

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: P519952

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

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519952
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-100D-940-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

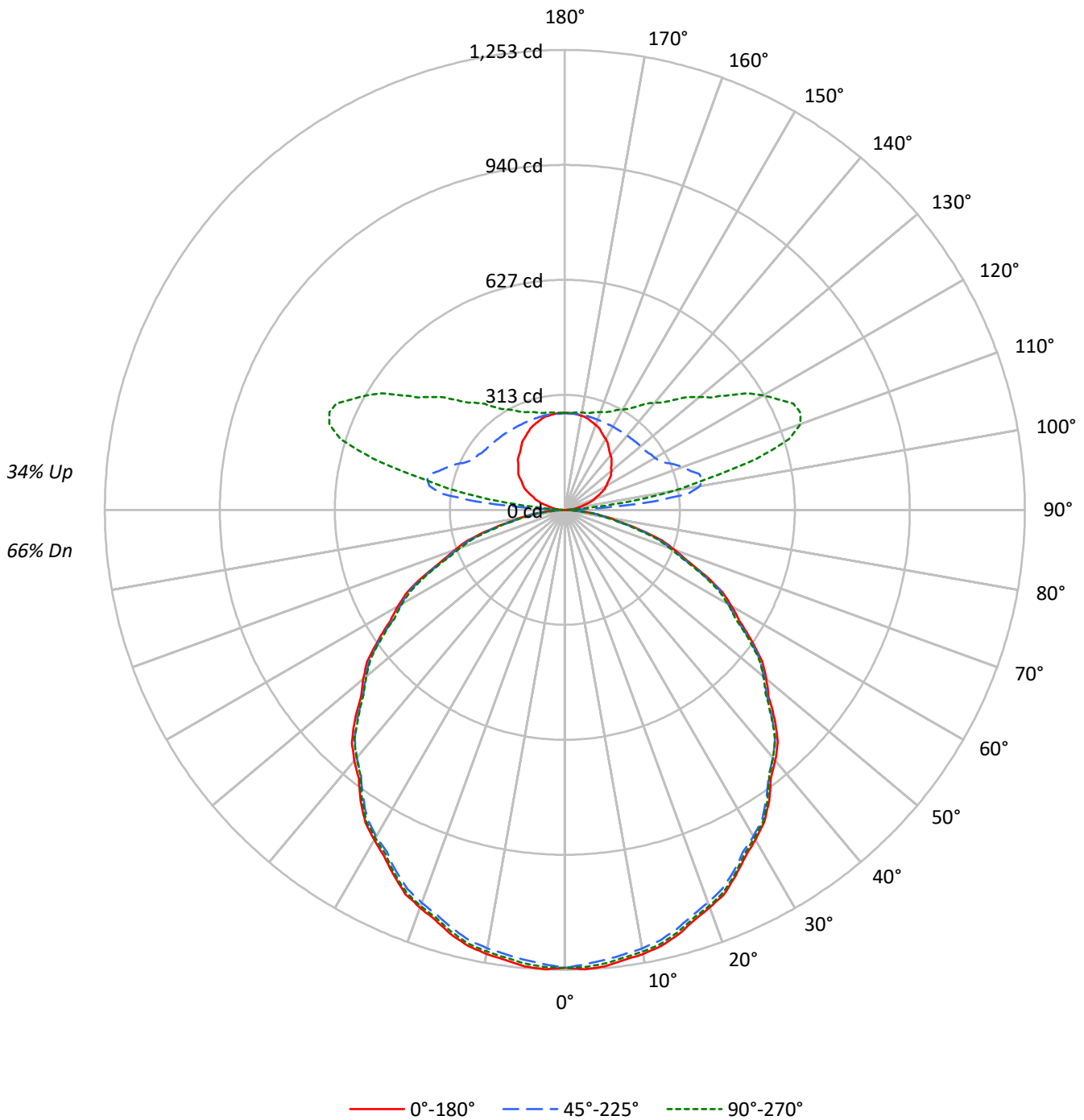
Lumens per Lamp: N/A
Luminaire Lumens: 5126.9 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.1
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: P519952
CATALOG NUMBER: SQ4-F-050U-100D-940-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P519952

CATALOG NUMBER: SQ4-F-050U-100D-940-1D-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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	61	60	56
2	92	85	78	73	87	80	74	69	71	67	63	63	59	57	55	53	51	47
3	84	74	67	61	79	70	63	58	63	57	53	55	51	48	49	46	43	39
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37	34
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28	26
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	21	28	23	20	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11513	11513	11513
5°	11566	11407	11494
10°	11507	11363	11451
15°	11437	11282	11372
20°	11320	11185	11278
25°	11196	11065	11153
30°	11060	10941	10995
35°	10921	10786	10844
40°	10738	10616	10625
45°	10550	10404	10370
50°	10278	10155	10131
55°	9976	9865	9796
60°	9673	9499	9466
65°	9200	8994	8920
70°	8551	8341	8179
75°	7632	7390	7236
80°	6280	6052	5781
85°	3716	4076	4171



TEST NUMBER: P519952

CATALOG NUMBER: SQ4-F-050U-100D-940-1D-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	2.3
10°-20°	335.4	6.5
20°-30°	503.7	9.8
30°-40°	601.1	11.7
40°-50°	616.2	12.0
50°-60°	548.7	10.7
60°-70°	409.0	8.0
70°-80°	221.5	4.3
80°-90°	51.4	1.0
90°-100°	126.6	2.5
100°-110°	343.9	6.7
110°-120°	353.6	6.9
120°-130°	282.7	5.5
130°-140°	222.1	4.3
140°-150°	170.3	3.3
150°-160°	122.5	2.4
160°-170°	74.9	1.5
170°-180°	25.2	0.5
0°-30°	956.9	18.7
0°-40°	1558.1	30.4
0°-60°	2722.9	53.1
0°-90°	3404.9	66.4
90°-120°	824.2	16.1
90°-150°	1499.4	29.2
90°-180°	1722.0	33.6
0°-180°	5126.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1248	1248	1248	1248	1248	
5°	1249	1246	1232	1243	1241	118
15°	1197	1193	1181	1191	1191	337
25°	1100	1097	1087	1093	1096	507
35°	970	966	958	959	963	605
45°	809	804	797	793	795	622
55°	620	621	613	607	609	555
65°	421	420	412	408	409	417
75°	214	212	207	203	203	228
85°	35	38	38	39	39	49
90°	1	3	6	8	8	2
95°	19	69	220	96	64	20
105°	61	95	378	576	542	65
115°	108	132	303	602	686	107
125°	149	170	274	462	544	133
135°	180	200	266	376	424	139
145°	208	223	263	319	344	130
155°	235	243	261	287	295	108
165°	254	258	262	273	274	72
175°	264	265	263	266	265	25
180°	264	264	264	264	264	

TEST NUMBER: P519952

CATALOG NUMBER: SQ4-F-050U-100D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1247.9	1247.9	1247.9	1247.9	1247.9
2.5°	1252.8	1250.1	1239.1	1247.9	1246.7
5°	1248.8	1246.4	1231.7	1242.8	1241.1
7.5°	1237.2	1234.7	1221.8	1232.0	1230.5
10°	1228.3	1225.7	1212.9	1223.2	1222.3
12.5°	1216.6	1214.2	1201.2	1211.5	1210.7
15°	1197.4	1193.2	1181.2	1190.6	1190.6
17.5°	1172.1	1168.9	1157.7	1165.6	1165.8
20°	1152.9	1150.4	1139.2	1147.8	1148.7
22.5°	1133.7	1131.2	1118.6	1126.6	1128.1
25°	1099.8	1097.3	1086.9	1093.0	1095.6
27.5°	1064.8	1061.2	1051.0	1056.3	1058.2
30°	1038.2	1036.5	1027.0	1029.7	1032.1
32.5°	1010.0	1008.4	1000.2	1001.6	1006.1
35°	969.6	965.5	957.6	959.4	962.8
37.5°	921.9	919.8	912.3	911.3	914.4
40°	891.6	888.3	881.4	879.8	882.2
42.5°	858.7	855.4	847.2	845.5	848.6
45°	808.6	804.3	797.4	793.2	794.8
47.5°	752.4	752.4	745.2	740.2	742.8
50°	716.1	716.1	707.5	703.3	705.8
52.5°	678.4	679.0	669.8	667.6	666.7
55°	620.2	620.9	613.3	607.4	609.0
57.5°	564.0	562.1	553.2	549.2	550.1
60°	524.2	521.7	514.8	508.9	513.0
62.5°	483.8	482.6	475.7	469.1	468.6
65°	421.4	419.7	412.0	407.7	408.6
67.5°	359.4	357.4	350.4	344.2	346.4
70°	317.0	317.0	309.2	305.8	303.2
72.5°	277.8	274.6	268.8	264.0	262.1
75°	214.1	211.6	207.3	203.0	203.0
77.5°	155.9	153.7	150.9	148.0	147.1
80°	118.2	117.4	113.9	113.0	108.8
82.5°	83.2	83.1	81.0	78.8	78.7
85°	35.1	38.4	38.5	39.4	39.4
87.5°	6.3	10.9	10.8	9.8	9.8
90°	0.9	3.3	5.9	7.7	7.7
92.5°	7.7	34.6	60.3	25.9	21.9
95°	18.6	69.3	220.5	96.0	64.5
97.5°	30.9	76.4	338.1	263.0	184.7
100°	39.1	81.3	374.0	379.1	306.2
102.5°	47.1	86.2	383.5	468.9	404.5
105°	61.0	95.1	378.2	575.9	541.9
107.5°	75.5	105.5	356.3	631.2	640.6
110°	85.7	113.0	340.0	642.1	682.7



TEST NUMBER: P519952

CATALOG NUMBER: SQ4-F-050U-100D-940-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	94.5	120.5	323.7	633.0	694.2
115°	108.5	131.8	302.7	602.3	686.0
117.5°	121.8	144.0	289.4	558.7	653.1
120°	130.6	152.2	283.2	529.6	623.3
122.5°	138.1	159.7	279.2	500.4	590.7
125°	149.3	170.0	273.9	461.5	544.4
127.5°	159.3	179.8	271.0	432.1	503.2
130°	165.3	185.3	269.7	413.6	477.4
132.5°	171.4	191.4	268.3	397.8	454.3
135°	179.8	199.7	266.3	375.9	424.0
137.5°	188.8	206.9	265.2	356.6	397.0
140°	194.2	211.6	264.6	344.2	380.7
142.5°	199.6	215.7	263.9	334.6	365.1
145°	207.7	222.7	262.9	319.4	343.5
147.5°	217.0	229.7	262.0	307.4	326.3
150°	223.0	233.8	262.0	300.6	315.5
152.5°	227.8	237.3	261.3	294.4	306.7
155°	234.9	243.2	261.2	286.8	295.1
157.5°	241.9	248.4	261.2	281.7	288.0
160°	245.9	251.7	261.2	278.3	283.2
162.5°	250.0	254.4	261.9	275.5	279.2
165°	254.4	257.7	262.0	273.1	273.9
167.5°	259.0	260.6	262.9	270.1	270.8
170°	260.3	262.0	262.9	268.8	268.8
172.5°	261.7	262.7	262.9	267.5	267.5
175°	263.8	264.6	262.9	266.2	265.4
177.5°	264.5	264.5	262.4	265.0	263.8
180°	263.8	263.8	263.8	263.8	263.8

(END OF REPORT)