

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: P520420

Luminaire Tested: **SQ4-F-150U-100D-840-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520420  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G3-1910-536-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-150U-100D-840-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

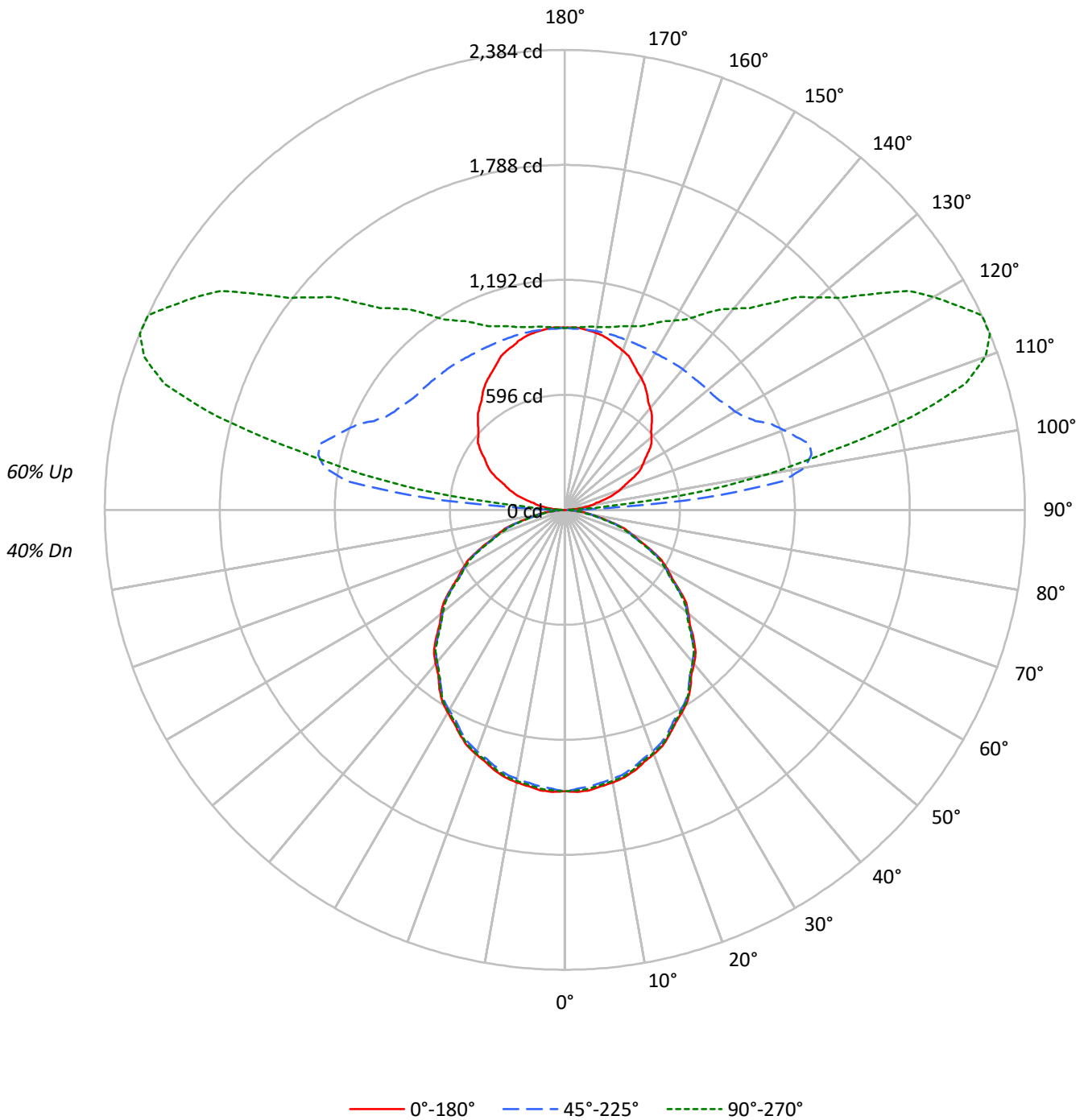
Lumens per Lamp: N/A  
Luminaire Lumens: 10063.6 lumens  
Efficiency: N/A  
Efficacy: 139.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 72.3  
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



TEST NUMBER: P520420  
CATALOG NUMBER: SQ4-F-150U-100D-840-1D-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P520420

CATALOG NUMBER: SQ4-F-150U-100D-840-1D-UNV-STD-W-4

**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	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	40
1	95	91	87	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33
2	87	80	73	68	79	73	67	63	59	56	52	47	45	42	36	34	33	28
3	79	70	63	57	72	64	57	52	52	48	44	42	39	36	32	30	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	31	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	26	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	17	14	12
9	48	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	16	14	12	10

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

	0°	45°	90°
0°	13454	13454	13454
5°	13514	13329	13431
10°	13445	13276	13380
15°	13364	13182	13287
20°	13225	13069	13177
25°	13081	12929	13030
30°	12923	12784	12847
35°	12760	12602	12670
40°	12547	12404	12416
45°	12326	12158	12118
50°	12010	11865	11837
55°	11655	11527	11446
60°	11302	11097	11060
65°	10750	10507	10422
70°	9989	9746	9557
75°	8919	8634	8456
80°	7337	7072	6753
85°	4340	4774	4880



TEST NUMBER: P520420

CATALOG NUMBER: SQ4-F-150U-100D-840-1D-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.6	1.4
10°-20°	391.9	3.9
20°-30°	588.6	5.8
30°-40°	702.4	7.0
40°-50°	719.9	7.2
50°-60°	641.1	6.4
60°-70°	477.9	4.7
70°-80°	258.8	2.6
80°-90°	60.9	0.6
90°-100°	438.6	4.4
100°-110°	1185.8	11.8
110°-120°	1246.7	12.4
120°-130°	1012.7	10.1
130°-140°	794.4	7.9
140°-150°	609.7	6.1
150°-160°	438.5	4.4
160°-170°	267.9	2.7
170°-180°	90.3	0.9
0°-30°	1118.1	11.1
0°-40°	1820.5	18.1
0°-60°	3181.5	31.6
0°-90°	3979.1	39.5
90°-120°	2871.2	28.5
90°-150°	5287.9	52.5
90°-180°	6085.0	60.5
0°-180°	10063.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1459	1456	1439	1452	1450	138
15°	1399	1394	1380	1391	1391	394
25°	1285	1282	1270	1277	1280	592
35°	1133	1128	1119	1121	1125	707
45°	945	940	932	927	929	727
55°	725	726	717	710	712	649
65°	492	490	481	476	477	487
75°	250	247	242	237	237	266
85°	41	45	45	46	46	57
90°	2	6	13	14	13	6
95°	68	239	729	377	224	71
105°	220	341	1316	1940	1861	232
115°	388	474	1091	2112	2384	383
125°	531	609	983	1659	1949	474
135°	637	712	957	1340	1517	492
145°	741	796	944	1147	1234	463
155°	836	869	936	1029	1063	386
165°	910	919	940	976	981	256
175°	945	944	941	953	951	90
180°	944	944	944	944	944	

TEST NUMBER: P520420

CATALOG NUMBER: SQ4-F-150U-100D-840-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1463.7	1460.7	1447.8	1458.1	1456.5
5°	1459.2	1456.2	1439.2	1452.1	1450.2
7.5°	1445.5	1442.6	1427.6	1439.5	1437.8
10°	1435.1	1432.2	1417.1	1429.1	1428.2
12.5°	1421.5	1418.6	1403.5	1415.5	1414.5
15°	1399.1	1394.2	1380.1	1391.1	1391.1
17.5°	1369.5	1365.7	1352.7	1361.9	1362.1
20°	1347.0	1344.1	1331.1	1341.1	1342.1
22.5°	1324.6	1321.8	1307.0	1316.3	1318.1
25°	1285.0	1282.1	1270.0	1277.1	1280.0
27.5°	1244.2	1239.9	1227.9	1234.3	1236.3
30°	1213.0	1211.0	1200.0	1203.1	1205.9
32.5°	1180.2	1178.2	1168.8	1170.3	1175.5
35°	1132.9	1128.1	1118.9	1121.0	1124.9
37.5°	1077.0	1074.7	1065.8	1064.7	1068.4
40°	1041.8	1037.9	1029.9	1027.9	1030.9
42.5°	1003.4	999.4	989.8	987.9	991.6
45°	944.7	939.9	931.8	926.8	928.7
47.5°	879.1	879.1	870.7	865.0	867.9
50°	836.7	836.7	826.6	821.7	824.7
52.5°	792.7	793.5	782.7	780.0	779.0
55°	724.6	725.6	716.6	709.6	711.6
57.5°	658.9	656.8	646.3	641.8	642.7
60°	612.5	609.6	601.4	594.6	599.4
62.5°	565.3	563.9	555.9	548.0	547.4
65°	492.4	490.5	481.3	476.4	477.4
67.5°	419.9	417.6	409.3	402.2	404.8
70°	370.3	370.3	361.3	357.2	354.3
72.5°	324.7	320.7	314.1	308.4	306.3
75°	250.2	247.3	242.2	237.2	237.2
77.5°	182.1	179.6	176.4	172.9	171.9
80°	138.1	137.1	133.1	132.0	127.1
82.5°	97.3	97.1	94.7	92.0	91.8
85°	41.0	45.0	45.1	46.1	46.1
87.5°	7.6	13.1	13.8	12.4	12.2
90°	2.0	6.0	13.2	14.2	13.2
92.5°	28.9	105.1	207.4	90.0	65.2
95°	68.1	238.9	729.3	377.4	224.5
97.5°	109.4	274.0	1137.0	940.9	691.0
100°	140.2	288.2	1263.7	1317.9	1065.6
102.5°	168.6	307.9	1308.4	1603.8	1415.1
105°	220.4	340.6	1315.5	1940.5	1861.1
107.5°	268.4	378.0	1258.0	2150.6	2177.0
110°	305.8	405.1	1206.9	2206.9	2319.2



TEST NUMBER: P520420

CATALOG NUMBER: SQ4-F-150U-100D-840-1D-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	339.1	432.1	1159.7	2195.7	2384.2
115°	388.0	474.4	1091.0	2112.1	2384.2
117.5°	436.0	517.1	1045.7	1984.3	2292.7
120°	465.3	544.7	1018.9	1892.6	2207.4
122.5°	492.9	570.8	1002.7	1794.3	2111.6
125°	531.3	608.7	983.4	1659.4	1949.4
127.5°	566.7	642.7	972.0	1549.3	1804.3
130°	586.2	664.7	967.1	1481.3	1711.7
132.5°	606.5	684.2	962.2	1419.9	1632.1
135°	637.0	712.4	956.9	1339.9	1516.6
137.5°	667.6	738.9	952.5	1274.9	1418.9
140°	688.8	755.3	950.9	1233.1	1361.2
142.5°	709.0	771.7	947.6	1195.4	1307.6
145°	740.6	796.1	943.7	1146.8	1234.2
147.5°	769.2	818.5	939.3	1103.0	1170.1
150°	790.3	834.1	937.7	1079.0	1132.6
152.5°	809.8	847.9	936.8	1056.9	1101.0
155°	836.1	868.9	935.6	1028.8	1062.6
157.5°	863.2	886.1	935.8	1009.2	1031.5
160°	878.7	897.5	936.6	996.9	1012.8
162.5°	890.9	906.6	937.5	987.1	998.9
165°	910.2	919.2	939.7	976.3	981.3
167.5°	923.4	929.5	939.9	967.2	969.6
170°	931.5	934.6	940.7	963.0	963.0
172.5°	938.1	938.7	940.7	958.1	957.3
175°	944.7	943.7	940.7	952.9	950.9
177.5°	946.9	944.6	940.5	948.5	946.1
180°	943.7	943.7	943.7	943.7	943.7

(END OF REPORT)