

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: P518704

Luminaire Tested: **SQ4-BB-100U-050D-940-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518704  
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-940-1D-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, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

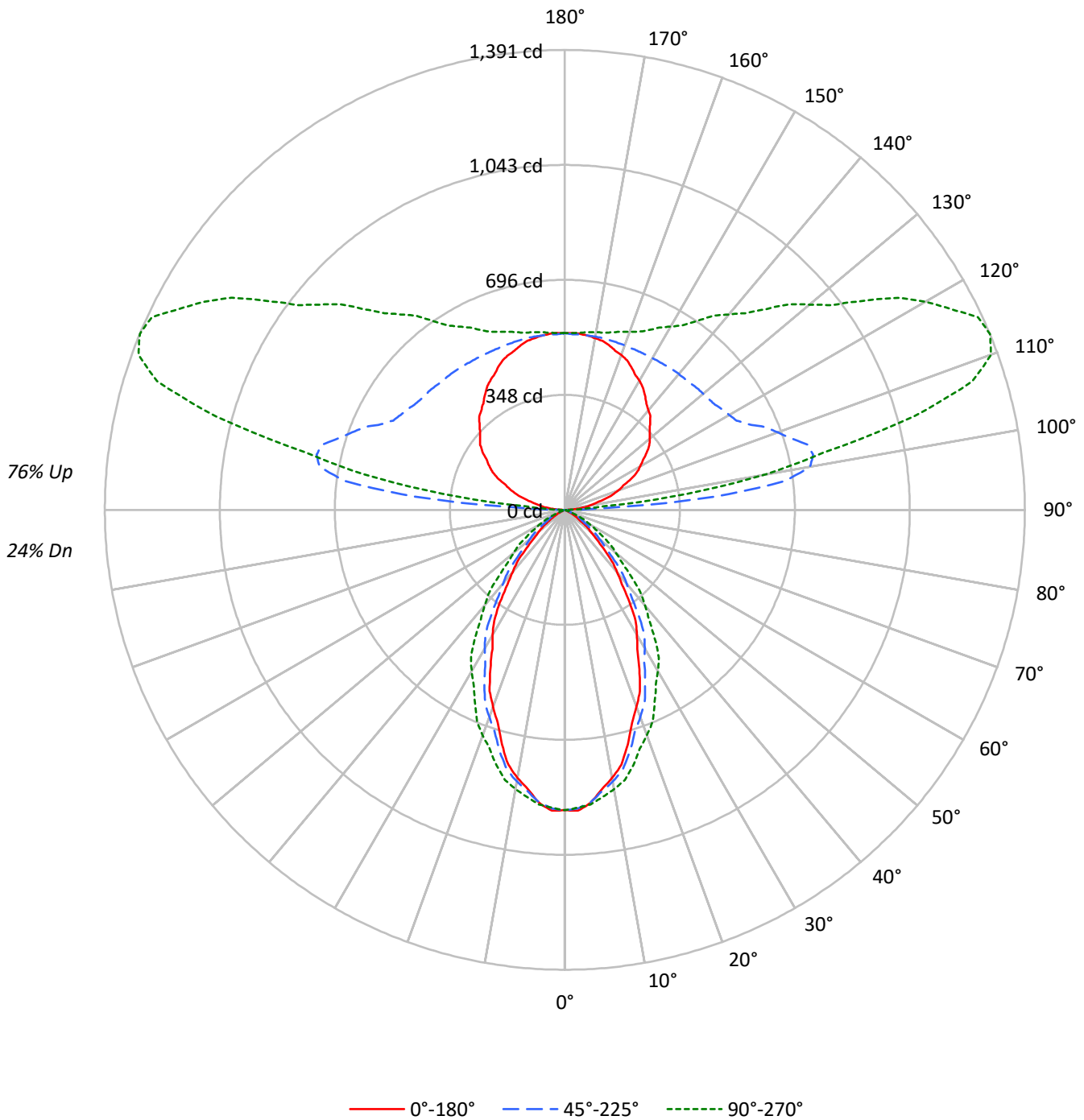
Lumens per Lamp: N/A  
Luminaire Lumens: 4556.7 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

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°	8380	8380	8380
5°	8245	8225	8286
10°	7715	7818	8036
15°	7014	7236	7639
20°	6226	6550	7123
25°	5422	5851	6545
30°	4644	5154	5997
35°	3851	4376	5335
40°	2959	3499	4547
45°	2139	2649	3659
50°	1457	1974	2901
55°	947	1428	2255
60°	543	1006	1629
65°	144	613	825
70°	70	189	237
75°	32	14	0
80°	21	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.9	1.8
10°-20°	212.0	4.7
20°-30°	265.4	5.8
30°-40°	245.1	5.4
40°-50°	164.7	3.6
50°-60°	85.1	1.9
60°-70°	26.6	0.6
70°-80°	1.7	0.0
80°-90°	1.1	0.0
90°-100°	250.2	5.5
100°-110°	690.9	15.2
110°-120°	712.5	15.6
120°-130°	572.6	12.6
130°-140°	450.0	9.9
140°-150°	345.1	7.6
150°-160°	248.0	5.4
160°-170°	151.7	3.3
170°-180°	51.1	1.1
0°-30°	560.3	12.3
0°-40°	805.4	17.7
0°-60°	1055.2	23.2
0°-90°	1084.7	23.8
90°-120°	1653.6	36.3
90°-150°	3021.2	66.3
90°-180°	3472.0	76.2
0°-180°	4556.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	908	908	908	908	908	
5°	890	881	888	891	895	83
15°	734	732	758	783	800	205
25°	533	537	575	614	643	244
35°	342	350	388	434	474	212
45°	164	174	203	243	280	129
55°	59	69	89	114	140	55
65°	7	13	28	34	38	11
75°	1	1	0	0	0	1
85°	0	0	0	0	0	0
90°	2	3	7	8	8	3
95°	37	135	454	187	121	39
105°	123	190	760	1160	1093	131
115°	221	267	612	1212	1378	217
125°	303	344	555	939	1102	269
135°	364	404	540	761	858	282
145°	422	452	533	648	697	264
155°	476	492	528	581	599	219
165°	516	522	531	552	556	145
175°	534	535	532	540	538	51
180°	534	534	534	534	534	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	908.3	908.3	908.3	908.3	908.3
2.5°	910.5	901.9	904.1	904.1	901.7
5°	890.3	881.3	888.1	891.3	894.7
7.5°	852.7	845.7	858.8	868.6	875.7
10°	823.5	817.5	834.5	847.9	857.8
12.5°	789.8	785.1	805.7	824.1	836.7
15°	734.3	731.7	757.6	783.0	799.8
17.5°	674.9	674.8	704.3	735.9	756.1
20°	634.1	635.4	667.1	701.9	725.5
22.5°	593.3	596.4	630.2	666.5	693.5
25°	532.6	536.9	574.8	614.1	642.9
27.5°	474.3	480.5	520.4	561.3	596.3
30°	435.9	443.2	483.8	526.8	562.9
32.5°	398.3	407.0	446.6	492.1	528.8
35°	341.9	350.5	388.5	434.2	473.7
37.5°	283.6	292.0	329.1	374.2	416.9
40°	245.7	255.1	290.5	334.1	377.5
42.5°	211.2	220.7	253.9	296.8	337.8
45°	163.9	173.8	203.0	242.6	280.4
47.5°	124.7	135.5	161.1	196.9	231.3
50°	101.5	112.3	137.5	169.1	202.1
52.5°	82.9	93.3	116.1	145.8	176.1
55°	58.9	68.8	88.8	114.0	140.2
57.5°	40.7	49.2	67.1	88.2	108.7
60°	29.4	37.6	54.5	71.6	88.3
62.5°	19.6	27.1	43.6	56.7	67.9
65°	6.6	12.6	28.1	33.9	37.8
67.5°	3.3	4.0	14.8	15.6	16.9
70°	2.6	2.6	7.0	7.5	8.8
72.5°	1.9	1.9	2.8	3.6	3.9
75°	0.9	0.9	0.4	0.0	0.0
77.5°	0.4	0.4	0.4	0.0	0.0
80°	0.4	0.4	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°	0.3	0.7	1.4	1.5	1.7
90°	1.7	3.4	6.8	7.7	8.5
92.5°	15.4	63.9	114.2	41.7	32.5
95°	36.8	135.4	454.0	186.6	121.4
97.5°	60.9	151.7	672.5	517.8	375.0
100°	78.7	161.4	753.2	758.6	616.4
102.5°	95.8	172.5	769.0	937.3	802.5
105°	123.1	190.0	760.1	1160.4	1092.7
107.5°	152.2	211.7	717.7	1268.0	1292.7
110°	172.7	226.2	684.8	1291.1	1371.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	191.2	242.7	654.1	1272.9	1391.2
115°	220.6	266.6	612.2	1211.9	1378.2
117.5°	246.2	292.0	584.6	1126.0	1315.3
120°	263.3	308.5	573.7	1067.9	1258.5
122.5°	279.8	322.9	564.8	1013.7	1194.2
125°	302.7	344.5	554.9	939.1	1102.1
127.5°	322.2	364.0	549.1	876.0	1016.6
130°	335.2	377.0	546.3	837.4	965.3
132.5°	347.5	387.3	543.6	805.0	920.8
135°	364.2	403.5	539.5	760.6	857.6
137.5°	383.0	418.8	537.4	723.3	806.1
140°	393.3	428.4	536.1	698.5	771.2
142.5°	404.9	437.4	534.7	676.4	740.4
145°	422.4	451.6	532.7	647.5	696.8
147.5°	439.1	464.7	530.8	623.1	661.4
150°	451.4	472.3	530.1	608.6	639.5
152.5°	461.0	480.6	529.4	596.2	621.7
155°	476.2	492.1	528.4	581.0	599.3
157.5°	490.2	502.5	528.6	569.9	582.4
160°	498.5	509.3	529.2	563.6	572.8
162.5°	505.3	514.8	529.9	558.1	565.3
165°	515.6	522.2	530.9	551.6	555.7
167.5°	523.4	527.4	531.8	547.6	548.9
170°	527.5	530.9	531.8	545.5	545.5
172.5°	530.9	533.0	531.8	542.7	542.1
175°	534.4	535.2	531.8	539.5	537.8
177.5°	535.7	535.1	531.6	536.4	535.0
180°	534.4	534.4	534.4	534.4	534.4

(END OF REPORT)