

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: P518706

Luminaire Tested: **SQ4-BB-100U-050D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518706
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-8
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

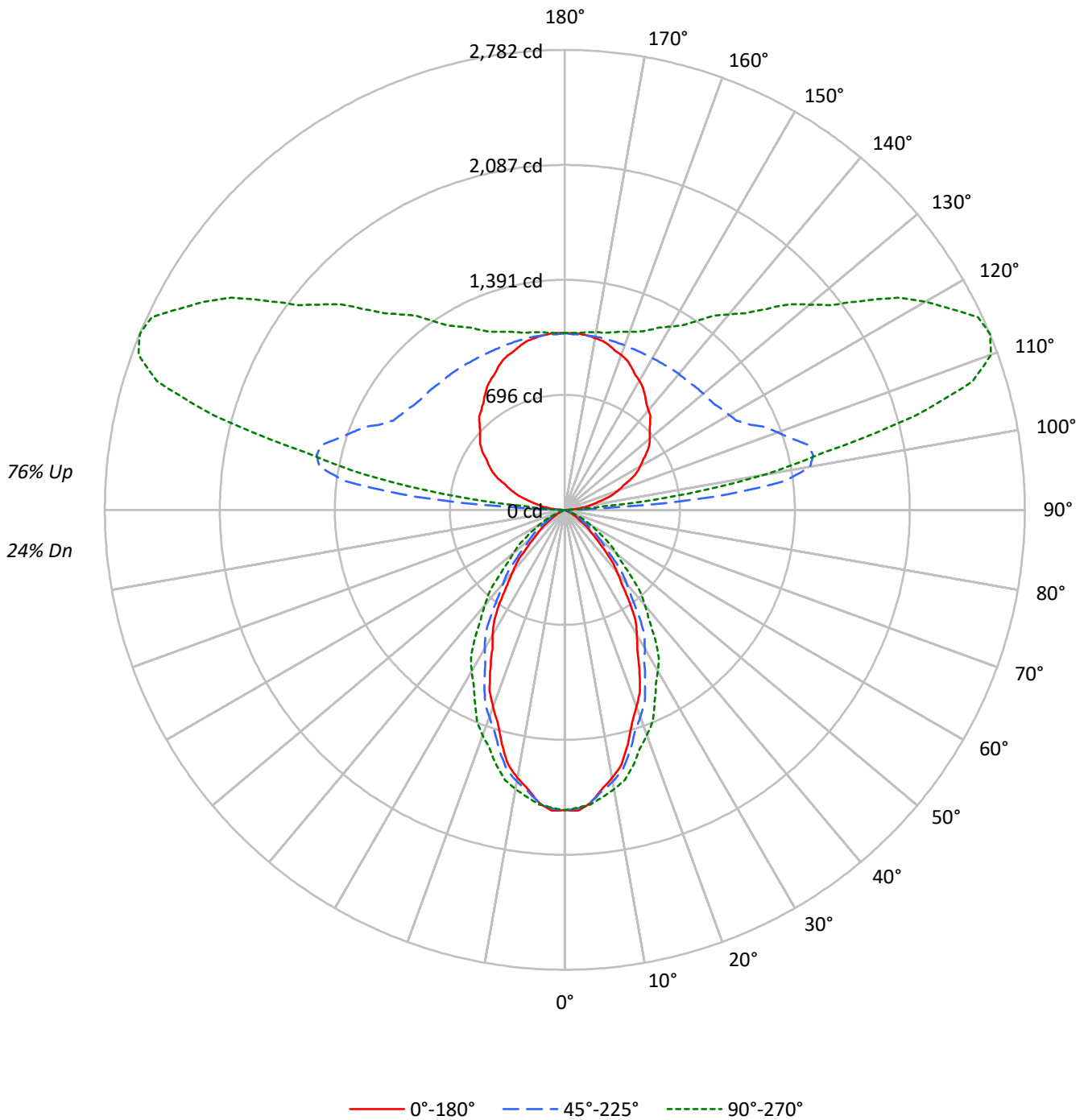
Lumens per Lamp: N/A
Luminaire Lumens: 9113.4 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 84.7
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°	8381	8381	8381
5°	8245	8226	8286
10°	7715	7818	8036
15°	7014	7236	7639
20°	6226	6550	7124
25°	5422	5851	6545
30°	4644	5155	5997
35°	3851	4375	5336
40°	2959	3499	4547
45°	2139	2649	3658
50°	1457	1974	2902
55°	947	1428	2255
60°	543	1006	1630
65°	144	613	825
70°	71	190	237
75°	32	16	0
80°	24	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.8	1.8
10°-20°	424.0	4.7
20°-30°	530.8	5.8
30°-40°	490.3	5.4
40°-50°	329.4	3.6
50°-60°	170.2	1.9
60°-70°	53.3	0.6
70°-80°	3.4	0.0
80°-90°	2.3	0.0
90°-100°	500.5	5.5
100°-110°	1381.7	15.2
110°-120°	1425.0	15.6
120°-130°	1145.1	12.6
130°-140°	899.9	9.9
140°-150°	690.2	7.6
150°-160°	496.0	5.4
160°-170°	303.4	3.3
170°-180°	102.3	1.1
0°-30°	1120.6	12.3
0°-40°	1610.8	17.7
0°-60°	2110.4	23.2
0°-90°	2169.4	23.8
90°-120°	3307.2	36.3
90°-150°	6042.4	66.3
90°-180°	6944.0	76.2
0°-180°	9113.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1817	1817	1817	1817	1817	
5°	1781	1763	1776	1783	1789	165
15°	1469	1464	1515	1566	1600	409
25°	1065	1074	1150	1228	1286	488
35°	684	701	777	868	948	424
45°	328	348	406	485	561	257
55°	118	138	178	228	280	110
65°	13	25	56	68	76	22
75°	2	2	1	0	0	3
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°	1816.7	1816.7	1816.7	1816.7	1816.7
2.5°	1820.9	1803.7	1808.2	1808.1	1803.3
5°	1780.6	1762.6	1776.3	1782.6	1789.4
7.5°	1705.4	1691.3	1717.5	1737.2	1751.5
10°	1647.1	1635.0	1669.0	1695.8	1715.6
12.5°	1579.6	1570.3	1611.4	1648.2	1673.4
15°	1468.6	1463.5	1515.2	1566.1	1599.6
17.5°	1349.8	1349.6	1408.7	1471.8	1512.2
20°	1268.3	1270.8	1334.2	1403.8	1451.1
22.5°	1186.7	1192.7	1260.3	1332.9	1387.1
25°	1065.2	1073.8	1149.6	1228.3	1285.8
27.5°	948.5	961.1	1040.8	1122.5	1192.7
30°	871.9	886.5	967.7	1053.7	1125.9
32.5°	796.6	814.0	893.1	984.1	1057.7
35°	683.8	701.0	776.9	868.4	947.5
37.5°	567.2	584.1	658.3	748.3	833.7
40°	491.3	510.2	581.0	668.2	755.0
42.5°	422.4	441.3	507.8	593.5	675.5
45°	327.8	347.6	406.1	485.1	560.7
47.5°	249.4	270.9	322.2	393.7	462.7
50°	203.0	224.5	275.1	338.1	404.3
52.5°	165.8	186.6	232.2	291.6	352.3
55°	117.8	137.5	177.5	227.9	280.4
57.5°	81.4	98.4	134.3	176.4	217.4
60°	58.9	75.2	109.0	143.1	176.7
62.5°	39.2	54.2	87.2	113.4	135.9
65°	13.2	25.2	56.2	67.9	75.6
67.5°	6.7	8.1	29.5	31.2	33.7
70°	5.3	5.3	14.1	15.0	17.6
72.5°	3.9	3.9	5.6	7.2	7.7
75°	1.8	1.8	0.9	0.0	0.0
77.5°	0.9	0.9	0.7	0.0	0.0
80°	0.9	0.9	0.0	0.0	0.0
82.5°	0.2	0.2	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)