

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: P855348

Luminaire Tested: SQ2-PP3-050U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855348  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050U-075D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

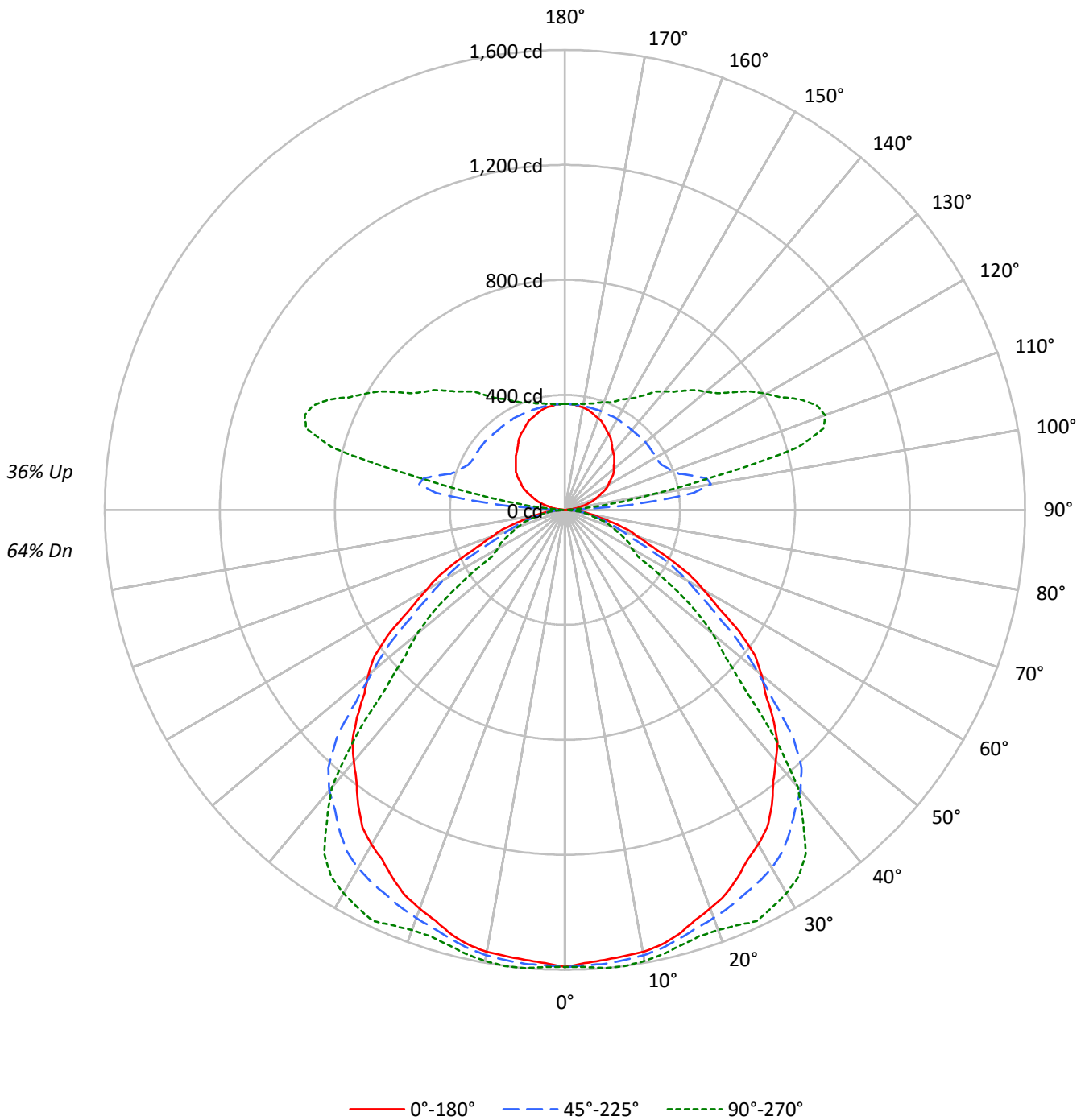
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6296.4 lumens  
Efficiency: N/A  
Efficacy: 151.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
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	104	104	104	104	91	91	91	79	79	79	69	69	69	64
1	102	97	94	90	95	92	88	86	81	78	76	71	69	68	62	61	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	65	60	64	59	55	56	52	49	49	47	44	41
4	78	68	60	54	73	64	57	52	57	51	47	50	46	43	44	41	38	35
5	72	61	52	47	67	57	50	45	51	45	41	46	41	37	40	37	34	31
6	67	54	46	41	62	52	44	39	46	40	36	41	37	33	37	33	30	27
7	62	49	41	36	58	47	40	34	42	36	32	38	33	29	33	30	27	24
8	57	45	37	32	54	43	36	31	38	33	28	34	30	26	31	27	24	22
9	53	41	34	29	50	39	32	28	35	30	26	32	27	24	28	24	22	20
10	50	38	31	26	47	36	29	25	33	27	23	29	25	21	26	22	20	18

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

	0°	45°	90°
0°	25678	25678	25678
5°	25477	25695	25939
10°	25607	25799	26130
15°	25544	25797	26191
20°	25362	25969	26720
25°	25219	26297	28124
30°	25076	26828	28711
35°	24721	26909	28763
40°	24059	26860	26574
45°	23341	25642	20228
50°	22423	21876	16849
55°	20870	18410	12116
60°	17970	15797	8686
65°	15156	12202	8542
70°	12619	9607	8176
75°	10692	8291	7654
80°	9066	7197	6881
85°	7169	5910	3742

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 25642 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.4	2.4
10°-20°	438.3	7.0
20°-30°	686.6	10.9
30°-40°	847.0	13.5
40°-50°	797.5	12.7
50°-60°	564.6	9.0
60°-70°	321.7	5.1
70°-80°	159.2	2.5
80°-90°	39.4	0.6
90°-100°	146.9	2.3
100°-110°	466.0	7.4
110°-120°	456.9	7.3
120°-130°	371.8	5.9
130°-140°	303.2	4.8
140°-150°	236.4	3.8
150°-160°	170.3	2.7
160°-170°	104.0	1.7
170°-180°	35.1	0.6
0°-30°	1276.3	20.3
0°-40°	2123.3	33.7
0°-60°	3485.5	55.4
0°-90°	4005.7	63.6
90°-120°	1069.8	17.0
90°-150°	1981.2	31.5
90°-180°	2291.0	36.4
0°-180°	6296.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1590	1590	1590	1590	1590	
5°	1572	1600	1585	1589	1600	150
15°	1528	1550	1543	1559	1567	431
25°	1416	1452	1476	1536	1579	652
35°	1254	1289	1365	1443	1459	782
45°	1022	1099	1123	952	886	787
55°	741	786	654	493	430	654
65°	397	418	319	225	224	398
75°	171	190	133	124	123	186
85°	39	35	32	25	20	45
90°	0	1	4	4	4	3
95°	20	59	267	99	64	23
105°	81	114	459	875	839	86
115°	145	172	371	771	907	143
125°	201	224	365	604	712	179
135°	242	266	363	520	586	187
145°	283	305	363	449	488	177
155°	322	334	364	400	416	149
165°	352	355	365	379	383	99
175°	368	367	368	370	369	35
180°	369	369	369	369	369	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1590.4	1590.4	1590.4	1590.4	1590.4
2.5°	1578.3	1600.7	1586.3	1589.1	1591.7
5°	1571.9	1599.9	1585.4	1589.0	1600.4
7.5°	1565.8	1594.5	1580.3	1586.3	1600.4
10°	1561.9	1586.5	1573.6	1582.3	1593.8
12.5°	1549.8	1573.1	1561.5	1572.8	1583.0
15°	1528.2	1549.5	1543.3	1558.6	1566.9
17.5°	1498.9	1524.9	1524.8	1546.6	1555.1
20°	1476.1	1507.3	1511.4	1538.7	1555.1
22.5°	1451.9	1488.3	1495.2	1536.2	1564.6
25°	1415.6	1451.7	1476.1	1535.9	1578.7
27.5°	1373.2	1409.0	1459.3	1526.3	1560.1
30°	1345.0	1379.5	1439.0	1508.7	1540.0
32.5°	1310.0	1345.8	1409.6	1484.5	1513.0
35°	1254.2	1288.7	1365.2	1442.9	1459.3
37.5°	1190.0	1229.0	1314.7	1358.0	1359.1
40°	1141.5	1192.4	1274.4	1282.3	1260.8
42.5°	1094.4	1159.9	1217.8	1182.4	1087.4
45°	1022.2	1099.4	1123.0	951.8	885.9
47.5°	945.1	1021.5	983.8	798.2	752.8
50°	892.7	965.1	870.9	713.6	670.8
52.5°	833.5	897.9	770.0	632.3	567.2
55°	741.4	785.8	654.0	492.8	430.4
57.5°	630.5	661.7	559.2	369.9	300.0
60°	556.5	581.2	489.2	303.5	269.0
62.5°	489.2	511.3	416.6	263.6	251.5
65°	396.7	418.1	319.4	225.3	223.6
67.5°	315.7	339.0	245.1	196.6	194.7
70°	267.3	291.9	203.5	176.4	173.2
72.5°	226.9	250.3	172.5	155.0	153.0
75°	171.4	189.6	132.9	124.3	122.7
77.5°	124.5	135.9	98.8	94.4	92.8
80°	97.5	102.4	77.4	75.6	74.0
82.5°	73.3	71.7	58.5	56.8	53.8
85°	38.7	35.4	31.9	25.1	20.2
87.5°	12.1	12.4	6.1	4.8	4.8
90°	0.0	1.2	3.5	3.5	3.5
92.5°	6.5	25.8	82.4	27.4	19.2
95°	19.7	59.4	266.8	98.9	63.7
97.5°	36.7	77.0	451.9	282.4	173.3
100°	48.7	87.3	515.0	469.5	305.1
102.5°	61.8	98.5	503.9	689.6	527.8
105°	81.2	114.1	459.4	875.0	838.6
107.5°	100.7	131.1	416.9	894.3	943.3
110°	113.6	143.1	395.5	872.1	962.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	126.7	154.3	383.5	833.6	948.9
115°	145.0	172.2	371.2	771.0	907.1
117.5°	162.8	188.7	366.3	710.7	847.9
120°	174.0	198.9	365.4	673.5	806.2
122.5°	185.2	209.2	365.4	643.5	767.2
125°	200.7	224.5	365.4	604.5	712.2
127.5°	214.3	237.3	365.4	574.2	666.0
130°	222.7	246.5	365.4	556.4	639.1
132.5°	231.1	254.9	364.4	542.3	616.8
135°	242.4	266.3	363.0	520.0	585.8
137.5°	253.6	278.5	362.8	498.8	557.5
140°	261.0	286.0	361.9	483.8	537.0
142.5°	270.3	294.3	362.8	468.8	518.5
145°	283.1	304.6	363.0	448.7	488.3
147.5°	295.8	314.2	363.3	430.8	463.2
150°	305.1	319.8	364.2	420.5	446.6
152.5°	312.4	325.4	364.2	412.1	433.6
155°	322.5	333.8	364.2	400.5	416.4
157.5°	333.2	340.9	365.4	393.4	404.4
160°	338.7	345.5	365.4	388.8	397.9
162.5°	344.3	349.3	365.4	385.0	391.3
165°	351.5	354.9	365.4	379.3	382.8
167.5°	358.2	359.1	366.5	375.5	378.4
170°	361.9	361.9	366.5	373.5	374.7
172.5°	363.7	364.7	366.5	371.6	371.9
175°	367.7	366.6	367.7	370.0	368.8
177.5°	368.8	367.9	367.9	369.8	367.9
180°	368.8	368.8	368.8	368.8	368.8

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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	20.00	20.96	20.84	21.81	22.88	16.40	17.35	17.24	18.21	19.27
	3H	21.11	21.96	21.96	22.82	23.92	17.51	18.36	18.36	19.23	20.32
	4H	21.45	22.26	22.32	23.13	24.23	17.98	18.78	18.85	19.65	20.76
	6H	21.67	22.41	22.55	23.29	24.41	18.33	19.07	19.21	19.95	21.06
	8H	21.72	22.43	22.61	23.32	24.44	18.42	19.12	19.31	20.02	21.13
	12H	21.74	22.41	22.64	23.30	24.44	18.44	19.10	19.33	19.99	21.14
4H	2H	20.12	20.93	21.00	21.80	22.90	17.12	17.93	18.00	18.80	19.90
	3H	21.44	22.11	22.33	23.01	24.13	18.38	19.05	19.27	19.95	21.07
	4H	21.92	22.52	22.81	23.42	24.57	18.94	19.55	19.84	20.45	21.59
	6H	22.26	22.78	23.17	23.71	24.85	19.39	19.91	20.30	20.83	21.98
	8H	22.36	22.84	23.27	23.76	24.92	19.51	20.00	20.42	20.92	22.08
	12H	22.40	22.83	23.33	23.77	24.94	19.54	19.98	20.48	20.92	22.08
8H	4H	21.94	22.43	22.86	23.35	24.51	19.22	19.71	20.14	20.63	21.79
	6H	22.38	22.78	23.32	23.74	24.90	19.77	20.17	20.71	21.13	22.29
	8H	22.54	22.89	23.48	23.84	25.02	19.96	20.31	20.91	21.27	22.44
	12H	22.63	22.94	23.58	23.88	25.11	20.04	20.35	20.99	21.29	22.52
12H	4H	21.91	22.34	22.84	23.28	24.45	19.24	19.67	20.17	20.61	21.78
	6H	22.37	22.72	23.32	23.68	24.85	19.82	20.18	20.77	21.13	22.31
	8H	22.54	22.86	23.49	23.80	25.03	20.04	20.35	20.99	21.30	22.52