

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: P855256

Luminaire Tested: SQ2-FA-0U-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855256  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-0U-050D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

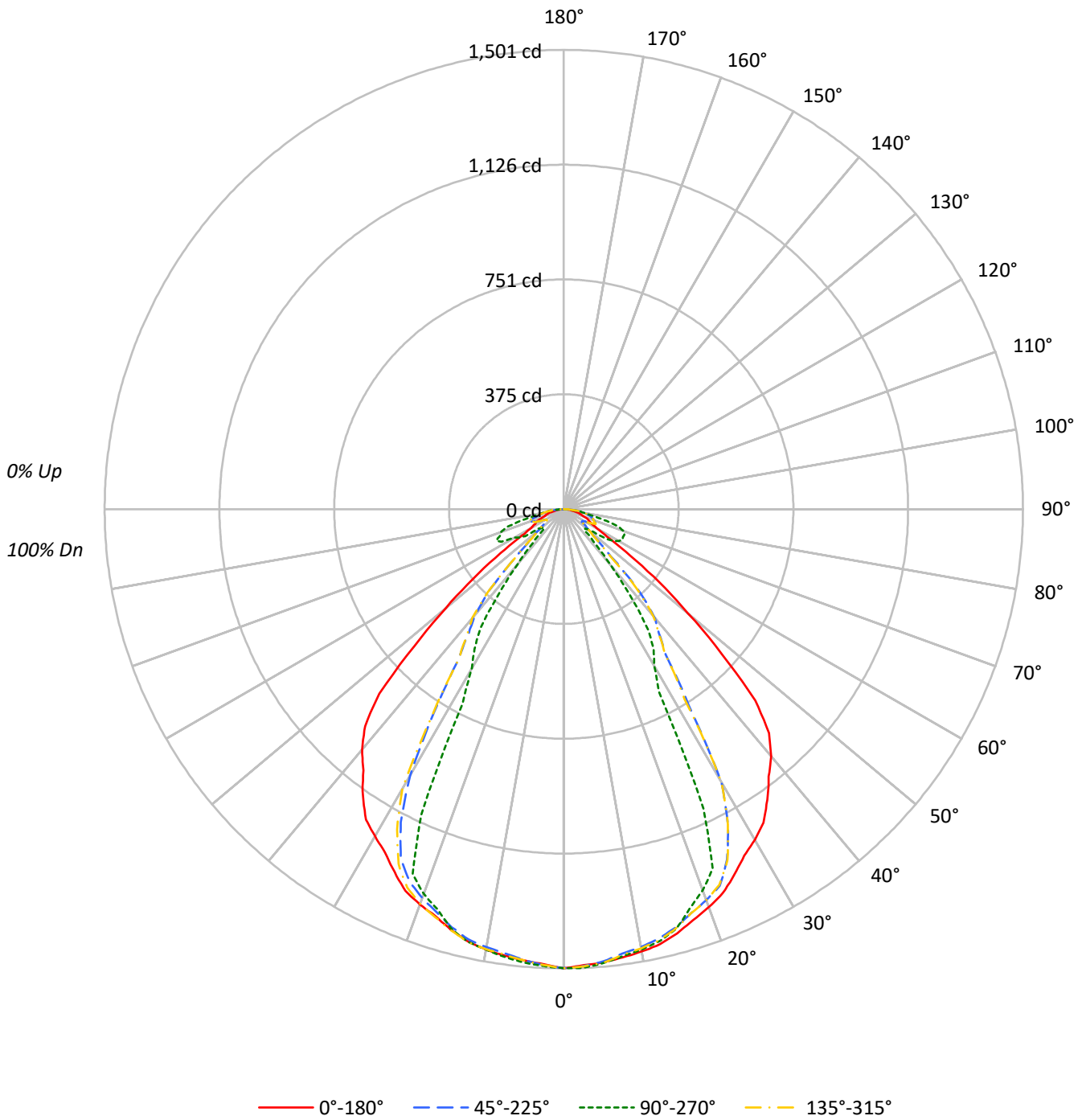
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2191.5 lumens  
Efficiency: N/A  
Efficacy: 123.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.8  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	74	70	65	72	68	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57				
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				
7	74	63	56	50	73	62	55	50	61	55	50	59	54	50	58	53	49	48				
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	54	49	46	44				
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38				

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

	0°	90°	180°	270°
0°	24228	24228	24228	24228
5°	24101	24138	24008	24118
10°	24064	23971	23971	23971
15°	23985	23739	23796	23739
20°	23801	22789	23625	23003
25°	23487	19233	23325	19636
30°	23271	11035	23017	11182
35°	22864	9481	22572	9347
40°	22230	4985	21610	4938
45°	20208	2144	19484	2144
50°	13333	2587	12650	2416
55°	7454	4777	7071	4332
60°	4020	6723	3946	6029
65°	3545	8172	3717	9295
70°	3314	9777	3153	10310
75°	3107	8403	3175	8684
80°	2631	5997	2631	6313
85°	2297	3353	2093	3983

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20208 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.2	6.4
10°-20°	400.6	18.3
20°-30°	546.2	24.9
30°-40°	459.0	20.9
40°-50°	260.7	11.9
50°-60°	138.3	6.3
60°-70°	127.4	5.8
70°-80°	93.5	4.3
80°-90°	24.4	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1088.1	49.7
0°-40°	1547.1	70.6
0°-60°	1946.2	88.8
0°-90°	2191.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2191.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1501	1501	1501	1501	1501	
5°	1487	1489	1481	1488	1487	141
15°	1435	1420	1424	1420	1435	405
25°	1318	1080	1309	1102	1318	608
35°	1160	481	1145	474	1160	724
45°	885	94	853	94	885	647
55°	265	170	251	154	265	255
65°	93	214	97	243	93	93
75°	50	135	51	139	50	51
85°	12	18	11	22	12	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6
2.5°	1492.4	1514.6	1495.2	1492.7	1500.6	1498.8	1496.1	1506.6	1488.8	1506.6	1492.4
5°	1487.0	1512.5	1483.6	1476.0	1489.3	1480.4	1488.1	1503.5	1481.3	1501.3	1479.1
7.5°	1477.7	1500.4	1465.7	1460.9	1473.9	1466.2	1469.4	1490.6	1472.1	1485.1	1465.1
10°	1467.8	1487.7	1453.1	1450.0	1462.1	1454.4	1457.6	1479.9	1462.1	1474.3	1454.2
12.5°	1456.9	1472.4	1437.7	1436.3	1446.7	1441.6	1443.1	1461.8	1447.6	1459.8	1440.6
15°	1434.9	1449.3	1414.6	1409.1	1420.2	1415.8	1418.0	1434.7	1423.6	1431.4	1414.6
17.5°	1407.8	1419.3	1384.7	1368.4	1368.9	1374.4	1384.7	1404.8	1394.9	1405.1	1381.3
20°	1385.2	1398.4	1360.3	1328.6	1326.3	1331.9	1360.3	1380.5	1375.0	1386.1	1352.3
22.5°	1358.9	1367.7	1333.1	1279.6	1272.0	1277.5	1329.5	1353.5	1351.4	1359.0	1317.0
25°	1318.4	1327.2	1264.1	1187.0	1079.6	1180.3	1266.3	1309.3	1309.3	1316.0	1260.7
27.5°	1277.2	1277.4	1163.1	762.3	672.4	734.9	1161.5	1254.8	1265.4	1262.1	1153.4
30°	1248.2	1240.5	1030.9	616.2	591.9	607.4	1032.1	1217.0	1234.6	1222.5	1004.9
32.5°	1214.7	1192.8	761.2	566.5	546.6	560.3	736.0	1172.0	1203.0	1176.6	790.4
35°	1160.0	1102.5	580.5	500.9	481.0	498.6	576.0	1083.3	1145.2	1074.4	599.8
37.5°	1100.9	876.2	511.1	398.9	356.0	390.3	508.6	866.9	1076.9	846.7	510.6
40°	1054.7	688.5	459.5	291.9	236.5	275.2	456.1	656.8	1025.3	706.6	448.1
42.5°	993.1	604.8	368.9	185.4	145.1	169.6	353.8	590.8	961.9	612.2	356.7
45°	885.0	519.8	218.4	101.6	93.9	98.3	201.4	510.3	853.3	499.2	222.9
47.5°	701.0	396.4	140.3	86.5	94.8	86.5	136.0	383.9	662.0	383.2	140.1
50°	530.8	309.4	108.6	87.5	103.0	87.5	105.2	298.9	503.6	326.6	107.5
52.5°	393.1	258.6	88.7	96.0	123.8	97.7	86.2	251.7	373.2	263.5	84.0
55°	264.8	202.8	71.3	126.6	169.7	129.9	71.3	197.0	251.2	194.8	69.0
57.5°	167.9	150.9	72.2	162.7	193.7	165.9	73.3	145.4	161.1	146.1	63.4
60°	124.5	118.9	80.3	172.8	208.2	175.1	81.5	114.5	122.2	113.4	67.9
62.5°	102.8	93.7	96.6	187.2	216.4	182.3	98.7	89.4	106.8	85.6	75.1
65°	92.8	60.7	114.3	189.6	213.9	189.6	115.4	57.5	97.3	61.9	101.8
67.5°	83.7	45.0	110.5	188.2	215.2	188.6	107.7	43.0	80.3	41.9	104.1
70°	70.2	40.3	104.1	191.6	207.1	184.9	104.1	39.2	66.8	38.0	122.2
72.5°	58.4	38.3	96.9	176.9	183.6	170.3	97.8	38.0	58.6	34.3	115.0
75°	49.8	37.6	92.8	141.3	134.7	134.7	90.5	36.6	50.9	34.3	89.4
77.5°	37.3	33.4	77.0	92.2	87.1	87.1	75.6	32.3	35.5	30.2	72.7
80°	28.3	30.6	63.4	67.8	64.5	64.5	61.1	29.4	28.3	28.3	60.0
82.5°	22.0	25.9	48.9	49.8	47.3	46.4	47.5	25.7	22.0	23.8	46.4
85°	12.4	18.0	26.0	21.4	18.1	17.0	24.9	16.9	11.3	16.9	24.9
87.5°	4.5	8.0	3.6	3.6	3.6	3.6	3.6	8.0	4.5	7.1	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1500.6	1500.6	1500.6	1500.6	1500.6	1500.6
2.5°	1488.9	1495.2	1495.2	1491.5	1509.3	1492.4
5°	1473.8	1488.1	1481.5	1481.3	1503.6	1487.0
7.5°	1463.1	1476.6	1470.4	1469.1	1491.0	1477.7
10°	1452.2	1462.1	1457.7	1461.0	1481.0	1467.8
12.5°	1436.8	1448.5	1444.1	1449.2	1467.5	1456.9
15°	1410.3	1420.2	1422.5	1424.8	1446.0	1434.9
17.5°	1366.5	1371.4	1382.4	1398.1	1420.2	1407.8
20°	1332.1	1338.8	1345.4	1372.7	1398.4	1385.2
22.5°	1293.0	1290.8	1306.3	1338.3	1370.4	1358.9
25°	1187.5	1102.2	1196.3	1278.8	1321.7	1318.4
27.5°	826.8	717.5	814.2	1180.3	1270.5	1277.2
30°	650.7	599.8	649.6	1053.6	1232.7	1248.2
32.5°	577.7	542.7	573.1	801.9	1185.1	1214.7
35°	498.5	474.2	498.5	599.8	1091.4	1160.0
37.5°	399.0	349.2	398.1	518.3	882.2	1100.9
40°	297.3	234.3	288.5	464.0	705.0	1054.7
42.5°	198.2	151.0	187.5	365.3	609.9	993.1
45°	107.2	93.9	102.8	220.7	497.7	885.0
47.5°	84.1	88.9	84.1	139.2	380.7	701.0
50°	80.7	96.2	80.7	107.5	314.9	530.8
52.5°	87.9	104.3	87.0	84.9	257.0	393.1
55°	99.7	153.9	100.8	69.0	188.4	264.8
57.5°	141.9	173.1	143.5	65.4	145.2	167.9
60°	145.8	186.7	144.6	69.0	112.3	124.5
62.5°	172.5	231.1	172.2	79.0	83.5	102.8
65°	221.1	243.3	223.4	100.7	59.6	92.8
67.5°	209.9	225.7	207.8	108.0	41.1	83.7
70°	206.2	218.4	204.0	123.4	38.0	70.2
72.5°	192.4	194.0	188.4	114.3	34.3	58.4
75°	149.2	139.2	143.6	98.5	34.3	49.8
77.5°	92.7	88.7	89.4	75.1	30.2	37.3
80°	70.2	67.9	66.8	63.4	28.3	28.3
82.5°	52.1	49.8	48.7	48.9	23.8	22.0
85°	23.8	21.5	20.4	28.3	16.9	12.4
87.5°	4.5	4.5	3.6	4.5	6.3	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.07	16.38	15.44	16.70	17.01	13.93	15.24	14.30	15.55	15.87
	3H	15.80	16.97	16.18	17.30	17.67	20.11	21.28	20.49	21.61	21.97
	4H	16.23	17.32	16.63	17.67	18.06	21.40	22.50	21.80	22.85	23.23
	6H	16.60	17.61	17.01	17.98	18.37	22.02	23.04	22.44	23.41	23.80
	8H	16.73	17.69	17.16	18.08	18.48	22.16	23.12	22.59	23.51	23.92
	12H	16.81	17.73	17.24	18.11	18.54	22.21	23.13	22.65	23.51	23.94
4H	2H	15.51	16.61	15.91	16.96	17.34	14.50	15.60	14.91	15.95	16.34
	3H	16.54	17.45	16.95	17.85	18.25	20.86	21.77	21.27	22.17	22.58
	4H	17.11	17.93	17.54	18.35	18.79	22.32	23.14	22.75	23.56	24.00
	6H	17.60	18.32	18.07	18.76	19.23	23.08	23.79	23.54	24.23	24.70
	8H	17.78	18.44	18.25	18.89	19.36	23.25	23.91	23.72	24.36	24.83
	12H	17.91	18.50	18.40	18.98	19.46	23.33	23.92	23.81	24.40	24.87
8H	4H	18.23	18.90	18.70	19.34	19.81	22.47	23.13	22.93	23.58	24.05
	6H	18.85	19.40	19.35	19.89	20.37	23.36	23.90	23.86	24.40	24.88
	8H	19.09	19.57	19.61	20.09	20.58	23.61	24.09	24.13	24.61	25.10
	12H	19.28	19.71	19.79	20.20	20.77	23.75	24.18	24.26	24.67	25.24
12H	4H	18.40	18.99	18.88	19.47	19.94	22.45	23.04	22.93	23.52	23.99
	6H	19.13	19.61	19.65	20.13	20.62	23.36	23.85	23.89	24.37	24.86
	8H	19.45	19.87	19.96	20.37	20.94	23.67	24.09	24.18	24.59	25.16