

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: P854883

Luminaire Tested: SQ2-PW1-025U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854883  
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-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

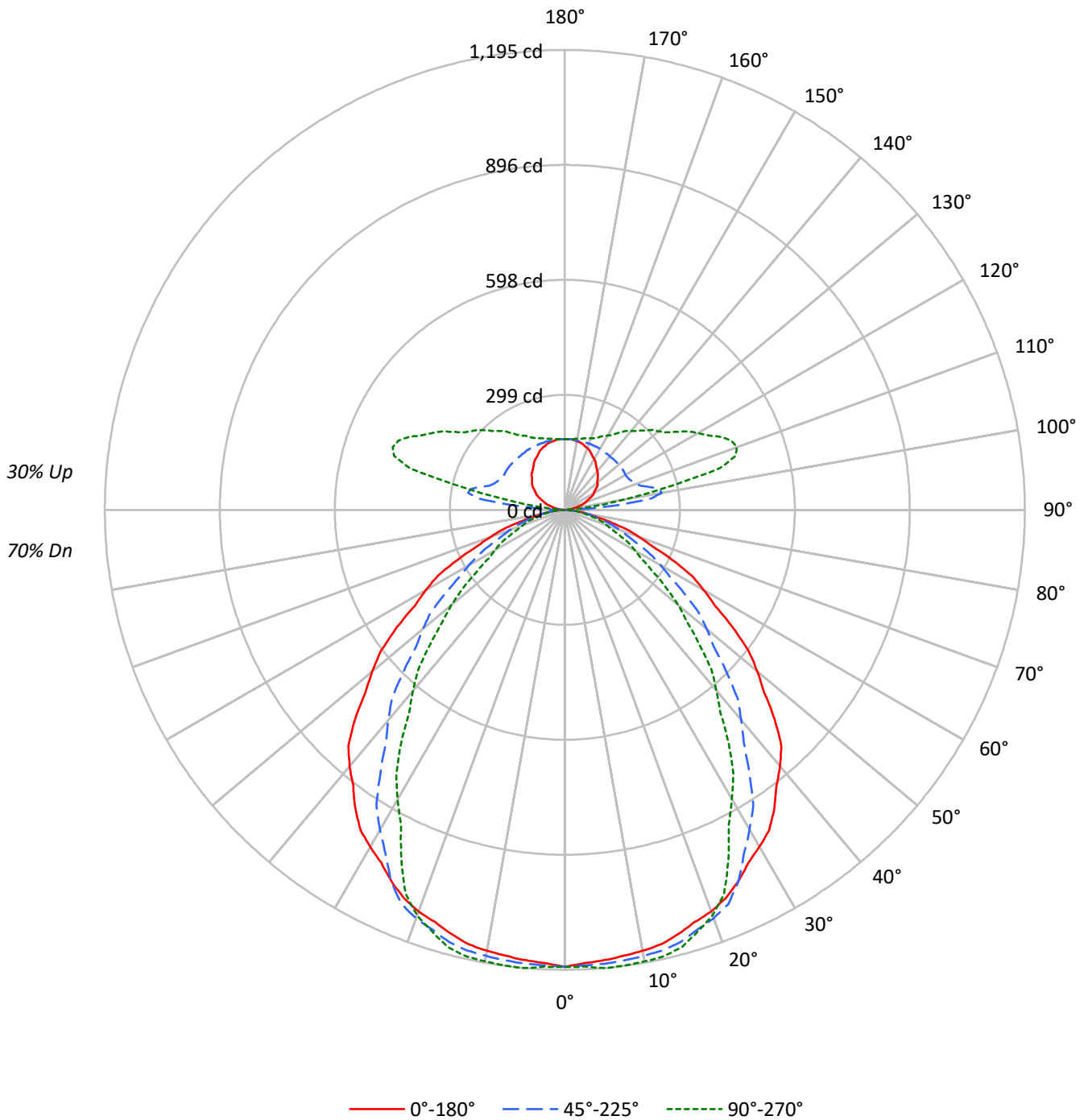
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3778.0 lumens  
Efficiency: N/A  
Efficacy: 149.9 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									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	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	70																
1	103	99	95	92	97	94	90	88	84	82	79	75	73	72	67	66	64	64	64	64	64	64	64	64	64	64	64	64	64	60																
2	94	87	81	76	89	83	78	73	75	71	67	67	64	61	60	58	55	55	55	55	55	55	55	55	55	55	55	55	55	52																
3	87	77	70	65	82	74	67	62	67	61	57	60	56	53	54	51	48	48	48	48	48	48	48	48	48	48	48	48	48	45																
4	80	69	61	55	75	66	59	53	60	54	50	54	49	46	49	45	42	42	42	42	42	42	42	42	42	42	42	42	42	39																
5	74	62	54	48	69	59	52	47	54	48	43	49	44	40	44	40	37	37	37	37	37	37	37	37	37	37	37	37	37	34																
6	68	56	48	42	64	54	46	41	49	43	38	44	39	36	40	36	33	33	33	33	33	33	33	33	33	33	33	33	33	31																
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	30	30	30	30	30	30	30	30	30	30	30	30	27																
8	59	47	39	34	56	45	38	33	41	35	31	37	32	29	34	30	27	27	27	27	27	27	27	27	27	27	27	27	27	25																
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	24	24	24	24	24	24	24	24	24	24	24	24	22																
10	52	39	32	27	49	38	31	27	35	29	25	32	27	24	29	25	22	22	22	22	22	22	22	22	22	22	22	22	22	20																

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

	0°	45°	90°
0°	19168	19168	19168
5°	19039	19186	19370
10°	19074	19297	19538
15°	19069	19428	19656
20°	19077	19407	19271
25°	18975	18994	17906
30°	18845	17896	16188
35°	18697	16468	14619
40°	18326	15013	12916
45°	17607	13502	11282
50°	16387	12069	9656
55°	14990	10663	7828
60°	13437	9274	6755
65°	11748	7992	6006
70°	9607	7100	5443
75°	7473	6138	5009
80°	5570	5253	4417
85°	3779	3983	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17607 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.0	3.0
10°-20°	327.5	8.7
20°-30°	482.0	12.8
30°-40°	527.0	13.9
40°-50°	472.8	12.5
50°-60°	352.7	9.3
60°-70°	222.9	5.9
70°-80°	110.4	2.9
80°-90°	26.3	0.7
90°-100°	74.5	2.0
100°-110°	231.9	6.1
110°-120°	226.9	6.0
120°-130°	185.2	4.9
130°-140°	151.5	4.0
140°-150°	118.3	3.1
150°-160°	85.3	2.3
160°-170°	52.2	1.4
170°-180°	17.6	0.5
0°-30°	922.6	24.4
0°-40°	1449.6	38.4
0°-60°	2275.0	60.2
0°-90°	2634.6	69.7
90°-120°	533.3	14.1
90°-150°	988.3	26.2
90°-180°	1143.0	30.3
0°-180°	3778.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1175	1194	1184	1185	1195	112
15°	1141	1163	1162	1170	1176	322
25°	1065	1088	1066	1022	1005	490
35°	949	939	836	763	742	592
45°	771	709	591	517	494	591
55°	532	482	379	297	278	476
65°	308	282	209	168	157	305
75°	120	129	98	82	80	132
85°	20	26	22	15	14	26
90°	0	1	3	3	3	1
95°	10	30	137	50	33	12
105°	41	57	228	436	416	43
115°	72	86	185	382	448	71
125°	101	112	183	301	353	89
135°	121	134	182	260	292	94
145°	141	152	182	224	244	89
155°	162	167	183	201	208	75
165°	177	178	184	190	192	50
175°	184	184	184	185	184	17
180°	184	184	184	184	184	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1179.0	1194.1	1184.5	1185.5	1188.1
5°	1174.7	1193.5	1183.8	1185.1	1195.1
7.5°	1168.9	1187.9	1180.6	1184.7	1194.4
10°	1163.4	1183.3	1177.0	1182.9	1191.7
12.5°	1156.2	1177.0	1172.5	1179.3	1188.1
15°	1140.8	1163.0	1162.3	1170.3	1175.9
17.5°	1123.0	1145.1	1144.0	1146.1	1148.7
20°	1110.3	1132.5	1129.5	1121.6	1121.6
22.5°	1092.2	1116.1	1108.7	1087.1	1080.0
25°	1065.1	1088.2	1066.2	1021.8	1005.1
27.5°	1033.4	1052.2	1007.9	944.7	921.7
30°	1010.8	1025.2	959.9	890.5	868.3
32.5°	987.3	992.8	911.1	838.8	815.0
35°	948.6	938.7	835.5	762.7	741.7
37.5°	902.9	873.3	763.0	686.6	663.5
40°	869.5	827.5	712.3	636.0	612.8
42.5°	832.4	779.8	664.4	588.0	564.0
45°	771.1	709.3	591.3	517.3	494.1
47.5°	702.1	640.6	523.0	451.4	431.5
50°	652.4	592.7	480.5	408.7	384.4
52.5°	601.7	548.2	438.9	365.1	332.0
55°	532.5	481.7	378.8	296.9	278.1
57.5°	461.3	417.3	324.3	250.0	234.5
60°	416.1	377.4	287.2	224.7	209.2
62.5°	372.7	338.4	251.0	201.1	188.4
65°	307.5	282.1	209.2	168.2	157.2
67.5°	244.2	230.1	173.9	138.1	130.7
70°	203.5	199.1	150.4	120.9	115.3
72.5°	168.2	170.0	127.8	104.6	100.9
75°	119.8	128.7	98.4	82.5	80.3
77.5°	81.6	94.9	72.8	61.1	59.2
80°	59.9	73.2	56.5	47.5	47.5
82.5°	41.8	52.5	40.3	35.7	35.7
85°	20.4	25.9	21.5	14.7	13.6
87.5°	5.4	8.3	4.3	3.4	3.4
90°	0.0	1.1	3.4	3.4	3.4
92.5°	3.6	12.7	43.2	14.1	11.5
95°	10.2	30.1	136.8	50.4	32.8
97.5°	18.5	39.1	226.5	141.0	88.9
100°	24.9	43.6	255.4	238.9	159.4
102.5°	31.2	49.1	250.0	341.2	267.8
105°	40.7	57.3	228.3	435.9	416.0
107.5°	50.2	65.7	207.5	443.1	465.0
110°	56.5	72.0	196.6	432.7	475.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	62.9	77.4	191.2	414.0	468.7
115°	72.4	85.6	185.3	382.4	447.6
117.5°	81.6	93.7	182.8	352.1	418.9
120°	87.1	99.2	181.9	334.9	399.0
122.5°	92.5	104.6	182.8	320.3	379.1
125°	100.6	111.6	183.1	300.8	352.6
127.5°	107.2	118.4	183.1	286.1	330.3
130°	110.8	122.9	183.1	277.8	317.6
132.5°	115.3	127.4	182.1	270.6	307.6
135°	121.0	134.2	181.9	259.6	291.6
137.5°	127.5	139.6	181.9	248.6	277.8
140°	131.2	143.3	181.9	241.4	267.8
142.5°	135.7	146.9	181.9	234.0	257.9
145°	141.3	152.3	181.9	224.2	244.1
147.5°	148.1	157.6	183.1	215.2	230.8
150°	152.6	160.3	183.1	210.5	222.6
152.5°	156.3	163.0	183.1	205.9	216.3
155°	161.7	167.1	183.1	201.4	207.9
157.5°	167.1	171.3	183.1	197.2	201.4
160°	170.7	174.0	183.1	194.5	197.7
162.5°	173.3	175.8	183.1	192.7	195.0
165°	177.4	178.5	184.2	189.9	192.1
167.5°	179.9	180.1	183.1	188.4	189.4
170°	180.8	181.9	183.1	186.6	187.6
172.5°	182.6	182.8	184.0	185.7	185.8
175°	184.2	184.2	184.2	185.3	184.2
177.5°	184.2	184.2	184.2	184.2	184.2
180°	184.2	184.2	184.2	184.2	184.2

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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	18.99	20.00	19.77	20.79	21.76	15.48	16.49	16.25	17.28	18.24
	3H	20.32	21.23	21.11	22.03	23.02	16.69	17.60	17.48	18.40	19.39
	4H	20.71	21.56	21.51	22.37	23.37	17.15	18.00	17.96	18.81	19.81
	6H	20.92	21.70	21.74	22.52	23.53	17.47	18.26	18.29	19.08	20.09
	8H	20.95	21.70	21.78	22.54	23.55	17.55	18.30	18.38	19.13	20.15
	12H	20.95	21.67	21.79	22.49	23.54	17.57	18.28	18.40	19.11	20.15
4H	2H	19.11	19.96	19.92	20.77	21.78	16.18	17.03	16.99	17.84	18.84
	3H	20.67	21.38	21.49	22.22	23.24	17.58	18.29	18.40	19.13	20.15
	4H	21.19	21.83	22.02	22.67	23.72	18.13	18.77	18.97	19.62	20.66
	6H	21.53	22.08	22.38	22.94	24.00	18.54	19.10	19.40	19.96	21.02
	8H	21.61	22.12	22.46	22.98	24.05	18.65	19.17	19.51	20.03	21.09
	12H	21.63	22.09	22.50	22.97	24.04	18.68	19.15	19.56	20.03	21.10
8H	4H	21.24	21.75	22.09	22.61	23.68	18.47	18.99	19.33	19.85	20.91
	6H	21.68	22.10	22.56	23.01	24.07	18.98	19.41	19.86	20.31	21.38
	8H	21.82	22.20	22.72	23.10	24.18	19.14	19.52	20.04	20.42	21.50
	12H	21.90	22.23	22.79	23.12	24.25	19.21	19.54	20.11	20.43	21.57
12H	4H	21.20	21.66	22.08	22.55	23.62	18.49	18.96	19.37	19.84	20.91
	6H	21.67	22.05	22.56	22.94	24.03	19.05	19.42	19.94	20.32	21.40
	8H	21.84	22.17	22.73	23.06	24.19	19.24	19.57	20.13	20.46	21.60