

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: P854445

Luminaire Tested: SQ2-WBN-075U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854445  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-075U-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

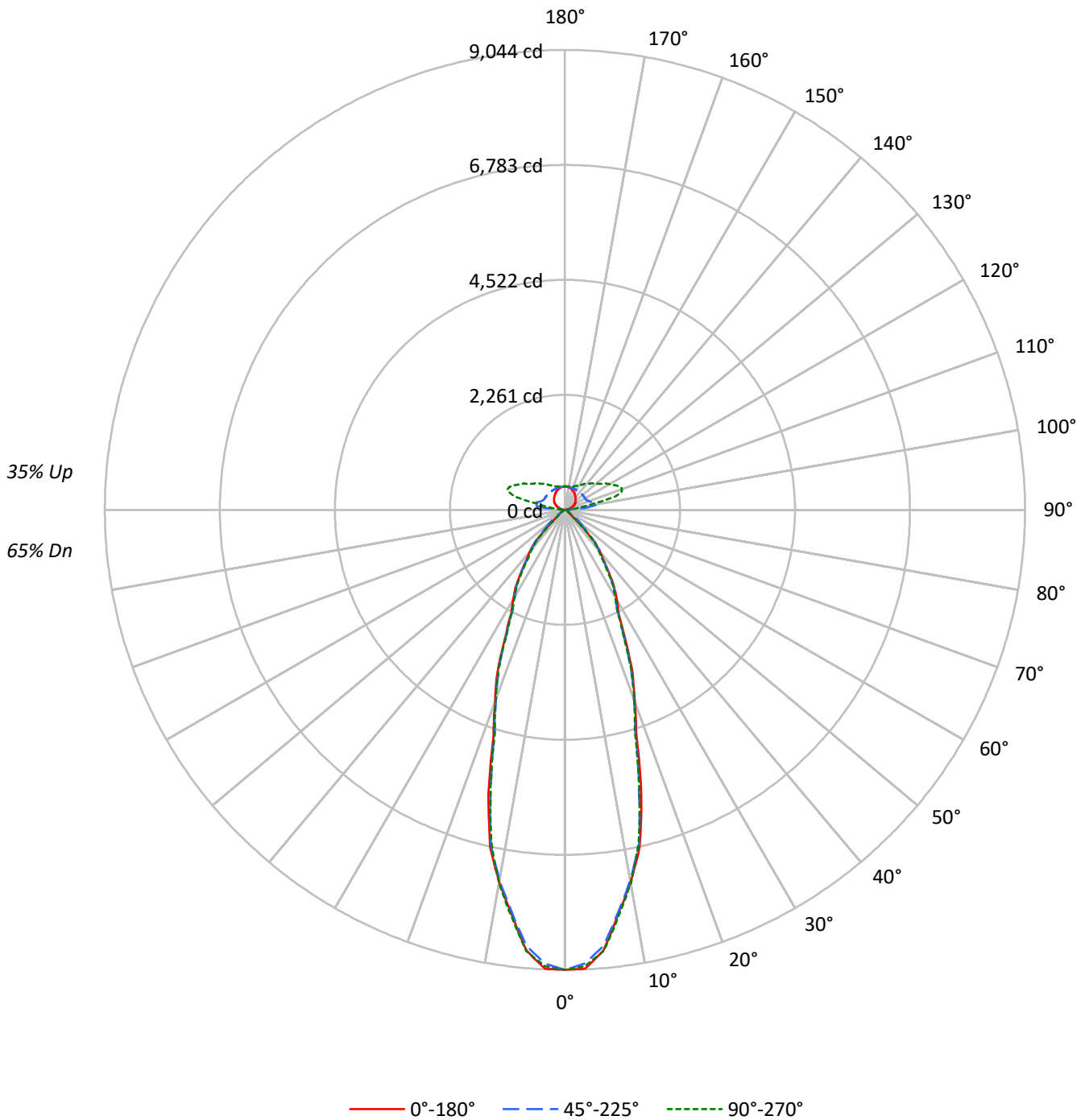
Lumens per Lamp: N/A  
Luminaire Lumens: 8092.3 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 73  
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	111	111	111	111	104	104	104	104	92	92	92	80	80	80	70	70	70	65		
1	104	101	98	95	98	95	93	90	85	83	81	75	74	73	66	65	65	61		
2	98	92	87	83	92	87	83	80	78	75	73	70	68	66	63	61	60	56		
3	92	84	79	74	87	80	75	71	73	69	66	66	63	61	59	57	55	52		
4	86	78	72	67	81	74	69	65	68	63	60	61	58	56	56	53	52	49		
5	81	72	65	61	77	69	63	59	63	59	55	58	54	52	53	50	48	46		
6	76	67	60	56	72	64	58	54	59	54	51	54	51	48	50	47	45	43		
7	72	62	56	51	69	60	54	50	55	51	47	51	47	45	47	44	42	40		
8	68	58	52	48	65	56	50	46	52	47	44	48	45	42	45	42	40	38		
9	65	55	48	44	62	53	47	43	49	45	41	46	42	39	43	40	38	36		
10	61	51	45	41	59	50	44	41	47	42	39	44	40	37	41	38	36	34		

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

	0°	45°	90°
0°	146026	146026	146026
5°	140992	139589	141150
10°	121868	121290	122159
15°	96976	93919	94295
20°	68891	67981	68477
25°	49563	48590	48248
30°	37869	36853	36763
35°	29727	29221	28462
40°	22523	22217	21136
45°	12602	15057	11248
50°	4433	9269	3908
55°	2711	5058	2576
60°	2073	2641	1918
65°	1899	1960	1777
70°	1817	1817	1666
75°	1703	1703	1603
80°	1488	1488	1488
85°	1482	1186	1186

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 15057 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	785.1	9.7
10°-20°	1560.3	19.3
20°-30°	1292.1	16.0
30°-40°	929.6	11.5
40°-50°	473.6	5.9
50°-60°	123.3	1.5
60°-70°	51.1	0.6
70°-80°	28.4	0.4
80°-90°	8.9	0.1
90°-100°	173.5	2.1
100°-110°	575.1	7.1
110°-120°	570.7	7.1
120°-130°	464.9	5.7
130°-140°	377.8	4.7
140°-150°	293.4	3.6
150°-160°	211.4	2.6
160°-170°	129.5	1.6
170°-180°	43.7	0.5
0°-30°	3637.5	45.0
0°-40°	4567.0	56.4
0°-60°	5163.9	63.8
0°-90°	5252.3	64.9
90°-120°	1319.3	16.3
90°-150°	2455.4	30.3
90°-180°	2840.0	35.1
0°-180°	8092.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9044	9044	9044	9044	9044	
5°	8699	8687	8613	8737	8709	785
15°	5802	5736	5619	5658	5641	1575
25°	2782	2777	2728	2704	2708	1309
35°	1508	1518	1482	1458	1444	946
45°	552	635	659	613	493	441
55°	96	112	180	104	92	95
65°	50	51	51	48	46	50
75°	27	27	27	26	26	29
85°	8	8	6	8	6	8
90°	0	1	3	4	4	1
95°	25	73	314	112	75	28
105°	101	143	576	1086	1015	106
115°	180	215	463	965	1128	177
125°	251	279	455	758	894	223
135°	300	331	451	650	734	232
145°	348	374	450	560	612	219
155°	398	412	453	500	518	183
165°	437	442	455	473	478	123
175°	457	457	458	461	460	43
180°	459	459	459	459	459	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9044.2	9044.2	9044.2	9044.2	9044.2
2.5°	9030.1	9015.0	8928.7	9000.2	8982.6
5°	8699.2	8686.7	8612.6	8737.1	8708.9
7.5°	8016.1	8026.7	7983.3	8093.4	8063.2
10°	7433.3	7461.6	7398.0	7557.7	7451.0
12.5°	6790.3	6772.1	6728.0	6752.7	6693.7
15°	5801.6	5735.7	5618.7	5658.4	5641.2
17.5°	4673.1	4698.5	4597.0	4592.7	4573.3
20°	4009.5	4017.3	3956.5	3988.6	3985.4
22.5°	3475.5	3477.1	3399.5	3446.3	3418.1
25°	2782.1	2777.4	2727.5	2703.6	2708.3
27.5°	2281.5	2262.1	2224.4	2240.2	2228.6
30°	2031.2	2015.5	1976.7	1986.0	1971.9
32.5°	1806.6	1807.2	1767.4	1762.7	1752.4
35°	1508.2	1517.6	1482.5	1458.1	1444.0
37.5°	1241.8	1250.6	1221.0	1185.4	1173.5
40°	1068.6	1074.8	1054.1	1012.2	1002.8
42.5°	879.9	906.2	886.0	846.4	825.6
45°	551.9	635.1	659.4	613.4	492.6
47.5°	279.2	394.3	470.4	347.4	228.8
50°	176.5	256.5	369.0	209.0	155.6
52.5°	135.4	176.5	294.6	154.3	124.8
55°	96.3	112.0	179.7	104.0	91.5
57.5°	74.4	83.2	107.5	78.8	70.9
60°	64.2	70.5	81.8	67.2	59.4
62.5°	57.8	61.5	66.4	57.1	54.2
65°	49.7	51.3	51.3	48.1	46.5
67.5°	42.4	43.9	43.6	42.0	40.4
70°	38.5	40.1	38.5	36.9	35.3
72.5°	33.4	34.9	33.4	33.0	31.4
75°	27.3	27.3	27.3	25.7	25.7
77.5°	21.2	21.5	19.9	19.9	18.6
80°	16.0	17.6	16.0	16.0	16.0
82.5°	13.5	13.8	12.2	12.2	12.2
85°	8.0	8.0	6.4	8.0	6.4
87.5°	2.6	2.8	3.1	3.3	3.3
90°	0.0	0.9	2.8	3.8	3.8
92.5°	7.6	29.3	86.4	28.0	23.6
95°	24.7	73.0	314.3	112.2	75.0
97.5°	45.4	95.9	548.7	320.0	202.3
100°	59.8	108.1	635.3	545.7	361.8
102.5°	75.8	122.6	630.0	833.9	630.0
105°	100.7	143.4	575.5	1085.8	1015.2
107.5°	126.1	164.2	523.3	1111.4	1165.1
110°	140.6	178.6	496.7	1086.1	1194.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	155.7	193.1	480.7	1041.1	1179.5
115°	179.5	214.8	463.4	964.8	1128.2
117.5°	203.0	234.4	457.2	891.8	1063.3
120°	217.5	248.1	454.9	846.1	1012.4
122.5°	230.4	260.3	454.9	808.6	962.2
125°	250.7	278.6	454.9	758.1	893.6
127.5°	267.4	294.7	453.8	719.8	835.7
130°	277.3	306.1	453.0	697.5	801.5
132.5°	286.4	316.0	452.2	679.1	772.7
135°	300.1	330.7	451.1	650.5	734.1
137.5°	314.9	344.4	450.0	623.0	696.7
140°	324.8	353.6	449.2	604.6	672.4
142.5°	333.9	362.0	450.0	586.2	646.5
145°	348.5	374.5	450.1	559.6	612.5
147.5°	364.3	386.0	450.3	537.1	576.5
150°	374.2	393.7	451.1	524.0	557.5
152.5°	383.3	402.0	451.9	513.2	540.0
155°	397.9	411.8	453.0	500.0	518.5
157.5°	412.2	422.9	454.1	490.5	503.7
160°	419.8	429.0	454.9	483.6	493.8
162.5°	427.4	434.4	454.9	479.0	487.0
165°	436.9	441.5	454.9	473.0	477.7
167.5°	445.6	448.0	455.8	467.7	470.1
170°	450.1	451.1	455.8	465.4	466.3
172.5°	453.2	454.1	456.6	463.1	463.3
175°	456.8	456.8	457.7	460.6	459.6
177.5°	458.7	458.7	457.9	459.4	457.9
180°	458.7	458.7	458.7	458.7	458.7



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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	5.58	6.34	6.45	7.19	8.24	5.19	5.95	6.06	6.80	7.86
	3H	6.63	7.30	7.50	8.16	9.24	6.19	6.86	7.07	7.72	8.81
	4H	7.06	7.68	7.95	8.55	9.65	6.62	7.25	7.51	8.11	9.21
	6H	7.37	7.94	8.27	8.82	9.93	6.95	7.53	7.85	8.40	9.51
	8H	7.47	8.01	8.38	8.90	10.01	7.05	7.60	7.96	8.49	9.59
	12H	7.53	8.05	8.44	8.93	10.06	7.10	7.62	8.01	8.50	9.63
4H	2H	5.80	6.43	6.70	7.30	8.39	5.47	6.10	6.37	6.96	8.06
	3H	7.10	7.62	8.00	8.52	9.62	6.72	7.23	7.62	8.13	9.24
	4H	7.66	8.13	8.57	9.03	10.16	7.27	7.74	8.18	8.64	9.78
	6H	8.11	8.51	9.04	9.43	10.58	7.73	8.13	8.66	9.05	10.19
	8H	8.27	8.64	9.19	9.55	10.70	7.89	8.26	8.81	9.17	10.32
	12H	8.37	8.71	9.32	9.64	10.79	7.97	8.30	8.91	9.24	10.39
8H	4H	7.80	8.18	8.73	9.09	10.24	7.46	7.83	8.38	8.74	9.89
	6H	8.39	8.69	9.34	9.65	10.80	8.04	8.34	8.99	9.30	10.45
	8H	8.63	8.90	9.59	9.84	11.01	8.28	8.54	9.24	9.49	10.66
	12H	8.82	9.05	9.78	9.99	11.21	8.45	8.68	9.41	9.62	10.84
12H	4H	7.78	8.11	8.72	9.04	10.20	7.44	7.77	8.38	8.70	9.86
	6H	8.41	8.67	9.37	9.62	10.79	8.07	8.34	9.03	9.29	10.45
	8H	8.68	8.91	9.64	9.85	11.07	8.34	8.57	9.30	9.51	10.73