

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: P518460

Luminaire Tested: **SQ4-BB-050U-100D-935-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518460
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-935-1D-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, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

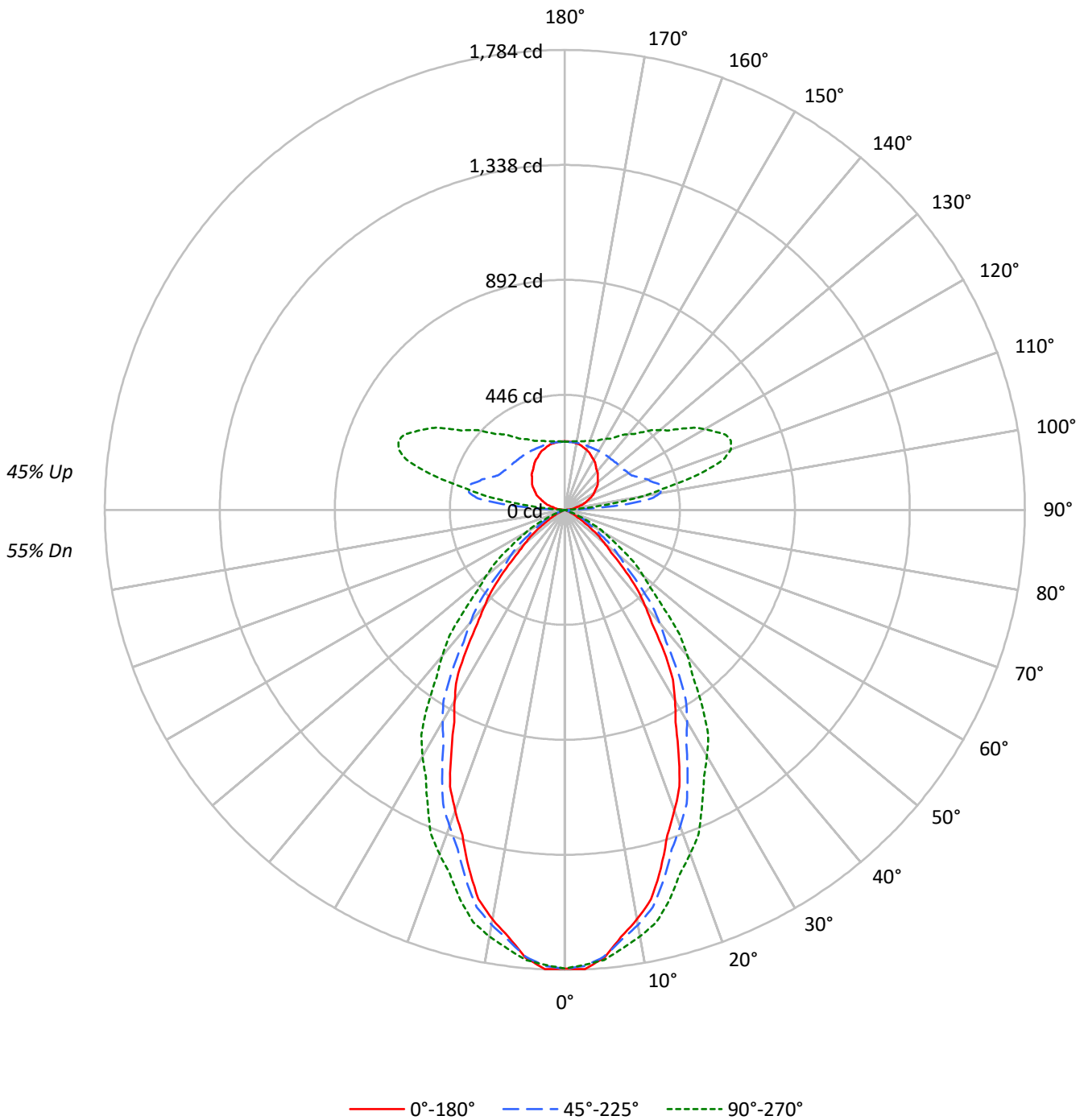
Lumens per Lamp: N/A
Luminaire Lumens: 3854.4 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	16416	16416	16416
5°	16152	16112	16232
10°	15113	15315	15742
15°	13739	14176	14965
20°	12196	12830	13954
25°	10621	11463	12821
30°	9097	10097	11748
35°	7543	8571	10452
40°	5796	6853	8907
45°	4190	5189	7166
50°	2855	3867	5684
55°	1856	2797	4417
60°	1065	1969	3192
65°	282	1203	1615
70°	140	372	464
75°	61	32	0
80°	48	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.4	4.2
10°-20°	415.3	10.8
20°-30°	519.9	13.5
30°-40°	480.2	12.5
40°-50°	322.6	8.4
50°-60°	166.7	4.3
60°-70°	52.2	1.4
70°-80°	3.3	0.1
80°-90°	1.1	0.0
90°-100°	127.2	3.3
100°-110°	345.7	9.0
110°-120°	355.4	9.2
120°-130°	284.2	7.4
130°-140°	223.3	5.8
140°-150°	171.2	4.4
150°-160°	123.1	3.2
160°-170°	75.3	2.0
170°-180°	25.4	0.7
0°-30°	1097.5	28.5
0°-40°	1577.7	40.9
0°-60°	2067.0	53.6
0°-90°	2123.6	55.1
90°-120°	828.3	21.5
90°-150°	1507.0	39.1
90°-180°	1731.0	44.9
0°-180°	3854.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1779	1779	1779	1779	1779	
5°	1744	1726	1740	1746	1753	162
15°	1438	1433	1484	1534	1567	401
25°	1043	1052	1126	1203	1259	478
35°	670	687	761	850	928	415
45°	321	340	398	475	549	252
55°	115	135	174	223	275	108
65°	13	25	55	66	74	22
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	1	3	6	8	8	1
95°	19	70	222	96	65	20
105°	61	96	380	579	545	65
115°	109	132	304	605	690	108
125°	150	171	275	464	547	134
135°	181	201	268	378	426	140
145°	209	224	264	321	345	131
155°	236	244	262	288	297	109
165°	256	259	263	274	275	72
175°	265	266	264	268	267	25
180°	265	265	265	265	265	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1779.3	1779.3	1779.3	1779.3	1779.3
2.5°	1783.5	1766.6	1771.1	1771.0	1766.2
5°	1744.0	1726.4	1739.7	1745.9	1752.6
7.5°	1670.4	1656.5	1682.2	1701.5	1715.5
10°	1613.2	1601.4	1634.7	1661.0	1680.3
12.5°	1547.1	1538.0	1578.2	1614.3	1639.0
15°	1438.4	1433.4	1484.1	1533.9	1566.7
17.5°	1322.1	1321.9	1379.7	1441.6	1481.1
20°	1242.2	1244.7	1306.7	1374.9	1421.2
22.5°	1162.3	1168.2	1234.4	1305.5	1358.6
25°	1043.3	1051.7	1126.0	1203.0	1259.4
27.5°	929.0	941.3	1019.4	1099.5	1168.1
30°	853.9	868.3	947.8	1032.0	1102.7
32.5°	780.3	797.3	874.8	963.9	1035.9
35°	669.7	686.6	761.0	850.5	928.0
37.5°	555.6	572.1	644.8	732.9	816.6
40°	481.2	499.7	569.0	654.4	739.5
42.5°	413.7	432.2	497.4	581.3	661.6
45°	321.1	340.4	397.7	475.1	549.2
47.5°	244.3	265.3	315.6	385.6	453.1
50°	198.9	219.9	269.4	331.2	396.0
52.5°	162.4	182.7	227.4	285.6	345.0
55°	115.4	134.7	173.9	223.3	274.6
57.5°	79.7	96.4	131.5	172.7	213.0
60°	57.7	73.7	106.7	140.2	173.0
62.5°	38.4	53.0	85.4	111.0	133.1
65°	12.9	24.7	55.1	66.5	74.0
67.5°	6.5	7.9	28.9	30.5	33.1
70°	5.2	5.2	13.8	14.7	17.2
72.5°	3.8	3.8	5.5	7.1	7.6
75°	1.7	1.7	0.9	0.0	0.0
77.5°	0.9	0.9	0.7	0.0	0.0
80°	0.9	0.9	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	0.7	1.2	1.5	1.5
90°	0.9	3.4	6.0	7.7	7.7
92.5°	7.7	34.8	60.5	26.0	22.0
95°	18.8	69.6	221.6	96.4	64.8
97.5°	31.0	76.9	339.7	264.3	185.6
100°	39.2	81.7	375.9	381.0	307.7
102.5°	47.4	86.6	385.4	471.2	406.6
105°	61.4	95.5	380.1	578.8	544.6
107.5°	75.9	106.0	358.2	634.4	643.9
110°	86.1	113.6	341.8	645.3	686.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	95.0	121.1	325.4	636.2	697.7
115°	109.1	132.4	304.3	605.4	689.5
117.5°	122.4	144.7	290.8	561.6	656.5
120°	131.3	152.9	284.7	532.3	626.5
122.5°	138.8	160.4	280.6	502.9	593.7
125°	150.0	170.8	275.3	463.9	547.2
127.5°	160.1	180.7	272.4	434.3	505.8
130°	166.2	186.2	271.0	415.7	479.9
132.5°	172.3	192.3	269.7	399.8	456.7
135°	180.7	200.7	267.6	377.8	426.2
137.5°	189.7	207.9	266.6	358.4	399.1
140°	195.2	212.7	265.9	346.0	382.7
142.5°	200.6	216.8	265.2	336.3	367.0
145°	208.8	223.8	264.2	321.0	345.2
147.5°	218.0	230.9	263.4	309.0	328.0
150°	224.2	235.0	263.4	302.1	317.1
152.5°	228.9	238.4	262.7	295.9	308.2
155°	236.1	244.4	262.5	288.3	296.6
157.5°	243.1	249.6	262.5	283.1	289.5
160°	247.2	253.0	262.5	279.7	284.7
162.5°	251.3	255.8	263.2	276.9	280.6
165°	255.7	259.0	263.4	274.5	275.3
167.5°	260.3	262.0	264.2	271.6	272.2
170°	261.7	263.3	264.2	270.2	270.2
172.5°	263.0	264.0	264.2	268.8	268.8
175°	265.1	265.9	264.2	267.6	266.8
177.5°	265.8	265.8	263.7	266.4	265.1
180°	265.1	265.1	265.1	265.1	265.1

(END OF REPORT)