

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: P518448

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518448
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-4
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

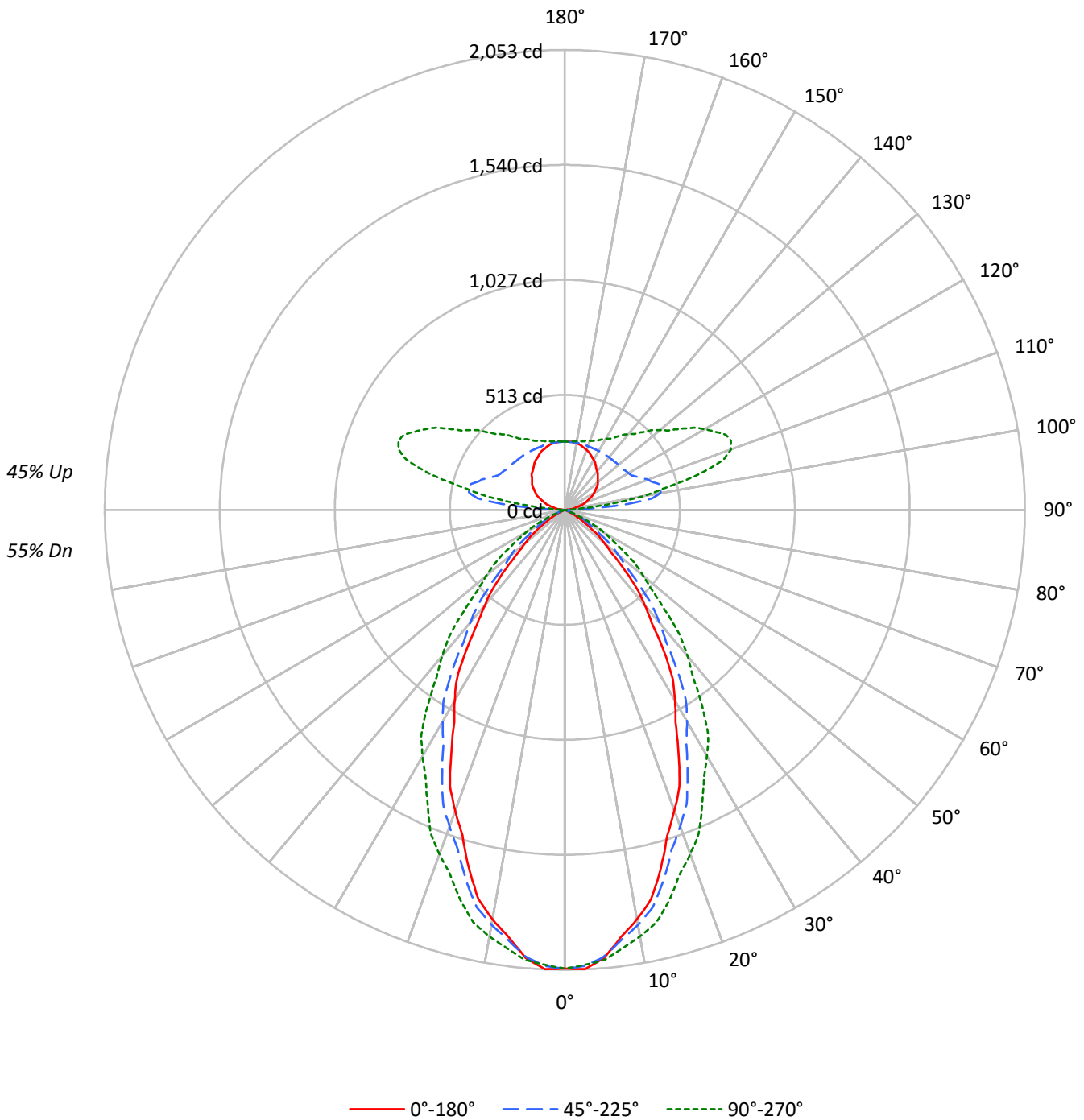
Lumens per Lamp: N/A
Luminaire Lumens: 4435.9 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

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									
RC	80									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	18543	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	7888	10249
45°	4821	5972	8248
50°	3285	4451	6541
55°	2136	3219	5083
60°	1225	2266	3674
65°	325	1384	1860
70°	159	429	534
75°	71	36	0
80°	53	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.9	4.2
10°-20°	477.9	10.8
20°-30°	598.3	13.5
30°-40°	552.6	12.5
40°-50°	371.3	8.4
50°-60°	191.8	4.3
60°-70°	60.1	1.4
70°-80°	3.8	0.1
80°-90°	1.3	0.0
90°-100°	146.4	3.3
100°-110°	397.8	9.0
110°-120°	409.0	9.2
120°-130°	327.0	7.4
130°-140°	257.0	5.8
140°-150°	197.0	4.4
150°-160°	141.7	3.2
160°-170°	86.7	2.0
170°-180°	29.2	0.7
0°-30°	1263.1	28.5
0°-40°	1815.8	40.9
0°-60°	2378.9	53.6
0°-90°	2444.0	55.1
90°-120°	953.3	21.5
90°-150°	1734.4	39.1
90°-180°	1992.0	44.9
0°-180°	4435.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2048	2048	2048	2048	2048	
5°	2007	1987	2002	2009	2017	186
15°	1656	1650	1708	1765	1803	461
25°	1201	1210	1296	1384	1449	551
35°	771	790	876	979	1068	477
45°	370	392	458	547	632	290
55°	133	155	200	257	316	124
65°	15	28	63	76	85	25
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	1	4	7	9	9	2
95°	22	80	255	111	75	23
105°	71	110	438	666	627	75
115°	126	152	350	697	794	124
125°	173	197	317	534	630	154
135°	208	231	308	435	490	161
145°	240	258	304	370	397	151
155°	272	281	302	332	341	125
165°	294	298	303	316	317	83
175°	305	306	304	308	307	29
180°	305	305	305	305	305	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2047.8	2047.8	2047.8	2047.8	2047.8
2.5°	2052.6	2033.2	2038.3	2038.2	2032.8
5°	2007.2	1986.9	2002.2	2009.4	2017.1
7.5°	1922.4	1906.5	1936.1	1958.2	1974.3
10°	1856.6	1843.0	1881.4	1911.6	1933.9
12.5°	1780.5	1770.1	1816.4	1857.8	1886.3
15°	1655.5	1649.7	1708.0	1765.3	1803.1
17.5°	1521.5	1521.4	1587.9	1659.1	1704.6
20°	1429.6	1432.5	1503.9	1582.4	1635.7
22.5°	1337.7	1344.4	1420.7	1502.5	1563.6
25°	1200.8	1210.4	1295.9	1384.5	1449.4
27.5°	1069.2	1083.3	1173.2	1265.4	1344.4
30°	982.8	999.3	1090.8	1187.7	1269.1
32.5°	898.0	917.6	1006.8	1109.3	1192.2
35°	770.8	790.2	875.8	978.9	1068.0
37.5°	639.4	658.4	742.0	843.5	939.8
40°	553.8	575.1	654.9	753.2	851.0
42.5°	476.1	497.5	572.4	669.1	761.5
45°	369.5	391.8	457.7	546.8	632.1
47.5°	281.2	305.4	363.2	443.8	521.5
50°	228.9	253.1	310.1	381.1	455.7
52.5°	186.8	210.3	261.7	328.7	397.1
55°	132.8	155.0	200.1	256.9	316.0
57.5°	91.7	110.9	151.4	198.8	245.1
60°	66.4	84.8	122.8	161.4	199.1
62.5°	44.2	61.0	98.3	127.8	153.2
65°	14.9	28.4	63.4	76.5	85.2
67.5°	7.5	9.1	33.3	35.1	38.0
70°	5.9	5.9	15.9	16.9	19.8
72.5°	4.4	4.4	6.3	8.1	8.7
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°	0.2	0.8	1.4	1.8	1.8
90°	1.0	3.9	6.9	8.8	8.8
92.5°	8.8	40.1	69.6	29.9	25.3
95°	21.6	80.1	255.0	111.0	74.6
97.5°	35.7	88.5	391.0	304.2	213.7
100°	45.1	94.0	432.6	438.5	354.1
102.5°	54.5	99.6	443.6	542.3	467.9
105°	70.6	110.0	437.5	666.1	626.8
107.5°	87.3	122.0	412.2	730.1	741.0
110°	99.1	130.7	393.4	742.7	789.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	109.3	139.4	374.5	732.2	803.0
115°	125.6	152.4	350.2	696.7	793.6
117.5°	140.9	166.6	334.7	646.4	755.5
120°	151.1	176.0	327.6	612.6	721.0
122.5°	159.7	184.6	322.9	578.8	683.3
125°	172.6	196.6	316.8	533.9	629.8
127.5°	184.2	208.0	313.5	499.8	582.1
130°	191.3	214.3	311.9	478.4	552.3
132.5°	198.3	221.4	310.4	460.2	525.6
135°	208.0	231.0	308.0	434.8	490.5
137.5°	218.4	239.3	306.8	412.5	459.3
140°	224.6	244.8	306.1	398.2	440.4
142.5°	230.9	249.5	305.3	387.1	422.4
145°	240.3	257.6	304.1	369.5	397.3
147.5°	250.9	265.7	303.1	355.6	377.5
150°	258.0	270.5	303.1	347.6	364.9
152.5°	263.5	274.4	302.3	340.5	354.7
155°	271.7	281.3	302.1	331.8	341.4
157.5°	279.8	287.2	302.1	325.8	333.1
160°	284.5	291.2	302.1	321.9	327.6
162.5°	289.2	294.4	302.9	318.7	322.9
165°	294.3	298.1	303.1	315.9	316.8
167.5°	299.6	301.5	304.1	312.5	313.3
170°	301.2	303.1	304.1	311.0	311.0
172.5°	302.7	303.9	304.1	309.4	309.4
175°	305.1	306.0	304.1	308.0	307.0
177.5°	305.9	305.9	303.5	306.6	305.1
180°	305.1	305.1	305.1	305.1	305.1

(END OF REPORT)