

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: P518754

Luminaire Tested: **SQ4-BB-100U-100D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518754  
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-100D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

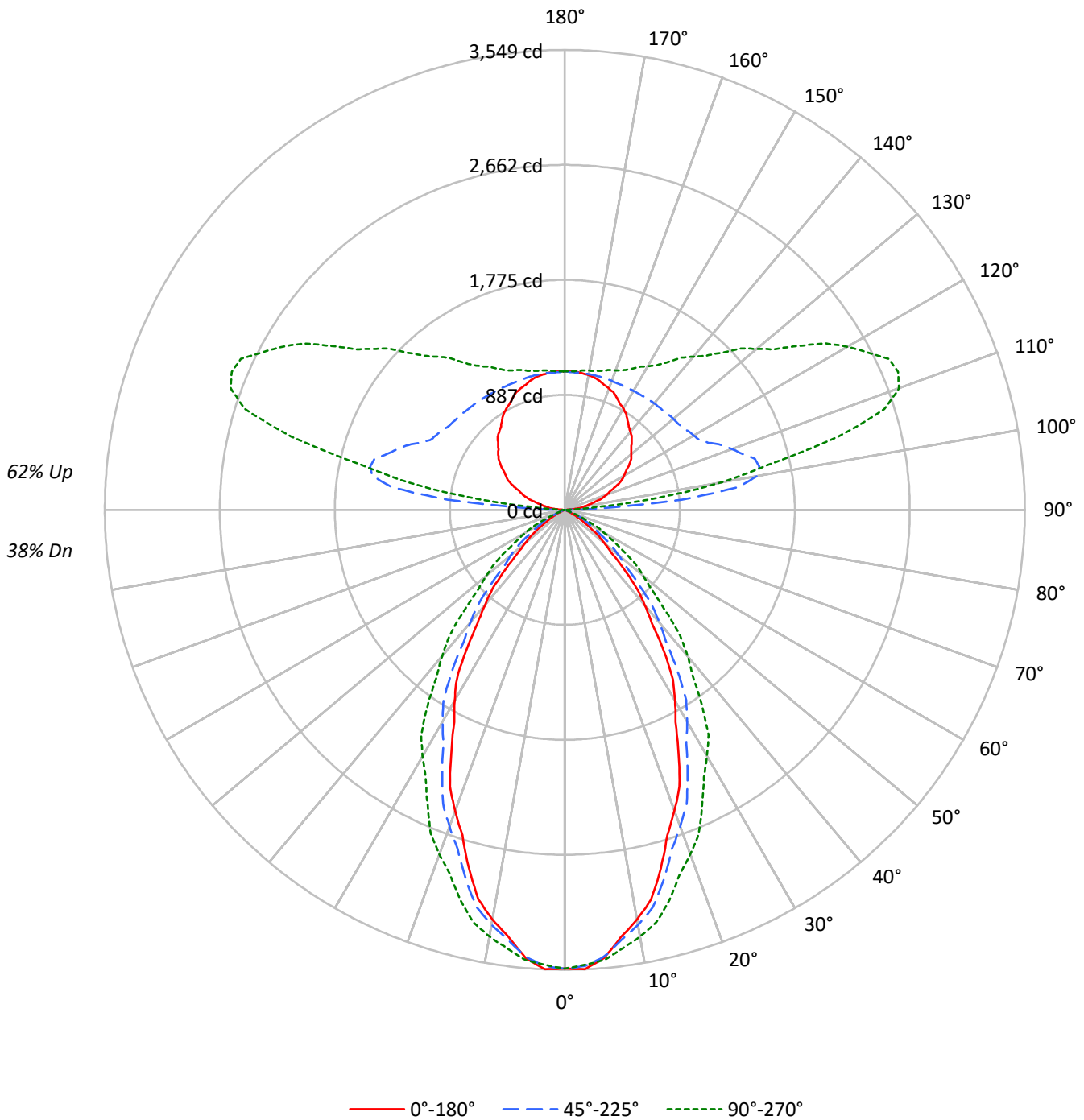
Lumens per Lamp: N/A  
Luminaire Lumens: 11169.9 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 121.2  
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	96	93	89	86	87	84	82	79	69	67	65	55	54	53	42	41	41	35
2	89	83	77	73	81	75	71	67	62	59	56	50	48	46	38	37	36	31
3	82	74	67	62	75	68	62	58	56	52	49	45	43	41	35	34	33	28
4	76	66	59	54	69	61	55	50	51	46	43	41	38	36	33	31	29	25
5	70	60	53	47	64	55	49	44	46	42	38	38	35	32	30	28	27	23
6	65	54	47	42	59	50	44	39	42	37	34	35	31	29	28	26	24	21
7	60	49	42	37	55	46	39	35	39	34	31	32	29	26	26	24	22	19
8	56	45	38	33	51	42	36	31	36	31	28	30	26	24	24	22	20	18
9	53	41	35	30	48	38	32	28	33	28	25	28	24	22	23	20	19	16
10	49	38	32	27	45	36	30	26	30	26	23	26	22	20	21	19	17	15

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

	0°	45°	90°
0°	16333	16333	16333
5°	16070	16031	16150
10°	15036	15237	15662
15°	13670	14104	14889
20°	12134	12765	13883
25°	10567	11404	12756
30°	9051	10046	11688
35°	7505	8527	10399
40°	5766	6818	8861
45°	4168	5163	7129
50°	2840	3847	5655
55°	1846	2783	4395
60°	1059	1960	3177
65°	281	1196	1608
70°	139	370	463
75°	61	30	0
80°	45	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	323.1	2.9
10°-20°	826.3	7.4
20°-30°	1034.5	9.3
30°-40°	955.5	8.6
40°-50°	642.1	5.7
50°-60°	331.6	3.0
60°-70°	103.9	0.9
70°-80°	6.6	0.1
80°-90°	2.3	0.0
90°-100°	500.5	4.5
100°-110°	1381.7	12.4
110°-120°	1425.0	12.8
120°-130°	1145.1	10.3
130°-140°	899.9	8.1
140°-150°	690.2	6.2
150°-160°	496.0	4.4
160°-170°	303.4	2.7
170°-180°	102.3	0.9
0°-30°	2183.9	19.6
0°-40°	3139.4	28.1
0°-60°	4113.1	36.8
0°-90°	4225.8	37.8
90°-120°	3307.2	29.6
90°-150°	6042.4	54.1
90°-180°	6944.0	62.2
0°-180°	11169.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3541	3541	3541	3541	3541	
5°	3470	3435	3462	3474	3488	322
15°	2862	2852	2953	3052	3118	797
25°	2076	2093	2240	2394	2506	952
35°	1333	1366	1514	1692	1846	826
45°	639	677	791	946	1093	502
55°	230	268	346	444	546	214
65°	26	49	110	132	147	43
75°	3	3	2	0	0	5
85°	0	0	0	0	0	0
90°	3	7	14	15	17	5
95°	74	271	908	373	243	79
105°	246	380	1520	2321	2185	262
115°	441	533	1224	2424	2756	434
125°	605	689	1110	1878	2204	539
135°	728	807	1079	1521	1715	564
145°	845	903	1065	1295	1394	529
155°	952	984	1057	1162	1199	439
165°	1031	1044	1062	1103	1112	291
175°	1069	1070	1064	1079	1076	102
180°	1069	1069	1069	1069	1069	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3540.6	3540.6	3540.6	3540.6	3540.6
2.5°	3548.8	3515.3	3524.2	3523.9	3514.6
5°	3470.4	3435.2	3461.8	3474.1	3487.5
7.5°	3323.7	3296.3	3347.4	3385.7	3413.5
10°	3210.0	3186.6	3252.8	3305.1	3343.6
12.5°	3078.5	3060.4	3140.5	3212.1	3261.4
15°	2862.3	2852.2	2953.1	3052.2	3117.5
17.5°	2630.7	2630.4	2745.5	2868.5	2947.2
20°	2471.7	2476.8	2600.2	2735.9	2828.0
22.5°	2312.8	2324.5	2456.3	2597.8	2703.3
25°	2076.1	2092.8	2240.5	2393.8	2506.0
27.5°	1848.6	1873.0	2028.4	2187.8	2324.4
30°	1699.2	1727.7	1885.9	2053.6	2194.2
32.5°	1552.6	1586.4	1740.7	1918.0	2061.3
35°	1332.6	1366.1	1514.2	1692.4	1846.5
37.5°	1105.5	1138.3	1283.0	1458.4	1624.9
40°	957.5	994.4	1132.2	1302.2	1471.4
42.5°	823.2	860.1	989.7	1156.8	1316.5
45°	638.9	677.4	791.4	945.5	1092.8
47.5°	486.1	528.0	628.0	767.4	901.7
50°	395.7	437.6	536.1	659.0	787.9
52.5°	323.1	363.6	452.6	568.3	686.5
55°	229.5	268.1	346.0	444.3	546.4
57.5°	158.6	191.8	261.7	343.7	423.8
60°	114.8	146.6	212.4	279.0	344.3
62.5°	76.4	105.5	169.9	220.9	264.8
65°	25.7	49.1	109.6	132.2	147.3
67.5°	13.0	15.7	57.6	60.8	65.8
70°	10.3	10.3	27.4	29.2	34.3
72.5°	7.5	7.5	11.0	14.1	15.1
75°	3.4	3.4	1.7	0.0	0.0
77.5°	1.7	1.7	1.4	0.0	0.0
80°	1.7	1.7	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°	0.7	1.4	2.7	3.1	3.4
90°	3.4	6.8	13.7	15.4	17.1
92.5°	30.8	127.8	228.5	83.4	65.0
95°	73.5	270.8	908.0	373.2	242.8
97.5°	121.7	303.3	1345.1	1035.6	750.0
100°	157.3	322.8	1506.5	1517.1	1232.9
102.5°	191.5	345.0	1537.9	1874.5	1605.0
105°	246.2	380.0	1520.2	2320.8	2185.3
107.5°	304.4	423.4	1435.3	2536.0	2585.5
110°	345.4	452.4	1369.7	2582.3	2742.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	382.3	485.3	1308.1	2545.7	2782.5
115°	441.2	533.1	1224.3	2423.8	2756.5
117.5°	492.5	584.1	1169.3	2252.1	2630.6
120°	526.7	617.0	1147.4	2135.9	2517.1
122.5°	559.5	645.8	1129.6	2027.3	2388.5
125°	605.3	688.9	1109.8	1878.1	2204.2
127.5°	644.3	727.9	1098.1	1751.9	2033.2
130°	670.3	753.9	1092.7	1674.7	1930.6
132.5°	694.9	774.5	1087.2	1609.9	1841.6
135°	728.4	807.0	1079.0	1521.2	1715.1
137.5°	766.1	837.6	1074.9	1446.6	1612.2
140°	786.6	856.8	1072.2	1396.9	1542.4
142.5°	809.8	874.7	1069.4	1352.8	1480.8
145°	844.7	903.2	1065.3	1295.0	1393.6
147.5°	878.2	929.4	1061.5	1246.3	1322.8
150°	902.9	944.7	1060.2	1217.2	1279.1
152.5°	922.0	961.1	1058.8	1192.3	1243.5
155°	952.5	984.2	1056.8	1161.9	1198.7
157.5°	980.5	1004.9	1057.1	1139.8	1164.8
160°	996.9	1018.6	1058.5	1127.3	1145.7
162.5°	1010.6	1029.7	1059.8	1116.3	1130.6
165°	1031.1	1044.5	1061.9	1103.1	1111.5
167.5°	1046.8	1054.9	1063.6	1095.1	1097.8
170°	1055.1	1061.7	1063.6	1091.0	1091.0
172.5°	1061.9	1065.9	1063.6	1085.5	1084.1
175°	1068.7	1070.4	1063.6	1078.9	1075.6
177.5°	1071.5	1070.1	1063.3	1072.8	1070.1
180°	1068.7	1068.7	1068.7	1068.7	1068.7

(END OF REPORT)