

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: P518692

Luminaire Tested: **SQ4-BB-100U-050D-840-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518692  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, 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-100U-050D-840-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

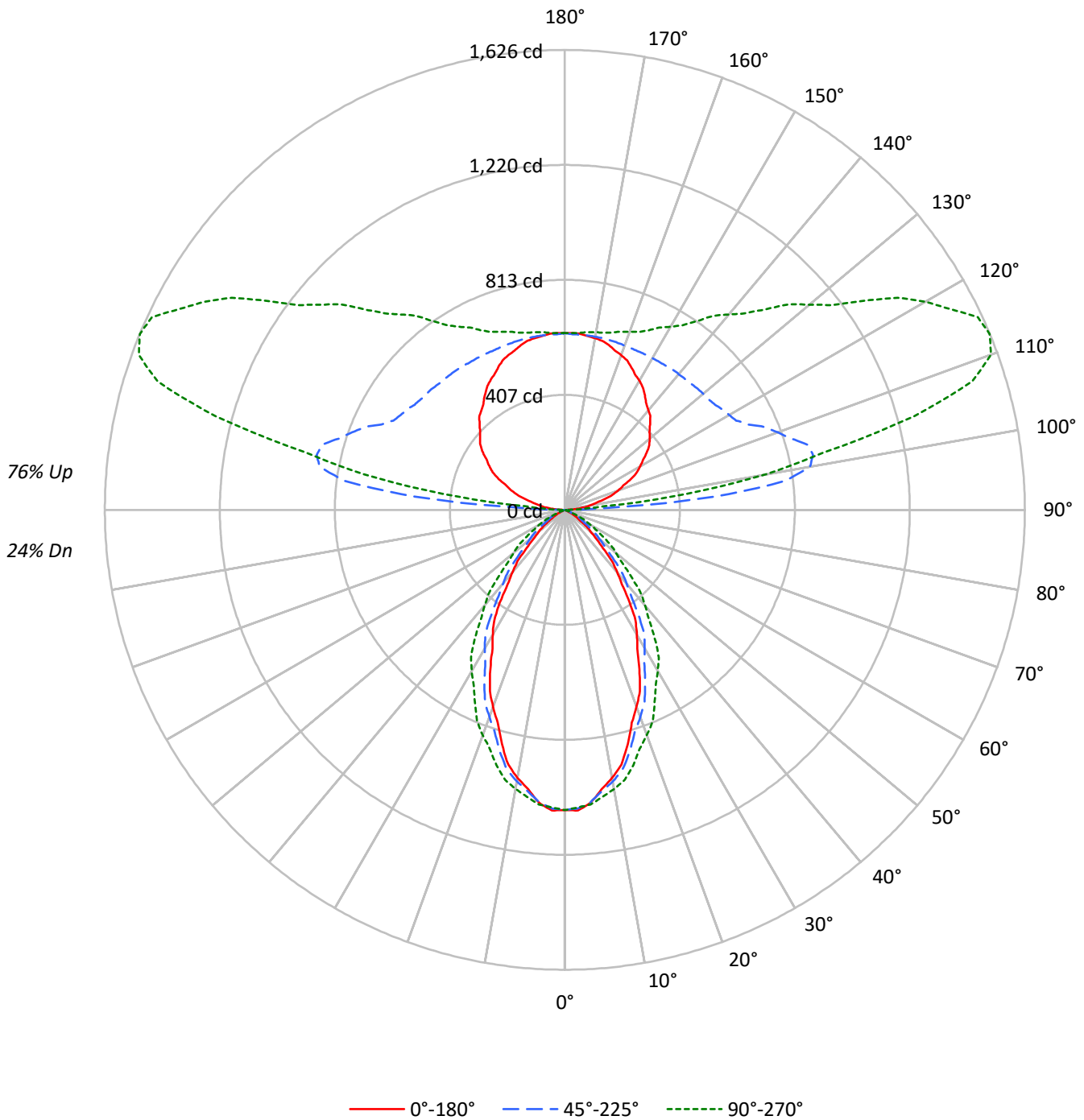
Lumens per Lamp: N/A  
Luminaire Lumens: 5324.1 lumens  
Efficiency: N/A  
Efficacy: 128.9 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 41.3  
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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	93	89	86	82	82	79	77	74	61	60	58	45	44	43	30	29	29	22
2	85	79	73	69	76	70	66	62	55	52	49	40	39	37	27	26	25	20
3	78	70	63	58	70	63	57	53	49	45	42	36	34	32	25	24	23	18
4	72	62	55	50	64	56	50	45	44	40	37	33	31	28	23	21	20	16
5	66	56	49	43	59	50	44	39	40	36	32	30	27	25	21	19	18	15
6	61	50	43	38	55	45	39	35	36	32	28	27	25	22	19	18	17	13
7	57	46	38	33	51	41	35	31	33	29	25	25	22	20	18	16	15	12
8	53	41	34	30	47	38	31	27	30	26	23	23	20	18	17	15	14	11
9	49	38	31	26	44	34	28	24	28	23	20	21	19	17	16	14	13	10
10	46	35	28	24	41	32	26	22	26	21	19	20	17	15	15	13	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9792	9792	9792
5°	9635	9611	9682
10°	9014	9134	9390
15°	8195	8455	8926
20°	7274	7652	8323
25°	6335	6837	7647
30°	5426	6022	7007
35°	4500	5112	6234
40°	3457	4088	5313
45°	2499	3095	4274
50°	1702	2307	3390
55°	1107	1668	2635
60°	635	1175	1904
65°	168	718	965
70°	84	221	278
75°	36	18	0
80°	27	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.9	1.8
10°-20°	247.7	4.7
20°-30°	310.1	5.8
30°-40°	286.4	5.4
40°-50°	192.5	3.6
50°-60°	99.4	1.9
60°-70°	31.1	0.6
70°-80°	2.0	0.0
80°-90°	1.3	0.0
90°-100°	292.4	5.5
100°-110°	807.2	15.2
110°-120°	832.5	15.6
120°-130°	669.0	12.6
130°-140°	525.7	9.9
140°-150°	403.2	7.6
150°-160°	289.8	5.4
160°-170°	177.2	3.3
170°-180°	59.8	1.1
0°-30°	654.6	12.3
0°-40°	941.1	17.7
0°-60°	1232.9	23.2
0°-90°	1267.3	23.8
90°-120°	1932.1	36.3
90°-150°	3530.0	66.3
90°-180°	4057.0	76.2
0°-180°	5324.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1040	1030	1038	1041	1045	96
15°	858	855	885	915	934	239
25°	622	627	672	718	751	285
35°	400	410	454	507	554	247
45°	192	203	237	283	328	150
55°	69	80	104	133	164	64
65°	8	15	33	40	44	13
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	2	4	8	9	10	3
95°	43	158	530	218	142	46
105°	144	222	888	1356	1277	153
115°	258	312	715	1416	1610	253
125°	354	402	648	1097	1288	315
135°	426	472	630	889	1002	329
145°	494	528	622	756	814	309
155°	556	575	617	679	700	256
165°	602	610	620	644	649	170
175°	624	625	621	630	628	59
180°	624	624	624	624	624	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1063.8	1053.7	1056.4	1056.3	1053.5
5°	1040.3	1029.7	1037.7	1041.4	1045.4
7.5°	996.3	988.1	1003.4	1014.9	1023.2
10°	962.2	955.2	975.0	990.7	1002.3
12.5°	922.8	917.4	941.4	962.9	977.6
15°	858.0	855.0	885.2	914.9	934.5
17.5°	788.6	788.5	823.0	859.9	883.4
20°	740.9	742.4	779.4	820.1	847.7
22.5°	693.3	696.8	736.3	778.7	810.3
25°	622.3	627.3	671.6	717.5	751.2
27.5°	554.1	561.4	608.0	655.8	696.8
30°	509.3	517.9	565.3	615.6	657.7
32.5°	465.4	475.5	521.8	574.9	617.9
35°	399.5	409.5	453.9	507.3	553.5
37.5°	331.4	341.2	384.6	437.2	487.1
40°	287.0	298.1	339.4	390.4	441.1
42.5°	246.8	257.8	296.7	346.7	394.6
45°	191.5	203.1	237.2	283.4	327.6
47.5°	145.7	158.3	188.2	230.0	270.3
50°	118.6	131.2	160.7	197.5	236.2
52.5°	96.8	109.0	135.7	170.3	205.8
55°	68.8	80.3	103.7	133.2	163.8
57.5°	47.5	57.5	78.5	103.0	127.0
60°	34.4	43.9	63.7	83.6	103.2
62.5°	22.9	31.6	50.9	66.2	79.4
65°	7.7	14.7	32.9	39.6	44.2
67.5°	3.9	4.7	17.3	18.2	19.7
70°	3.1	3.1	8.2	8.8	10.3
72.5°	2.3	2.3	3.3	4.2	4.5
75°	1.0	1.0	0.5	0.0	0.0
77.5°	0.5	0.5	0.4	0.0	0.0
80°	0.5	0.5	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.4	0.8	1.6	1.8	2.0
90°	2.0	4.0	8.0	9.0	10.0
92.5°	18.0	74.6	133.5	48.7	38.0
95°	43.0	158.2	530.5	218.0	141.9
97.5°	71.1	177.2	785.8	605.0	438.1
100°	91.9	188.6	880.1	886.3	720.3
102.5°	111.9	201.6	898.5	1095.1	937.6
105°	143.9	222.0	888.1	1355.8	1276.7
107.5°	177.8	247.4	838.5	1481.5	1510.4
110°	201.8	264.3	800.2	1508.6	1602.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	223.4	283.5	764.2	1487.2	1625.5
115°	257.7	311.5	715.3	1416.0	1610.3
117.5°	287.7	341.2	683.1	1315.7	1536.8
120°	307.7	360.4	670.3	1247.8	1470.5
122.5°	326.9	377.3	659.9	1184.4	1395.4
125°	353.6	402.5	648.3	1097.2	1287.7
127.5°	376.4	425.2	641.5	1023.5	1187.8
130°	391.6	440.4	638.3	978.4	1127.8
132.5°	406.0	452.5	635.1	940.5	1075.9
135°	425.6	471.5	630.3	888.7	1002.0
137.5°	447.5	489.3	628.0	845.1	941.8
140°	459.5	500.5	626.4	816.1	901.1
142.5°	473.1	511.0	624.8	790.3	865.1
145°	493.5	527.7	622.4	756.5	814.2
147.5°	513.1	543.0	620.2	728.1	772.8
150°	527.5	551.9	619.4	711.1	747.2
152.5°	538.6	561.5	618.6	696.6	726.4
155°	556.4	575.0	617.4	678.8	700.3
157.5°	572.8	587.1	617.6	665.8	680.5
160°	582.4	595.1	618.4	658.6	669.3
162.5°	590.4	601.5	619.2	652.1	660.5
165°	602.4	610.2	620.4	644.4	649.3
167.5°	611.6	616.3	621.4	639.8	641.3
170°	616.4	620.3	621.4	637.3	637.3
172.5°	620.4	622.7	621.4	634.1	633.3
175°	624.4	625.3	621.4	630.3	628.4
177.5°	626.0	625.2	621.2	626.7	625.2
180°	624.4	624.4	624.4	624.4	624.4

(END OF REPORT)