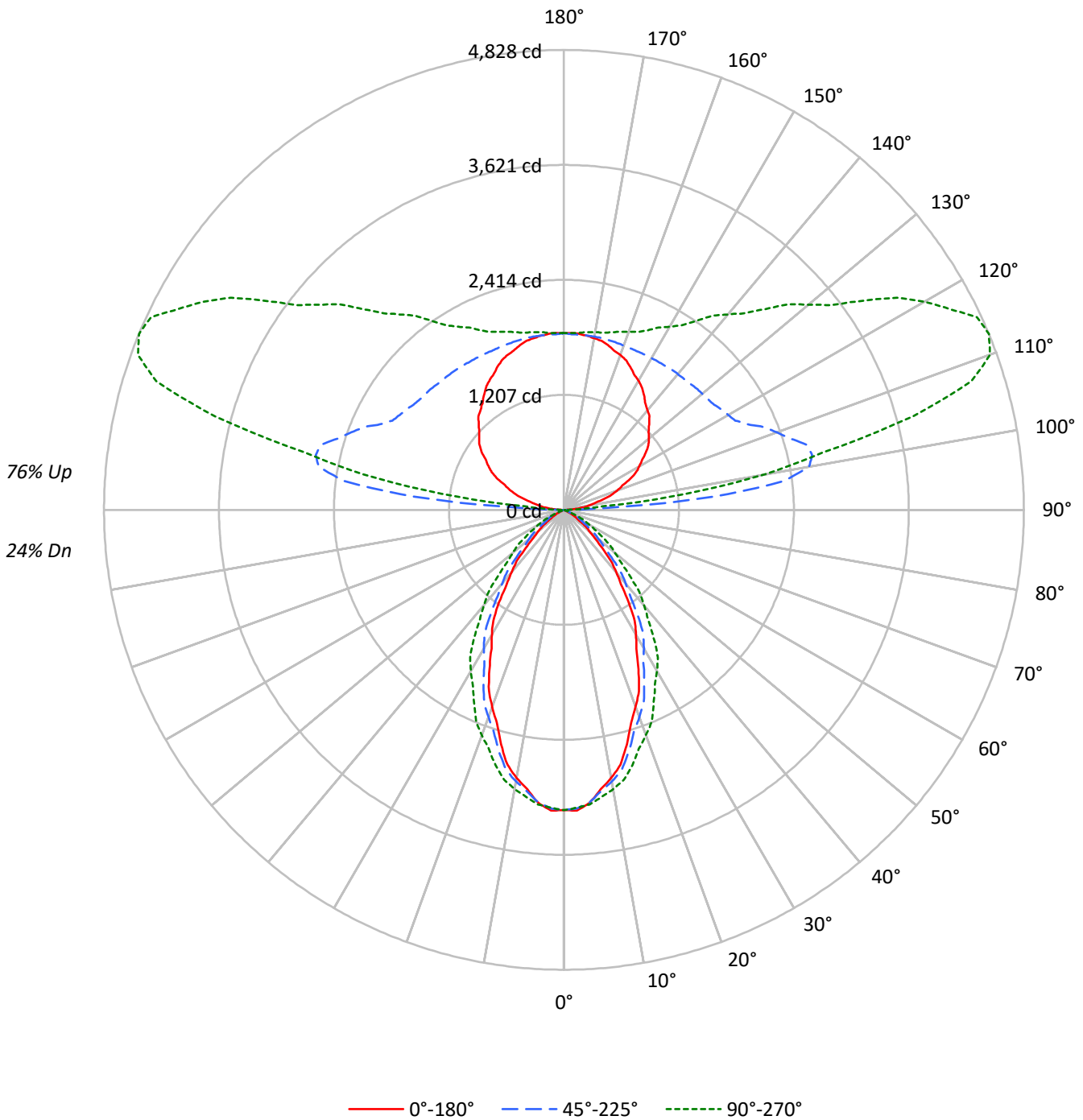
Lumens per Lamp: N/A  
Luminaire Lumens: 15813.1 lumens  
Efficiency: N/A  
Efficacy: 124.1 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

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°	9694	9694	9694
5°	9538	9515	9585
10°	8925	9044	9296
15°	8114	8371	8837
20°	7202	7576	8240
25°	6272	6769	7571
30°	5372	5962	6937
35°	4455	5061	6172
40°	3422	4047	5259
45°	2474	3064	4232
50°	1686	2284	3356
55°	1096	1652	2609
60°	629	1163	1885
65°	167	710	955
70°	83	219	274
75°	37	18	0
80°	27	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	287.7	1.8
10°-20°	735.7	4.7
20°-30°	921.0	5.8
30°-40°	850.7	5.4
40°-50°	571.6	3.6
50°-60°	295.2	1.9
60°-70°	92.5	0.6
70°-80°	5.8	0.0
80°-90°	3.9	0.0
90°-100°	868.4	5.5
100°-110°	2397.4	15.2
110°-120°	2472.6	15.6
120°-130°	1986.9	12.6
130°-140°	1561.5	9.9
140°-150°	1197.6	7.6
150°-160°	860.7	5.4
160°-170°	526.4	3.3
170°-180°	177.5	1.1
0°-30°	1944.3	12.3
0°-40°	2795.0	17.7
0°-60°	3661.9	23.2
0°-90°	3764.2	23.8
90°-120°	5738.4	36.3
90°-150°	10484.4	66.3
90°-180°	12049.0	76.2
0°-180°	15813.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3152	3152	3152	3152	3152	
5°	3090	3058	3082	3093	3105	286
15°	2548	2539	2629	2717	2776	710
25°	1848	1863	1995	2131	2231	847
35°	1186	1216	1348	1507	1644	735
45°	569	603	705	842	973	447
55°	204	239	308	396	486	191
65°	23	44	98	118	131	39
75°	3	3	2	0	0	4
85°	0	0	0	0	0	0
90°	6	12	24	27	30	9
95°	128	470	1576	648	421	137
105°	427	659	2638	4027	3792	455
115°	766	925	2124	4206	4783	752
125°	1050	1195	1926	3259	3824	935
135°	1264	1400	1872	2639	2976	978
145°	1466	1567	1848	2247	2418	918
155°	1653	1708	1834	2016	2080	762
165°	1789	1812	1842	1914	1929	504
175°	1854	1857	1846	1872	1866	176
180°	1854	1854	1854	1854	1854	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3152.2	3152.2	3152.2	3152.2	3152.2
2.5°	3159.5	3129.7	3137.6	3137.4	3129.0
5°	3089.7	3058.4	3082.1	3093.0	3104.9
7.5°	2959.1	2934.7	2980.2	3014.3	3039.1
10°	2857.9	2837.0	2896.0	2942.5	2976.8
12.5°	2740.8	2724.7	2796.0	2859.8	2903.6
15°	2548.3	2539.4	2629.1	2717.4	2775.5
17.5°	2342.1	2341.8	2444.3	2553.9	2623.9
20°	2200.6	2205.1	2315.0	2435.8	2517.8
22.5°	2059.1	2069.5	2186.9	2312.8	2406.8
25°	1848.3	1863.2	1994.7	2131.2	2231.1
27.5°	1645.8	1667.6	1805.9	1947.8	2069.4
30°	1512.8	1538.2	1679.0	1828.3	1953.5
32.5°	1382.3	1412.4	1549.7	1707.6	1835.2
35°	1186.5	1216.3	1348.1	1506.8	1644.0
37.5°	984.2	1013.5	1142.2	1298.4	1446.6
40°	852.5	885.3	1008.0	1159.4	1310.0
42.5°	732.9	765.7	881.2	1029.9	1172.1
45°	568.8	603.1	704.6	841.7	973.0
47.5°	432.8	470.1	559.1	683.2	802.8
50°	352.3	389.6	477.3	586.7	701.5
52.5°	287.6	323.7	402.9	506.0	611.2
55°	204.4	238.6	308.1	395.5	486.5
57.5°	141.2	170.7	233.0	306.0	377.3
60°	102.2	130.5	189.1	248.4	306.5
62.5°	68.0	94.0	151.3	196.7	235.8
65°	22.9	43.8	97.6	117.7	131.2
67.5°	11.6	14.0	51.2	54.1	58.6
70°	9.2	9.2	24.4	26.0	30.5
72.5°	6.7	6.7	9.8	12.5	13.4
75°	3.1	3.1	1.5	0.0	0.0
77.5°	1.5	1.5	1.2	0.0	0.0
80°	1.5	1.5	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°	1.2	2.3	4.7	5.4	5.9
90°	5.9	11.7	23.7	26.8	29.7
92.5°	53.4	221.7	396.4	144.7	112.7
95°	127.6	469.9	1575.5	647.6	421.3
97.5°	211.3	526.3	2333.9	1796.9	1301.3
100°	273.0	560.2	2614.0	2632.4	2139.2
102.5°	332.3	598.6	2668.6	3252.5	2784.9
105°	427.3	659.3	2637.7	4026.9	3791.9
107.5°	528.1	734.7	2490.5	4400.3	4486.2
110°	599.3	785.0	2376.6	4480.6	4759.1

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	663.4	842.1	2269.8	4417.2	4828.0
115°	765.5	925.1	2124.4	4205.6	4782.9
117.5°	854.5	1013.5	2028.9	3907.7	4564.5
120°	913.9	1070.5	1990.9	3706.0	4367.5
122.5°	970.8	1120.5	1960.0	3517.7	4144.4
125°	1050.3	1195.4	1925.6	3258.8	3824.5
127.5°	1118.0	1263.0	1905.4	3039.9	3527.8
130°	1163.1	1308.1	1895.9	2905.9	3349.8
132.5°	1205.8	1343.9	1886.4	2793.4	3195.5
135°	1264.0	1400.3	1872.2	2639.4	2975.9
137.5°	1329.2	1453.4	1865.1	2510.1	2797.3
140°	1364.8	1486.7	1860.3	2423.9	2676.3
142.5°	1405.2	1517.8	1855.6	2347.2	2569.5
145°	1465.7	1567.3	1848.5	2247.0	2418.1
147.5°	1523.9	1612.6	1841.9	2162.4	2295.3
150°	1566.6	1639.1	1839.6	2112.0	2219.4
152.5°	1599.8	1667.7	1837.2	2068.9	2157.6
155°	1652.6	1707.8	1833.6	2016.1	2079.9
157.5°	1701.3	1743.7	1834.2	1977.6	2021.2
160°	1729.8	1767.5	1836.6	1956.0	1987.9
162.5°	1753.5	1786.6	1839.0	1936.9	1961.8
165°	1789.1	1812.3	1842.5	1914.1	1928.6
167.5°	1816.4	1830.4	1845.5	1900.2	1904.8
170°	1830.7	1842.3	1845.5	1893.0	1893.0
172.5°	1842.5	1849.5	1845.5	1883.4	1881.1
175°	1854.4	1857.3	1845.5	1872.1	1866.3
177.5°	1859.2	1856.8	1844.9	1861.4	1856.8
180°	1854.4	1854.4	1854.4	1854.4	1854.4

(END OF REPORT)