

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: P854387

Luminaire Tested: SQ2-WBM-100U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854387  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-100U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

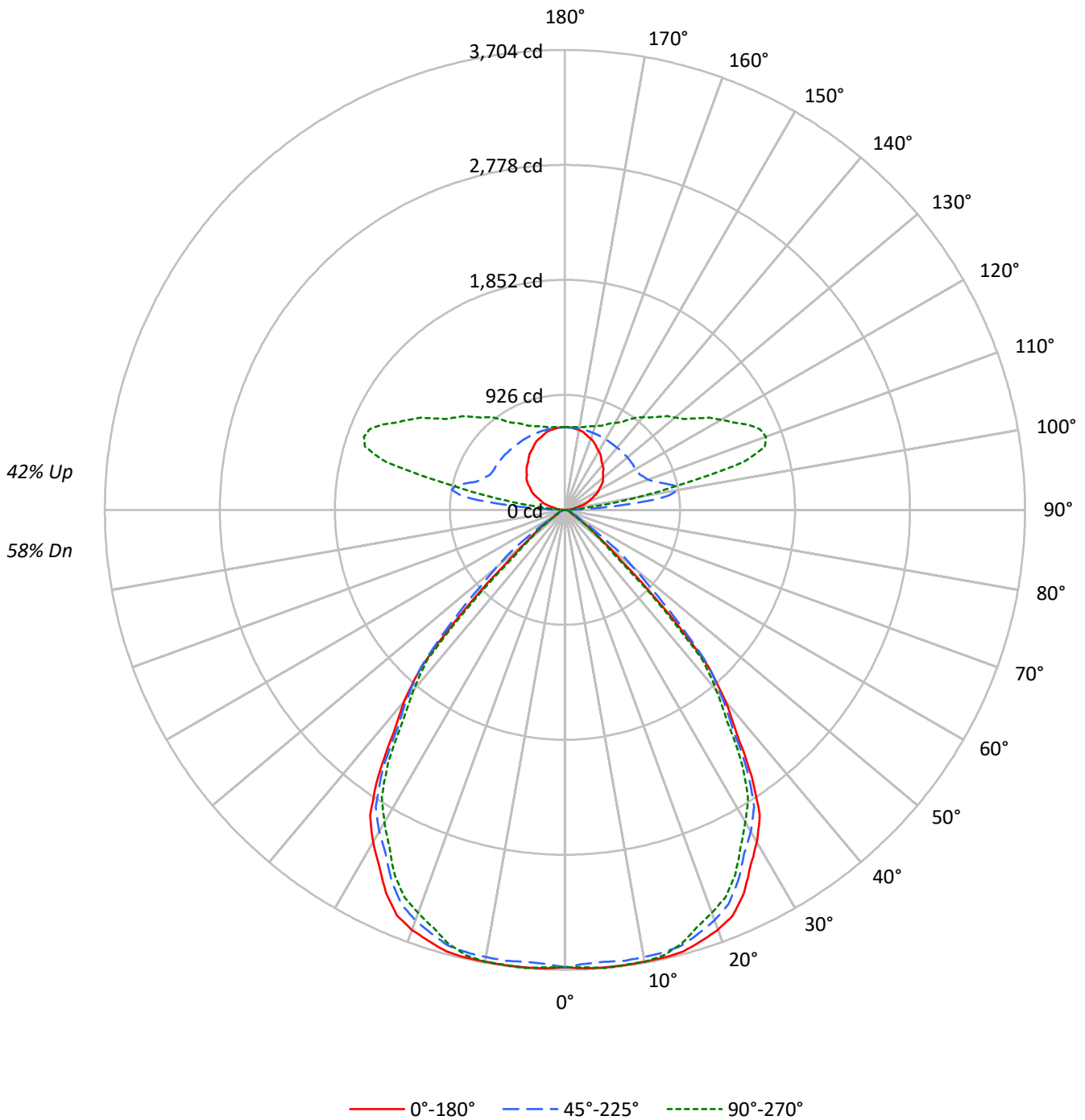
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9894.5 lumens  
Efficiency: N/A  
Efficacy: 120.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 82.3  
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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	102	98	95	92	95	92	89	87	80	78	76	69	68	67	59	59	58	53
2	94	88	83	79	88	83	79	75	73	70	67	64	61	59	55	54	52	48
3	88	80	74	69	82	75	70	65	66	62	59	58	55	53	51	49	47	44
4	81	72	65	60	76	68	62	58	61	56	52	54	50	47	47	45	43	39
5	76	66	58	53	71	62	56	51	55	51	47	49	46	43	44	41	39	36
6	70	60	53	48	66	57	50	46	51	46	42	45	42	39	40	37	35	33
7	66	55	48	43	62	52	46	41	47	42	38	42	38	35	38	34	32	30
8	61	50	43	39	58	48	42	37	43	38	35	39	35	32	35	32	29	27
9	58	46	40	35	54	44	38	34	40	35	32	36	32	29	33	29	27	25
10	54	43	36	32	51	41	35	31	37	32	29	34	30	27	30	27	25	23

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

	0°	45°	90°
0°	59473	59473	59473
5°	59940	59221	60026
10°	60581	59940	60599
15°	61553	60740	60495
20°	61855	60458	59369
25°	60690	58772	57774
30°	57586	55754	54178
35°	51637	50407	48846
40°	42392	41456	39943
45°	26508	30102	24048
50°	10482	17804	9367
55°	5084	8087	5025
60°	2386	3956	2183
65°	2139	2300	2059
70°	2096	2143	1945
75°	2040	2040	1847
80°	1962	1962	1767
85°	1760	1760	1760

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 30102 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	352.0	3.6
10°-20°	1028.7	10.4
20°-30°	1520.8	15.4
30°-40°	1571.5	15.9
40°-50°	945.6	9.6
50°-60°	227.3	2.3
60°-70°	62.1	0.6
70°-80°	34.6	0.3
80°-90°	12.0	0.1
90°-100°	277.8	2.8
100°-110°	840.2	8.5
110°-120°	820.3	8.3
120°-130°	670.3	6.8
130°-140°	547.1	5.5
140°-150°	425.9	4.3
150°-160°	307.0	3.1
160°-170°	187.9	1.9
170°-180°	63.5	0.6
0°-30°	2901.5	29.3
0°-40°	4473.0	45.2
0°-60°	5645.8	57.1
0°-90°	5754.5	58.2
90°-120°	1938.3	19.6
90°-150°	3581.6	36.2
90°-180°	4140.0	41.8
0°-180°	9894.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3684	3684	3684	3684	3684	
5°	3698	3687	3654	3706	3704	353
15°	3682	3710	3634	3635	3619	1038
25°	3407	3433	3299	3252	3243	1557
35°	2620	2614	2557	2508	2478	1612
45°	1161	1318	1318	1246	1053	899
55°	181	203	287	194	178	184
65°	56	59	60	56	54	57
75°	33	35	33	32	30	34
85°	10	10	10	10	10	11
90°	0	2	12	7	6	2
95°	34	109	524	194	122	41
105°	146	205	825	1567	1489	154
115°	260	310	667	1381	1622	257
125°	363	403	658	1090	1283	323
135°	436	481	654	940	1058	337
145°	509	546	654	809	884	319
155°	580	599	658	725	753	267
165°	634	641	661	686	694	179
175°	663	663	664	669	667	63
180°	665	665	665	665	665	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3683.5	3683.5	3683.5	3683.5	3683.5
2.5°	3697.0	3687.9	3659.0	3692.7	3686.9
5°	3698.3	3686.9	3653.9	3705.6	3703.6
7.5°	3697.7	3691.7	3663.6	3703.4	3695.3
10°	3695.1	3698.2	3656.0	3699.3	3696.2
12.5°	3693.4	3707.3	3651.8	3682.3	3674.2
15°	3682.4	3710.3	3633.8	3634.6	3619.1
17.5°	3642.3	3676.2	3577.0	3547.6	3528.0
20°	3600.0	3633.1	3518.7	3474.9	3455.3
22.5°	3534.1	3564.7	3437.6	3393.1	3376.7
25°	3406.7	3432.6	3299.0	3252.3	3243.0
27.5°	3235.0	3245.9	3123.2	3077.4	3061.5
30°	3088.8	3089.8	2990.5	2936.0	2906.0
32.5°	2918.9	2911.7	2835.0	2780.3	2742.9
35°	2619.8	2613.6	2557.4	2508.2	2478.2
37.5°	2268.2	2267.2	2213.7	2171.2	2141.0
40°	2011.3	2018.5	1966.9	1913.7	1895.1
42.5°	1703.7	1757.2	1713.4	1655.2	1643.3
45°	1160.9	1317.9	1318.3	1246.3	1053.2
47.5°	664.0	833.4	948.8	734.5	545.3
50°	417.3	545.3	708.8	447.3	372.9
52.5°	296.4	359.2	524.6	314.6	278.2
55°	180.6	203.4	287.3	194.0	178.5
57.5°	109.4	130.7	166.5	130.1	109.9
60°	73.9	93.6	122.5	86.2	67.6
62.5°	65.5	72.7	96.3	67.9	60.8
65°	56.0	59.1	60.2	55.9	53.9
67.5°	49.4	51.5	50.5	49.4	46.3
70°	44.4	46.4	45.4	44.3	41.2
72.5°	39.3	41.4	40.4	39.2	37.0
75°	32.7	34.8	32.7	31.6	29.6
77.5°	25.4	27.2	26.2	25.3	23.2
80°	21.1	22.2	21.1	21.1	19.0
82.5°	16.9	17.1	16.1	16.0	14.8
85°	9.5	10.5	9.5	9.5	9.5
87.5°	3.4	3.8	5.9	4.8	3.8
90°	0.0	2.0	12.5	7.3	6.3
92.5°	11.7	47.2	169.6	56.2	40.5
95°	34.5	109.0	524.2	193.7	122.2
97.5°	66.6	138.7	826.2	546.7	332.9
100°	86.7	157.1	923.2	892.5	599.4
102.5°	109.2	177.2	903.1	1251.8	997.9
105°	146.2	205.4	825.0	1566.8	1489.2
107.5°	181.3	237.9	749.8	1597.9	1687.8
110°	204.7	258.8	712.2	1558.7	1722.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	227.2	279.7	689.7	1492.8	1699.5
115°	260.0	310.1	667.3	1380.8	1621.8
117.5°	292.6	340.0	659.4	1275.9	1522.6
120°	314.3	359.3	656.9	1214.7	1451.6
122.5°	334.4	376.9	656.9	1160.8	1379.7
125°	363.4	403.2	657.9	1090.4	1283.4
127.5°	387.0	428.3	656.9	1037.4	1202.0
130°	402.1	444.9	656.9	1007.0	1156.0
132.5°	415.4	459.1	656.0	979.1	1116.8
135°	435.5	481.4	653.7	940.4	1057.9
137.5°	457.8	501.5	653.7	899.1	1008.0
140°	472.0	514.9	653.7	872.2	975.4
142.5°	486.2	527.5	652.9	847.7	937.8
145°	508.6	546.4	653.7	809.0	884.5
147.5°	530.9	563.0	655.0	777.0	835.0
150°	545.1	574.7	655.8	759.3	808.3
152.5°	558.5	584.8	656.7	744.0	784.1
155°	579.6	599.0	657.9	725.4	752.9
157.5°	598.0	613.7	659.2	711.6	730.8
160°	608.8	622.1	660.0	703.1	717.4
162.5°	619.7	629.7	660.8	695.6	707.4
165°	633.9	641.0	661.0	686.3	694.5
167.5°	646.0	649.7	662.3	679.1	682.5
170°	652.7	654.7	663.1	675.7	676.7
172.5°	656.9	658.1	663.1	672.3	672.5
175°	663.1	663.1	664.2	669.3	667.3
177.5°	666.0	665.2	664.4	666.8	665.2
180°	665.2	665.2	665.2	665.2	665.2

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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	7.85	8.61	8.77	9.52	10.68	7.51	8.28	8.43	9.19	10.35
	3H	8.36	9.04	9.29	9.96	11.15	8.02	8.69	8.95	9.62	10.81
	4H	8.63	9.26	9.57	10.19	11.39	8.26	8.89	9.20	9.82	11.02
	6H	8.85	9.43	9.81	10.37	11.58	8.46	9.04	9.41	9.97	11.18
	8H	8.92	9.48	9.88	10.42	11.63	8.52	9.07	9.48	10.02	11.23
	12H	8.96	9.49	9.92	10.43	11.66	8.56	9.09	9.53	10.03	11.26
4H	2H	7.86	8.50	8.81	9.42	10.62	7.56	8.19	8.51	9.12	10.32
	3H	8.59	9.11	9.54	10.07	11.28	8.28	8.80	9.23	9.76	10.97
	4H	8.99	9.47	9.96	10.42	11.66	8.64	9.12	9.61	10.07	11.31
	6H	9.36	9.77	10.34	10.74	11.98	8.98	9.39	9.96	10.36	11.60
	8H	9.49	9.87	10.47	10.84	12.09	9.11	9.48	10.08	10.45	11.70
	12H	9.57	9.91	10.56	10.89	12.14	9.19	9.52	10.18	10.51	11.76
8H	4H	9.07	9.45	10.05	10.42	11.67	8.75	9.13	9.73	10.10	11.34
	6H	9.57	9.88	10.57	10.89	12.13	9.22	9.53	10.22	10.54	11.79
	8H	9.78	10.05	10.79	11.05	12.32	9.42	9.69	10.43	10.70	11.96
	12H	9.94	10.18	10.95	11.17	12.48	9.58	9.82	10.59	10.81	12.12
12H	4H	9.04	9.38	10.04	10.37	11.62	8.73	9.07	9.72	10.05	11.30
	6H	9.58	9.86	10.59	10.86	12.12	9.25	9.52	10.26	10.52	11.78
	8H	9.83	10.07	10.84	11.06	12.37	9.48	9.72	10.49	10.71	12.03