

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: P854245

Luminaire Tested: SQ2-PW1-025U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854245  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-025U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

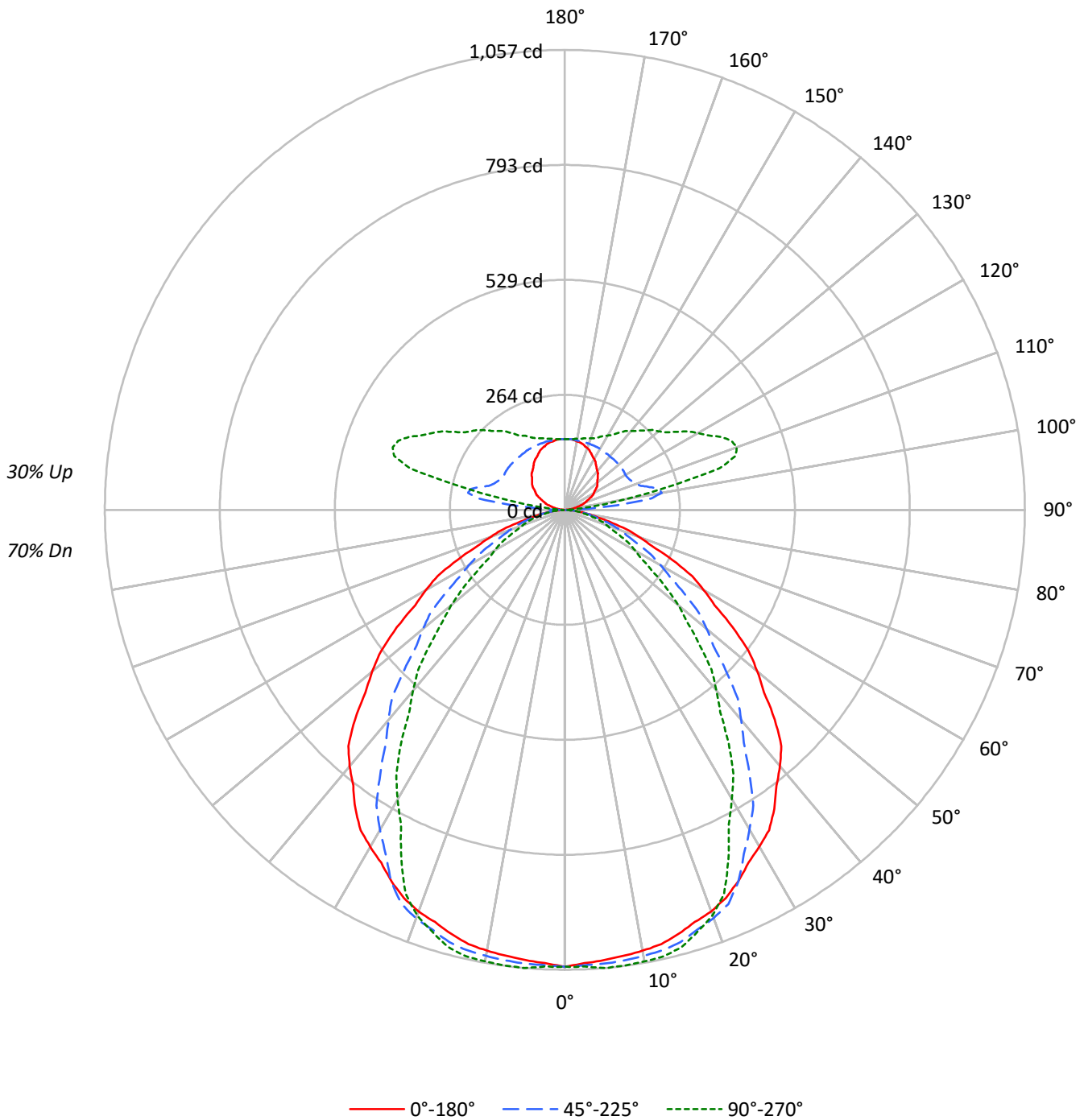
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3341.4 lumens  
Efficiency: N/A  
Efficacy: 132.6 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): 25.2  
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
RCR																				
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	70	
1	103	99	95	92	97	94	90	88	84	82	79	75	73	72	67	66	64	64	60	
2	94	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	55	55	52	
3	87	77	70	65	82	74	67	62	67	61	57	60	56	53	54	51	48	48	45	
4	80	69	61	55	75	66	59	53	60	54	50	54	49	46	49	45	42	42	39	
5	74	62	54	48	69	59	52	47	54	48	43	49	44	40	44	40	37	37	34	
6	68	56	48	42	64	54	46	41	49	43	38	44	39	36	40	36	33	33	31	
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	30	27	
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	27	25	
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	24	22	
10	52	39	32	27	49	38	31	27	35	29	25	32	27	24	29	25	22	22	20	

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

	0°	45°	90°
0°	16953	16953	16953
5°	16840	16969	17131
10°	16870	17067	17280
15°	16866	17183	17384
20°	16873	17165	17045
25°	16782	16800	15838
30°	16667	15828	14318
35°	16537	14566	12930
40°	16208	13278	11424
45°	15573	11942	9978
50°	14493	10675	8540
55°	13258	9430	6925
60°	11883	8202	5974
65°	10392	7068	5310
70°	8497	6279	4815
75°	6613	5427	4429
80°	4928	4649	3905
85°	3335	3520	2223

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15573 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.0	3.0
10°-20°	289.7	8.7
20°-30°	426.3	12.8
30°-40°	466.1	13.9
40°-50°	418.1	12.5
50°-60°	311.9	9.3
60°-70°	197.1	5.9
70°-80°	97.6	2.9
80°-90°	23.3	0.7
90°-100°	65.9	2.0
100°-110°	205.1	6.1
110°-120°	200.7	6.0
120°-130°	163.8	4.9
130°-140°	134.0	4.0
140°-150°	104.6	3.1
150°-160°	75.5	2.3
160°-170°	46.1	1.4
170°-180°	15.6	0.5
0°-30°	816.0	24.4
0°-40°	1282.1	38.4
0°-60°	2012.2	60.2
0°-90°	2330.2	69.7
90°-120°	471.7	14.1
90°-150°	874.1	26.2
90°-180°	1011.0	30.3
0°-180°	3341.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1039	1056	1047	1048	1057	99
15°	1009	1029	1028	1035	1040	285
25°	942	962	943	904	889	434
35°	839	830	739	675	656	523
45°	682	627	523	458	437	523
55°	471	426	335	263	246	421
65°	272	250	185	149	139	270
75°	106	114	87	73	71	117
85°	18	23	19	13	12	23
90°	0	1	3	3	3	1
95°	9	27	121	45	29	10
105°	36	51	202	386	368	38
115°	64	76	164	338	396	63
125°	89	99	162	266	312	79
135°	107	119	161	230	258	83
145°	125	135	161	198	216	79
155°	143	148	162	178	184	66
165°	157	158	163	168	170	44
175°	163	163	163	164	163	15
180°	163	163	163	163	163	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1050.0	1050.0	1050.0	1050.0	1050.0
2.5°	1042.8	1056.1	1047.6	1048.5	1050.8
5°	1039.0	1055.6	1047.0	1048.2	1057.0
7.5°	1033.8	1050.6	1044.2	1047.8	1056.4
10°	1029.0	1046.6	1041.0	1046.2	1054.0
12.5°	1022.6	1041.0	1037.0	1043.0	1050.8
15°	1009.0	1028.6	1028.0	1035.1	1040.0
17.5°	993.2	1012.8	1011.8	1013.7	1016.0
20°	982.0	1001.6	999.0	992.0	992.0
22.5°	966.0	987.1	980.6	961.5	955.2
25°	942.0	962.5	943.0	903.7	889.0
27.5°	914.0	930.6	891.4	835.5	815.2
30°	894.0	906.7	849.0	787.6	768.0
32.5°	873.2	878.1	805.8	741.9	720.8
35°	839.0	830.2	739.0	674.6	656.0
37.5°	798.6	772.4	674.8	607.3	586.8
40°	769.0	731.9	630.0	562.5	542.0
42.5°	736.2	689.7	587.6	520.1	498.8
45°	682.0	627.3	523.0	457.5	437.0
47.5°	621.0	566.6	462.6	399.2	381.6
50°	577.0	524.2	425.0	361.5	340.0
52.5°	532.2	484.9	388.2	322.9	293.6
55°	471.0	426.0	335.0	262.6	246.0
57.5°	408.0	369.1	286.8	221.1	207.4
60°	368.0	333.8	254.0	198.7	185.0
62.5°	329.6	299.3	222.0	177.9	166.6
65°	272.0	249.5	185.0	148.8	139.0
67.5°	216.0	203.5	153.8	122.1	115.6
70°	180.0	176.1	133.0	106.9	102.0
72.5°	148.8	150.4	113.0	92.5	89.2
75°	106.0	113.8	87.0	73.0	71.0
77.5°	72.2	83.9	64.4	54.0	52.4
80°	53.0	64.7	50.0	42.0	42.0
82.5°	37.0	46.4	35.6	31.6	31.6
85°	18.0	22.9	19.0	13.0	12.0
87.5°	4.8	7.3	3.8	3.0	3.0
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.2	38.2	12.5	10.2
95°	9.0	26.6	121.0	44.6	29.0
97.5°	16.4	34.6	200.3	124.7	78.6
100°	22.0	38.6	225.9	211.3	141.0
102.5°	27.6	43.4	221.1	301.8	236.9
105°	36.0	50.7	201.9	385.5	367.9
107.5°	44.4	58.1	183.5	391.9	411.3
110°	50.0	63.7	173.9	382.7	420.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.6	68.5	169.1	366.2	414.5
115°	64.0	75.7	163.9	338.2	395.9
117.5°	72.2	82.9	161.7	311.4	370.5
120°	77.0	87.7	160.9	296.2	352.9
122.5°	81.8	92.5	161.7	283.3	335.3
125°	89.0	98.7	161.9	266.0	311.9
127.5°	94.8	104.7	161.9	253.0	292.1
130°	98.0	108.7	161.9	245.7	280.9
132.5°	102.0	112.7	161.1	239.3	272.1
135°	107.0	118.7	160.9	229.6	257.9
137.5°	112.8	123.5	160.9	219.9	245.7
140°	116.0	126.7	160.9	213.5	236.9
142.5°	120.0	129.9	160.9	207.0	228.1
145°	125.0	134.7	160.9	198.3	215.9
147.5°	131.0	139.4	161.9	190.3	204.1
150°	135.0	141.8	161.9	186.2	196.9
152.5°	138.2	144.2	161.9	182.1	191.3
155°	143.0	147.8	161.9	178.1	183.9
157.5°	147.8	151.5	161.9	174.4	178.1
160°	151.0	153.9	161.9	172.0	174.9
162.5°	153.3	155.5	161.9	170.4	172.5
165°	156.9	157.9	162.9	168.0	169.9
167.5°	159.1	159.3	161.9	166.6	167.5
170°	159.9	160.9	161.9	165.0	165.9
172.5°	161.5	161.7	162.7	164.2	164.3
175°	162.9	162.9	162.9	163.9	162.9
177.5°	162.9	162.9	162.9	162.9	162.9
180°	162.9	162.9	162.9	162.9	162.9

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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	18.56	19.58	19.34	20.37	21.33	15.05	16.06	15.83	16.85	17.82
	3H	19.90	20.80	20.69	21.60	22.60	16.27	17.17	17.06	17.97	18.97
	4H	20.28	21.13	21.09	21.94	22.94	16.72	17.57	17.53	18.38	19.39
	6H	20.49	21.27	21.31	22.09	23.11	17.05	17.83	17.87	18.65	19.67
	8H	20.53	21.27	21.36	22.11	23.13	17.13	17.87	17.95	18.71	19.73
	12H	20.53	21.24	21.36	22.07	23.11	17.14	17.85	17.98	18.68	19.73
4H	2H	18.69	19.54	19.50	20.35	21.35	15.75	16.60	16.56	17.41	18.42
	3H	20.25	20.95	21.07	21.80	22.81	17.15	17.86	17.98	18.70	19.72
	4H	20.76	21.40	21.59	22.24	23.29	17.71	18.35	18.54	19.19	20.24
	6H	21.10	21.65	21.95	22.52	23.57	18.12	18.67	18.97	19.54	20.59
	8H	21.18	21.69	22.04	22.56	23.62	18.23	18.74	19.08	19.60	20.67
	12H	21.20	21.66	22.08	22.55	23.62	18.26	18.72	19.13	19.60	20.67
8H	4H	20.81	21.32	21.66	22.19	23.25	18.04	18.56	18.90	19.42	20.48
	6H	21.25	21.67	22.13	22.58	23.64	18.55	18.98	19.44	19.88	20.95
	8H	21.39	21.77	22.29	22.67	23.75	18.72	19.10	19.61	19.99	21.08
	12H	21.47	21.80	22.36	22.69	23.83	18.79	19.12	19.68	20.01	21.14
12H	4H	20.77	21.24	21.65	22.12	23.19	18.07	18.53	18.94	19.41	20.48
	6H	21.24	21.62	22.13	22.52	23.60	18.62	19.00	19.51	19.90	20.98
	8H	21.41	21.74	22.30	22.63	23.77	18.81	19.14	19.71	20.03	21.17