

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: P518875

Luminaire Tested: **SQ4-BB-150U-050D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518875  
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-050D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

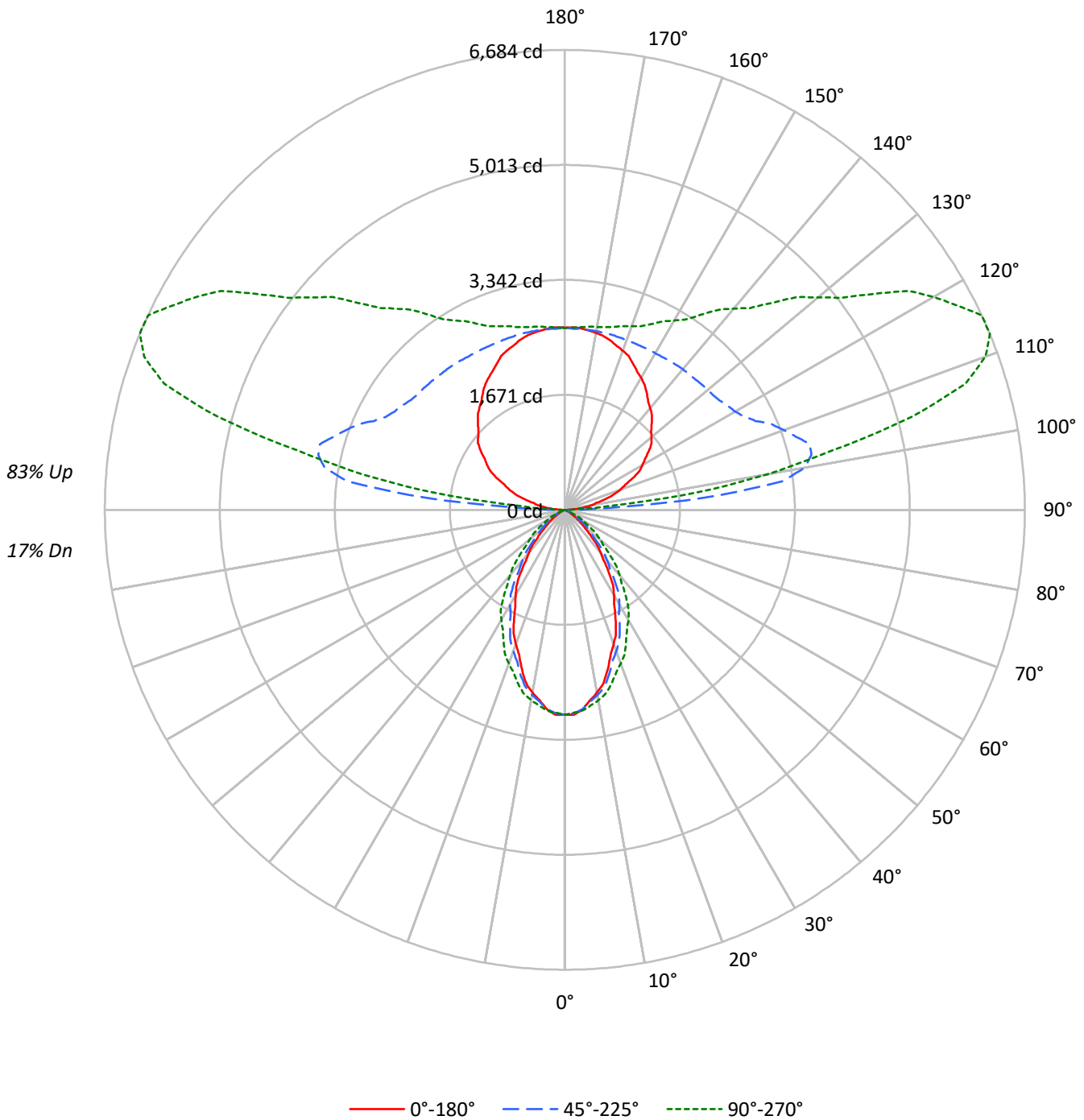
Lumens per Lamp: N/A  
Luminaire Lumens: 20612.7 lumens  
Efficiency: N/A  
Efficacy: 122.0 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 168.9  
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	99	99	99	99	87	87	87	87	65	65	65	45	45	45	26	26	26	17
1	91	87	84	81	80	77	74	72	58	56	54	40	39	38	24	23	23	16
2	83	77	71	67	73	68	63	60	51	48	46	36	34	33	22	21	20	14
3	76	68	61	56	67	60	55	51	46	42	39	32	30	29	20	19	18	13
4	70	60	53	48	62	54	48	43	41	37	34	29	27	25	18	17	16	12
5	64	54	47	41	57	48	42	37	37	33	30	26	24	22	17	15	14	11
6	59	48	41	36	52	43	37	33	33	29	26	24	21	19	15	14	13	10
7	55	44	37	32	48	39	33	29	30	26	23	22	19	17	14	13	12	9
8	51	40	33	28	45	36	30	25	28	23	20	20	18	16	13	12	11	8
9	47	36	29	25	42	32	27	23	25	21	18	19	16	14	12	11	10	8
10	44	33	27	22	39	30	24	20	23	19	16	17	15	13	11	10	9	7

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

	0°	45°	90°
0°	9150	9150	9150
5°	9003	8981	9048
10°	8424	8536	8775
15°	7658	7901	8341
20°	6798	7151	7778
25°	5920	6389	7146
30°	5071	5628	6548
35°	4205	4777	5826
40°	3231	3820	4964
45°	2335	2892	3994
50°	1591	2155	3168
55°	1034	1559	2462
60°	593	1098	1779
65°	157	670	901
70°	77	207	259
75°	34	17	0
80°	25	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	271.5	1.3
10°-20°	694.4	3.4
20°-30°	869.3	4.2
30°-40°	803.0	3.9
40°-50°	539.5	2.6
50°-60°	278.7	1.4
60°-70°	87.3	0.4
70°-80°	5.5	0.0
80°-90°	5.6	0.0
90°-100°	1229.6	6.0
100°-110°	3324.5	16.1
110°-120°	3495.2	17.0
120°-130°	2839.1	13.8
130°-140°	2227.0	10.8
140°-150°	1709.2	8.3
150°-160°	1229.3	6.0
160°-170°	750.9	3.6
170°-180°	253.2	1.2
0°-30°	1835.2	8.9
0°-40°	2638.2	12.8
0°-60°	3456.4	16.8
0°-90°	3554.8	17.2
90°-120°	8049.2	39.0
90°-150°	14824.5	71.9
90°-180°	17058.0	82.8
0°-180°	20612.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2975	2975	2975	2975	2975	
5°	2916	2887	2909	2920	2931	270
15°	2405	2397	2482	2565	2620	670
25°	1745	1759	1883	2012	2106	800
35°	1120	1148	1272	1422	1552	694
45°	537	569	665	794	918	422
55°	193	225	291	373	459	180
65°	22	41	92	111	124	36
75°	3	3	1	0	0	4
85°	0	0	0	0	0	0
90°	6	17	37	40	37	13
95°	191	670	2045	1058	629	200
105°	618	955	3688	5440	5217	651
115°	1088	1330	3059	5921	6684	1074
125°	1490	1707	2757	4652	5465	1328
135°	1786	1997	2683	3756	4252	1380
145°	2076	2232	2646	3215	3460	1299
155°	2344	2436	2623	2884	2979	1081
165°	2552	2577	2634	2737	2751	719
175°	2649	2646	2637	2671	2666	251
180°	2646	2646	2646	2646	2646	

TEST NUMBER: P518875

CATALOG NUMBER: SQ4-BB-150U-050D-830-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2975.3	2975.3	2975.3	2975.3	2975.3
2.5°	2982.3	2954.1	2961.5	2961.3	2953.5
5°	2916.3	2886.8	2909.1	2919.5	2930.7
7.5°	2793.1	2770.0	2813.0	2845.2	2868.5
10°	2697.5	2677.8	2733.5	2777.4	2809.8
12.5°	2587.0	2571.8	2639.1	2699.3	2740.7
15°	2405.3	2396.9	2481.6	2564.9	2619.8
17.5°	2210.7	2210.4	2307.2	2410.6	2476.7
20°	2077.1	2081.4	2185.1	2299.1	2376.5
22.5°	1943.5	1953.4	2064.2	2183.1	2271.7
25°	1744.6	1758.7	1882.8	2011.6	2105.9
27.5°	1553.5	1574.0	1704.6	1838.5	1953.3
30°	1427.9	1451.9	1584.8	1725.7	1843.9
32.5°	1304.7	1333.1	1462.8	1611.8	1732.2
35°	1119.9	1148.0	1272.5	1422.2	1551.7
37.5°	929.0	956.6	1078.1	1225.6	1365.5
40°	804.7	835.6	951.5	1094.3	1236.5
42.5°	691.8	722.8	831.7	972.1	1106.4
45°	536.9	569.3	665.0	794.5	918.4
47.5°	408.5	443.7	527.7	644.8	757.7
50°	332.5	367.7	450.5	553.8	662.1
52.5°	271.5	305.5	380.3	477.6	576.9
55°	192.9	225.3	290.8	373.3	459.2
57.5°	133.3	161.2	219.9	288.8	356.1
60°	96.4	123.2	178.5	234.4	289.3
62.5°	64.2	88.7	142.8	185.7	222.5
65°	21.6	41.3	92.1	111.1	123.8
67.5°	10.9	13.2	48.4	51.1	55.3
70°	8.6	8.6	23.0	24.6	28.8
72.5°	6.3	6.3	9.2	11.8	12.7
75°	2.9	2.9	1.4	0.0	0.0
77.5°	1.4	1.4	1.2	0.0	0.0
80°	1.4	1.4	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°	1.1	3.4	7.4	8.0	7.4
90°	5.7	16.8	37.0	39.8	37.0
92.5°	80.9	294.7	581.5	252.5	182.8
95°	190.8	669.8	2044.8	1058.2	629.4
97.5°	306.4	768.1	3187.4	2637.8	1937.2
100°	393.0	807.9	3542.8	3694.8	2987.5
102.5°	472.8	863.2	3668.1	4496.2	3967.1
105°	618.0	954.9	3688.0	5440.1	5217.4
107.5°	752.4	1059.8	3526.9	6029.0	6103.1
110°	857.2	1135.7	3383.3	6187.1	6501.8

TEST NUMBER: P518875

CATALOG NUMBER: SQ4-BB-150U-050D-830-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	950.6	1211.3	3251.2	6155.5	6684.1
115°	1087.9	1330.2	3058.7	5921.1	6684.1
117.5°	1222.3	1449.6	2931.6	5562.8	6427.7
120°	1304.3	1527.1	2856.5	5305.8	6188.5
122.5°	1381.8	1600.1	2810.9	5030.3	5919.7
125°	1489.5	1706.7	2756.8	4652.0	5465.1
127.5°	1588.6	1801.9	2724.9	4343.4	5058.5
130°	1643.2	1863.2	2711.2	4152.7	4798.7
132.5°	1700.2	1918.0	2697.5	3980.7	4575.5
135°	1785.6	1997.3	2682.7	3756.3	4251.9
137.5°	1871.6	2071.6	2670.2	3574.2	3978.0
140°	1930.9	2117.5	2665.6	3457.0	3816.2
142.5°	1987.8	2163.3	2656.5	3351.2	3665.8
145°	2076.1	2232.1	2645.7	3215.2	3460.2
147.5°	2156.4	2294.6	2633.2	3092.0	3280.2
150°	2215.7	2338.2	2628.6	3025.1	3175.4
152.5°	2270.4	2377.3	2626.3	2962.9	3086.6
155°	2343.8	2435.7	2622.9	2884.2	2978.9
157.5°	2420.2	2484.2	2623.5	2829.4	2891.8
160°	2463.4	2516.4	2625.8	2794.8	2839.4
162.5°	2497.6	2541.6	2628.1	2767.2	2800.6
165°	2551.7	2576.8	2634.3	2737.2	2751.1
167.5°	2588.8	2606.0	2634.9	2711.4	2718.0
170°	2611.5	2619.9	2637.2	2699.8	2699.8
172.5°	2629.8	2631.4	2637.2	2686.1	2683.9
175°	2648.6	2645.8	2637.2	2671.2	2665.6
177.5°	2654.8	2648.1	2636.6	2659.2	2652.5
180°	2645.7	2645.7	2645.7	2645.7	2645.7

(END OF REPORT)