

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: P854165

Luminaire Tested: SQ2-PR1-025U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854165  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-025U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

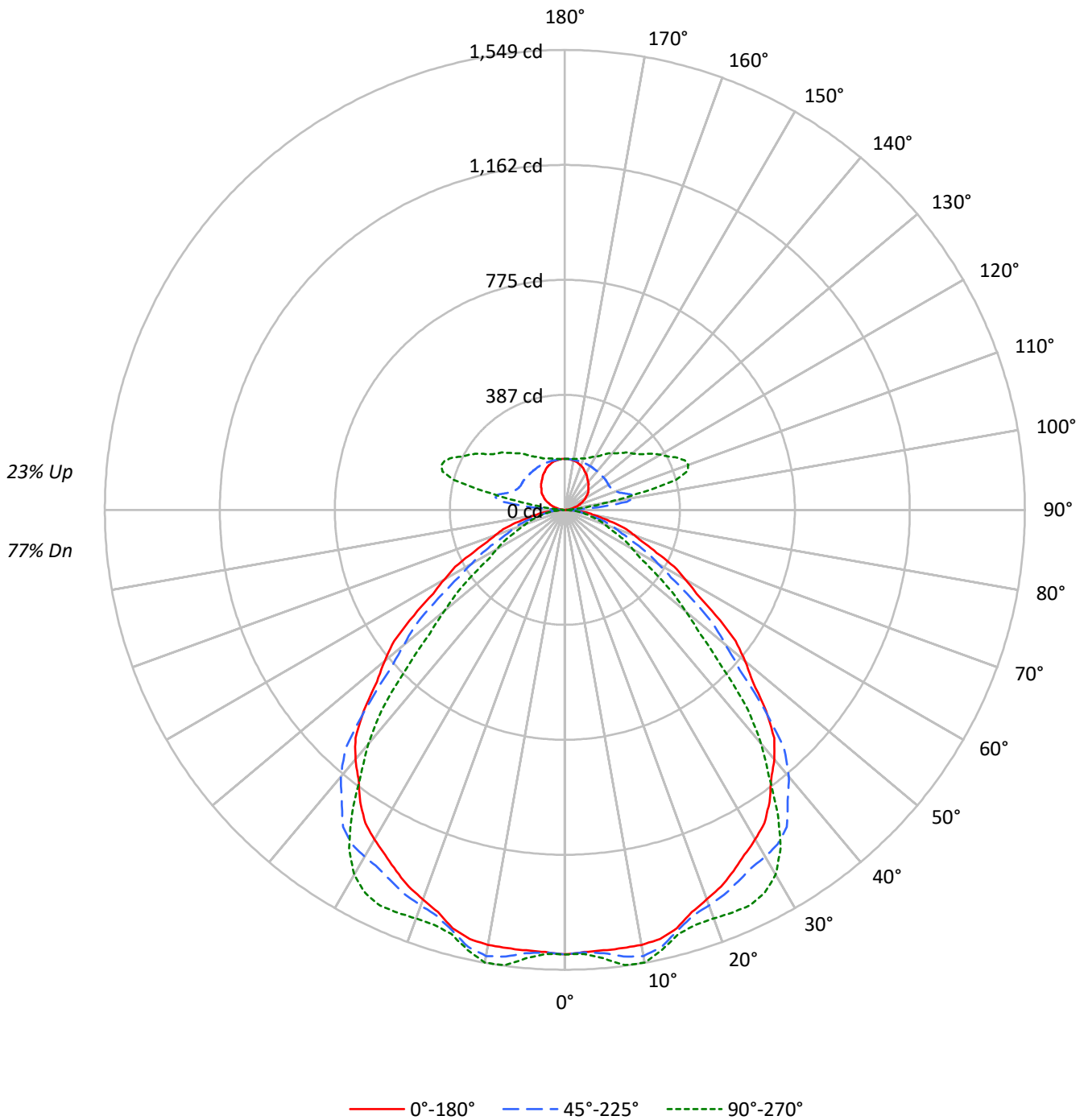
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4665.1 lumens  
Efficiency: N/A  
Efficacy: 136.8 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 34.1  
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: P854165

CATALOG NUMBER: SQ2-PR1-025U-075D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854165

CATALOG NUMBER: SQ2-PR1-025U-075D-940-UNV-STD-W-4

**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	0
RCR																		
0	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	105	101	97	94	100	96	93	90	88	85	83	80	78	77	73	72	71	67
2	96	89	83	78	92	85	80	76	78	74	70	72	68	66	66	63	61	58
3	88	79	72	66	84	76	69	64	70	65	60	64	60	56	59	56	53	50
4	81	71	63	57	78	68	61	55	63	57	52	58	53	49	53	49	46	43
5	75	64	56	50	72	61	54	48	57	50	46	52	47	43	48	44	41	38
6	70	57	49	44	66	55	48	42	51	45	40	48	42	38	44	40	36	34
7	65	52	44	39	62	50	43	38	47	41	36	44	38	34	40	36	32	30
8	60	48	40	35	57	46	39	34	43	37	32	40	35	31	37	33	29	27
9	56	44	36	31	54	42	35	30	40	33	29	37	32	28	34	30	27	25
10	53	40	33	28	50	39	32	28	37	31	26	34	29	25	32	27	24	22

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

	0°	45°	90°
0°	24169	24169	24169
5°	24138	24285	24584
10°	24392	25017	25392
15°	24384	24511	24715
20°	23990	24357	25170
25°	23922	24602	26206
30°	23897	25148	26457
35°	23670	25685	24632
40°	23123	24732	21678
45°	21882	21706	17141
50°	19891	17746	13300
55°	17481	14604	10351
60°	15129	11677	8525
65°	13058	9677	7461
70°	11740	8573	6628
75°	10755	7424	6095
80°	9363	5960	5960
85°	6780	5372	2834

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 23653 cd/sqm



TEST NUMBER: P854165

CATALOG NUMBER: SQ2-PR1-025U-075D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.6	3.1
10°-20°	418.5	9.0
20°-30°	646.9	13.9
30°-40°	778.0	16.7
40°-50°	698.6	15.0
50°-60°	468.0	10.0
60°-70°	272.2	5.8
70°-80°	139.8	3.0
80°-90°	34.9	0.7
90°-100°	69.4	1.5
100°-110°	215.7	4.6
110°-120°	211.0	4.5
120°-130°	172.3	3.7
130°-140°	140.9	3.0
140°-150°	110.0	2.4
150°-160°	79.4	1.7
160°-170°	48.5	1.0
170°-180°	16.4	0.4
0°-30°	1209.9	25.9
0°-40°	1987.9	42.6
0°-60°	3154.5	67.6
0°-90°	3601.5	77.2
90°-120°	496.1	10.6
90°-150°	919.3	19.7
90°-180°	1064.0	22.8
0°-180°	4665.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1497	1497	1497	1497	1497	
5°	1489	1515	1498	1502	1517	142
15°	1459	1518	1466	1471	1479	410
25°	1343	1396	1381	1432	1471	619
35°	1201	1211	1303	1278	1250	749
45°	958	1036	951	802	751	733
55°	621	645	519	401	368	558
65°	342	349	253	206	195	346
75°	172	168	119	101	98	183
85°	37	29	29	20	15	45
90°	0	1	3	3	3	2
95°	10	28	127	47	30	11
105°	38	53	212	405	387	40
115°	67	80	172	356	416	66
125°	94	104	170	280	328	83
135°	112	125	169	241	271	87
145°	131	142	169	209	227	83
155°	150	156	170	187	193	69
165°	165	166	171	177	179	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



TEST NUMBER: P854165

CATALOG NUMBER: SQ2-PR1-025U-075D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1496.9	1496.9	1496.9	1496.9	1496.9
2.5°	1490.8	1508.7	1492.0	1493.3	1496.9
5°	1489.3	1514.7	1498.4	1501.8	1516.8
7.5°	1489.0	1525.1	1517.4	1526.7	1546.4
10°	1487.8	1531.0	1525.9	1527.9	1548.8
12.5°	1480.4	1530.9	1507.6	1505.7	1517.1
15°	1458.8	1518.5	1466.4	1471.1	1478.6
17.5°	1420.6	1483.0	1433.4	1450.3	1464.9
20°	1396.2	1457.4	1417.6	1439.5	1464.9
22.5°	1374.2	1435.4	1402.9	1433.6	1468.5
25°	1342.8	1396.5	1381.0	1432.2	1471.0
27.5°	1309.8	1341.5	1359.9	1428.6	1455.7
30°	1281.8	1302.7	1348.9	1408.7	1419.1
32.5°	1251.2	1263.8	1334.3	1365.4	1352.0
35°	1200.9	1211.3	1303.1	1278.1	1249.7
37.5°	1141.1	1162.6	1233.2	1161.1	1128.6
40°	1097.1	1132.9	1173.4	1065.8	1028.5
42.5°	1043.4	1100.7	1094.1	956.9	911.3
45°	958.3	1035.9	950.6	801.5	750.7
47.5°	857.9	937.5	798.1	664.8	617.4
50°	791.9	856.1	706.5	581.7	529.5
52.5°	724.8	771.1	628.4	503.7	456.2
55°	621.0	644.9	518.8	400.6	367.7
57.5°	525.8	541.0	423.9	323.6	299.4
60°	468.5	478.9	361.6	283.4	264.0
62.5°	416.0	424.0	311.6	249.3	234.7
65°	341.8	349.3	253.3	205.8	195.3
67.5°	282.9	286.8	208.4	171.0	161.1
70°	248.7	250.2	181.6	147.8	140.4
72.5°	218.2	216.1	155.9	128.4	123.3
75°	172.4	168.0	119.0	100.6	97.7
77.5°	128.8	124.0	83.6	77.5	77.5
80°	100.7	94.7	64.1	64.1	64.1
82.5°	75.1	66.7	49.4	49.4	48.2
85°	36.6	29.2	29.0	19.7	15.3
87.5°	9.8	10.0	4.3	4.3	4.3
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.8	40.2	13.2	10.7
95°	9.5	28.0	127.2	46.9	30.5
97.5°	17.2	36.4	210.7	131.2	82.6
100°	23.1	40.6	237.6	222.3	148.2
102.5°	29.0	45.7	232.6	317.4	249.2
105°	37.8	53.3	212.4	405.4	386.9
107.5°	46.7	61.1	193.0	412.2	432.5
110°	52.6	67.0	182.9	402.5	442.6



TEST NUMBER: P854165

CATALOG NUMBER: SQ2-PR1-025U-075D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.5	72.0	177.9	385.1	435.9
115°	67.3	79.6	172.4	355.7	416.3
117.5°	75.9	87.2	170.1	327.5	389.6
120°	81.0	92.3	169.3	311.5	371.1
122.5°	86.0	97.3	170.1	297.9	352.6
125°	93.6	103.9	170.3	279.7	328.0
127.5°	99.7	110.2	170.3	266.1	307.2
130°	103.0	114.3	170.3	258.4	295.4
132.5°	107.2	118.5	169.5	251.6	286.2
135°	112.5	124.8	169.3	241.4	271.2
137.5°	118.6	129.9	169.3	231.3	258.4
140°	122.0	133.3	169.3	224.5	249.2
142.5°	126.2	136.6	169.3	217.7	239.9
145°	131.4	141.7	169.3	208.6	227.1
147.5°	137.7	146.6	170.3	200.1	214.7
150°	141.9	149.1	170.3	195.8	207.1
152.5°	145.3	151.7	170.3	191.6	201.2
155°	150.3	155.5	170.3	187.3	193.4
157.5°	155.4	159.3	170.3	183.4	187.4
160°	158.8	161.8	170.3	180.9	184.0
162.5°	161.3	163.5	170.3	179.2	181.5
165°	165.1	166.1	171.4	176.7	178.7
167.5°	167.4	167.6	170.3	175.2	176.2
170°	168.2	169.2	170.3	173.5	174.5
172.5°	169.9	170.1	171.2	172.6	172.8
175°	171.4	171.4	171.4	172.4	171.4
177.5°	171.4	171.4	171.4	171.4	171.4
180°	171.4	171.4	171.4	171.4	171.4

-----



TEST NUMBER: P854165

CATALOG NUMBER: SQ2-PR1-025U-075D-940-UNV-STD-W-4

**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	20.10	21.20	20.79	21.90	22.72	16.82	17.92	17.51	18.62	19.45
	3H	21.35	22.33	22.05	23.04	23.90	17.91	18.89	18.61	19.60	20.46
	4H	21.81	22.73	22.54	23.46	24.33	18.32	19.24	19.04	19.96	20.83
	6H	22.14	22.99	22.88	23.72	24.61	18.66	19.51	19.40	20.24	21.13
	8H	22.23	23.04	22.98	23.79	24.68	18.75	19.56	19.50	20.31	21.20
	12H	22.27	23.04	23.02	23.78	24.70	18.77	19.54	19.52	20.28	21.20
4H	2H	20.20	21.13	20.93	21.85	22.72	17.42	18.34	18.15	19.07	19.94
	3H	21.70	22.46	22.44	23.22	24.11	18.71	19.47	19.45	20.23	21.12
	4H	22.30	22.99	23.06	23.75	24.67	19.22	19.91	19.98	20.68	21.59
	6H	22.77	23.36	23.54	24.15	25.08	19.67	20.27	20.45	21.05	21.98
	8H	22.90	23.46	23.68	24.24	25.18	19.80	20.35	20.58	21.14	22.08
	12H	22.97	23.47	23.77	24.27	25.21	19.83	20.33	20.63	21.14	22.08
8H	4H	22.35	22.90	23.12	23.68	24.62	19.55	20.10	20.32	20.88	21.82
	6H	22.90	23.36	23.71	24.19	25.13	20.09	20.55	20.90	21.37	22.31
	8H	23.10	23.51	23.92	24.33	25.29	20.27	20.68	21.09	21.51	22.46
	12H	23.21	23.58	24.03	24.39	25.40	20.35	20.71	21.17	21.52	22.54
12H	4H	22.31	22.81	23.11	23.62	24.56	19.57	20.07	20.37	20.88	21.82
	6H	22.89	23.30	23.71	24.12	25.08	20.15	20.56	20.97	21.38	22.34
	8H	23.11	23.47	23.93	24.28	25.30	20.37	20.73	21.19	21.54	22.56