

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: P853598

Luminaire Tested: SQ2-BBN-075U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853598  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBN-075U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

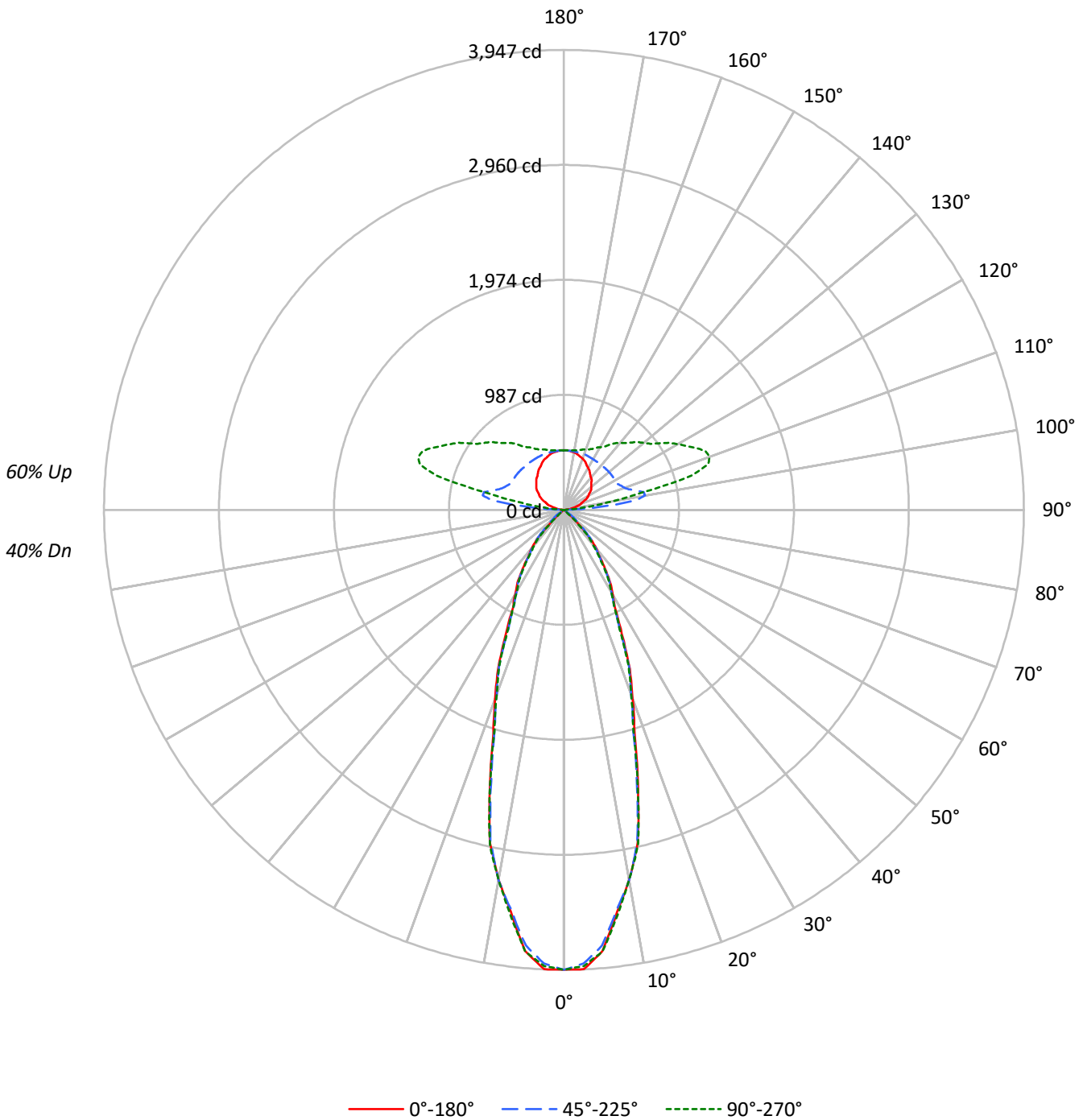
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5297.0 lumens  
Efficiency: N/A  
Efficacy: 127.9 lumens/watt  
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 41.4  
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	98	94	91	88	89	86	84	81	71	69	68	57	56	55	45	44	44	38
2	91	85	80	76	83	78	74	70	65	62	60	53	51	50	42	41	40	35
3	84	77	71	66	77	71	66	62	60	56	53	49	47	45	40	39	37	33
4	79	70	64	59	72	65	59	55	55	51	48	46	43	41	38	36	35	31
5	74	64	57	52	68	59	54	49	51	47	44	43	40	38	36	34	32	29
6	69	59	52	47	63	55	49	45	47	43	40	40	37	35	34	32	30	28
7	65	54	48	43	59	51	45	41	44	40	37	38	35	33	32	30	28	26
8	61	50	44	39	56	47	41	38	41	37	34	36	32	30	30	28	27	25
9	57	47	41	36	53	44	38	35	39	34	31	34	31	28	29	27	25	23
10	54	44	38	34	50	41	36	32	36	32	29	32	29	27	27	25	24	22

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

	0°	45°	90°
0°	63732	63732	63732
5°	61600	60840	61636
10°	52867	52901	52867
15°	41035	40379	40939
20°	29615	29003	28979
25°	20998	20163	20200
30°	15623	15224	15079
35°	12155	11848	11596
40°	8996	8770	8216
45°	4596	5635	3704
50°	1000	3110	733
55°	281	1261	220
60°	45	252	23
65°	0	27	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 5635 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.3	6.4
10°-20°	672.9	12.7
20°-30°	542.8	10.2
30°-40°	377.1	7.1
40°-50°	174.2	3.3
50°-60°	24.5	0.5
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	193.2	3.6
100°-110°	640.4	12.1
110°-120°	635.6	12.0
120°-130°	517.7	9.8
130°-140°	420.8	7.9
140°-150°	326.8	6.2
150°-160°	235.4	4.4
160°-170°	144.2	2.7
170°-180°	48.7	0.9
0°-30°	1557.1	29.4
0°-40°	1934.2	36.5
0°-60°	2132.9	40.3
0°-90°	2134.3	40.3
90°-120°	1469.2	27.7
90°-150°	2734.5	51.6
90°-180°	3163.0	59.7
0°-180°	5297.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3947	3947	3947	3947	3947	
5°	3801	3781	3754	3800	3803	342
15°	2455	2486	2416	2450	2449	676
25°	1179	1152	1132	1148	1134	552
35°	617	617	601	590	588	386
45°	201	240	247	224	162	163
55°	10	16	45	13	8	13
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	4	4	1
95°	28	81	350	125	84	31
105°	112	160	641	1209	1131	118
115°	200	239	516	1074	1256	198
125°	279	310	507	844	995	248
135°	334	368	502	724	818	259
145°	388	417	501	623	682	243
155°	443	459	504	557	578	204
165°	486	492	507	527	532	137
175°	509	509	510	513	512	48
180°	511	511	511	511	511	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3947.3	3947.3	3947.3	3947.3	3947.3
2.5°	3945.0	3930.5	3896.1	3927.2	3917.7
5°	3800.7	3780.6	3753.8	3800.1	3802.9
7.5°	3482.3	3488.9	3464.0	3515.1	3509.7
10°	3224.6	3229.4	3226.7	3243.3	3224.6
12.5°	2925.8	2945.1	2908.6	2934.4	2942.3
15°	2454.9	2486.2	2415.7	2449.9	2449.2
17.5°	2013.3	2010.1	1973.7	1980.1	1978.0
20°	1723.6	1718.7	1688.0	1683.1	1686.6
22.5°	1475.5	1467.3	1456.4	1444.1	1448.7
25°	1178.7	1152.3	1131.8	1148.5	1133.9
27.5°	946.1	945.7	928.7	930.7	933.4
30°	838.0	833.1	816.6	817.2	808.8
32.5°	741.8	745.3	725.0	721.0	712.6
35°	616.7	616.7	601.1	590.4	588.3
37.5°	500.8	499.5	488.4	473.2	467.8
40°	426.8	423.3	416.1	397.5	389.8
42.5°	342.6	351.9	345.0	326.2	314.7
45°	201.3	240.3	246.8	224.1	162.2
47.5°	86.5	129.3	164.7	107.4	55.9
50°	39.8	73.2	123.8	52.8	29.2
52.5°	23.3	40.0	91.9	30.9	18.4
55°	10.0	15.5	44.8	12.7	7.8
57.5°	3.7	6.8	16.9	5.5	3.0
60°	1.4	2.8	7.8	2.1	0.7
62.5°	0.3	1.1	3.8	1.0	0.1
65°	0.0	0.0	0.7	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.5	32.7	96.2	31.2	26.2
95°	27.5	81.3	350.1	124.9	83.6
97.5°	50.6	106.8	611.1	356.4	225.3
100°	66.6	120.4	707.6	607.7	403.0
102.5°	84.4	136.5	701.6	928.7	701.6
105°	112.1	159.7	640.9	1209.2	1130.6
107.5°	140.5	182.9	582.8	1237.7	1297.5
110°	156.5	198.9	553.1	1209.5	1330.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	173.5	215.0	535.4	1159.5	1313.6
115°	199.9	239.2	516.1	1074.5	1256.5
117.5°	226.1	261.1	509.1	993.2	1184.1
120°	242.2	276.3	506.6	942.3	1127.4
122.5°	256.6	289.9	506.6	900.6	1071.6
125°	279.2	310.2	506.6	844.3	995.2
127.5°	297.8	328.2	505.3	801.7	930.7
130°	308.8	340.9	504.5	776.8	892.6
132.5°	319.0	351.9	503.6	756.3	860.5
135°	334.2	368.3	502.4	724.5	817.6
137.5°	350.7	383.6	501.1	693.8	775.9
140°	361.7	393.8	500.3	673.3	748.8
142.5°	371.9	403.1	501.1	652.8	720.0
145°	388.2	417.1	501.3	623.2	682.2
147.5°	405.7	429.9	501.5	598.1	642.0
150°	416.7	438.4	502.4	583.6	620.8
152.5°	426.9	447.8	503.2	571.6	601.4
155°	443.1	458.7	504.5	556.8	577.5
157.5°	459.0	471.0	505.8	546.3	561.0
160°	467.5	477.8	506.6	538.6	550.0
162.5°	475.9	483.8	506.6	533.5	542.4
165°	486.5	491.7	506.6	526.8	532.0
167.5°	496.2	498.9	507.7	520.8	523.5
170°	501.3	502.4	507.7	518.3	519.3
172.5°	504.7	505.7	508.5	515.7	515.9
175°	508.7	508.7	509.8	512.9	511.9
177.5°	510.8	510.8	510.0	511.6	510.0
180°	510.8	510.8	510.8	510.8	510.8



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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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00