

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: P518450

Luminaire Tested: **SQ4-BB-050U-100D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518450
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-100D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

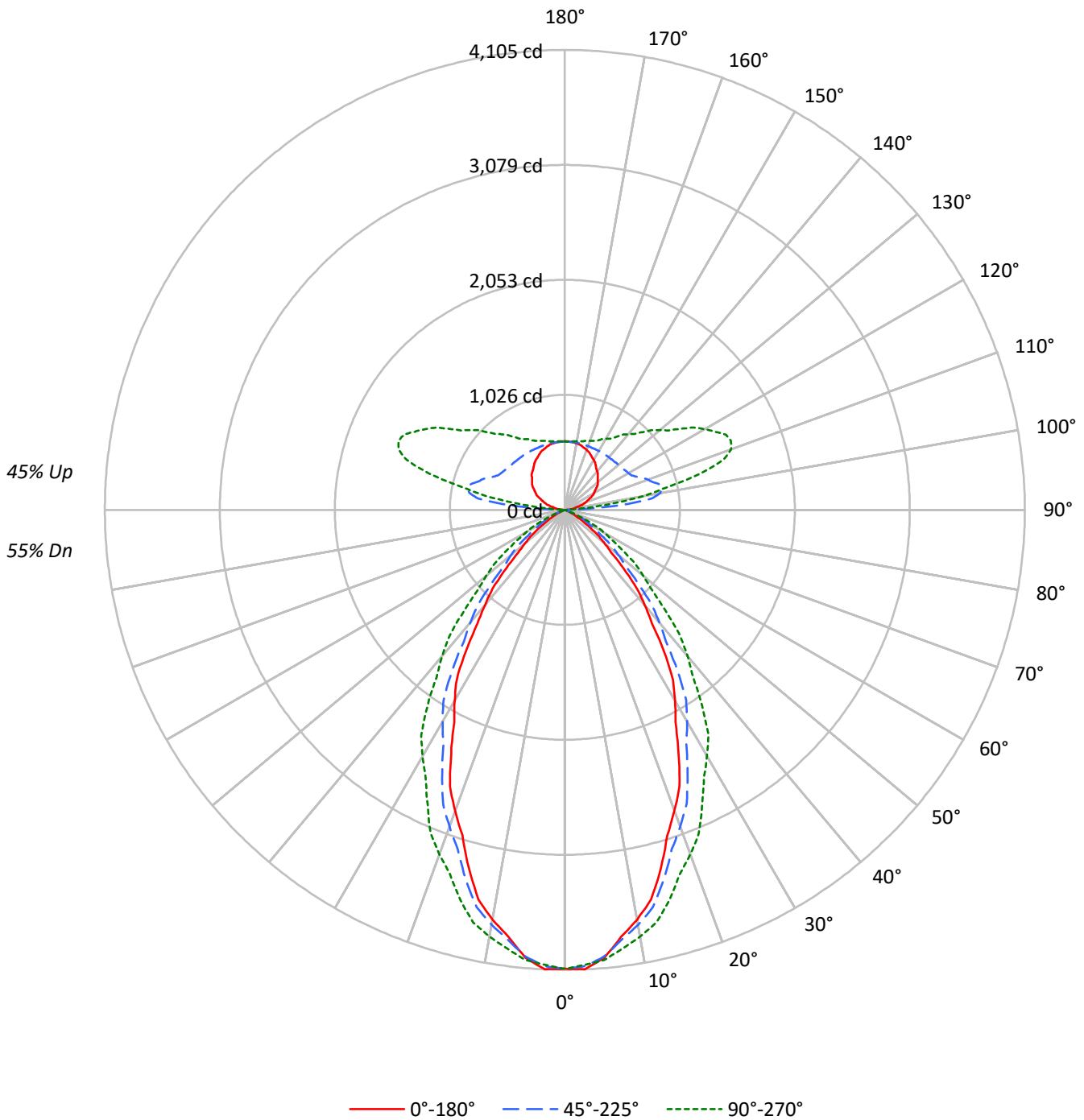
Lumens per Lamp: N/A
Luminaire Lumens: 8871.9 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 95.4
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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55				
1	101	97	94	91	94	91	88	86	78	77	75	67	66	65	57	56	55	50				
2	94	87	82	78	87	82	77	74	71	68	65	61	59	57	52	51	50	45				
3	87	79	72	67	81	74	68	64	65	61	57	56	53	51	48	46	45	41				
4	80	71	64	59	75	67	61	56	59	54	51	52	48	46	45	42	40	37				
5	75	65	57	52	70	61	55	50	54	49	45	47	44	41	41	39	37	34				
6	70	59	52	46	65	56	49	45	49	44	41	44	40	37	38	36	33	31				
7	65	54	47	42	61	51	45	40	46	41	37	41	37	34	36	33	31	28				
8	61	50	43	38	57	47	41	36	42	37	34	38	34	31	33	30	28	26				
9	57	46	39	34	53	44	37	33	39	34	31	35	31	28	31	28	26	24				
10	54	42	36	31	50	40	34	30	36	32	28	33	29	26	29	26	24	22				

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	4.2
10°-20°	955.9	10.8
20°-30°	1196.6	13.5
30°-40°	1105.3	12.5
40°-50°	742.7	8.4
50°-60°	383.6	4.3
60°-70°	120.2	1.4
70°-80°	7.6	0.1
80°-90°	2.5	0.0
90°-100°	292.9	3.3
100°-110°	795.7	9.0
110°-120°	818.1	9.2
120°-130°	654.1	7.4
130°-140°	513.9	5.8
140°-150°	394.1	4.4
150°-160°	283.4	3.2
160°-170°	173.3	2.0
170°-180°	58.4	0.7
0°-30°	2526.3	28.5
0°-40°	3631.5	40.9
0°-60°	4757.9	53.6
0°-90°	4888.1	55.1
90°-120°	1906.7	21.5
90°-150°	3468.7	39.1
90°-180°	3984.0	44.9
0°-180°	8871.9	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°	2	8	14	18	18	3
95°	43	160	510	222	149	46
105°	141	220	875	1332	1254	150
115°	251	305	700	1393	1587	248
125°	345	393	634	1068	1260	308
135°	416	462	616	870	981	322
145°	481	515	608	739	795	302
155°	543	563	604	664	683	251
165°	589	596	606	632	634	166
175°	610	612	608	616	614	58
180°	610	610	610	610	610	



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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°	0.4	1.5	2.7	3.5	3.5
90°	2.0	7.7	13.7	17.7	17.7
92.5°	17.7	80.2	139.3	59.8	50.6
95°	43.2	160.2	510.1	222.0	149.1
97.5°	71.4	176.9	782.0	608.4	427.3
100°	90.2	188.1	865.2	877.1	708.2
102.5°	109.1	199.2	887.2	1084.7	935.8
105°	141.3	219.9	875.0	1332.3	1253.6
107.5°	174.6	244.1	824.4	1460.1	1482.0
110°	198.2	261.5	786.7	1485.3	1579.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	218.6	278.8	749.1	1464.4	1606.0
115°	251.1	304.8	700.4	1393.4	1587.2
117.5°	281.7	333.1	669.4	1292.7	1511.0
120°	302.1	352.0	655.3	1225.2	1442.0
122.5°	319.4	369.3	645.9	1157.6	1366.7
125°	345.3	393.3	633.7	1067.7	1259.5
127.5°	368.4	416.0	627.0	999.6	1164.2
130°	382.6	428.6	623.9	956.8	1104.5
132.5°	396.7	442.7	620.7	920.4	1051.2
135°	415.9	462.0	616.0	869.7	980.9
137.5°	436.7	478.5	613.7	824.9	918.6
140°	449.3	489.6	612.1	796.5	880.9
142.5°	461.8	499.0	610.5	774.2	844.8
145°	480.7	515.2	608.2	738.9	794.6
147.5°	501.9	531.4	606.2	711.2	754.9
150°	516.0	540.9	606.2	695.3	729.8
152.5°	527.0	548.8	604.7	681.0	709.4
155°	543.4	562.6	604.3	663.6	682.7
157.5°	559.5	574.5	604.3	651.7	666.3
160°	568.9	582.4	604.3	643.8	655.3
162.5°	578.4	588.7	605.8	637.4	645.9
165°	588.6	596.2	606.2	631.8	633.7
167.5°	599.2	603.0	608.2	625.1	626.6
170°	602.3	606.1	608.2	621.9	621.9
172.5°	605.4	607.7	608.2	618.8	618.8
175°	610.1	612.1	608.2	616.0	614.1
177.5°	611.7	611.7	607.0	613.2	610.1
180°	610.1	610.1	610.1	610.1	610.1

(END OF REPORT)