

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: P521418

Luminaire Tested: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4\_2700K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521418  
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\_2700K  
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 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6016.0 lumens  
Efficiency: N/A  
Efficacy: 103.5 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

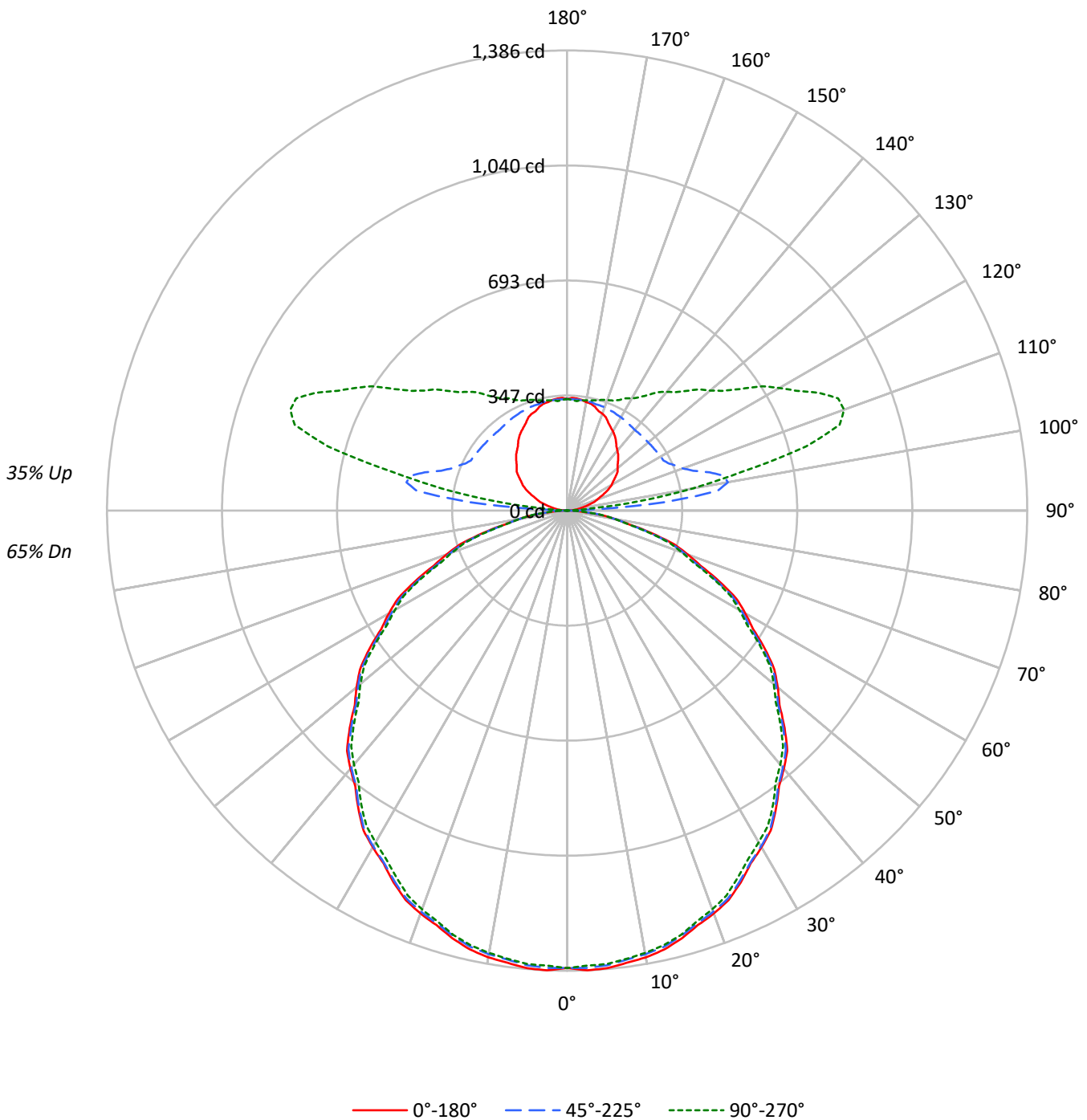
Input Watts (W): 58.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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°	12711	12711	12711
5°	12812	12733	12697
10°	12799	12710	12674
15°	12739	12666	12639
20°	12681	12625	12550
25°	12583	12535	12398
30°	12475	12445	12292
35°	12349	12306	12177
40°	12226	12180	12029
45°	12084	11984	11846
50°	11879	11796	11659
55°	11712	11543	11403
60°	11440	11210	11051
65°	11071	10756	10590
70°	10426	10092	9911
75°	9414	9176	9037
80°	7778	7778	7678
85°	5473	6277	6479

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12084 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.4	2.2
10°-20°	373.6	6.2
20°-30°	565.0	9.4
30°-40°	680.4	11.3
40°-50°	706.6	11.7
50°-60°	640.5	10.6
60°-70°	487.8	8.1
70°-80°	272.6	4.5
80°-90°	70.7	1.2
90°-100°	153.2	2.5
100°-110°	435.9	7.2
110°-120°	417.6	6.9
120°-130°	330.5	5.5
130°-140°	265.3	4.4
140°-150°	207.7	3.5
150°-160°	152.0	2.5
160°-170°	94.1	1.6
170°-180°	31.9	0.5
0°-30°	1069.1	17.8
0°-40°	1749.5	29.1
0°-60°	3096.6	51.5
0°-90°	3927.7	65.3
90°-120°	1006.7	16.7
90°-150°	1810.2	30.1
90°-180°	2088.0	34.7
0°-180°	6016.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1383	1370	1375	1371	1371	131
15°	1334	1322	1326	1323	1323	376
25°	1236	1226	1231	1222	1218	569
35°	1096	1090	1093	1082	1081	686
45°	926	920	918	909	908	713
55°	728	725	718	709	709	649
65°	507	502	493	486	485	500
75°	264	260	257	254	254	279
85°	52	55	59	60	61	64
90°	0	0	0	0	0	3
95°	17	66	297	103	63	19
105°	68	103	444	785	746	72
115°	126	152	337	714	838	124
125°	178	197	322	534	638	159
135°	217	235	318	451	509	168
145°	256	269	320	390	425	160
155°	293	300	328	352	367	135
165°	323	325	332	339	344	91
175°	339	337	336	334	331	32
180°	336	336	336	336	336	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1377.7	1377.7	1377.7	1377.7	1377.7
2.5°	1386.1	1374.9	1378.5	1376.1	1371.6
5°	1383.4	1370.3	1374.8	1371.0	1371.0
7.5°	1373.9	1361.3	1364.3	1362.0	1362.0
10°	1366.2	1352.2	1356.7	1352.8	1352.8
12.5°	1354.0	1341.4	1345.9	1342.1	1341.3
15°	1333.7	1321.5	1326.0	1323.2	1323.2
17.5°	1309.2	1297.6	1303.5	1298.8	1297.3
20°	1291.6	1278.5	1285.9	1278.2	1278.2
22.5°	1270.2	1258.6	1265.2	1256.0	1254.5
25°	1236.1	1225.8	1231.3	1221.7	1217.9
27.5°	1197.8	1186.8	1195.0	1184.2	1182.1
30°	1171.0	1160.8	1168.2	1156.6	1153.8
32.5°	1142.0	1133.2	1138.3	1127.6	1125.5
35°	1096.4	1089.9	1092.6	1082.0	1081.1
37.5°	1048.0	1041.6	1044.2	1032.5	1031.7
40°	1015.1	1009.5	1011.3	998.8	998.8
42.5°	981.4	975.1	975.3	963.6	962.9
45°	926.1	920.5	918.5	908.9	907.9
47.5°	867.4	864.8	861.6	852.1	852.1
50°	827.6	825.7	821.8	812.3	812.3
52.5°	787.0	785.9	780.5	772.4	770.9
55°	728.1	725.3	717.6	708.9	708.9
57.5°	663.6	661.3	652.7	645.8	644.1
60°	620.0	616.2	607.5	599.9	598.9
62.5°	574.8	571.8	562.4	555.4	553.8
65°	507.1	501.5	492.7	486.0	485.1
67.5°	435.5	429.1	421.5	415.9	414.1
70°	386.5	380.9	374.1	369.3	367.4
72.5°	338.3	332.7	326.6	323.4	323.0
75°	264.1	260.3	257.4	253.5	253.5
77.5°	191.5	189.3	187.7	185.8	185.8
80°	146.4	146.4	146.4	144.5	144.5
82.5°	105.0	107.3	108.9	107.7	107.7
85°	51.7	55.4	59.3	60.3	61.2
87.5°	14.5	19.0	23.7	24.5	25.3
90°	0.0	0.0	0.0	0.0	0.0
92.5°	5.1	27.1	62.9	18.3	13.8
95°	16.6	66.0	296.6	102.6	63.3
97.5°	30.6	77.3	456.7	326.8	224.0
100°	40.3	84.0	491.5	497.8	383.5
102.5°	51.0	91.2	483.8	637.3	537.4
105°	67.7	102.7	444.2	784.6	745.9
107.5°	84.8	116.1	397.9	826.2	860.7
110°	96.5	125.9	371.3	810.3	887.8

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	135.6	353.4	772.7	883.2
115°	125.9	152.2	336.8	713.6	837.9
117.5°	141.9	166.5	327.0	648.9	780.6
120°	154.7	175.3	326.0	612.0	738.2
122.5°	164.9	185.5	323.4	579.6	696.8
125°	177.7	197.1	321.5	533.5	637.9
127.5°	191.6	209.7	320.5	506.0	592.0
130°	198.8	216.9	318.9	486.8	561.8
132.5°	206.4	224.1	318.9	471.8	540.8
135°	217.3	235.4	317.7	450.7	509.4
137.5°	227.5	245.2	317.5	432.7	483.4
140°	235.2	253.3	317.0	417.8	466.6
142.5°	243.9	259.0	318.5	406.0	449.7
145°	256.3	269.4	320.2	390.0	425.0
147.5°	266.9	279.7	323.0	373.9	404.2
150°	276.1	284.9	324.0	368.6	389.9
152.5°	283.3	292.5	325.1	361.4	381.2
155°	292.7	299.6	327.9	352.5	366.9
157.5°	304.5	308.6	328.5	348.4	358.7
160°	310.6	313.7	331.1	345.3	354.1
162.5°	314.2	317.8	331.6	342.7	349.5
165°	323.4	324.7	331.7	338.9	343.9
167.5°	329.7	328.5	334.7	337.9	339.9
170°	331.7	331.1	333.6	334.3	336.8
172.5°	336.3	334.2	335.2	333.3	335.3
175°	338.7	336.9	335.5	333.6	331.1
177.5°	339.8	336.8	335.2	333.1	333.6
180°	336.2	336.2	336.2	336.2	336.2

(END OF REPORT)