

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: P518445

Luminaire Tested: **SQ4-BB-050U-100D-830-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518445
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-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

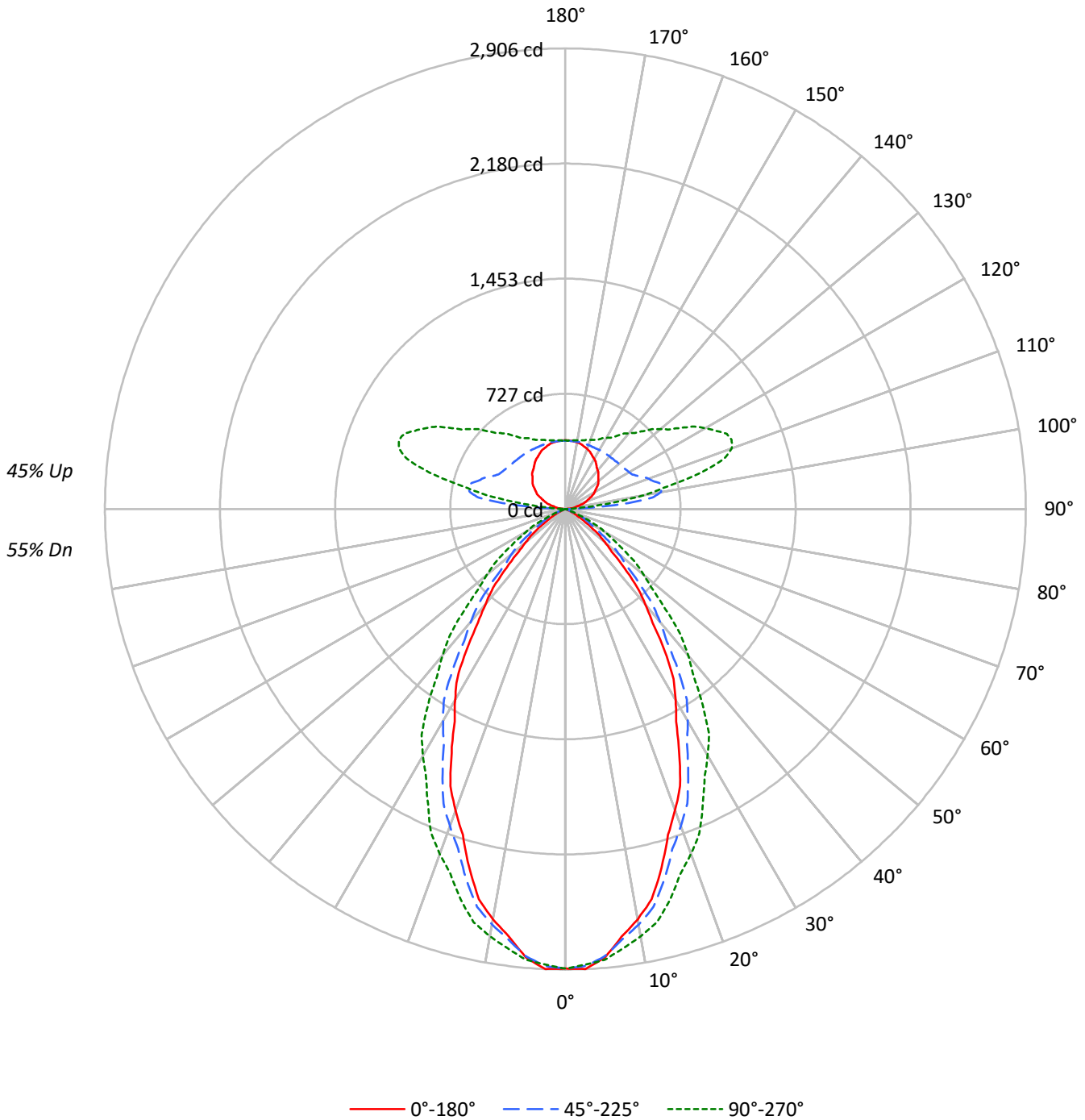
Lumens per Lamp: N/A
Luminaire Lumens: 6280.6 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 73.4
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	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°	17834	17834	17834
5°	17547	17504	17633
10°	16418	16637	17101
15°	14925	15399	16256
20°	13249	13937	15159
25°	11538	12451	13927
30°	9883	10969	12762
35°	8194	9311	11354
40°	6296	7445	9675
45°	4551	5637	7784
50°	3100	4201	6174
55°	2016	3038	4799
60°	1156	2139	3468
65°	306	1307	1755
70°	151	403	505
75°	67	33	0
80°	50	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.6	4.2
10°-20°	676.7	10.8
20°-30°	847.1	13.5
30°-40°	782.5	12.5
40°-50°	525.8	8.4
50°-60°	271.6	4.3
60°-70°	85.0	1.4
70°-80°	5.4	0.1
80°-90°	1.8	0.0
90°-100°	207.4	3.3
100°-110°	563.3	9.0
110°-120°	579.1	9.2
120°-130°	463.0	7.4
130°-140°	363.8	5.8
140°-150°	279.0	4.4
150°-160°	200.6	3.2
160°-170°	122.7	2.0
170°-180°	41.3	0.7
0°-30°	1788.4	28.5
0°-40°	2570.8	40.9
0°-60°	3368.2	53.6
0°-90°	3460.3	55.1
90°-120°	1349.8	21.5
90°-150°	2455.6	39.1
90°-180°	2820.0	44.9
0°-180°	6280.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2899	2899	2899	2899	2899	
5°	2842	2813	2835	2845	2856	263
15°	2344	2336	2418	2499	2553	653
25°	1700	1714	1835	1960	2052	779
35°	1091	1119	1240	1386	1512	676
45°	523	555	648	774	895	411
55°	188	220	283	364	448	175
65°	21	40	90	108	121	36
75°	3	3	1	0	0	4
85°	0	0	0	0	0	0
90°	1	6	10	12	12	2
95°	31	113	361	157	106	32
105°	100	156	619	943	888	106
115°	178	216	496	986	1124	175
125°	244	278	449	756	892	218
135°	294	327	436	616	694	228
145°	340	365	430	523	562	214
155°	385	398	428	470	483	177
165°	417	422	429	447	449	118
175°	432	433	430	436	435	41
180°	432	432	432	432	432	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2899.4	2899.4	2899.4	2899.4	2899.4
2.5°	2906.1	2878.7	2885.9	2885.7	2878.1
5°	2841.9	2813.1	2834.9	2844.9	2855.9
7.5°	2721.8	2699.3	2741.2	2772.5	2795.3
10°	2628.7	2609.5	2663.7	2706.5	2738.1
12.5°	2520.9	2506.1	2571.7	2630.4	2670.7
15°	2343.9	2335.7	2418.3	2499.4	2552.9
17.5°	2154.3	2154.0	2248.2	2349.0	2413.5
20°	2024.1	2028.2	2129.3	2240.4	2315.9
22.5°	1893.9	1903.5	2011.5	2127.3	2213.7
25°	1700.1	1713.8	1834.7	1960.3	2052.1
27.5°	1513.8	1533.8	1661.1	1791.5	1903.5
30°	1391.5	1414.8	1544.4	1681.6	1796.9
32.5°	1271.4	1299.1	1425.4	1570.6	1688.0
35°	1091.3	1118.7	1240.0	1385.9	1512.1
37.5°	905.3	932.2	1050.6	1194.3	1330.6
40°	784.1	814.3	927.2	1066.4	1204.9
42.5°	674.1	704.3	810.5	947.3	1078.1
45°	523.2	554.8	648.0	774.2	894.9
47.5°	398.1	432.4	514.2	628.4	738.4
50°	324.0	358.3	439.0	539.6	645.2
52.5°	264.5	297.7	370.6	465.4	562.2
55°	188.0	219.5	283.3	363.8	447.5
57.5°	129.9	157.0	214.3	281.5	347.0
60°	94.0	120.0	173.9	228.5	281.9
62.5°	62.6	86.4	139.1	180.9	216.9
65°	21.0	40.2	89.8	108.3	120.6
67.5°	10.7	12.9	47.1	49.7	53.9
70°	8.4	8.4	22.4	23.9	28.1
72.5°	6.2	6.2	9.0	11.5	12.3
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°	0.3	1.1	1.9	2.5	2.5
90°	1.4	5.5	9.7	12.5	12.5
92.5°	12.5	56.8	98.6	42.4	35.8
95°	30.6	113.4	361.1	157.2	105.6
97.5°	50.6	125.2	553.6	430.7	302.5
100°	63.9	133.1	612.5	620.9	501.4
102.5°	77.2	141.0	628.0	767.9	662.5
105°	100.0	155.7	619.4	943.2	887.5
107.5°	123.6	172.8	583.6	1033.7	1049.1
110°	140.3	185.1	556.9	1051.5	1118.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	154.7	197.4	530.3	1036.7	1136.9
115°	177.8	215.8	495.8	986.4	1123.6
117.5°	199.4	235.8	473.9	915.2	1069.7
120°	213.9	249.2	463.9	867.4	1020.8
122.5°	226.1	261.4	457.2	819.5	967.5
125°	244.4	278.4	448.6	755.8	891.6
127.5°	260.8	294.5	443.9	707.6	824.2
130°	270.8	303.4	441.7	677.4	781.9
132.5°	280.8	313.4	439.4	651.5	744.2
135°	294.4	327.0	436.1	615.7	694.4
137.5°	309.2	338.8	434.4	584.0	650.3
140°	318.0	346.6	433.3	563.8	623.6
142.5°	326.9	353.3	432.2	548.1	598.0
145°	340.3	364.7	430.5	523.1	562.5
147.5°	355.3	376.2	429.2	503.5	534.4
150°	365.3	382.9	429.2	492.2	516.7
152.5°	373.0	388.5	428.0	482.1	502.2
155°	384.7	398.3	427.8	469.7	483.3
157.5°	396.1	406.7	427.8	461.3	471.7
160°	402.8	412.3	427.8	455.7	463.9
162.5°	409.4	416.8	428.9	451.2	457.2
165°	416.7	422.1	429.2	447.2	448.6
167.5°	424.2	426.9	430.5	442.5	443.6
170°	426.4	429.1	430.5	440.3	440.3
172.5°	428.6	430.2	430.5	438.0	438.0
175°	431.9	433.3	430.5	436.1	434.7
177.5°	433.0	433.0	429.7	434.1	431.9
180°	431.9	431.9	431.9	431.9	431.9

(END OF REPORT)