

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: P854162

Luminaire Tested: SQ2-PR1-025U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854162  
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-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

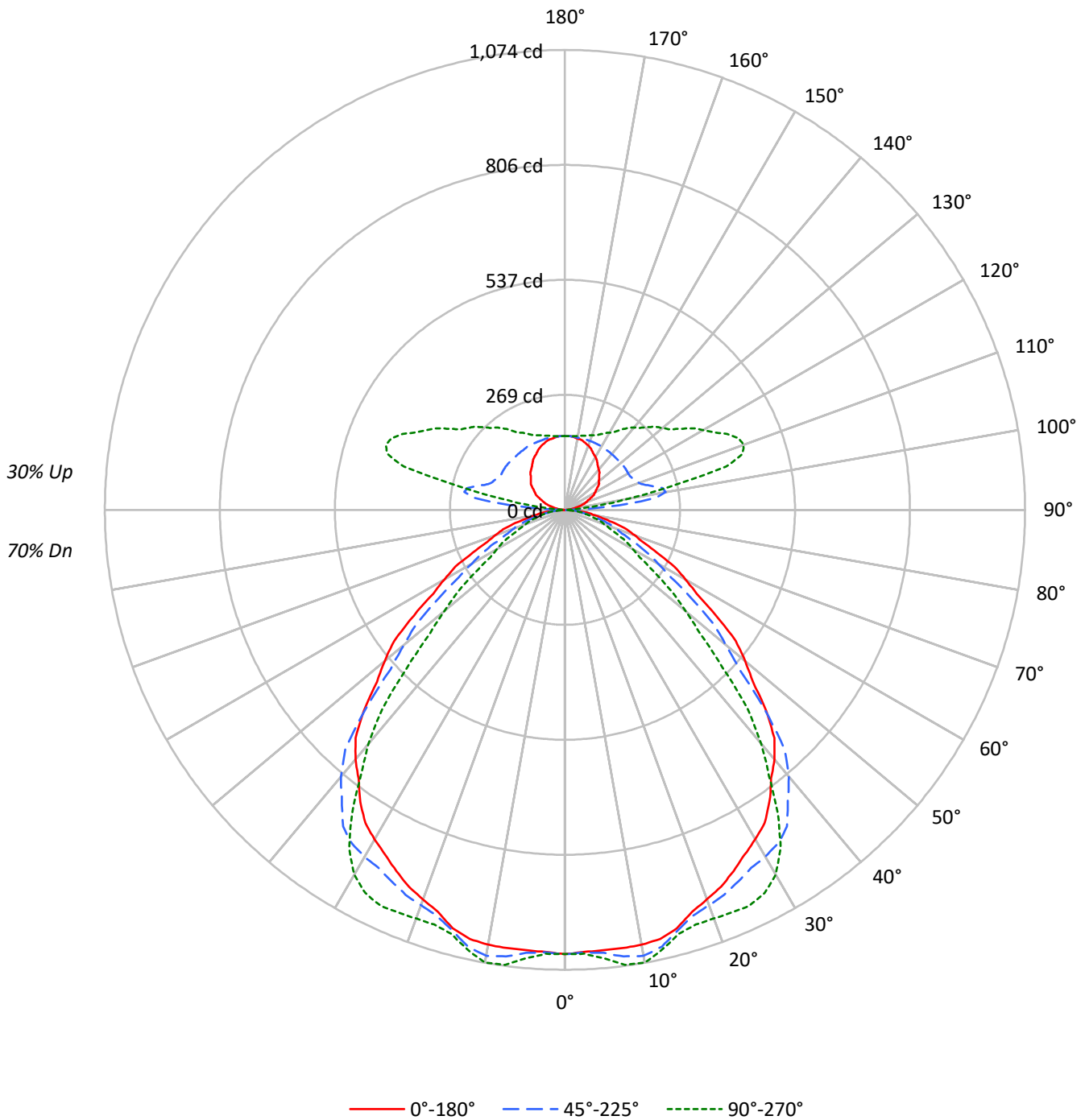
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3565.5 lumens  
Efficiency: N/A  
Efficacy: 141.5 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): 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	0
RCR																		
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	75	75	75	70
1	103	99	95	92	97	94	91	88	84	82	80	75	74	72	67	66	65	61
2	95	88	82	77	89	83	78	73	75	71	67	67	64	61	60	58	56	52
3	87	78	71	65	82	74	68	62	67	62	58	60	56	53	54	51	48	45
4	80	69	62	56	75	66	59	54	60	54	50	54	50	46	49	45	42	39
5	74	62	54	48	70	59	52	47	54	48	44	49	44	40	44	40	37	35
6	68	56	48	42	64	54	46	41	49	43	38	45	40	36	40	36	33	31
7	63	51	43	38	60	49	42	36	45	39	34	41	36	32	37	33	30	27
8	59	47	39	33	56	45	37	33	41	35	31	37	32	29	34	30	27	25
9	55	43	35	30	52	41	34	29	38	32	28	35	30	26	32	27	24	22
10	51	39	32	27	49	38	31	26	35	29	25	32	27	24	29	25	22	20

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

	0°	45°	90°
0°	16755	16755	16755
5°	16733	16835	17041
10°	16908	17343	17602
15°	16903	16991	17133
20°	16631	16885	17448
25°	16582	17054	18166
30°	16565	17434	18340
35°	16409	17804	17075
40°	16029	17144	15026
45°	15168	15047	11883
50°	13790	12303	9218
55°	12118	10123	7175
60°	10485	8096	5909
65°	9051	6709	5173
70°	8139	5943	4593
75°	7455	5147	4223
80°	6490	4128	4128
85°	4705	3724	1964

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16397 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	2.8
10°-20°	290.1	8.1
20°-30°	448.4	12.6
30°-40°	539.3	15.1
40°-50°	484.3	13.6
50°-60°	324.4	9.1
60°-70°	188.7	5.3
70°-80°	96.9	2.7
80°-90°	24.4	0.7
90°-100°	69.7	2.0
100°-110°	216.8	6.1
110°-120°	212.1	5.9
120°-130°	173.1	4.9
130°-140°	141.6	4.0
140°-150°	110.5	3.1
150°-160°	79.8	2.2
160°-170°	48.8	1.4
170°-180°	16.4	0.5
0°-30°	838.7	23.5
0°-40°	1378.0	38.6
0°-60°	2186.7	61.3
0°-90°	2496.7	70.0
90°-120°	498.5	14.0
90°-150°	923.8	25.9
90°-180°	1069.0	30.0
0°-180°	3565.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1032	1050	1039	1041	1051	99
15°	1011	1053	1016	1020	1025	284
25°	931	968	957	993	1020	429
35°	832	840	903	886	866	519
45°	664	718	659	556	520	508
55°	430	447	360	278	255	387
65°	237	242	176	143	135	240
75°	120	116	82	70	68	127
85°	25	20	20	14	11	31
90°	0	1	3	3	3	1
95°	10	28	128	47	31	11
105°	38	54	213	407	389	40
115°	68	80	173	357	418	67
125°	94	104	171	281	330	83
135°	113	125	170	243	273	87
145°	132	142	170	210	228	83
155°	151	156	171	188	194	70
165°	166	167	172	178	180	47
175°	172	172	172	173	172	16
180°	172	172	172	172	172	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1037.7	1037.7	1037.7	1037.7	1037.7
2.5°	1033.4	1045.9	1034.3	1035.2	1037.7
5°	1032.4	1050.0	1038.7	1041.1	1051.4
7.5°	1032.2	1057.2	1051.9	1058.3	1071.9
10°	1031.3	1061.3	1057.8	1059.2	1073.6
12.5°	1026.3	1061.2	1045.1	1043.8	1051.6
15°	1011.2	1052.6	1016.5	1019.8	1025.0
17.5°	984.8	1028.0	993.7	1005.3	1015.5
20°	967.9	1010.3	982.7	997.9	1015.5
22.5°	952.6	995.0	972.5	993.8	1018.0
25°	930.8	968.1	957.3	992.8	1019.7
27.5°	908.0	929.9	942.7	990.3	1009.1
30°	888.5	903.0	935.1	976.5	983.7
32.5°	867.4	876.1	924.9	946.5	937.2
35°	832.5	839.7	903.3	886.0	866.3
37.5°	791.0	805.9	854.9	804.9	782.3
40°	760.5	785.4	813.4	738.8	712.9
42.5°	723.3	763.0	758.4	663.4	631.7
45°	664.3	718.1	659.0	555.6	520.4
47.5°	594.7	649.9	553.2	460.9	428.0
50°	549.0	593.5	489.8	403.2	367.0
52.5°	502.4	534.5	435.6	349.2	316.3
55°	430.5	447.1	359.6	277.7	254.9
57.5°	364.5	375.1	293.9	224.3	207.5
60°	324.7	332.0	250.7	196.4	183.0
62.5°	288.3	293.9	216.0	172.8	162.7
65°	236.9	242.1	175.6	142.6	135.4
67.5°	196.1	198.8	144.5	118.5	111.7
70°	172.4	173.5	125.9	102.5	97.3
72.5°	151.3	149.8	108.1	89.0	85.5
75°	119.5	116.4	82.5	69.8	67.7
77.5°	89.3	86.0	58.0	53.7	53.7
80°	69.8	65.7	44.4	44.4	44.4
82.5°	52.0	46.3	34.3	34.3	33.4
85°	25.4	20.2	20.1	13.7	10.6
87.5°	6.8	7.0	3.2	3.2	3.2
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.9	40.4	13.3	10.8
95°	9.5	28.1	127.8	47.2	30.6
97.5°	17.3	36.5	211.7	131.8	83.0
100°	23.2	40.8	238.8	223.3	149.0
102.5°	29.2	45.9	233.7	319.0	250.4
105°	38.0	53.5	213.4	407.4	388.8
107.5°	46.9	61.4	194.0	414.2	434.6
110°	52.8	67.3	183.8	404.5	444.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.7	72.4	178.8	387.0	438.0
115°	67.6	80.0	173.3	357.4	418.4
117.5°	76.3	87.6	170.9	329.1	391.5
120°	81.3	92.7	170.1	313.0	372.9
122.5°	86.4	97.8	170.9	299.4	354.3
125°	94.0	104.4	171.1	281.1	329.6
127.5°	100.2	110.7	171.1	267.4	308.7
130°	103.5	114.9	171.1	259.7	296.9
132.5°	107.8	119.1	170.3	252.9	287.6
135°	113.0	125.4	170.1	242.6	272.6
137.5°	119.2	130.5	170.1	232.4	259.7
140°	122.6	133.9	170.1	225.6	250.4
142.5°	126.8	137.3	170.1	218.8	241.1
145°	132.1	142.4	170.1	209.6	228.2
147.5°	138.4	147.3	171.1	201.1	215.7
150°	142.6	149.9	171.1	196.8	208.1
152.5°	146.0	152.4	171.1	192.5	202.2
155°	151.1	156.2	171.1	188.2	194.4
157.5°	156.1	160.1	171.1	184.3	188.3
160°	159.5	162.6	171.1	181.8	184.9
162.5°	162.1	164.3	171.1	180.1	182.3
165°	165.9	166.9	172.2	177.5	179.6
167.5°	168.2	168.4	171.1	176.0	177.1
170°	169.0	170.1	171.1	174.3	175.4
172.5°	170.7	170.9	172.0	173.5	173.7
175°	172.2	172.2	172.2	173.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2



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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	18.27	19.29	19.05	20.07	21.03	15.00	16.01	15.77	16.80	17.75
	3H	19.52	20.42	20.31	21.22	22.21	16.08	16.98	16.86	17.78	18.76
	4H	19.98	20.83	20.78	21.63	22.63	16.48	17.33	17.29	18.14	19.14
	6H	20.30	21.08	21.12	21.90	22.91	16.82	17.60	17.64	18.42	19.43
	8H	20.39	21.13	21.22	21.97	22.98	16.91	17.65	17.74	18.49	19.50
	12H	20.42	21.13	21.25	21.96	23.00	16.92	17.63	17.76	18.46	19.50
4H	2H	18.37	19.22	19.18	20.03	21.03	15.59	16.43	16.39	17.24	18.24
	3H	19.86	20.56	20.68	21.40	22.42	16.87	17.57	17.69	18.41	19.43
	4H	20.46	21.09	21.29	21.93	22.98	17.38	18.02	18.21	18.86	19.90
	6H	20.92	21.47	21.77	22.33	23.38	17.82	18.37	18.67	19.23	20.28
	8H	21.05	21.57	21.91	22.42	23.48	17.95	18.46	18.80	19.32	20.38
	12H	21.11	21.57	21.99	22.45	23.52	17.97	18.44	18.85	19.32	20.38
8H	4H	20.49	21.01	21.35	21.87	22.93	17.69	18.21	18.55	19.07	20.13
	6H	21.05	21.47	21.93	22.37	23.43	18.23	18.66	19.12	19.56	20.62
	8H	21.25	21.62	22.14	22.52	23.60	18.42	18.80	19.31	19.69	20.77
	12H	21.36	21.69	22.25	22.57	23.71	18.49	18.82	19.38	19.71	20.84
12H	4H	20.46	20.92	21.33	21.80	22.86	17.72	18.18	18.59	19.06	20.12
	6H	21.03	21.41	21.92	22.31	23.38	18.29	18.67	19.19	19.57	20.64
	8H	21.25	21.58	22.14	22.47	23.60	18.51	18.84	19.40	19.73	20.86