

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: P518422

Luminaire Tested: **SQ4-BB-050U-075D-830-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518422
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-075D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

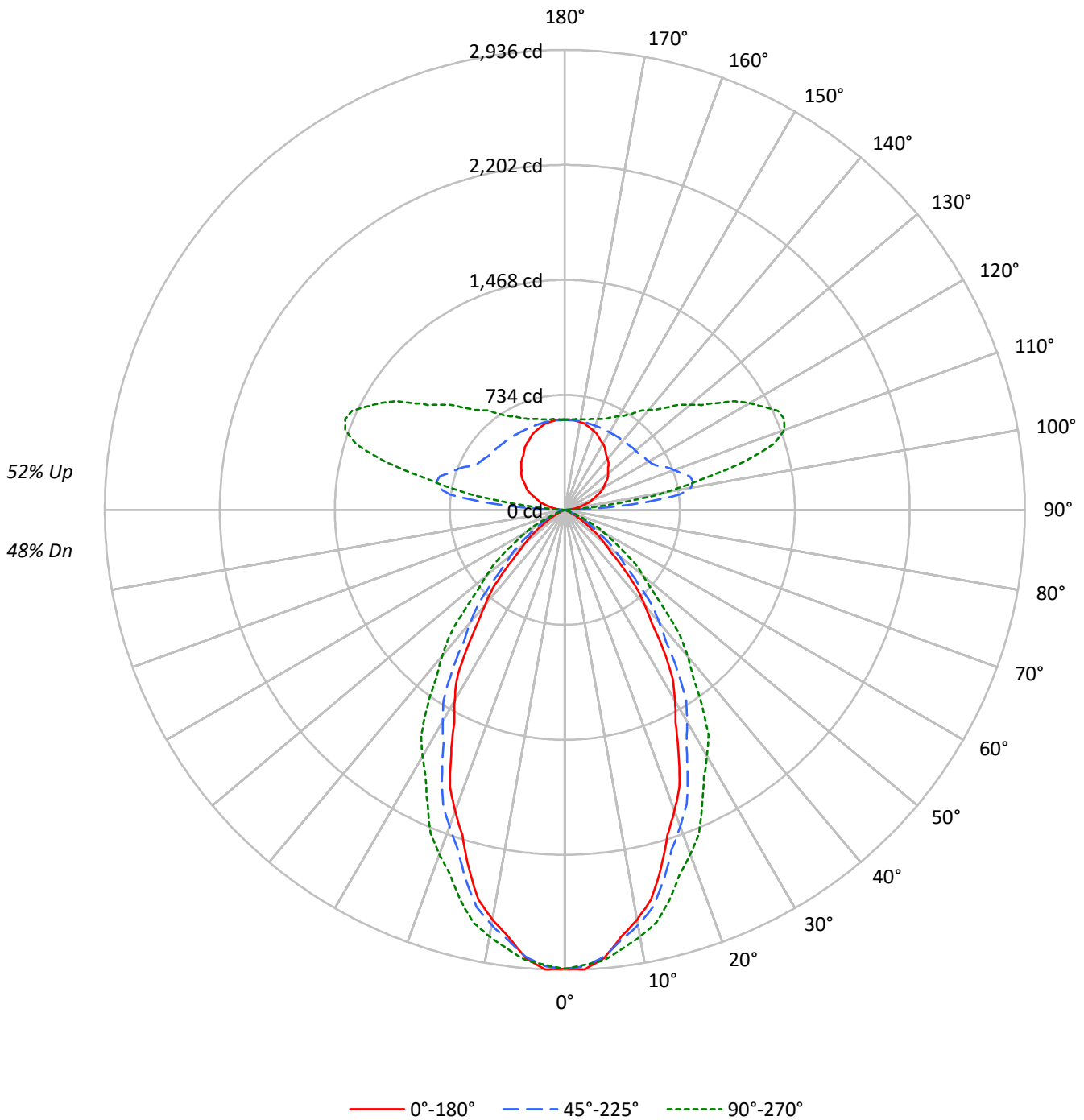
Lumens per Lamp: N/A
Luminaire Lumens: 7257.1 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 78.1
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	99	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	49	44
2	92	85	80	76	84	79	75	71	68	64	62	57	55	53	47	45	44	40
3	85	77	70	65	78	71	66	62	61	57	54	52	49	47	43	41	40	36
4	79	69	62	57	73	64	58	54	56	51	48	47	44	42	40	38	36	32
5	73	63	55	50	67	59	52	48	51	46	42	44	40	37	37	34	33	29
6	68	57	50	45	63	53	47	42	47	42	38	40	37	34	34	32	30	27
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	32	29	27	25
8	59	48	41	36	55	45	39	34	40	35	31	34	31	28	30	27	25	23
9	55	44	37	33	51	42	35	31	37	32	28	32	28	26	28	25	23	21
10	52	41	34	30	48	38	33	29	34	29	26	30	26	24	26	23	21	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13514	13514	13514
5°	13297	13264	13362
10°	12441	12607	12959
15°	11310	11669	12319
20°	10040	10562	11487
25°	8743	9436	10554
30°	7489	8312	9671
35°	6209	7056	8604
40°	4771	5641	7331
45°	3449	4272	5899
50°	2350	3184	4678
55°	1527	2303	3636
60°	876	1621	2629
65°	233	990	1331
70°	115	306	382
75°	50	25	0
80°	37	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.3	3.7
10°-20°	683.7	9.4
20°-30°	855.9	11.8
30°-40°	790.6	10.9
40°-50°	531.2	7.3
50°-60°	274.4	3.8
60°-70°	85.9	1.2
70°-80°	5.4	0.1
80°-90°	2.3	0.0
90°-100°	276.5	3.8
100°-110°	751.0	10.3
110°-120°	772.2	10.6
120°-130°	617.4	8.5
130°-140°	485.1	6.7
140°-150°	372.0	5.1
150°-160°	267.5	3.7
160°-170°	163.6	2.3
170°-180°	55.1	0.8
0°-30°	1806.9	24.9
0°-40°	2597.5	35.8
0°-60°	3403.1	46.9
0°-90°	3496.8	48.2
90°-120°	1799.7	24.8
90°-150°	3274.1	45.1
90°-180°	3760.0	51.8
0°-180°	7257.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2930	2930	2930	2930	2930	
5°	2871	2842	2864	2874	2886	266
15°	2368	2360	2443	2525	2579	660
25°	1718	1732	1854	1981	2073	788
35°	1103	1130	1253	1400	1528	683
45°	529	560	655	782	904	415
55°	190	222	286	368	452	177
65°	21	41	91	109	122	36
75°	3	3	1	0	0	4
85°	0	0	0	0	0	0
90°	2	7	13	17	17	3
95°	41	151	482	210	141	43
105°	133	208	826	1258	1183	142
115°	237	288	661	1315	1498	234
125°	326	371	598	1008	1189	291
135°	393	436	582	821	926	304
145°	454	486	574	698	750	285
155°	513	531	570	626	644	237
165°	556	563	572	596	598	157
175°	576	578	574	581	580	55
180°	576	576	576	576	576	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2929.5	2929.5	2929.5	2929.5	2929.5
2.5°	2936.3	2908.6	2915.9	2915.7	2907.9
5°	2871.4	2842.3	2864.3	2874.5	2885.5
7.5°	2750.0	2727.3	2769.6	2801.3	2824.3
10°	2655.9	2636.5	2691.4	2734.6	2766.5
12.5°	2547.1	2532.1	2598.4	2657.7	2698.5
15°	2368.2	2359.9	2443.4	2525.4	2579.4
17.5°	2176.6	2176.3	2271.6	2373.4	2438.5
20°	2045.1	2049.3	2151.4	2263.7	2339.9
22.5°	1913.6	1923.3	2032.3	2149.4	2236.7
25°	1717.7	1731.6	1853.8	1980.6	2073.4
27.5°	1529.5	1549.7	1678.3	1810.1	1923.2
30°	1405.9	1429.5	1560.4	1699.1	1815.5
32.5°	1284.6	1312.6	1440.2	1586.9	1705.5
35°	1102.6	1130.3	1252.9	1400.3	1527.8
37.5°	914.7	941.9	1061.5	1206.7	1344.4
40°	792.2	822.7	936.8	1077.5	1217.4
42.5°	681.1	711.6	818.9	957.1	1089.3
45°	528.6	560.5	654.8	782.3	904.2
47.5°	402.2	436.9	519.6	634.9	746.0
50°	327.4	362.0	443.6	545.2	651.9
52.5°	267.3	300.8	374.4	470.2	568.0
55°	189.9	221.8	286.3	367.6	452.1
57.5°	131.2	158.7	216.6	284.4	350.6
60°	95.0	121.3	175.7	230.8	284.9
62.5°	63.2	87.3	140.6	182.8	219.1
65°	21.3	40.7	90.7	109.4	121.9
67.5°	10.8	13.0	47.6	50.3	54.4
70°	8.5	8.5	22.7	24.2	28.3
72.5°	6.2	6.2	9.1	11.6	12.5
75°	2.8	2.8	1.4	0.0	0.0
77.5°	1.4	1.4	1.1	0.0	0.0
80°	1.4	1.4	0.0	0.0	0.0
82.5°	0.3	0.3	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	1.5	2.6	3.3	3.3
90°	1.9	7.3	13.0	16.7	16.7
92.5°	16.7	75.7	131.5	56.5	47.8
95°	40.7	151.2	481.5	209.5	140.7
97.5°	67.4	167.0	738.1	574.3	403.3
100°	85.2	177.5	816.7	827.8	668.5
102.5°	103.0	188.1	837.4	1023.8	883.3
105°	133.3	207.6	825.9	1257.5	1183.3
107.5°	164.8	230.4	778.1	1378.2	1398.9
110°	187.0	246.8	742.6	1402.0	1490.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.3	263.1	707.0	1382.3	1515.9
115°	237.0	287.7	661.1	1315.2	1498.1
117.5°	265.9	314.4	631.8	1220.2	1426.3
120°	285.2	332.3	618.5	1156.5	1361.1
122.5°	301.5	348.6	609.6	1092.6	1290.0
125°	325.9	371.2	598.1	1007.8	1188.9
127.5°	347.8	392.7	591.8	943.5	1098.9
130°	361.1	404.6	588.9	903.2	1042.6
132.5°	374.4	417.9	585.9	868.7	992.2
135°	392.6	436.0	581.5	820.9	925.9
137.5°	412.2	451.7	579.2	778.7	867.0
140°	424.1	462.1	577.8	751.8	831.5
142.5°	435.9	471.0	576.3	730.8	797.4
145°	453.7	486.3	574.1	697.5	750.0
147.5°	473.7	501.6	572.2	671.3	712.6
150°	487.0	510.6	572.2	656.3	688.9
152.5°	497.4	518.0	570.7	642.8	669.6
155°	513.0	531.1	570.4	626.3	644.4
157.5°	528.1	542.3	570.4	615.1	628.9
160°	537.0	549.7	570.4	607.6	618.5
162.5°	545.9	555.7	571.8	601.7	609.6
165°	555.5	562.8	572.2	596.3	598.1
167.5°	565.5	569.2	574.1	590.0	591.5
170°	568.5	572.1	574.1	587.0	587.0
172.5°	571.5	573.6	574.1	584.1	584.1
175°	575.9	577.7	574.1	581.4	579.6
177.5°	577.4	577.4	573.0	578.8	575.9
180°	575.9	575.9	575.9	575.9	575.9

(END OF REPORT)