

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

Brand: CORELITE

Report Number: P521422

Luminaire Tested: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4_4500K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521422
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-38)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4_4500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6506.3 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

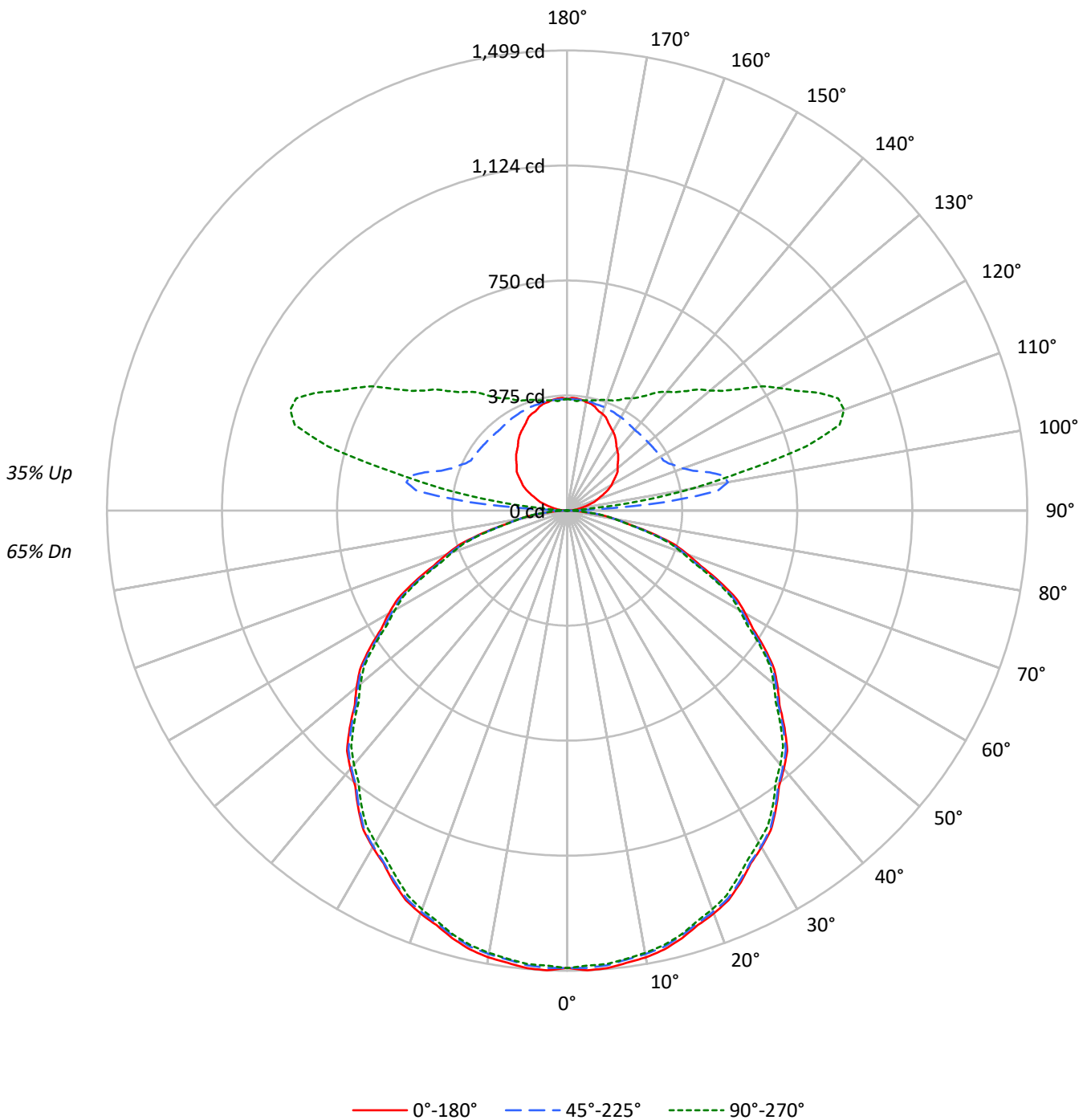
Input Watts (W): 58.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	104	104	104	104	92	92	92	81	81	81	70	70	70	65
1	101	97	92	89	95	91	87	84	80	78	75	71	69	67	62	60	59	55
2	92	84	78	72	86	79	74	69	70	66	62	62	58	55	54	52	49	45
3	84	74	66	60	78	70	63	57	62	56	52	54	50	47	48	44	42	38
4	76	65	57	51	72	62	54	48	55	49	44	48	44	40	43	39	36	33
5	70	58	50	43	66	55	47	41	49	43	38	43	38	34	38	34	31	28
6	65	52	44	38	61	49	42	36	44	38	33	39	34	30	35	30	27	25
7	60	47	39	33	56	45	37	32	40	34	29	36	30	27	32	27	24	22
8	56	43	35	29	52	41	33	28	36	30	26	33	27	24	29	25	22	19
9	52	39	31	26	49	37	30	25	33	27	23	30	25	21	27	22	19	17
10	48	36	28	23	45	34	27	23	31	25	21	28	23	19	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13747	13747	13747
5°	13857	13771	13733
10°	13843	13746	13707
15°	13777	13698	13668
20°	13715	13654	13573
25°	13610	13557	13409
30°	13493	13460	13295
35°	13356	13308	13169
40°	13222	13172	13010
45°	13069	12960	12812
50°	12846	12757	12609
55°	12666	12482	12333
60°	12372	12123	11952
65°	11972	11634	11453
70°	11276	10914	10717
75°	10181	9921	9774
80°	8411	8411	8299
85°	5918	6796	7008

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13069 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	2.2
10°-20°	404.1	6.2
20°-30°	611.1	9.4
30°-40°	735.8	11.3
40°-50°	764.2	11.7
50°-60°	692.7	10.6
60°-70°	527.6	8.1
70°-80°	294.8	4.5
80°-90°	76.5	1.2
90°-100°	165.7	2.5
100°-110°	471.4	7.2
110°-120°	451.7	6.9
120°-130°	357.5	5.5
130°-140°	286.9	4.4
140°-150°	224.6	3.5
150°-160°	164.4	2.5
160°-170°	101.8	1.6
170°-180°	34.5	0.5
0°-30°	1156.2	17.8
0°-40°	1892.1	29.1
0°-60°	3349.0	51.5
0°-90°	4247.8	65.3
90°-120°	1088.8	16.7
90°-150°	1957.8	30.1
90°-180°	2259.0	34.7
0°-180°	6506.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1490	1490	1490	1490	1490	
5°	1496	1482	1487	1483	1483	142
15°	1442	1429	1434	1431	1431	407
25°	1337	1326	1332	1321	1317	616
35°	1186	1179	1182	1170	1169	742
45°	1002	996	993	983	982	772
55°	787	784	776	767	767	702
65°	548	542	533	526	525	541
75°	286	282	278	274	274	302
85°	56	60	64	65	66	70
90°	0	0	0	0	0	3
95°	18	71	321	111	68	21
105°	73	111	480	849	807	78
115°	136	165	364	772	906	134
125°	192	213	348	577	690	172
135°	235	255	344	487	551	181
145°	277	291	346	422	460	173
155°	317	324	355	381	397	146
165°	350	351	359	366	372	98
175°	366	364	363	361	358	35
180°	364	364	364	364	364	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1490.0	1490.0	1490.0	1490.0	1490.0
2.5°	1499.1	1487.0	1490.8	1488.2	1483.4
5°	1496.2	1482.0	1486.9	1482.8	1482.8
7.5°	1485.9	1472.3	1475.5	1473.0	1473.0
10°	1477.6	1462.4	1467.2	1463.1	1463.1
12.5°	1464.3	1450.8	1455.6	1451.5	1450.7
15°	1442.4	1429.2	1434.1	1431.0	1431.0
17.5°	1415.9	1403.4	1409.7	1404.7	1403.1
20°	1396.9	1382.7	1390.7	1382.4	1382.4
22.5°	1373.7	1361.1	1368.3	1358.3	1356.7
25°	1336.9	1325.7	1331.7	1321.2	1317.2
27.5°	1295.5	1283.5	1292.4	1280.7	1278.5
30°	1266.5	1255.4	1263.4	1250.9	1247.9
32.5°	1235.0	1225.5	1231.1	1219.5	1217.2
35°	1185.8	1178.7	1181.6	1170.2	1169.2
37.5°	1133.4	1126.6	1129.3	1116.7	1115.8
40°	1097.8	1091.8	1093.7	1080.2	1080.2
42.5°	1061.4	1054.5	1054.8	1042.2	1041.3
45°	1001.6	995.5	993.3	983.0	981.9
47.5°	938.1	935.2	931.9	921.5	921.5
50°	895.0	893.0	888.8	878.5	878.5
52.5°	851.2	849.9	844.1	835.4	833.8
55°	787.4	784.4	776.0	766.7	766.7
57.5°	717.7	715.3	705.9	698.4	696.6
60°	670.5	666.5	657.0	648.7	647.7
62.5°	621.7	618.4	608.2	600.7	598.9
65°	548.4	542.3	532.9	525.6	524.6
67.5°	471.0	464.1	455.9	449.9	447.8
70°	418.0	412.0	404.6	399.4	397.3
72.5°	365.9	359.8	353.3	349.7	349.3
75°	285.6	281.5	278.3	274.2	274.2
77.5°	207.2	204.7	203.0	200.9	200.9
80°	158.3	158.3	158.3	156.2	156.2
82.5°	113.6	116.0	117.8	116.5	116.5
85°	55.9	59.9	64.2	65.2	66.2
87.5°	15.7	20.6	25.7	26.5	27.3
90°	0.0	0.0	0.0	0.0	0.0
92.5°	5.5	29.3	68.0	19.8	14.9
95°	18.0	71.4	320.7	111.0	68.4
97.5°	33.0	83.6	494.0	353.5	242.2
100°	43.5	90.9	531.6	538.4	414.7
102.5°	55.2	98.7	523.3	689.2	581.2
105°	73.3	111.1	480.4	848.6	806.7
107.5°	91.7	125.6	430.4	893.5	930.8
110°	104.4	136.1	401.6	876.3	960.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	116.5	146.7	382.3	835.7	955.2
115°	136.2	164.6	364.3	771.7	906.2
117.5°	153.5	180.1	353.6	701.8	844.3
120°	167.3	189.6	352.5	661.9	798.4
122.5°	178.3	200.6	349.8	626.8	753.6
125°	192.2	213.1	347.7	577.0	689.9
127.5°	207.2	226.8	346.6	547.2	640.2
130°	215.0	234.6	344.9	526.5	607.6
132.5°	223.3	242.3	344.9	510.3	584.9
135°	235.0	254.6	343.5	487.4	550.9
137.5°	246.1	265.1	343.4	468.0	522.9
140°	254.4	274.0	342.9	451.9	504.6
142.5°	263.8	280.1	344.5	439.0	486.4
145°	277.2	291.4	346.3	421.8	459.7
147.5°	288.7	302.4	349.4	404.4	437.1
150°	298.6	308.1	350.5	398.7	421.7
152.5°	306.4	316.4	351.6	390.9	412.3
155°	316.6	324.0	354.6	381.2	396.8
157.5°	329.3	333.8	355.3	376.8	387.9
160°	335.9	339.3	358.1	373.5	382.9
162.5°	339.8	343.7	358.6	370.7	378.0
165°	349.8	351.1	358.8	366.5	371.9
167.5°	356.5	355.3	361.9	365.4	367.6
170°	358.8	358.1	360.8	361.6	364.3
172.5°	363.7	361.4	362.5	360.5	362.6
175°	366.4	364.3	362.9	360.8	358.1
177.5°	367.5	364.2	362.5	360.3	360.8
180°	363.6	363.6	363.6	363.6	363.6

(END OF REPORT)