

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: P518443

Luminaire Tested: **SQ4-BB-050U-100D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518443
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-12
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

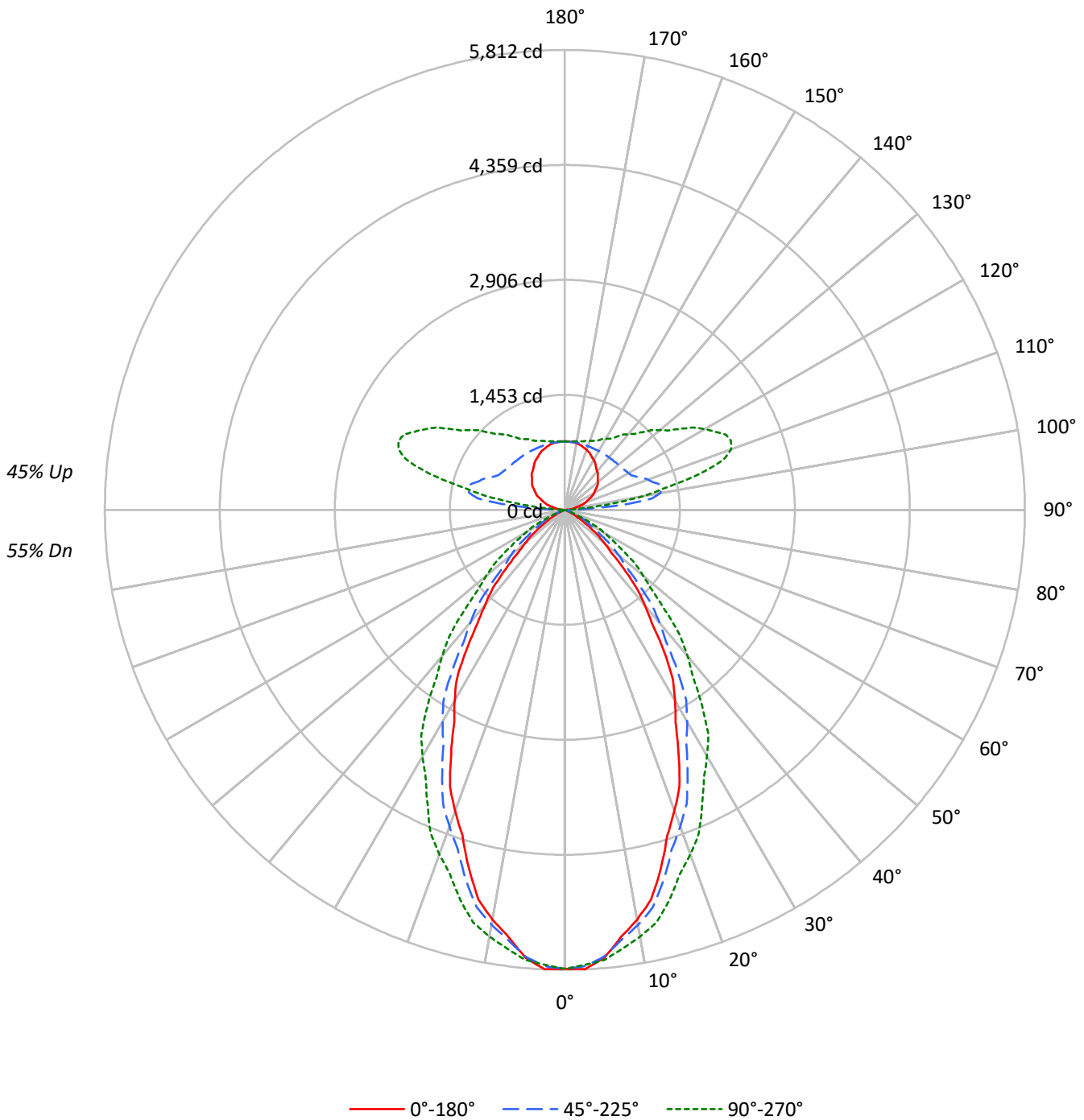
Lumens per Lamp: N/A
Luminaire Lumens: 12561.2 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 134.4
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																		
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	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°	17546	17503	17633
10°	16418	16637	17101
15°	14925	15399	16256
20°	13249	13937	15159
25°	11538	12452	13927
30°	9883	10968	12762
35°	8194	9311	11354
40°	6296	7445	9675
45°	4551	5637	7784
50°	3100	4201	6174
55°	2015	3039	4798
60°	1156	2140	3468
65°	306	1306	1756
70°	151	404	504
75°	67	33	0
80°	50	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	529.2	4.2
10°-20°	1353.3	10.8
20°-30°	1694.2	13.5
30°-40°	1564.9	12.5
40°-50°	1051.5	8.4
50°-60°	543.1	4.3
60°-70°	170.1	1.4
70°-80°	10.7	0.1
80°-90°	3.5	0.0
90°-100°	414.7	3.3
100°-110°	1126.6	9.0
110°-120°	1158.3	9.2
120°-130°	926.1	7.4
130°-140°	727.6	5.8
140°-150°	557.9	4.4
150°-160°	401.2	3.2
160°-170°	245.4	2.0
170°-180°	82.7	0.7
0°-30°	3576.8	28.5
0°-40°	5141.7	40.9
0°-60°	6736.4	53.6
0°-90°	6920.7	55.1
90°-120°	2699.5	21.5
90°-150°	4911.2	39.1
90°-180°	5640.0	44.9
0°-180°	12561.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5799	5799	5799	5799	5799	
5°	5684	5626	5670	5690	5712	527
15°	4688	4671	4836	4999	5106	1306
25°	3400	3428	3670	3920	4104	1559
35°	2183	2238	2480	2772	3024	1352
45°	1046	1110	1296	1548	1790	822
55°	376	439	567	728	895	351
65°	42	80	180	217	241	71
75°	6	6	3	0	0	8
85°	0	0	0	0	0	1
90°	3	11	19	25	25	4
95°	61	227	722	314	211	65
105°	200	311	1239	1886	1775	212
115°	356	432	992	1973	2247	351
125°	489	557	897	1512	1783	436
135°	589	654	872	1231	1389	455
145°	680	729	861	1046	1125	427
155°	769	797	856	940	967	355
165°	833	844	858	894	897	235
175°	864	867	861	872	869	82
180°	864	864	864	864	864	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5798.8	5798.8	5798.8	5798.8	5798.8
2.5°	5812.2	5757.4	5771.8	5771.5	5756.1
5°	5683.7	5626.1	5669.7	5689.8	5711.8
7.5°	5443.6	5398.6	5482.3	5545.1	5590.6
10°	5257.3	5218.9	5327.4	5413.0	5476.1
12.5°	5041.9	5012.2	5143.4	5260.8	5341.5
15°	4687.8	4671.4	4836.5	4998.8	5105.8
17.5°	4308.5	4308.0	4496.5	4698.0	4827.0
20°	4048.2	4056.4	4258.6	4480.8	4631.7
22.5°	3787.8	3807.0	4022.9	4254.7	4427.5
25°	3400.1	3427.6	3669.5	3920.5	4104.3
27.5°	3027.6	3067.6	3322.1	3583.1	3806.9
30°	2783.0	2829.6	3088.7	3363.3	3593.7
32.5°	2542.8	2598.2	2850.8	3141.2	3376.0
35°	2182.6	2237.5	2480.0	2771.9	3024.2
37.5°	1810.6	1864.4	2101.2	2388.5	2661.2
40°	1568.2	1628.6	1854.4	2132.8	2409.8
42.5°	1348.3	1408.6	1621.0	1894.5	2156.2
45°	1046.4	1109.5	1296.1	1548.5	1789.8
47.5°	796.2	864.7	1028.5	1256.8	1476.8
50°	648.0	716.6	878.1	1079.3	1290.5
52.5°	529.1	595.5	741.2	930.7	1124.4
55°	375.9	439.0	566.7	727.6	894.9
57.5°	259.8	314.1	428.7	562.9	694.1
60°	188.0	240.1	347.9	456.9	563.9
62.5°	125.1	172.8	278.3	361.8	433.7
65°	42.1	80.5	179.5	216.6	241.3
67.5°	21.3	25.7	94.3	99.5	107.7
70°	16.8	16.8	44.9	47.9	56.1
72.5°	12.3	12.3	18.0	23.0	24.7
75°	5.6	5.6	2.8	0.0	0.0
77.5°	2.8	2.8	2.2	0.0	0.0
80°	2.8	2.8	0.0	0.0	0.0
82.5°	0.6	0.6	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.6	2.2	3.9	5.0	5.0
90°	2.8	10.9	19.4	25.0	25.0
92.5°	25.0	113.5	197.2	84.7	71.7
95°	61.1	226.8	722.2	314.3	211.1
97.5°	101.1	250.5	1107.2	861.4	605.0
100°	127.8	266.3	1225.0	1241.8	1002.8
102.5°	154.4	282.1	1256.1	1535.7	1325.0
105°	200.0	311.4	1238.9	1886.3	1775.0
107.5°	247.2	345.5	1167.2	2067.3	2098.3
110°	280.6	370.2	1113.9	2103.0	2236.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	309.4	394.7	1060.5	2073.4	2273.8
115°	355.5	431.6	991.6	1972.9	2247.2
117.5°	398.9	471.7	947.8	1830.3	2139.4
120°	427.8	498.4	927.8	1734.7	2041.6
122.5°	452.2	522.8	914.4	1638.9	1935.0
125°	488.9	556.8	897.2	1511.7	1783.3
127.5°	521.7	589.0	887.8	1415.3	1648.3
130°	541.7	606.8	883.3	1354.7	1563.9
132.5°	561.7	626.8	878.9	1303.1	1488.3
135°	588.9	654.1	872.2	1231.3	1388.9
137.5°	618.3	677.5	868.9	1168.0	1300.5
140°	636.1	693.1	866.6	1127.7	1247.2
142.5°	653.9	706.6	864.4	1096.1	1196.1
145°	680.5	729.4	861.1	1046.2	1125.0
147.5°	710.5	752.4	858.3	1006.9	1068.9
150°	730.5	765.8	858.3	984.4	1033.3
152.5°	746.1	777.1	856.1	964.2	1004.4
155°	769.4	796.6	855.5	939.5	966.6
157.5°	792.2	813.4	855.5	922.7	943.3
160°	805.5	824.6	855.5	911.5	927.8
162.5°	818.9	833.5	857.8	902.5	914.4
165°	833.3	844.2	858.3	894.5	897.2
167.5°	848.3	853.7	861.1	885.0	887.2
170°	852.8	858.2	861.1	880.5	880.5
172.5°	857.2	860.5	861.1	876.1	876.1
175°	863.9	866.6	861.1	872.1	869.4
177.5°	866.1	866.1	859.4	868.2	863.9
180°	863.9	863.9	863.9	863.9	863.9

(END OF REPORT)