

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: P518402

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518402
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-050D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 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: 6493.0 lumens
Efficiency: N/A
Efficacy: 110.2 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: Semi-Indirect

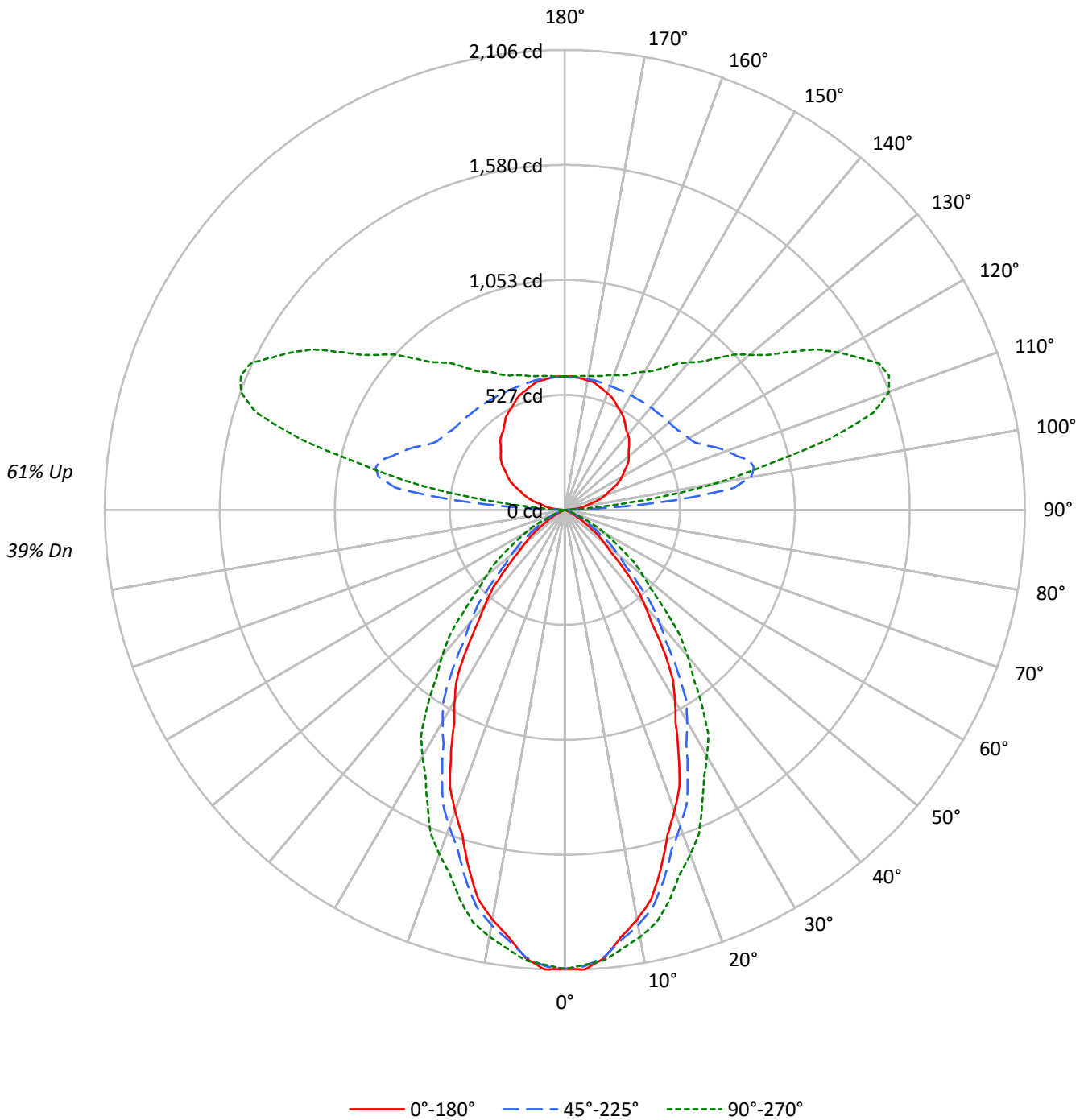
Input Watts (W): 58.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	97	93	90	87	88	85	82	79	69	68	66	55	54	53	42	42	41	35
2	89	83	77	73	81	76	71	67	63	59	57	50	48	47	39	38	37	32
3	82	74	68	63	75	68	62	58	56	53	49	46	43	41	36	34	33	29
4	76	66	60	54	69	61	55	51	51	47	43	42	39	37	33	31	30	26
5	70	60	53	47	64	55	49	44	46	42	38	38	35	33	31	29	27	24
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	25	22
7	61	50	42	37	55	46	40	35	39	34	31	32	29	27	26	24	22	20
8	56	45	38	33	52	42	36	32	36	31	28	30	27	24	25	22	21	18
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19	17
10	49	38	32	27	45	36	30	26	31	26	23	26	23	20	22	19	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9694	9694	9694
5°	9538	9515	9586
10°	8925	9044	9296
15°	8114	8371	8837
20°	7202	7576	8240
25°	6272	6769	7571
30°	5372	5963	6938
35°	4455	5061	6172
40°	3422	4047	5259
45°	2474	3064	4231
50°	1686	2284	3357
55°	1095	1652	2608
60°	628	1163	1886
65°	167	711	954
70°	82	220	274
75°	36	18	0
80°	27	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.8	3.0
10°-20°	490.4	7.6
20°-30°	614.0	9.5
30°-40°	567.1	8.7
40°-50°	381.1	5.9
50°-60°	196.8	3.0
60°-70°	61.7	0.9
70°-80°	3.9	0.1
80°-90°	2.4	0.0
90°-100°	292.9	4.5
100°-110°	795.7	12.3
110°-120°	818.1	12.6
120°-130°	654.1	10.1
130°-140°	513.9	7.9
140°-150°	394.1	6.1
150°-160°	283.4	4.4
160°-170°	173.3	2.7
170°-180°	58.4	0.9
0°-30°	1296.2	20.0
0°-40°	1863.3	28.7
0°-60°	2441.3	37.6
0°-90°	2509.2	38.6
90°-120°	1906.7	29.4
90°-150°	3468.7	53.4
90°-180°	3984.0	61.4
0°-180°	6493.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2060	2039	2055	2062	2070	191
15°	1699	1693	1753	1812	1850	473
25°	1232	1242	1330	1421	1487	565
35°	791	811	899	1004	1096	490
45°	379	402	470	561	649	298
55°	136	159	205	264	324	127
65°	15	29	65	78	87	26
75°	2	2	1	0	0	3
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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CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2101.5	2101.5	2101.5	2101.5	2101.5
2.5°	2106.4	2086.5	2091.7	2091.6	2086.0
5°	2059.8	2038.9	2054.7	2062.0	2070.0
7.5°	1972.8	1956.5	1986.8	2009.5	2026.0
10°	1905.3	1891.3	1930.7	1961.7	1984.6
12.5°	1827.2	1816.4	1864.0	1906.5	1935.8
15°	1698.9	1692.9	1752.8	1811.6	1850.4
17.5°	1561.4	1561.2	1629.5	1702.6	1749.3
20°	1467.1	1470.0	1543.3	1623.9	1678.5
22.5°	1372.7	1379.7	1457.9	1541.9	1604.5
25°	1232.2	1242.2	1329.8	1420.8	1487.4
27.5°	1097.2	1111.7	1203.9	1298.5	1379.6
30°	1008.5	1025.4	1119.4	1218.9	1302.4
32.5°	921.5	941.6	1033.1	1138.4	1223.5
35°	791.0	810.9	898.7	1004.5	1096.0
37.5°	656.2	675.6	761.5	865.6	964.4
40°	568.3	590.2	672.0	772.9	873.3
42.5°	488.6	510.5	587.4	686.6	781.4
45°	379.2	402.1	469.7	561.2	648.6
47.5°	288.5	313.4	372.7	455.5	535.2
50°	234.9	259.7	318.2	391.1	467.7
52.5°	191.7	215.8	268.6	337.3	407.5
55°	136.2	159.1	205.4	263.7	324.3
57.5°	94.1	113.8	155.3	204.0	251.5
60°	68.1	87.0	126.1	165.6	204.4
62.5°	45.3	62.6	100.9	131.1	157.2
65°	15.3	29.2	65.1	78.5	87.4
67.5°	7.7	9.3	34.2	36.1	39.0
70°	6.1	6.1	16.3	17.4	20.3
72.5°	4.5	4.5	6.5	8.4	8.9
75°	2.0	2.0	1.0	0.0	0.0
77.5°	1.0	1.0	0.8	0.0	0.0
80°	1.0	1.0	0.0	0.0	0.0
82.5°	0.2	0.2	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

TEST NUMBER: P518402

CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

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

(END OF REPORT)