

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: P854261

Luminaire Tested: SQ2-PW1-050U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854261  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-050U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

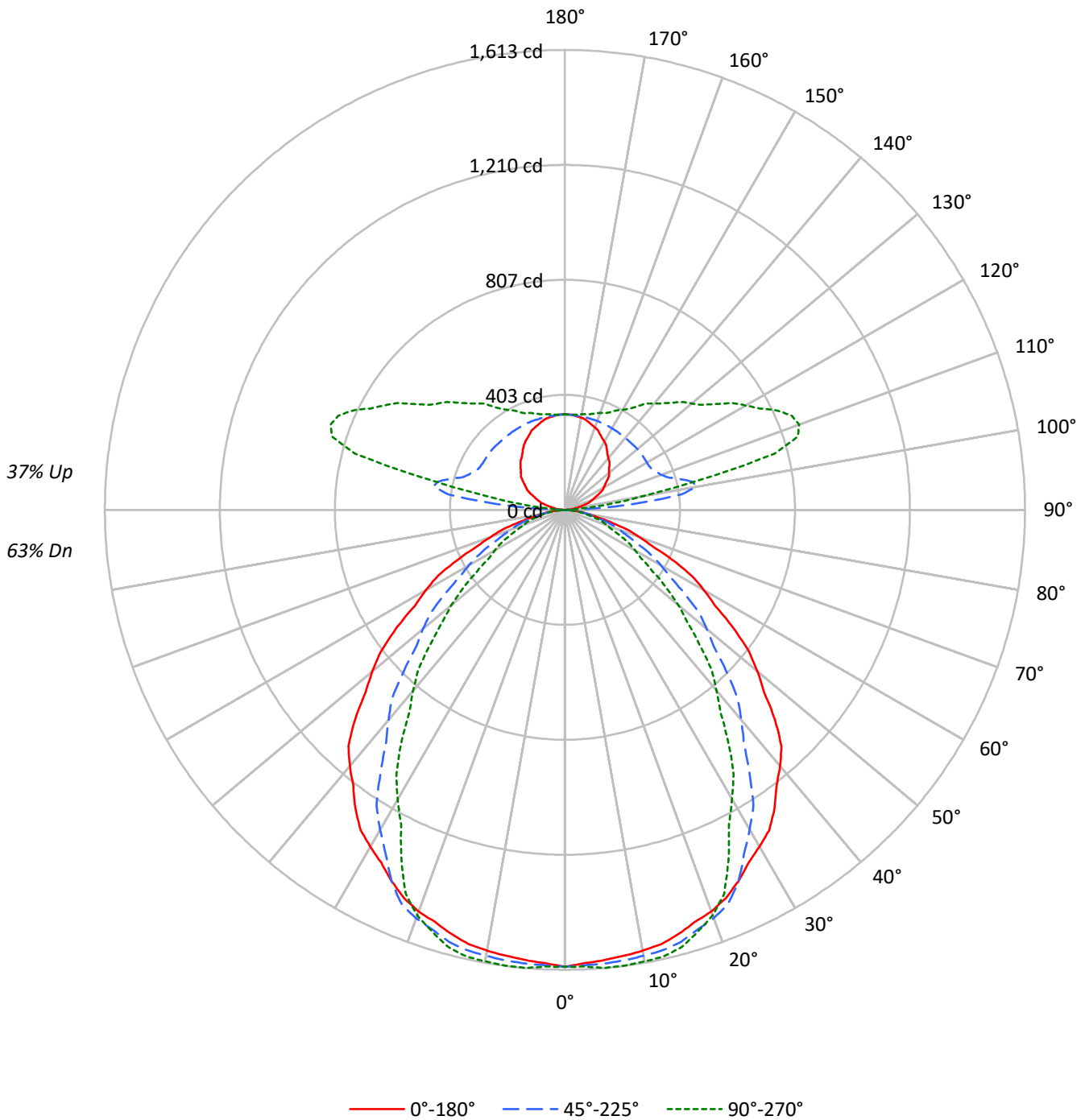
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5634.6 lumens  
Efficiency: N/A  
Efficacy: 135.8 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 41.5  
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	0
RCR																		
0	110	110	110	110	103	103	103	103	91	91	91	79	79	79	68	68	68	63
1	101	97	94	90	95	92	88	85	81	78	76	71	69	67	61	60	59	55
2	93	86	80	75	87	81	76	71	72	68	64	63	60	57	55	53	51	47
3	85	76	69	63	80	72	66	60	64	59	55	56	53	49	49	46	44	41
4	78	68	60	54	73	64	57	52	57	52	47	51	46	43	45	41	39	35
5	72	61	53	47	68	58	50	45	52	46	41	46	41	38	40	37	34	31
6	67	55	47	41	63	52	45	40	47	41	36	42	37	33	37	33	30	28
7	62	50	42	37	58	47	40	35	43	37	32	38	33	30	34	30	27	25
8	58	46	38	33	54	43	36	31	39	33	29	35	30	27	31	27	25	22
9	54	42	34	29	51	40	33	28	36	30	26	32	28	24	29	25	22	20
10	50	38	31	27	48	37	30	26	33	28	24	30	25	22	27	23	20	19

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

	0°	45°	90°
0°	25869	25869	25869
5°	25695	25893	26141
10°	25743	26043	26368
15°	25737	26220	26527
20°	25747	26192	26008
25°	25607	25634	24166
30°	25434	24153	21848
35°	25233	22227	19730
40°	24732	20261	17431
45°	23763	18224	15225
50°	22117	16289	13031
55°	20231	14390	10567
60°	18132	12516	9116
65°	15855	10785	8103
70°	12968	9578	7345
75°	10087	8284	6756
80°	7522	7094	5960
85°	5094	5372	3390

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 23763 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.6	2.7
10°-20°	442.0	7.8
20°-30°	650.5	11.5
30°-40°	711.2	12.6
40°-50°	638.0	11.3
50°-60°	476.0	8.4
60°-70°	300.8	5.3
70°-80°	149.0	2.6
80°-90°	35.3	0.6
90°-100°	133.3	2.4
100°-110°	423.0	7.5
110°-120°	414.7	7.4
120°-130°	337.5	6.0
130°-140°	275.2	4.9
140°-150°	214.5	3.8
150°-160°	154.6	2.7
160°-170°	94.4	1.7
170°-180°	31.9	0.6
0°-30°	1245.1	22.1
0°-40°	1956.4	34.7
0°-60°	3070.4	54.5
0°-90°	3555.5	63.1
90°-120°	971.1	17.2
90°-150°	1798.2	31.9
90°-180°	2079.0	36.9
0°-180°	5634.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1585	1611	1598	1600	1613	151
15°	1540	1570	1569	1580	1587	435
25°	1437	1469	1439	1379	1356	662
35°	1280	1267	1128	1029	1001	798
45°	1041	957	798	698	667	798
55°	719	650	511	401	375	642
65°	415	381	282	227	212	411
75°	162	174	133	111	108	178
85°	28	35	29	20	18	35
90°	0	1	3	3	3	2
95°	18	54	242	90	58	21
105°	74	104	417	794	761	78
115°	132	156	337	700	823	130
125°	182	204	332	549	646	162
135°	220	242	330	472	532	170
145°	257	276	330	407	443	161
155°	293	303	331	364	378	135
165°	319	322	332	344	347	90
175°	334	333	334	336	335	32
180°	335	335	335	335	335	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1602.2	1602.2	1602.2	1602.2	1602.2
2.5°	1591.2	1611.5	1598.6	1599.9	1603.4
5°	1585.4	1610.8	1597.6	1599.5	1612.9
7.5°	1577.5	1603.2	1593.4	1598.8	1612.0
10°	1570.2	1597.0	1588.5	1596.4	1608.3
12.5°	1560.4	1588.5	1582.4	1591.5	1603.4
15°	1539.7	1569.5	1568.6	1579.5	1587.0
17.5°	1515.5	1545.4	1543.9	1546.8	1550.3
20°	1498.5	1528.3	1524.4	1513.7	1513.7
22.5°	1474.0	1506.3	1496.3	1467.1	1457.6
25°	1437.4	1468.7	1438.9	1378.9	1356.5
27.5°	1394.7	1420.1	1360.2	1275.0	1243.9
30°	1364.2	1383.6	1295.5	1201.7	1171.9
32.5°	1332.4	1339.9	1229.6	1132.1	1099.9
35°	1280.2	1266.8	1127.7	1029.4	1001.0
37.5°	1218.6	1178.6	1029.7	926.7	895.4
40°	1173.4	1116.7	961.3	858.4	827.0
42.5°	1123.4	1052.4	896.6	793.7	761.1
45°	1040.7	957.1	798.1	698.2	666.8
47.5°	947.6	864.6	705.9	609.1	582.3
50°	880.5	799.9	648.5	551.6	518.8
52.5°	812.1	739.9	592.4	492.8	448.0
55°	718.7	650.1	511.2	400.7	375.4
57.5°	622.6	563.2	437.6	337.4	316.5
60°	561.5	509.3	387.6	303.2	282.3
62.5°	502.9	456.7	338.8	271.5	254.2
65°	415.0	380.7	282.3	227.0	212.1
67.5°	329.6	310.5	234.7	186.2	176.4
70°	274.7	268.7	202.9	163.1	155.6
72.5°	227.1	229.4	172.4	141.2	136.1
75°	161.7	173.7	132.8	111.3	108.3
77.5°	110.2	128.1	98.3	82.3	80.0
80°	80.9	98.8	76.3	64.1	64.1
82.5°	56.5	70.8	54.3	48.2	48.2
85°	27.5	34.9	29.0	19.8	18.3
87.5°	7.3	11.1	5.5	4.3	4.3
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.4	74.8	24.9	17.5
95°	17.9	53.9	242.2	89.8	57.9
97.5°	33.3	69.9	410.2	256.3	157.3
100°	44.2	79.2	467.5	426.2	276.9
102.5°	56.0	89.4	457.4	625.8	479.0
105°	73.7	103.6	416.9	794.2	761.2
107.5°	91.4	119.0	378.4	811.7	856.2
110°	103.2	129.9	359.0	791.5	873.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	115.0	140.1	348.1	756.6	861.2
115°	131.6	156.3	336.9	699.8	823.3
117.5°	147.8	171.3	332.5	645.1	769.6
120°	157.9	180.6	331.6	611.3	731.7
122.5°	168.0	189.9	331.6	584.1	696.4
125°	182.1	203.8	331.6	548.7	646.4
127.5°	194.6	215.4	331.6	521.2	604.5
130°	202.1	223.8	331.6	505.0	580.1
132.5°	209.7	231.3	330.8	492.2	559.9
135°	220.0	241.7	329.5	472.0	531.7
137.5°	230.2	252.8	329.3	452.7	506.0
140°	236.9	259.5	328.5	439.1	487.5
142.5°	245.3	267.1	329.3	425.5	470.6
145°	256.9	276.5	329.5	407.2	443.2
147.5°	268.5	285.2	329.8	391.1	420.5
150°	276.9	290.3	330.6	381.7	405.3
152.5°	283.6	295.4	330.6	374.0	393.6
155°	292.7	303.0	330.6	363.6	378.0
157.5°	302.4	309.4	331.6	357.1	367.0
160°	307.4	313.6	331.6	352.9	361.1
162.5°	312.5	317.0	331.6	349.5	355.2
165°	319.0	322.1	331.6	344.4	347.4
167.5°	325.1	325.9	332.7	340.8	343.4
170°	328.5	328.5	332.7	339.0	340.1
172.5°	330.2	331.0	332.7	337.3	337.5
175°	333.8	332.7	333.8	335.8	334.8
177.5°	334.8	334.0	334.0	335.6	334.0
180°	334.8	334.8	334.8	334.8	334.8



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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	19.50	20.44	20.35	21.30	22.38	15.99	16.93	16.83	17.79	18.86
	3H	20.83	21.67	21.69	22.54	23.64	17.20	18.04	18.06	18.91	20.01
	4H	21.21	22.00	22.08	22.88	23.99	17.65	18.44	18.52	19.32	20.43
	6H	21.42	22.14	22.30	23.03	24.15	17.97	18.70	18.86	19.58	20.71
	8H	21.45	22.14	22.34	23.05	24.17	18.05	18.74	18.94	19.64	20.77
	12H	21.45	22.11	22.35	23.00	24.15	18.06	18.72	18.96	19.62	20.77
4H	2H	19.62	20.41	20.49	21.28	22.40	16.68	17.47	17.56	18.35	19.46
	3H	21.17	21.82	22.06	22.73	23.86	18.08	18.73	18.97	19.64	20.77
	4H	21.68	22.28	22.58	23.18	24.34	18.62	19.22	19.53	20.13	21.28
	6H	22.02	22.53	22.93	23.46	24.61	19.03	19.55	19.95	20.48	21.63
	8H	22.09	22.58	23.01	23.50	24.67	19.14	19.62	20.06	20.54	21.71
	12H	22.11	22.55	23.05	23.49	24.66	19.17	19.60	20.10	20.54	21.71
8H	4H	21.72	22.20	22.64	23.13	24.30	18.96	19.44	19.88	20.36	21.53
	6H	22.16	22.56	23.11	23.52	24.69	19.47	19.86	20.41	20.83	22.00
	8H	22.31	22.66	23.26	23.61	24.80	19.63	19.98	20.58	20.94	22.12
	12H	22.38	22.69	23.33	23.63	24.87	19.69	20.00	20.65	20.95	22.19
12H	4H	21.69	22.12	22.62	23.06	24.23	18.98	19.41	19.91	20.35	21.52
	6H	22.15	22.50	23.11	23.46	24.65	19.53	19.88	20.49	20.84	22.02
	8H	22.32	22.63	23.28	23.58	24.81	19.72	20.03	20.68	20.98	22.21