

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: P854351

Luminaire Tested: SQ2-WBM-050U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854351  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-050U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

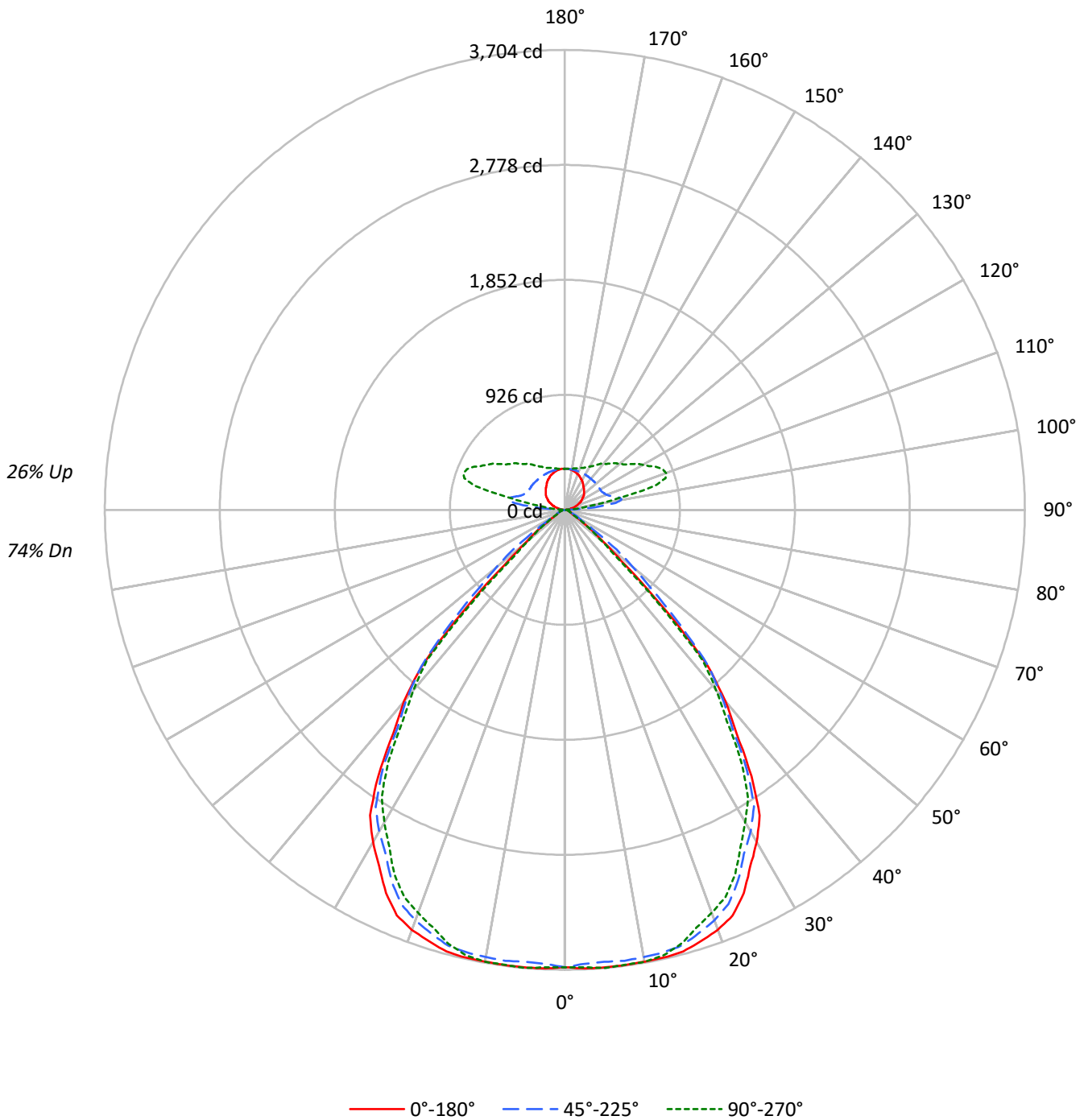
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7816.3 lumens  
Efficiency: N/A  
Efficacy: 121.2 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: Semi-Direct  
  
Input Watts (W): 64.5  
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	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74
1	106	102	99	96	100	97	95	92	89	87	85	80	79	78	73	72	71	67
2	99	93	88	83	94	89	84	81	81	78	75	74	72	69	68	66	64	61
3	92	84	78	73	88	81	75	71	74	70	66	68	65	62	63	60	58	55
4	86	77	70	65	82	74	68	63	68	63	59	63	59	56	58	55	53	50
5	80	70	63	58	76	67	61	56	62	57	53	58	54	51	54	50	48	45
6	75	64	57	52	71	62	55	51	58	52	48	54	49	46	50	46	44	41
7	70	59	52	47	67	57	50	46	53	48	44	50	45	42	46	43	40	38
8	65	54	47	43	63	53	46	42	49	44	40	46	42	38	43	39	37	35
9	61	50	43	39	59	49	42	38	46	40	37	43	38	35	40	36	34	32
10	58	47	40	36	55	45	39	35	43	37	34	40	36	32	38	34	31	29

**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	4.5
10°-20°	1028.7	13.2
20°-30°	1520.8	19.5
30°-40°	1571.5	20.1
40°-50°	945.6	12.1
50°-60°	227.3	2.9
60°-70°	62.1	0.8
70°-80°	34.6	0.4
80°-90°	11.3	0.1
90°-100°	132.3	1.7
100°-110°	419.6	5.4
110°-120°	411.4	5.3
120°-130°	334.8	4.3
130°-140°	273.0	3.5
140°-150°	212.8	2.7
150°-160°	153.3	2.0
160°-170°	93.7	1.2
170°-180°	31.6	0.4
0°-30°	2901.5	37.1
0°-40°	4473.0	57.2
0°-60°	5645.8	72.2
0°-90°	5753.7	73.6
90°-120°	963.3	12.3
90°-150°	1783.9	22.8
90°-180°	2063.0	26.4
0°-180°	7816.3	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	1	3	3	3	1
95°	18	54	240	89	57	21
105°	73	103	414	788	755	77
115°	131	155	334	694	817	129
125°	181	202	329	544	641	161
135°	218	240	327	468	528	169
145°	255	274	327	404	440	160
155°	290	301	328	361	375	134
165°	316	320	329	342	345	89
175°	331	330	331	333	332	31
180°	332	332	332	332	332	



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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	3.6	4.0	4.0	3.2
90°	0.0	1.0	3.1	3.1	3.1
92.5°	5.8	23.2	74.2	24.7	17.3
95°	17.8	53.5	240.2	89.1	57.4
97.5°	33.0	69.4	406.9	254.3	156.0
100°	43.9	78.6	463.7	422.8	274.7
102.5°	55.6	88.7	453.7	620.9	475.2
105°	73.1	102.7	413.6	787.8	755.2
107.5°	90.7	118.0	375.4	805.2	849.4
110°	102.4	128.9	356.2	785.2	866.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	114.1	139.0	345.3	750.6	854.4
115°	130.6	155.1	334.2	694.2	816.8
117.5°	146.6	169.9	329.8	639.9	763.5
120°	156.7	179.1	329.0	606.4	725.9
122.5°	166.7	188.3	329.0	579.5	690.8
125°	180.7	202.1	329.0	544.3	641.3
127.5°	193.0	213.6	329.0	517.0	599.7
130°	200.5	222.0	329.0	501.0	575.5
132.5°	208.1	229.5	328.2	488.3	555.5
135°	218.3	239.7	326.9	468.2	527.5
137.5°	228.3	250.8	326.7	449.1	502.0
140°	235.0	257.5	325.9	435.6	483.6
142.5°	243.4	265.0	326.7	422.1	466.9
145°	254.9	274.3	326.9	404.0	439.7
147.5°	266.3	282.9	327.1	388.0	417.2
150°	274.7	288.0	328.0	378.6	402.1
152.5°	281.4	293.0	328.0	371.0	390.4
155°	290.4	300.6	328.0	360.7	375.0
157.5°	300.0	306.9	329.0	354.3	364.1
160°	305.0	311.1	329.0	350.1	358.3
162.5°	310.0	314.5	329.0	346.7	352.4
165°	316.5	319.5	329.0	341.6	344.7
167.5°	322.5	323.4	330.1	338.1	340.7
170°	325.9	325.9	330.1	336.3	337.4
172.5°	327.5	328.4	330.1	334.7	334.9
175°	331.1	330.1	331.1	333.2	332.1
177.5°	332.1	331.3	331.3	332.9	331.3
180°	332.1	332.1	332.1	332.1	332.1



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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	9.16	10.04	9.92	10.79	11.69	8.83	9.70	9.59	10.45	11.36
	3H	9.68	10.45	10.46	11.22	12.15	9.34	10.11	10.11	10.88	11.81
	4H	9.95	10.67	10.74	11.45	12.39	9.58	10.30	10.37	11.08	12.02
	6H	10.18	10.84	10.98	11.63	12.58	9.79	10.45	10.59	11.23	12.19
	8H	10.26	10.88	11.07	11.68	12.64	9.86	10.48	10.67	11.28	12.24
	12H	10.30	10.89	11.11	11.68	12.66	9.90	10.49	10.71	11.28	12.27
4H	2H	9.19	9.91	9.98	10.68	11.63	8.88	9.60	9.68	10.38	11.32
	3H	9.92	10.51	10.72	11.32	12.28	9.61	10.20	10.41	11.01	11.97
	4H	10.33	10.86	11.14	11.67	12.66	9.98	10.51	10.80	11.32	12.31
	6H	10.70	11.16	11.54	11.99	12.99	10.32	10.78	11.16	11.61	12.61
	8H	10.83	11.26	11.67	12.08	13.09	10.45	10.87	11.28	11.70	12.70
	12H	10.91	11.29	11.76	12.14	13.15	10.53	10.90	11.38	11.75	12.77
8H	4H	10.41	10.84	11.25	11.66	12.67	10.09	10.51	10.92	11.34	12.35
	6H	10.91	11.25	11.77	12.12	13.13	10.56	10.90	11.42	11.77	12.78
	8H	11.12	11.42	11.99	12.29	13.32	10.76	11.07	11.63	11.93	12.96
	12H	11.28	11.55	12.15	12.40	13.49	10.92	11.19	11.79	12.04	13.13
12H	4H	10.39	10.76	11.24	11.61	12.62	10.07	10.45	10.92	11.30	12.31
	6H	10.92	11.23	11.79	12.10	13.12	10.58	10.89	11.46	11.76	12.78
	8H	11.17	11.44	12.04	12.29	13.38	10.82	11.09	11.69	11.95	13.03