

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: P518456

Luminaire Tested: **SQ4-BB-050U-100D-930-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518456
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-930-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

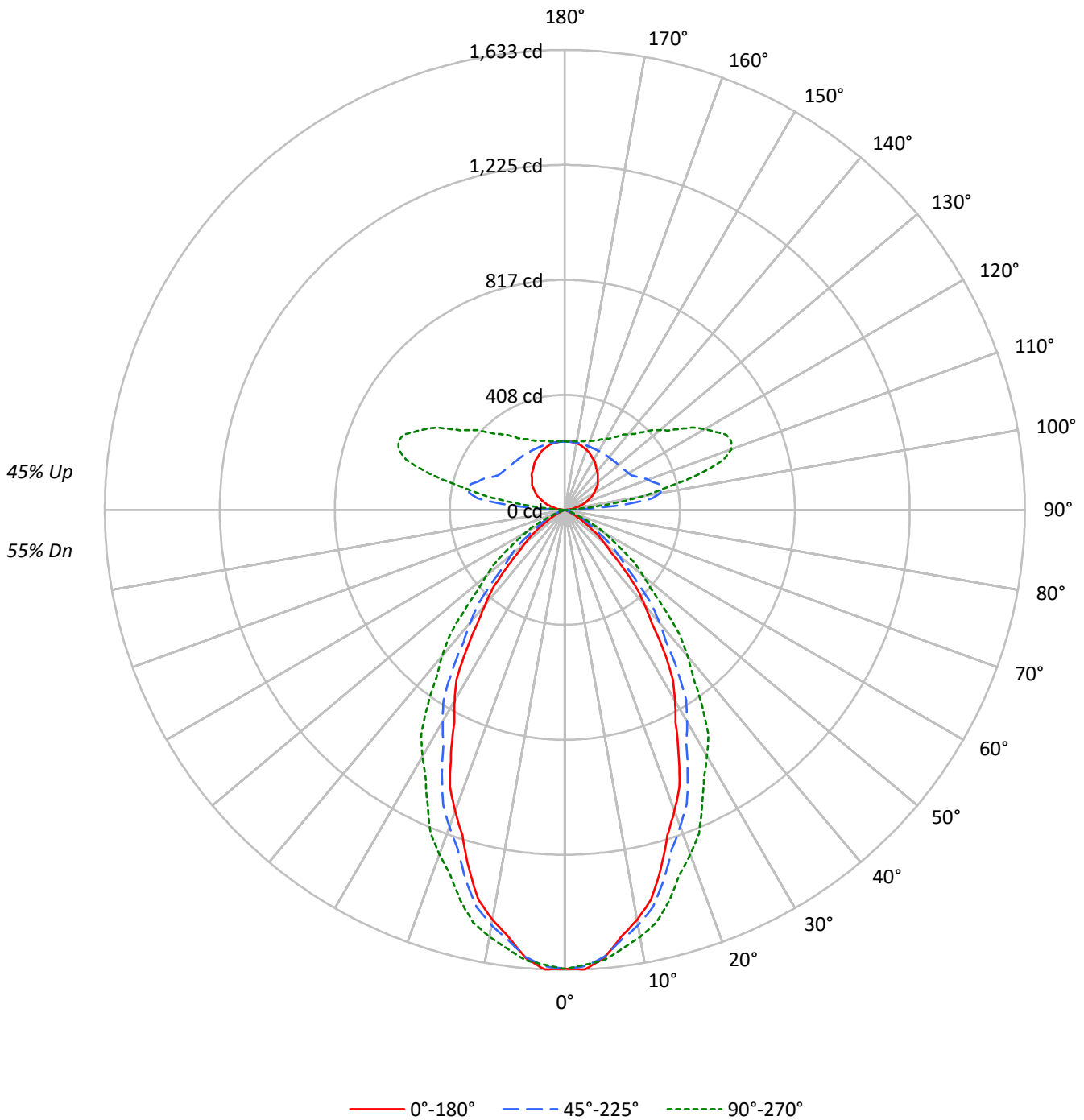
Lumens per Lamp: N/A
Luminaire Lumens: 3530.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 45.1
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	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	40	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°	15035	15035	15035
5°	14792	14756	14866
10°	13841	14026	14417
15°	12583	12982	13705
20°	11169	11750	12780
25°	9727	10498	11742
30°	8332	9247	10759
35°	6909	7849	9573
40°	5308	6276	8156
45°	3837	4752	6563
50°	2614	3542	5205
55°	1699	2562	4045
60°	974	1805	2925
65°	258	1102	1480
70°	127	340	426
75°	57	29	0
80°	43	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.7	4.2
10°-20°	380.3	10.8
20°-30°	476.1	13.5
30°-40°	439.8	12.5
40°-50°	295.5	8.4
50°-60°	152.6	4.3
60°-70°	47.8	1.4
70°-80°	3.0	0.1
80°-90°	1.0	0.0
90°-100°	116.5	3.3
100°-110°	316.6	9.0
110°-120°	325.5	9.2
120°-130°	260.2	7.4
130°-140°	204.5	5.8
140°-150°	156.8	4.4
150°-160°	112.8	3.2
160°-170°	69.0	2.0
170°-180°	23.2	0.7
0°-30°	1005.1	28.5
0°-40°	1444.9	40.9
0°-60°	1893.0	53.6
0°-90°	1944.9	55.1
90°-120°	758.6	21.5
90°-150°	1380.1	39.1
90°-180°	1585.0	44.9
0°-180°	3530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1630	1630	1630	1630	1630	
5°	1597	1581	1593	1599	1605	148
15°	1317	1313	1359	1405	1435	367
25°	956	963	1031	1102	1153	438
35°	613	629	697	779	850	380
45°	294	312	364	435	503	231
55°	106	123	159	204	252	99
65°	12	23	50	61	68	20
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	1	3	6	7	7	1
95°	17	64	203	88	59	18
105°	56	88	348	530	499	60
115°	100	121	279	554	632	99
125°	137	156	252	425	501	122
135°	166	184	245	346	390	128
145°	191	205	242	294	316	120
155°	216	224	240	264	272	100
165°	234	237	241	251	252	66
175°	243	244	242	245	244	23
180°	243	243	243	243	243	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1629.6	1629.6	1629.6	1629.6	1629.6
2.5°	1633.3	1617.9	1622.0	1621.9	1617.6
5°	1597.2	1581.0	1593.3	1599.0	1605.1
7.5°	1529.8	1517.1	1540.6	1558.3	1571.1
10°	1477.4	1466.6	1497.1	1521.2	1538.9
12.5°	1416.9	1408.5	1445.4	1478.4	1501.1
15°	1317.4	1312.7	1359.1	1404.8	1434.8
17.5°	1210.8	1210.6	1263.6	1320.2	1356.5
20°	1137.6	1139.9	1196.7	1259.2	1301.6
22.5°	1064.5	1069.9	1130.5	1195.6	1244.2
25°	955.5	963.2	1031.2	1101.7	1153.4
27.5°	850.8	862.1	933.6	1006.9	1069.8
30°	782.1	795.2	868.0	945.1	1009.9
32.5°	714.6	730.1	801.1	882.7	948.7
35°	613.4	628.8	696.9	778.9	849.9
37.5°	508.8	523.9	590.5	671.2	747.8
40°	440.7	457.7	521.1	599.4	677.2
42.5°	378.9	395.8	455.5	532.4	605.9
45°	294.1	311.8	364.2	435.1	503.0
47.5°	223.7	243.0	289.0	353.2	415.0
50°	182.1	201.4	246.8	303.3	362.6
52.5°	148.7	167.3	208.3	261.6	316.0
55°	105.6	123.4	159.3	204.5	251.5
57.5°	73.0	88.3	120.5	158.2	195.0
60°	52.8	67.5	97.8	128.4	158.5
62.5°	35.2	48.6	78.2	101.7	121.9
65°	11.8	22.6	50.5	60.9	67.8
67.5°	6.0	7.2	26.5	28.0	30.3
70°	4.7	4.7	12.6	13.5	15.8
72.5°	3.5	3.5	5.0	6.5	6.9
75°	1.6	1.6	0.8	0.0	0.0
77.5°	0.8	0.8	0.6	0.0	0.0
80°	0.8	0.8	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°	0.2	0.6	1.1	1.4	1.4
90°	0.8	3.1	5.5	7.0	7.0
92.5°	7.0	31.9	55.4	23.8	20.1
95°	17.2	63.7	203.0	88.3	59.3
97.5°	28.4	70.4	311.1	242.1	170.0
100°	35.9	74.8	344.2	349.0	281.8
102.5°	43.4	79.3	353.0	431.6	372.3
105°	56.2	87.5	348.1	530.1	498.8
107.5°	69.5	97.1	328.0	581.0	589.7
110°	78.8	104.0	313.0	591.0	628.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	<i>87.0</i>	110.9	298.0	582.7	639.0
115°	<i>99.9</i>	121.3	278.7	554.4	631.5
117.5°	<i>112.1</i>	132.5	266.3	514.4	601.2
120°	<i>120.2</i>	140.1	260.7	487.5	573.7
122.5°	<i>127.1</i>	146.9	257.0	460.6	543.8
125°	<i>137.4</i>	156.5	252.1	424.8	501.1
127.5°	<i>146.6</i>	165.5	249.5	397.7	463.2
130°	<i>152.2</i>	170.5	248.2	380.7	439.5
132.5°	<i>157.8</i>	176.2	247.0	366.2	418.2
135°	<i>165.5</i>	183.8	245.1	346.0	390.3
137.5°	<i>173.8</i>	190.4	244.2	328.2	365.5
140°	<i>178.8</i>	194.8	243.5	316.9	350.5
142.5°	<i>183.8</i>	198.6	242.9	308.0	336.1
145°	<i>191.2</i>	205.0	242.0	294.0	316.1
147.5°	<i>199.7</i>	211.4	241.2	283.0	300.4
150°	<i>205.3</i>	215.2	241.2	276.6	290.4
152.5°	<i>209.7</i>	218.4	240.6	271.0	282.3
155°	<i>216.2</i>	223.9	240.4	264.0	271.6
157.5°	<i>222.6</i>	228.6	240.4	259.3	265.1
160°	<i>226.4</i>	231.7	240.4	256.1	260.7
162.5°	<i>230.1</i>	234.2	241.0	253.6	257.0
165°	<i>234.2</i>	237.2	241.2	251.4	252.1
167.5°	<i>238.4</i>	239.9	242.0	248.7	249.3
170°	<i>239.6</i>	241.2	242.0	247.4	247.4
172.5°	<i>240.9</i>	241.8	242.0	246.2	246.2
175°	<i>242.8</i>	243.5	242.0	245.1	244.3
177.5°	<i>243.4</i>	243.4	241.5	244.0	242.8
180°	<i>242.8</i>	242.8	242.8	242.8	242.8

(END OF REPORT)