

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: P521591

Luminaire Tested: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521591  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-39)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 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: 9902.3 lumens  
Efficiency: N/A  
Efficacy: 112.4 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: General Diffuse

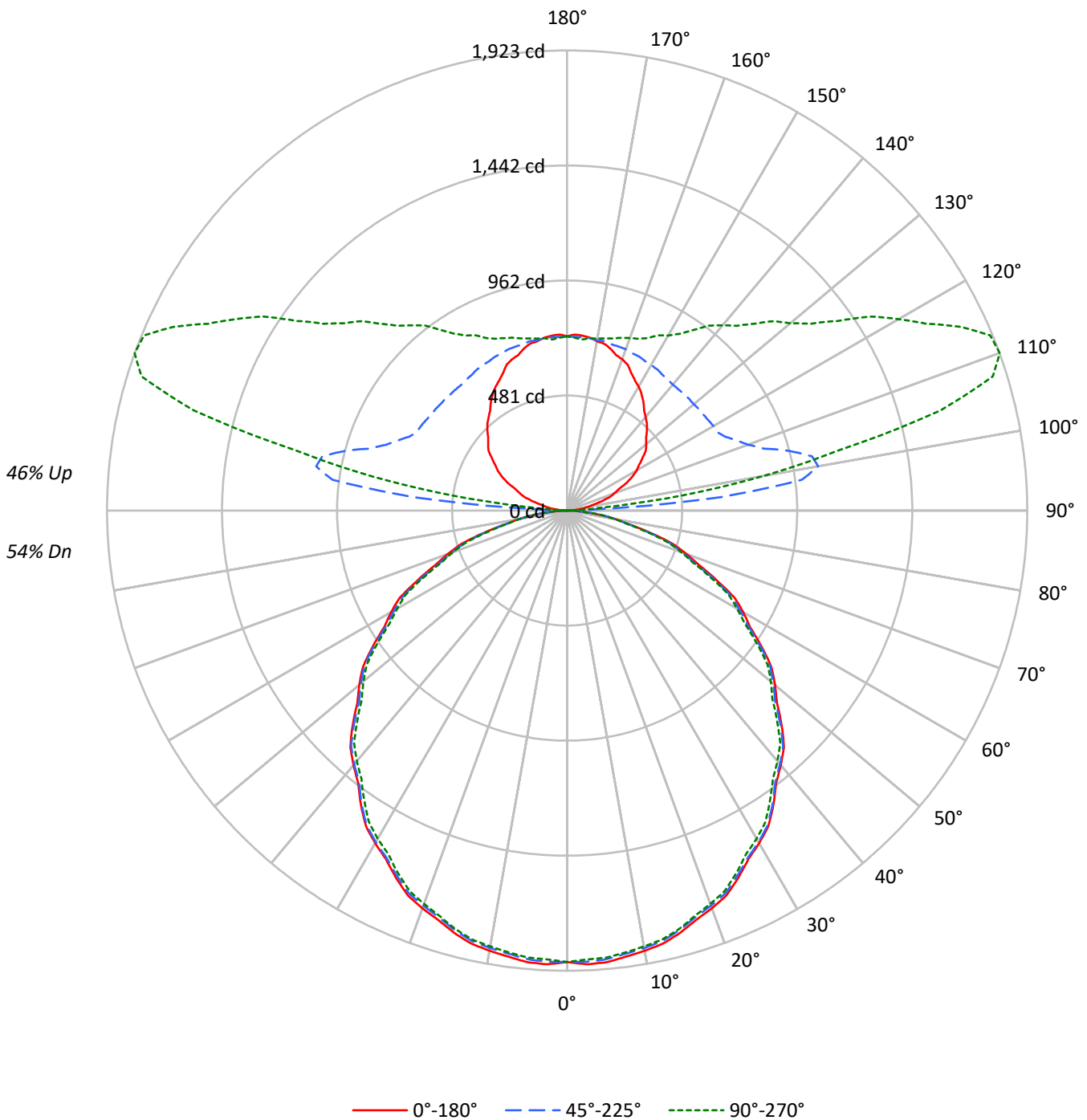
Input Watts (W): 88.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P521591

CATALOG NUMBER: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K

### Luminous Intensity Polar Plot



TEST NUMBER: P521591

CATALOG NUMBER: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K

**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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54				54
1	99	94	90	87	91	87	84	81	75	72	70	63	62	60	53	52	50	45				45
2	90	82	76	70	83	76	71	66	65	61	58	56	52	50	46	44	42	38				38
3	82	72	64	58	75	67	60	55	58	53	48	49	45	42	41	38	36	32				32
4	75	64	55	49	69	59	52	47	51	45	41	43	39	36	36	33	31	27				27
5	68	57	48	42	63	53	45	40	46	40	35	39	34	31	33	29	27	23				23
6	63	51	42	36	58	47	40	35	41	35	31	35	30	27	30	26	23	20				20
7	58	46	38	32	54	43	35	30	37	31	27	32	27	24	27	23	21	18				18
8	54	41	34	28	50	39	32	27	34	28	24	29	25	21	25	21	18	16				16
9	50	38	30	25	47	35	29	24	31	25	21	27	22	19	23	19	17	14				14
10	47	35	27	22	44	33	26	21	29	23	19	25	20	17	21	18	15	13				13

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

	0°	45°	90°
0°	17403	17403	17403
5°	17547	17432	17364
10°	17498	17391	17322
15°	17444	17335	17286
20°	17362	17251	17169
25°	17233	17138	17022
30°	17098	17042	16866
35°	16922	16863	16654
40°	16724	16662	16463
45°	16538	16431	16174
50°	16278	16143	15951
55°	15978	15828	15579
60°	15675	15389	15122
65°	15068	14751	14457
70°	14319	13817	13650
75°	12947	12576	12355
80°	10664	10664	10499
85°	7558	8649	9093

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16538 cd/sqm

TEST NUMBER: P521591

CATALOG NUMBER: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.5	1.8
10°-20°	511.3	5.2
20°-30°	773.2	7.8
30°-40°	931.4	9.4
40°-50°	967.0	9.8
50°-60°	876.6	8.9
60°-70°	668.7	6.8
70°-80°	374.0	3.8
80°-90°	97.2	1.0
90°-100°	331.9	3.4
100°-110°	944.4	9.5
110°-120°	904.8	9.1
120°-130°	716.1	7.2
130°-140°	574.8	5.8
140°-150°	450.0	4.5
150°-160°	329.3	3.3
160°-170°	203.9	2.1
170°-180°	69.2	0.7
0°-30°	1463.1	14.8
0°-40°	2394.4	24.2
0°-60°	4238.0	42.8
0°-90°	5378.0	54.3
90°-120°	2181.1	22.0
90°-150°	3921.9	39.6
90°-180°	4524.0	45.7
0°-180°	9902.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1886	1886	1886	1886	1886	
5°	1895	1875	1882	1877	1875	180
15°	1826	1808	1815	1813	1810	515
25°	1693	1676	1684	1671	1672	780
35°	1502	1490	1497	1481	1479	939
45°	1268	1260	1259	1244	1240	977
55°	993	991	984	972	968	887
65°	690	686	676	667	662	684
75°	363	357	353	348	347	384
85°	71	78	82	82	86	89
90°	0	0	0	0	0	4
95°	36	143	642	222	137	41
105°	147	223	962	1700	1616	155
115°	273	330	730	1546	1815	269
125°	385	427	696	1156	1382	345
135°	471	510	688	976	1104	363
145°	555	584	694	845	921	347
155°	634	649	710	764	795	293
165°	701	703	719	734	745	197
175°	734	730	727	723	717	70
180°	728	728	728	728	728	

TEST NUMBER: P521591

CATALOG NUMBER: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1886.3	1886.3	1886.3	1886.3	1886.3
2.5°	1897.9	1882.5	1887.1	1883.7	1877.2
5°	1894.6	1875.4	1882.2	1876.9	1874.9
7.5°	1880.1	1862.1	1867.9	1864.7	1862.3
10°	1867.7	1850.5	1856.3	1853.1	1849.0
12.5°	1853.6	1835.6	1842.2	1837.4	1835.8
15°	1826.3	1808.1	1814.9	1812.8	1809.7
17.5°	1793.2	1774.8	1781.8	1777.6	1775.2
20°	1768.3	1749.1	1757.0	1748.7	1748.7
22.5°	1740.2	1721.0	1730.5	1718.1	1720.5
25°	1692.8	1675.6	1683.5	1671.1	1672.1
27.5°	1641.3	1625.1	1635.3	1619.3	1618.7
30°	1604.9	1588.7	1599.7	1582.1	1583.1
32.5°	1564.3	1550.5	1559.9	1543.2	1542.6
35°	1502.4	1490.3	1497.2	1480.6	1478.6
37.5°	1435.0	1426.0	1429.0	1413.2	1412.4
40°	1388.6	1380.5	1383.4	1366.9	1366.9
42.5°	1341.4	1334.1	1336.2	1318.0	1318.0
45°	1267.5	1260.5	1259.3	1243.6	1239.6
47.5°	1188.7	1183.0	1179.4	1165.3	1163.4
50°	1134.1	1130.0	1124.7	1112.3	1111.3
52.5°	1076.9	1075.3	1069.3	1056.0	1055.0
55°	993.3	991.3	984.0	971.5	968.5
57.5°	905.8	903.8	895.2	883.0	879.9
60°	849.5	843.4	834.0	822.5	819.5
62.5°	788.3	781.4	771.9	761.3	760.7
65°	690.2	686.1	675.7	667.3	662.2
67.5°	597.9	588.8	578.4	571.6	570.5
70°	530.8	521.7	512.2	507.0	506.0
72.5°	463.8	456.3	447.6	442.4	442.2
75°	363.2	357.1	352.8	347.6	346.6
77.5°	263.6	262.0	260.3	254.7	254.7
80°	200.7	200.7	200.7	197.6	197.6
82.5°	144.4	148.5	148.6	147.1	147.1
85°	71.4	78.5	81.7	81.8	85.9
87.5°	19.9	27.2	32.3	33.2	35.6
90°	0.0	0.0	0.0	0.0	0.0
92.5°	11.1	58.7	136.3	39.7	29.9
95°	36.0	143.0	642.5	222.4	137.1
97.5°	66.2	167.5	989.5	708.1	485.2
100°	87.2	182.0	1064.8	1078.6	830.8
102.5°	110.5	197.7	1048.2	1380.6	1164.3
105°	146.8	222.6	962.4	1699.9	1616.0
107.5°	183.6	251.6	862.1	1789.9	1864.7
110°	209.1	272.7	804.5	1755.5	1923.4

TEST NUMBER: P521591

CATALOG NUMBER: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	233.5	293.8	765.7	1674.0	1913.4
115°	272.8	329.7	729.7	1545.9	1815.4
117.5°	307.4	360.8	708.4	1405.9	1691.3
120°	335.1	379.8	706.2	1325.8	1599.3
122.5°	357.3	401.9	700.7	1255.6	1509.6
125°	385.0	426.9	696.5	1155.8	1381.9
127.5°	415.1	454.4	694.3	1096.2	1282.5
130°	430.6	469.9	691.0	1054.7	1217.2
132.5°	447.3	485.4	691.0	1022.3	1171.7
135°	470.8	510.1	688.2	976.3	1103.6
137.5°	493.0	531.1	687.9	937.5	1047.4
140°	509.6	548.8	686.8	905.2	1010.8
142.5°	528.4	561.2	690.1	879.5	974.3
145°	555.3	583.7	693.7	845.0	920.8
147.5°	578.3	605.9	699.8	810.2	875.7
150°	598.2	617.2	702.0	798.6	844.7
152.5°	613.7	633.7	704.3	783.1	825.8
155°	634.2	649.1	710.4	763.7	794.8
157.5°	659.7	668.6	711.7	754.9	777.1
160°	673.0	679.7	717.3	748.2	767.1
162.5°	680.7	688.6	718.4	742.5	757.2
165°	700.7	703.4	718.7	734.1	745.0
167.5°	714.2	711.8	725.0	732.1	736.4
170°	718.7	717.3	722.8	724.3	729.7
172.5°	728.6	724.0	726.1	722.1	726.4
175°	733.9	729.8	727.0	722.7	717.3
177.5°	736.1	729.6	726.1	721.7	722.8
180°	728.4	728.4	728.4	728.4	728.4

(END OF REPORT)