

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: P518931

Luminaire Tested: **SQ4-BB-150U-100D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518931  
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-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

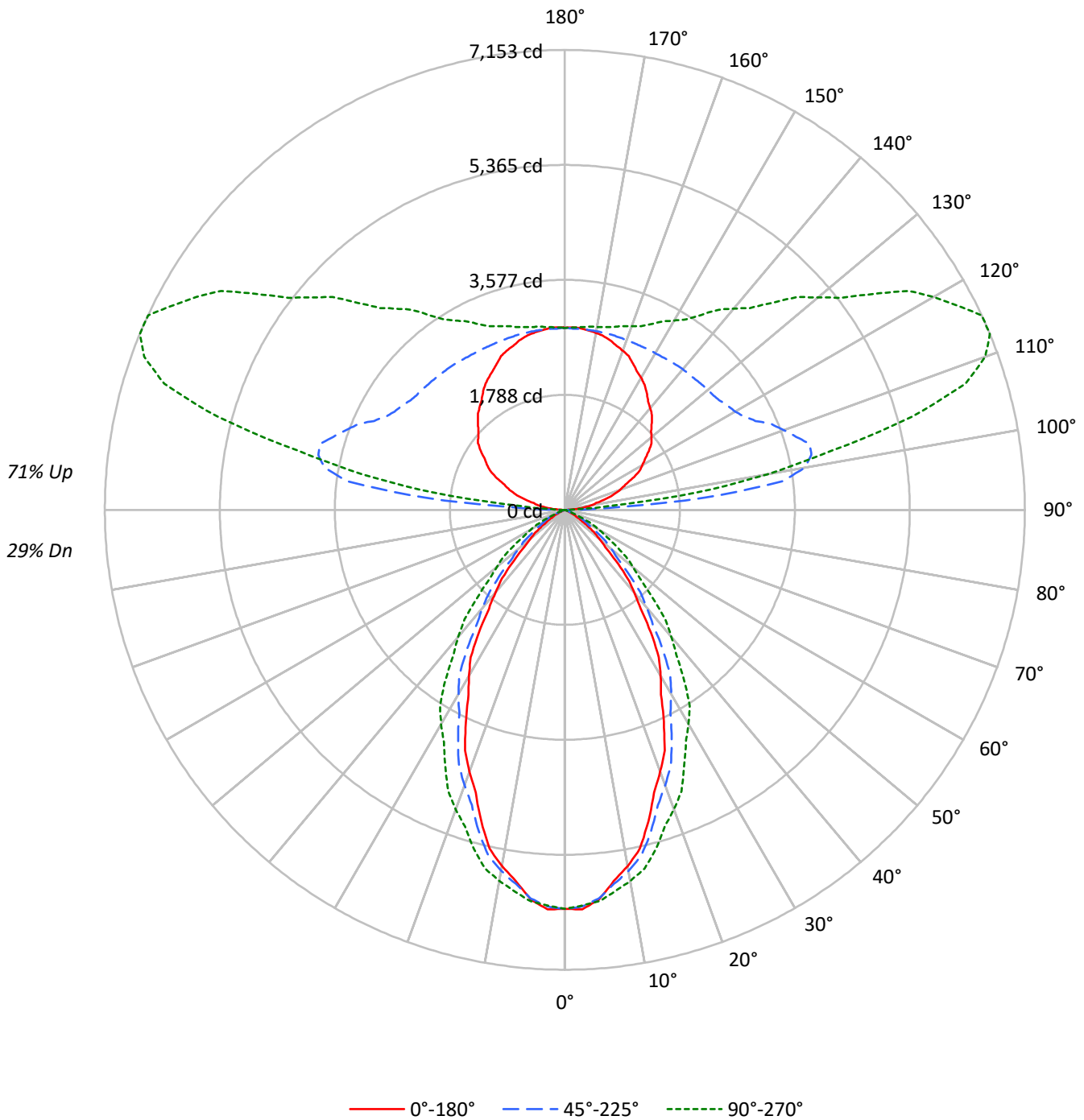
Lumens per Lamp: N/A  
Luminaire Lumens: 25662.0 lumens  
Efficiency: N/A  
Efficacy: 114.7 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 223.7  
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°	19084	19084	19084
5°	18777	18730	18869
10°	17569	17803	18300
15°	15972	16479	17396
20°	14178	14914	16221
25°	12347	13325	14904
30°	10575	11738	13656
35°	8769	9963	12150
40°	6737	7967	10353
45°	4870	6032	8330
50°	3318	4495	6607
55°	2157	3251	5135
60°	1237	2290	3711
65°	327	1398	1879
70°	162	432	540
75°	71	36	0
80°	53	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	566.3	2.2
10°-20°	1448.2	5.6
20°-30°	1813.0	7.1
30°-40°	1674.6	6.5
40°-50°	1125.3	4.4
50°-60°	581.2	2.3
60°-70°	182.0	0.7
70°-80°	11.5	0.0
80°-90°	6.1	0.0
90°-100°	1315.8	5.1
100°-110°	3557.5	13.9
110°-120°	3740.2	14.6
120°-130°	3038.1	11.8
130°-140°	2383.1	9.3
140°-150°	1829.1	7.1
150°-160°	1315.4	5.1
160°-170°	803.6	3.1
170°-180°	270.9	1.1
0°-30°	3827.5	14.9
0°-40°	5502.1	21.4
0°-60°	7208.6	28.1
0°-90°	7408.2	28.9
90°-120°	8613.5	33.6
90°-150°	15863.8	61.8
90°-180°	18254.0	71.1
0°-180°	25662.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6205	6205	6205	6205	6205	
5°	6082	6020	6067	6089	6112	564
15°	5016	4999	5176	5349	5464	1397
25°	3638	3668	3927	4195	4392	1668
35°	2336	2394	2654	2966	3236	1447
45°	1120	1187	1387	1657	1915	879
55°	402	470	606	779	958	375
65°	45	86	192	232	258	76
75°	6	6	3	0	0	9
85°	0	0	0	0	0	1
90°	6	18	40	43	40	14
95°	204	717	2188	1132	674	214
105°	661	1022	3947	5822	5583	696
115°	1164	1423	3273	6336	7153	1150
125°	1594	1826	2950	4978	5848	1421
135°	1911	2137	2871	4020	4550	1477
145°	2222	2388	2831	3441	3703	1390
155°	2508	2606	2807	3086	3188	1157
165°	2731	2757	2819	2929	2944	769
175°	2834	2831	2822	2858	2852	269
180°	2831	2831	2831	2831	2831	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6205.3	6205.3	6205.3	6205.3	6205.3
2.5°	6219.7	6161.0	6176.4	6176.1	6159.6
5°	6082.2	6020.5	6067.2	6088.7	6112.2
7.5°	5825.2	5777.1	5866.6	5933.8	5982.5
10°	5625.9	5584.8	5700.9	5792.5	5860.0
12.5°	5395.3	5363.6	5504.0	5629.6	5715.9
15°	5016.4	4998.8	5175.6	5349.3	5463.8
17.5°	4610.6	4610.0	4811.7	5027.4	5165.4
20°	4332.0	4340.8	4557.1	4795.0	4956.4
22.5°	4053.4	4073.9	4305.0	4552.9	4737.9
25°	3638.5	3667.9	3926.7	4195.4	4392.0
27.5°	3239.8	3282.7	3555.0	3834.3	4073.8
30°	2978.0	3027.9	3305.3	3599.1	3845.6
32.5°	2721.1	2780.4	3050.7	3361.4	3612.7
35°	2335.6	2394.3	2653.8	2966.2	3236.2
37.5°	1937.5	1995.1	2248.5	2556.0	2847.8
40°	1678.2	1742.7	1984.4	2282.3	2578.8
42.5°	1442.8	1507.4	1734.6	2027.4	2307.4
45°	1119.8	1187.3	1387.0	1657.0	1915.3
47.5°	852.0	925.4	1100.6	1344.9	1580.3
50°	693.5	766.9	939.6	1154.9	1380.9
52.5°	566.2	637.2	793.1	996.0	1203.2
55°	402.3	469.8	606.4	778.6	957.7
57.5°	278.0	336.1	458.7	602.4	742.7
60°	201.1	256.9	372.3	488.9	603.4
62.5°	133.9	185.0	297.8	387.2	464.1
65°	45.0	86.1	192.1	231.8	258.2
67.5°	22.8	27.5	100.9	106.5	115.3
70°	18.0	18.0	48.0	51.2	60.0
72.5°	13.2	13.2	19.2	24.7	26.4
75°	6.0	6.0	3.0	0.0	0.0
77.5°	3.0	3.0	2.4	0.0	0.0
80°	3.0	3.0	0.0	0.0	0.0
82.5°	0.6	0.6	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	3.6	7.9	8.5	7.9
90°	6.1	18.0	39.6	42.6	39.6
92.5°	86.6	315.4	622.3	270.1	195.7
95°	204.2	716.7	2188.2	1132.4	673.5
97.5°	327.9	822.0	3410.8	2822.7	2073.0
100°	420.6	864.6	3791.2	3953.8	3196.9
102.5°	505.9	923.7	3925.3	4811.4	4245.3
105°	661.3	1021.9	3946.6	5821.5	5583.1
107.5°	805.2	1134.1	3774.1	6451.7	6530.9
110°	917.3	1215.3	3620.5	6620.9	6957.6

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1017.3	1296.2	3479.1	6587.1	7152.6
115°	1164.2	1423.4	3273.1	6336.2	7152.6
117.5°	1308.0	1551.2	3137.2	5952.8	6878.3
120°	1395.8	1634.2	3056.7	5677.7	6622.4
122.5°	1478.7	1712.3	3007.9	5382.9	6334.7
125°	1593.9	1826.3	2950.0	4978.2	5848.3
127.5°	1699.9	1928.2	2915.9	4647.9	5413.1
130°	1758.4	1993.9	2901.3	4443.8	5135.1
132.5°	1819.4	2052.4	2886.7	4259.7	4896.2
135°	1910.8	2137.3	2870.8	4019.6	4550.0
137.5°	2002.9	2216.8	2857.4	3824.8	4256.8
140°	2066.2	2265.9	2852.5	3699.3	4083.7
142.5°	2127.2	2314.9	2842.8	3586.1	3922.8
145°	2221.7	2388.5	2831.2	3440.6	3702.8
147.5°	2307.6	2455.4	2817.8	3308.7	3510.2
150°	2371.0	2502.1	2812.9	3237.1	3398.0
152.5°	2429.5	2543.9	2810.5	3170.6	3302.9
155°	2508.1	2606.5	2806.8	3086.4	3187.8
157.5°	2589.8	2658.4	2807.4	3027.7	3094.5
160°	2636.1	2692.8	2809.9	2990.7	3038.4
162.5°	2672.7	2719.8	2812.3	2961.2	2997.0
165°	2730.6	2757.4	2819.0	2929.0	2943.9
167.5°	2770.2	2788.7	2819.6	2901.4	2908.6
170°	2794.6	2803.6	2822.0	2889.1	2889.1
172.5°	2814.1	2815.9	2822.0	2874.4	2872.0
175°	2834.2	2831.3	2822.0	2858.5	2852.5
177.5°	2840.9	2833.8	2821.4	2845.7	2838.5
180°	2831.2	2831.2	2831.2	2831.2	2831.2

(END OF REPORT)