

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: P518419

Luminaire Tested: **SQ4-BB-050U-075D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518419  
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-12  
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**

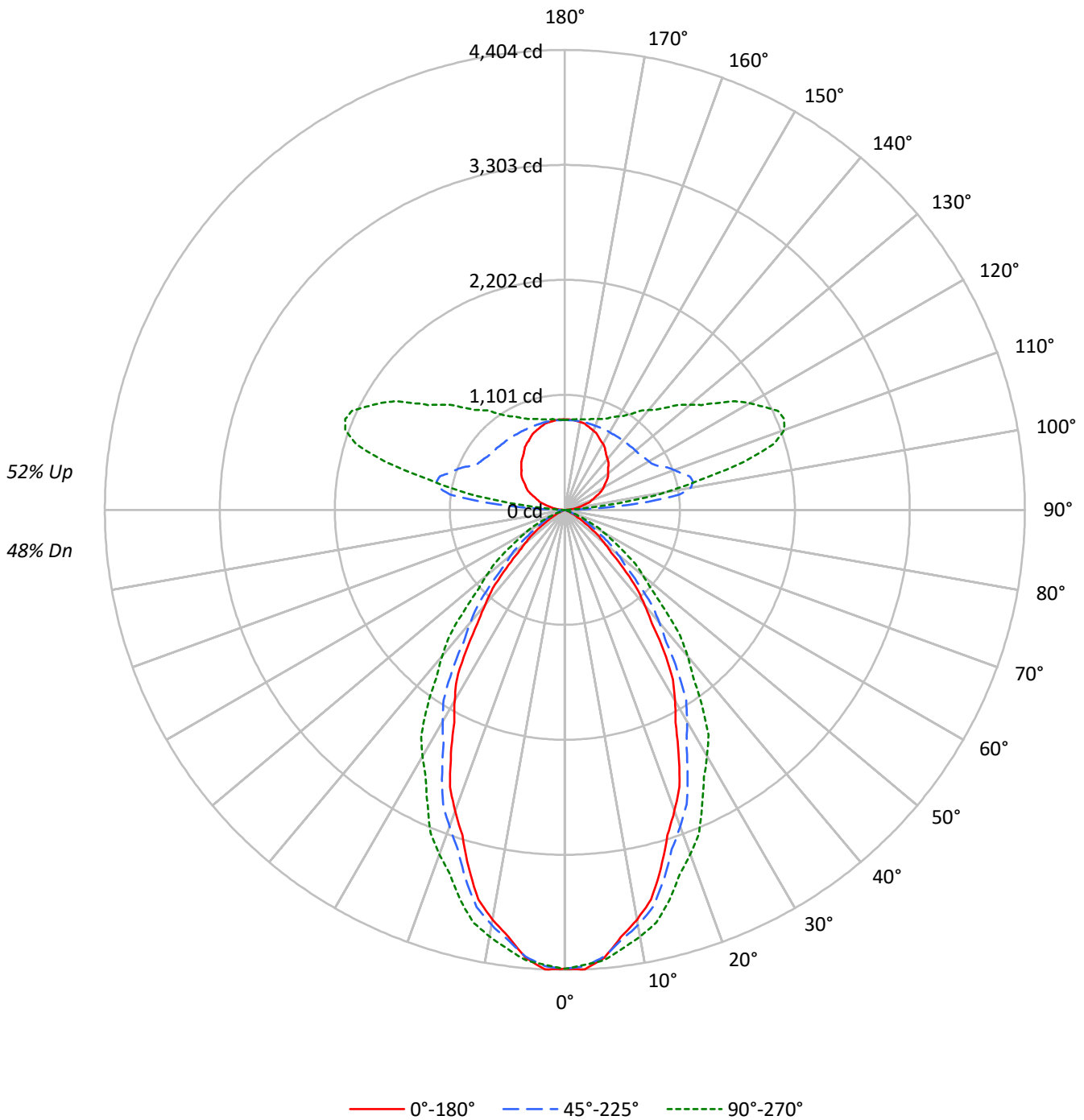
Lumens per Lamp: N/A  
Luminaire Lumens: 10885.7 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 105.6  
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°	13296	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	4679
55°	1528	2302	3636
60°	876	1621	2628
65°	232	990	1330
70°	115	306	382
75°	51	25	0
80°	37	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.0	3.7
10°-20°	1025.5	9.4
20°-30°	1283.9	11.8
30°-40°	1185.9	10.9
40°-50°	796.8	7.3
50°-60°	411.6	3.8
60°-70°	128.9	1.2
70°-80°	8.2	0.1
80°-90°	3.5	0.0
90°-100°	414.7	3.8
100°-110°	1126.6	10.3
110°-120°	1158.3	10.6
120°-130°	926.1	8.5
130°-140°	727.6	6.7
140°-150°	557.9	5.1
150°-160°	401.2	3.7
160°-170°	245.4	2.3
170°-180°	82.7	0.8
0°-30°	2710.4	24.9
0°-40°	3896.3	35.8
0°-60°	5104.7	46.9
0°-90°	5245.3	48.2
90°-120°	2699.5	24.8
90°-150°	4911.2	45.1
90°-180°	5640.0	51.8
0°-180°	10885.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4394	4394	4394	4394	4394	
5°	4307	4263	4296	4312	4328	399
15°	3552	3540	3665	3788	3869	989
25°	2577	2597	2781	2971	3110	1181
35°	1654	1696	1879	2100	2292	1025
45°	793	841	982	1173	1356	623
55°	285	333	429	551	678	266
65°	32	61	136	164	183	54
75°	4	4	2	0	0	6
85°	0	0	0	0	0	0
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°	4394.2	4394.2	4394.2	4394.2	4394.2
2.5°	4404.4	4362.8	4373.8	4373.5	4361.9
5°	4307.0	4263.4	4296.4	4311.7	4328.3
7.5°	4125.1	4091.0	4154.4	4202.0	4236.5
10°	3983.9	3954.8	4037.1	4101.9	4149.7
12.5°	3820.6	3798.2	3897.6	3986.6	4047.7
15°	3552.4	3539.9	3665.0	3788.0	3869.1
17.5°	3264.9	3264.5	3407.4	3560.1	3657.8
20°	3067.7	3073.9	3227.1	3395.5	3509.8
22.5°	2870.4	2884.9	3048.5	3224.1	3355.1
25°	2576.6	2597.4	2780.7	2970.9	3110.2
27.5°	2294.3	2324.6	2517.5	2715.2	2884.8
30°	2108.9	2144.2	2340.6	2548.7	2723.3
32.5°	1926.9	1968.9	2160.3	2380.4	2558.3
35°	1653.9	1695.5	1879.3	2100.5	2291.7
37.5°	1372.0	1412.8	1592.3	1810.0	2016.6
40°	1188.4	1234.1	1405.2	1616.2	1826.1
42.5°	1021.7	1067.4	1228.3	1435.7	1634.0
45°	793.0	840.8	982.2	1173.4	1356.3
47.5°	603.3	655.3	779.4	952.4	1119.1
50°	491.1	543.0	665.4	817.9	977.9
52.5°	400.9	451.2	561.7	705.3	852.1
55°	284.9	332.7	429.4	551.4	678.2
57.5°	196.9	238.0	324.8	426.6	525.9
60°	142.4	181.9	263.6	346.2	427.3
62.5°	94.8	131.0	210.9	274.2	328.7
65°	31.9	61.0	136.1	164.1	182.8
67.5°	16.2	19.5	71.4	75.4	81.6
70°	12.8	12.8	34.0	36.3	42.5
72.5°	9.4	9.4	13.6	17.5	18.7
75°	4.3	4.3	2.1	0.0	0.0
77.5°	2.1	2.1	1.7	0.0	0.0
80°	2.1	2.1	0.0	0.0	0.0
82.5°	0.4	0.4	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)