

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: P521590

Luminaire Tested: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_4000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521590  
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\_4000K  
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 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

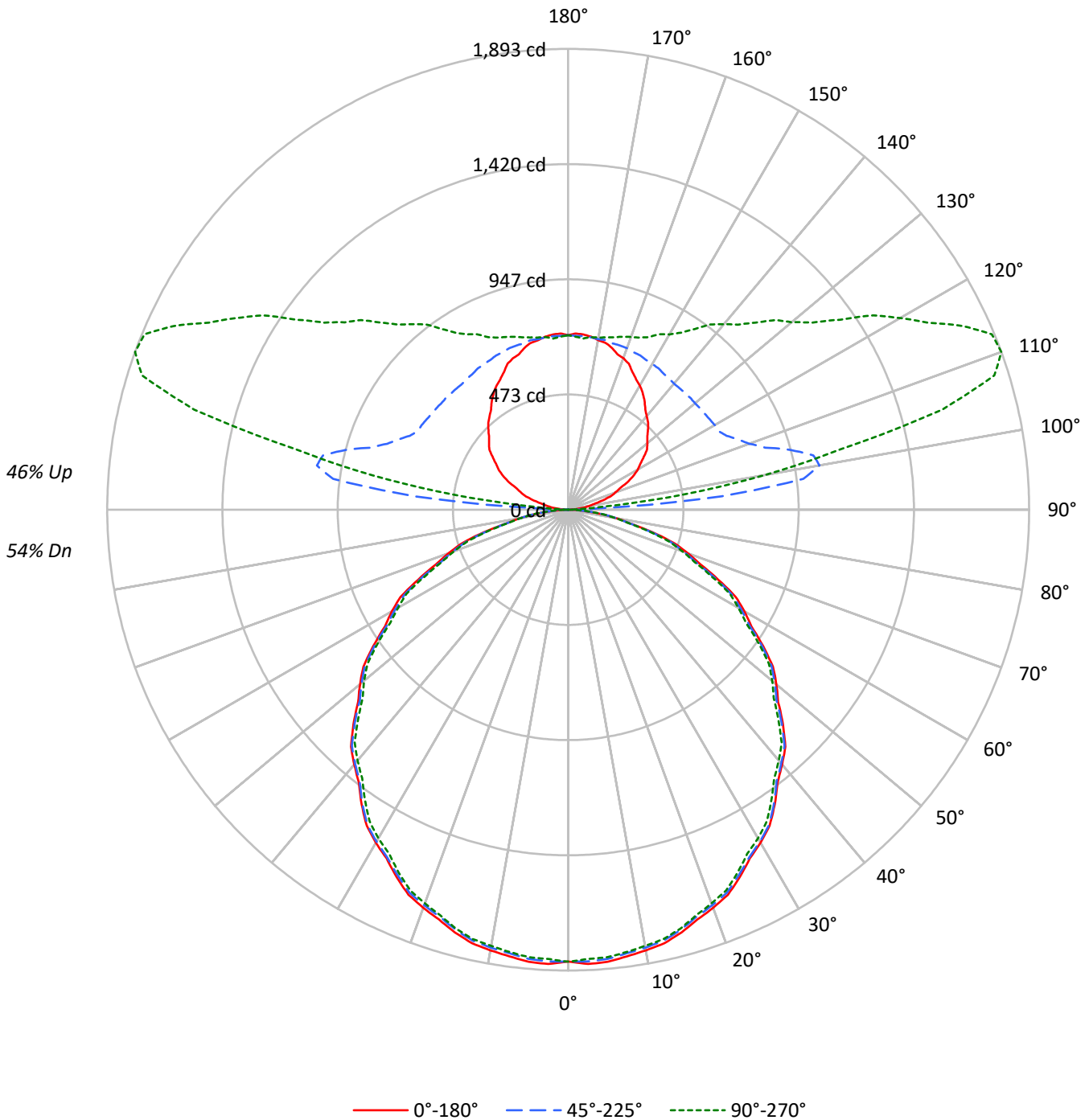
Lumens per Lamp: N/A  
Luminaire Lumens: 9745.1 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 88.2  
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	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°	17128	17128	17128
5°	17268	17155	17089
10°	17219	17114	17048
15°	17167	17060	17012
20°	17087	16977	16896
25°	16959	16866	16752
30°	16826	16772	16598
35°	16654	16596	16389
40°	16459	16398	16202
45°	16276	16170	15917
50°	16020	15888	15697
55°	15725	15577	15331
60°	15426	15144	14882
65°	14828	14515	14227
70°	14092	13598	13431
75°	12740	12377	12159
80°	10493	10493	10334
85°	7442	8511	8945

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16276 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.7	1.8
10°-20°	503.2	5.2
20°-30°	761.0	7.8
30°-40°	916.6	9.4
40°-50°	951.6	9.8
50°-60°	862.7	8.9
60°-70°	658.1	6.8
70°-80°	368.1	3.8
80°-90°	95.7	1.0
90°-100°	326.6	3.4
100°-110°	929.4	9.5
110°-120°	890.4	9.1
120°-130°	704.7	7.2
130°-140°	565.7	5.8
140°-150°	442.8	4.5
150°-160°	324.0	3.3
160°-170°	200.7	2.1
170°-180°	68.1	0.7
0°-30°	1439.8	14.8
0°-40°	2356.4	24.2
0°-60°	4170.7	42.8
0°-90°	5292.6	54.3
90°-120°	2146.4	22.0
90°-150°	3859.7	39.6
90°-180°	4453.0	45.7
0°-180°	9745.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1856	1856	1856	1856	1856	
5°	1864	1846	1852	1847	1845	177
15°	1797	1779	1786	1784	1781	507
25°	1666	1649	1657	1645	1646	768
35°	1479	1467	1474	1457	1455	924
45°	1247	1240	1239	1224	1220	961
55°	978	976	968	956	953	873
65°	679	675	665	657	652	673
75°	357	351	347	342	341	378
85°	70	77	80	80	84	87
90°	0	0	0	0	0	4
95°	35	141	632	219	135	40
105°	144	219	947	1673	1590	153
115°	268	324	718	1521	1786	264
125°	379	420	686	1138	1360	339
135°	463	502	677	961	1086	358
145°	546	574	683	832	906	341
155°	624	639	699	752	782	289
165°	690	692	707	722	733	194
175°	722	718	715	711	706	68
180°	717	717	717	717	717	

TEST NUMBER: P521590

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1856.4	1856.4	1856.4	1856.4	1856.4
2.5°	1867.8	1852.6	1857.2	1853.8	1847.4
5°	1864.5	1845.6	1852.3	1847.1	1845.2
7.5°	1850.2	1832.5	1838.2	1835.1	1832.7
10°	1838.0	1821.1	1826.8	1823.7	1819.7
12.5°	1824.2	1806.5	1813.0	1808.3	1806.7
15°	1797.3	1779.4	1786.1	1784.0	1781.0
17.5°	1764.7	1746.6	1753.5	1749.4	1747.0
20°	1740.3	1721.3	1729.1	1720.9	1720.9
22.5°	1712.6	1693.7	1703.0	1690.8	1693.2
25°	1665.9	1649.0	1656.8	1644.6	1645.6
27.5°	1615.2	1599.3	1609.3	1593.6	1593.0
30°	1579.4	1563.4	1574.3	1557.0	1558.0
32.5°	1539.5	1525.9	1535.2	1518.7	1518.1
35°	1478.6	1466.6	1473.5	1457.1	1455.1
37.5°	1412.2	1403.4	1406.3	1390.8	1390.0
40°	1366.6	1358.6	1361.5	1345.2	1345.2
42.5°	1320.1	1312.9	1315.0	1297.1	1297.1
45°	1247.4	1240.4	1239.3	1223.9	1219.9
47.5°	1169.8	1164.2	1160.7	1146.8	1145.0
50°	1116.1	1112.1	1106.9	1094.6	1093.6
52.5°	1059.8	1058.2	1052.3	1039.2	1038.3
55°	977.6	975.6	968.4	956.1	953.1
57.5°	891.4	889.4	881.0	868.9	866.0
60°	836.0	830.0	820.7	809.5	806.5
62.5°	775.7	769.0	759.6	749.2	748.7
65°	679.2	675.2	664.9	656.7	651.7
67.5°	588.4	579.4	569.2	562.5	561.5
70°	522.4	513.4	504.1	498.9	497.9
72.5°	456.4	449.0	440.5	435.4	435.2
75°	357.4	351.4	347.2	342.1	341.1
77.5°	259.5	257.9	256.2	250.7	250.7
80°	197.5	197.5	197.5	194.5	194.5
82.5°	142.2	146.1	146.2	144.8	144.8
85°	70.3	77.2	80.4	80.5	84.5
87.5°	19.6	26.7	31.8	32.6	35.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	10.9	57.8	134.1	39.0	29.4
95°	35.4	140.7	632.3	218.9	134.9
97.5°	65.1	164.8	973.8	696.8	477.5
100°	85.9	179.1	1047.9	1061.5	817.6
102.5°	108.7	194.6	1031.6	1358.7	1145.8
105°	144.4	219.1	947.1	1672.9	1590.3
107.5°	180.7	247.6	848.4	1761.5	1835.1
110°	205.8	268.4	791.7	1727.6	1892.8

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	229.8	289.2	753.6	1647.4	1883.0
115°	268.5	324.4	718.2	1521.4	1786.5
117.5°	302.5	355.0	697.2	1383.6	1664.4
120°	329.8	373.8	695.0	1304.8	1574.0
122.5°	351.6	395.6	689.5	1235.7	1485.7
125°	378.8	420.1	685.5	1137.5	1360.0
127.5°	408.5	447.2	683.3	1078.8	1262.2
130°	423.8	462.5	680.0	1037.9	1197.8
132.5°	440.2	477.7	680.0	1006.0	1153.1
135°	463.3	502.0	677.3	960.8	1086.1
137.5°	485.1	522.7	677.0	922.6	1030.8
140°	501.5	540.1	675.9	890.9	994.8
142.5°	520.0	552.3	679.2	865.5	958.8
145°	546.5	574.4	682.7	831.6	906.2
147.5°	569.1	596.3	688.7	797.3	861.8
150°	588.7	607.4	690.9	786.0	831.3
152.5°	604.0	623.7	693.1	770.6	812.7
155°	624.1	638.8	699.1	751.6	782.2
157.5°	649.2	658.0	700.4	742.9	764.8
160°	662.3	668.9	705.9	736.3	755.0
162.5°	669.9	677.6	707.0	730.8	745.1
165°	689.5	692.2	707.3	722.5	733.1
167.5°	702.9	700.5	713.5	720.4	724.7
170°	707.3	705.9	711.3	712.8	718.2
172.5°	717.1	712.5	714.6	710.6	714.9
175°	722.2	718.3	715.4	711.2	705.9
177.5°	724.4	718.0	714.6	710.3	711.3
180°	716.8	716.8	716.8	716.8	716.8

(END OF REPORT)