

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: P519932

Luminaire Tested: **SQ4-F-050U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519932
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-830-1D-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

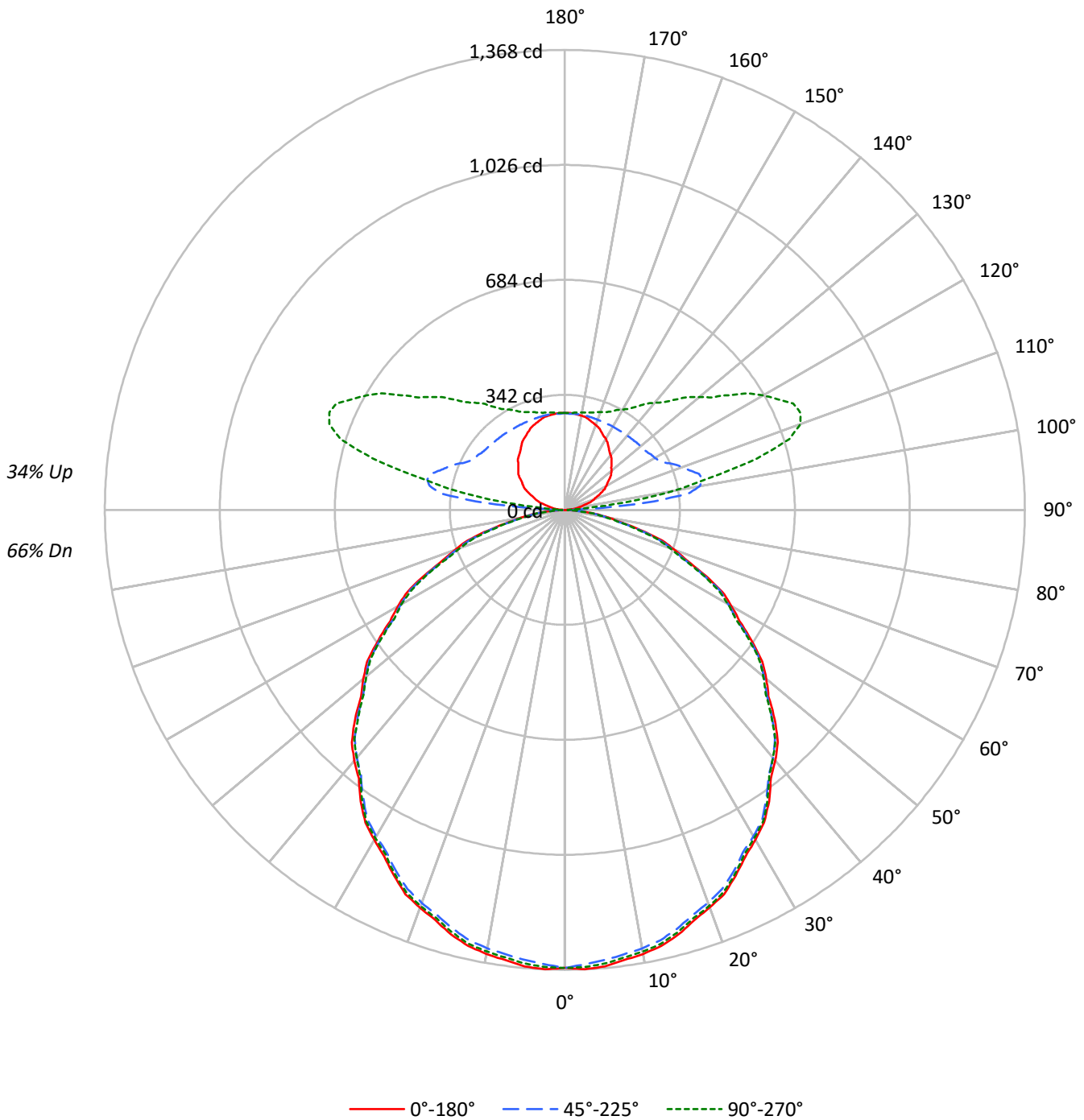
Lumens per Lamp: N/A
Luminaire Lumens: 5597.8 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

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



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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	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°	12573	12573	12573
5°	12629	12455	12550
10°	12564	12407	12502
15°	12489	12319	12417
20°	12359	12213	12314
25°	12225	12082	12176
30°	12076	11946	12006
35°	11924	11777	11840
40°	11726	11591	11602
45°	11519	11361	11324
50°	11223	11088	11062
55°	10891	10771	10695
60°	10562	10372	10337
65°	10044	9820	9739
70°	9334	9107	8929
75°	8334	8067	7899
80°	6859	6604	6312
85°	4054	4457	4552



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.6	2.3
10°-20°	366.2	6.5
20°-30°	550.0	9.8
30°-40°	656.4	11.7
40°-50°	672.8	12.0
50°-60°	599.1	10.7
60°-70°	446.6	8.0
70°-80°	241.8	4.3
80°-90°	56.1	1.0
90°-100°	138.2	2.5
100°-110°	375.5	6.7
110°-120°	386.1	6.9
120°-130°	308.7	5.5
130°-140°	242.6	4.3
140°-150°	186.0	3.3
150°-160°	133.7	2.4
160°-170°	81.8	1.5
170°-180°	27.6	0.5
0°-30°	1044.8	18.7
0°-40°	1701.2	30.4
0°-60°	2973.1	53.1
0°-90°	3717.6	66.4
90°-120°	899.9	16.1
90°-150°	1637.1	29.2
90°-180°	1880.0	33.6
0°-180°	5597.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1363	1363	1363	1363	1363	
5°	1364	1361	1345	1357	1355	129
15°	1308	1303	1290	1300	1300	368
25°	1201	1198	1187	1193	1196	553
35°	1059	1054	1046	1048	1051	661
45°	883	878	871	866	868	679
55°	677	678	670	663	665	606
65°	460	458	450	445	446	455
75°	234	231	226	222	222	249
85°	38	42	42	43	43	54
90°	1	4	6	8	8	2
95°	20	76	241	105	70	22
105°	67	104	413	629	592	71
115°	118	144	331	658	749	117
125°	163	186	299	504	594	145
135°	196	218	291	410	463	152
145°	227	243	287	349	375	142
155°	256	266	285	313	322	118
165°	278	281	286	298	299	78
175°	288	289	287	291	290	27
180°	288	288	288	288	288	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1362.7	1362.7	1362.7	1362.7	1362.7
2.5°	1367.8	1365.0	1352.9	1362.6	1361.1
5°	1363.6	1360.8	1344.8	1356.9	1355.1
7.5°	1350.9	1348.1	1334.0	1345.2	1343.6
10°	1341.1	1338.4	1324.3	1335.5	1334.5
12.5°	1328.4	1325.6	1311.6	1322.7	1321.9
15°	1307.5	1302.8	1289.7	1300.0	1300.0
17.5°	1279.7	1276.3	1264.1	1272.7	1272.8
20°	1258.8	1256.1	1243.9	1253.2	1254.2
22.5°	1237.8	1235.2	1221.4	1230.0	1231.7
25°	1200.9	1198.1	1186.8	1193.4	1196.1
27.5°	1162.6	1158.7	1147.6	1153.4	1155.4
30°	1133.5	1131.7	1121.3	1124.2	1127.0
32.5°	1102.8	1101.0	1092.2	1093.6	1098.5
35°	1058.7	1054.1	1045.6	1047.5	1051.2
37.5°	1006.5	1004.3	996.0	995.0	998.5
40°	973.6	969.9	962.4	960.5	963.3
42.5°	937.6	934.0	924.9	923.1	926.6
45°	882.8	878.3	870.7	866.1	867.9
47.5°	821.5	821.5	813.7	808.3	811.0
50°	781.9	781.9	772.5	767.9	770.7
52.5°	740.7	741.4	731.3	728.8	728.0
55°	677.1	678.0	669.6	663.2	664.9
57.5°	615.8	613.7	604.0	599.6	600.6
60°	572.4	569.6	562.1	555.7	560.2
62.5°	528.2	526.9	519.4	512.2	511.6
65°	460.1	458.3	449.8	445.2	446.1
67.5°	392.5	390.2	382.6	375.8	378.2
70°	346.0	346.0	337.6	333.8	331.0
72.5°	303.4	299.7	293.5	288.2	286.1
75°	233.8	231.1	226.3	221.6	221.6
77.5°	170.2	167.8	164.8	161.6	160.7
80°	129.1	128.1	124.3	123.4	118.8
82.5°	90.9	90.8	88.5	86.0	85.8
85°	38.3	42.0	42.1	43.0	43.0
87.5°	6.9	11.9	11.8	10.7	10.7
90°	0.9	3.6	6.5	8.3	8.3
92.5°	8.3	37.9	65.7	28.3	23.8
95°	20.4	75.6	240.7	104.8	70.4
97.5°	33.7	83.5	369.1	287.1	201.7
100°	42.6	88.8	408.3	413.9	334.2
102.5°	51.5	94.0	418.7	511.9	441.7
105°	66.6	103.8	412.9	628.8	591.6
107.5°	82.4	115.2	389.1	689.2	699.5
110°	93.5	123.3	371.3	701.0	745.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	<i>103.1</i>	131.6	353.6	691.1	757.9
115°	<i>118.5</i>	143.9	330.6	657.7	749.0
117.5°	<i>133.0</i>	157.2	315.9	610.1	713.1
120°	<i>142.6</i>	166.1	309.3	578.3	680.5
122.5°	<i>150.7</i>	174.3	304.8	546.3	645.0
125°	<i>163.0</i>	185.6	299.1	503.9	594.5
127.5°	<i>173.9</i>	196.4	296.0	471.8	549.4
130°	<i>180.6</i>	202.2	294.5	451.6	521.3
132.5°	<i>187.2</i>	208.9	292.9	434.3	496.1
135°	<i>196.3</i>	218.0	290.8	410.5	463.0
137.5°	<i>206.1</i>	225.9	289.6	389.4	433.5
140°	<i>212.1</i>	231.1	288.9	375.9	415.8
142.5°	<i>217.9</i>	235.5	288.1	365.3	398.7
145°	<i>226.9</i>	243.2	287.0	348.7	374.9
147.5°	<i>236.9</i>	250.8	286.1	335.6	356.3
150°	<i>243.6</i>	255.3	286.1	328.1	344.4
152.5°	<i>248.7</i>	259.1	285.4	321.4	334.8
155°	<i>256.5</i>	265.5	285.2	313.1	322.3
157.5°	<i>264.1</i>	271.1	285.2	307.5	314.4
160°	<i>268.5</i>	274.9	285.2	303.8	309.3
162.5°	<i>273.0</i>	277.8	285.9	300.9	304.8
165°	<i>277.8</i>	281.4	286.1	298.1	299.1
167.5°	<i>282.8</i>	284.6	287.0	295.0	295.8
170°	<i>284.3</i>	286.0	287.0	293.5	293.5
172.5°	<i>285.8</i>	286.8	287.0	292.0	292.0
175°	<i>287.9</i>	288.9	287.0	290.8	289.8
177.5°	<i>288.7</i>	288.7	286.4	289.4	287.9
180°	<i>287.9</i>	287.9	287.9	287.9	287.9

(END OF REPORT)