

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: P518688

Luminaire Tested: **SQ4-BB-100U-050D-835-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518688
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-4
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

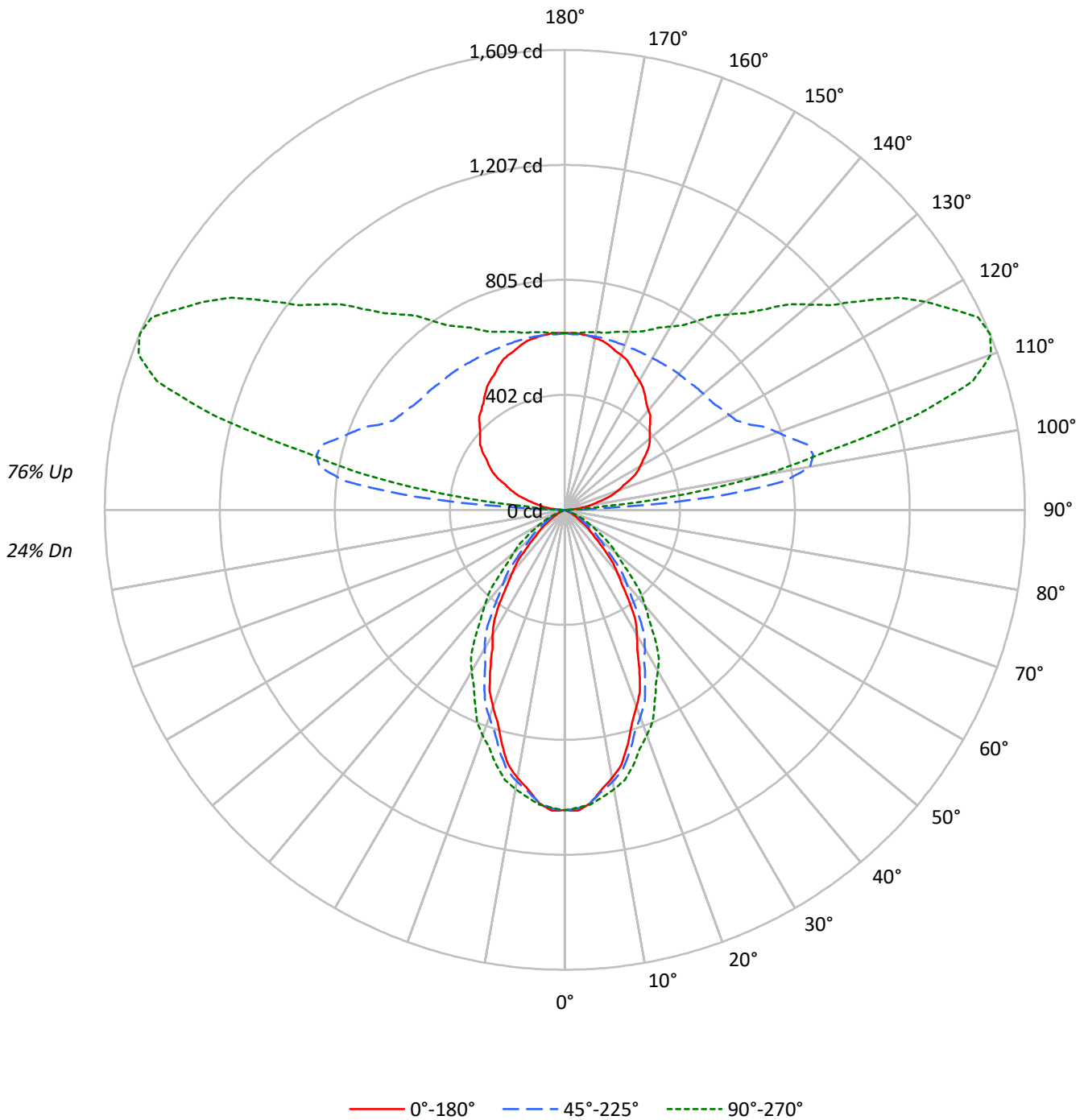
Lumens per Lamp: N/A
Luminaire Lumens: 5271.0 lumens
Efficiency: N/A
Efficacy: 127.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 41.3
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



TEST NUMBER: P518688
CATALOG NUMBER: SQ4-BB-100U-050D-835-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P518688

CATALOG NUMBER: SQ4-BB-100U-050D-835-1D-UNV-STD-W-4

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	9586
10°	8924	9043	9296
15°	8113	8371	8837
20°	7202	7577	8241
25°	6272	6769	7571
30°	5373	5963	6938
35°	4455	5062	6172
40°	3423	4047	5260
45°	2474	3065	4231
50°	1685	2284	3356
55°	1095	1652	2609
60°	629	1163	1886
65°	166	710	954
70°	84	219	275
75°	36	18	0
80°	27	0	0
85°	0	0	0



TEST NUMBER: P518688

CATALOG NUMBER: SQ4-BB-100U-050D-835-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	1.8
10°-20°	245.2	4.7
20°-30°	307.0	5.8
30°-40°	283.6	5.4
40°-50°	190.5	3.6
50°-60°	98.4	1.9
60°-70°	30.8	0.6
70°-80°	1.9	0.0
80°-90°	1.3	0.0
90°-100°	289.5	5.5
100°-110°	799.1	15.2
110°-120°	824.2	15.6
120°-130°	662.3	12.6
130°-140°	520.5	9.9
140°-150°	399.2	7.6
150°-160°	286.9	5.4
160°-170°	175.5	3.3
170°-180°	59.2	1.1
0°-30°	648.1	12.3
0°-40°	931.7	17.7
0°-60°	1220.6	23.2
0°-90°	1254.7	23.8
90°-120°	1912.8	36.3
90°-150°	3494.8	66.3
90°-180°	4016.0	76.2
0°-180°	5271.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1030	1020	1027	1031	1035	95
15°	849	846	876	906	925	237
25°	616	621	665	710	744	282
35°	396	405	449	502	548	245
45°	190	201	235	281	324	149
55°	68	80	103	132	162	64
65°	8	15	32	39	44	13
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	2	4	8	9	10	3
95°	42	157	525	216	140	45
105°	142	220	879	1342	1264	152
115°	255	308	708	1402	1594	251
125°	350	398	642	1086	1275	312
135°	421	467	624	880	992	326
145°	489	522	616	749	806	306
155°	551	569	611	672	693	254
165°	596	604	614	638	643	168
175°	618	619	615	624	622	59
180°	618	618	618	618	618	



TEST NUMBER: P518688

CATALOG NUMBER: SQ4-BB-100U-050D-835-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1053.2	1043.2	1045.9	1045.8	1043.0
5°	1029.9	1019.5	1027.4	1031.0	1035.0
7.5°	986.4	978.2	993.4	1004.8	1013.0
10°	952.6	945.7	965.3	980.8	992.3
12.5°	913.6	908.2	932.0	953.3	967.9
15°	849.4	846.5	876.4	905.8	925.2
17.5°	780.7	780.6	814.8	851.3	874.6
20°	733.5	735.0	771.7	811.9	839.3
22.5°	686.4	689.8	729.0	770.9	802.3
25°	616.1	621.1	664.9	710.4	743.7
27.5°	548.6	555.9	602.0	649.3	689.8
30°	504.3	512.7	559.7	609.4	651.2
32.5°	460.8	470.8	516.6	569.2	611.7
35°	395.5	405.4	449.4	502.3	548.0
37.5°	328.1	337.8	380.7	432.8	482.2
40°	284.2	295.1	336.0	386.5	436.7
42.5°	244.3	255.2	293.7	343.3	390.7
45°	189.6	201.0	234.9	280.6	324.3
47.5°	144.3	156.7	186.4	227.7	267.6
50°	117.4	129.9	159.1	195.6	233.8
52.5°	95.9	107.9	134.3	168.7	203.7
55°	68.1	79.5	102.7	131.8	162.2
57.5°	47.1	56.9	77.7	102.0	125.8
60°	34.1	43.5	63.0	82.8	102.2
62.5°	22.7	31.3	50.4	65.6	78.6
65°	7.6	14.6	32.5	39.2	43.7
67.5°	3.9	4.7	17.1	18.0	19.5
70°	3.1	3.1	8.1	8.7	10.2
72.5°	2.2	2.2	3.3	4.2	4.5
75°	1.0	1.0	0.5	0.0	0.0
77.5°	0.5	0.5	0.4	0.0	0.0
80°	0.5	0.5	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	0.8	1.6	1.8	2.0
90°	2.0	3.9	7.9	8.9	9.9
92.5°	17.8	73.9	132.1	48.2	37.6
95°	42.5	156.6	525.2	215.9	140.4
97.5°	70.4	175.4	778.0	599.0	433.8
100°	91.0	186.7	871.3	877.5	713.1
102.5°	110.8	199.5	889.5	1084.2	928.3
105°	142.4	219.8	879.2	1342.3	1264.0
107.5°	176.0	244.9	830.2	1466.8	1495.4
110°	199.8	261.7	792.2	1493.5	1586.4



TEST NUMBER: P518688

CATALOG NUMBER: SQ4-BB-100U-050D-835-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	221.1	280.7	756.6	1472.4	1609.3
115°	255.2	308.4	708.1	1401.9	1594.3
117.5°	284.8	337.8	676.3	1302.6	1521.5
120°	304.6	356.8	663.6	1235.3	1455.8
122.5°	323.6	373.5	653.3	1172.6	1381.5
125°	350.1	398.5	641.9	1086.3	1274.8
127.5°	372.7	421.0	635.1	1013.3	1175.9
130°	387.7	436.0	632.0	968.6	1116.6
132.5°	401.9	448.0	628.8	931.1	1065.2
135°	421.3	466.8	624.1	879.8	992.0
137.5°	443.1	484.5	621.7	836.7	932.4
140°	454.9	495.6	620.1	808.0	892.1
142.5°	468.4	505.9	618.5	782.4	856.5
145°	488.6	522.4	616.2	749.0	806.0
147.5°	508.0	537.5	614.0	720.8	765.1
150°	522.2	546.4	613.2	704.0	739.8
152.5°	533.3	555.9	612.4	689.6	719.2
155°	550.9	569.3	611.2	672.0	693.3
157.5°	567.1	581.2	611.4	659.2	673.7
160°	576.6	589.2	612.2	652.0	662.6
162.5°	584.5	595.5	613.0	645.6	653.9
165°	596.4	604.1	614.2	638.0	642.9
167.5°	605.5	610.1	615.2	633.4	634.9
170°	610.2	614.1	615.2	631.0	631.0
172.5°	614.2	616.5	615.2	627.8	627.0
175°	618.1	619.1	615.2	624.0	622.1
177.5°	619.7	618.9	615.0	620.5	618.9
180°	618.1	618.1	618.1	618.1	618.1

(END OF REPORT)