

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: P853585

Luminaire Tested: SQ2-BBN-050U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853585  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBN-050U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

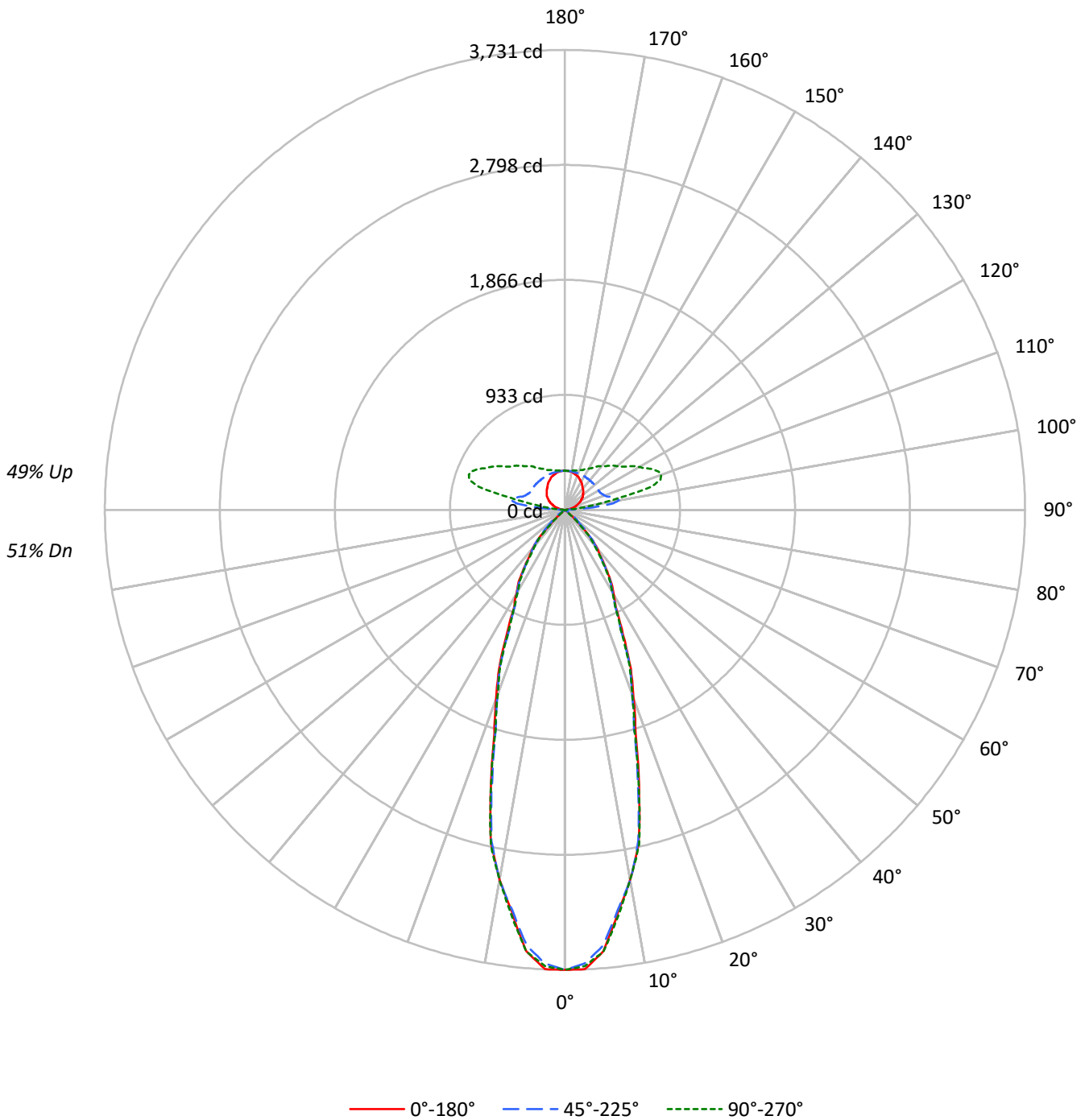
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3992.0 lumens  
Efficiency: N/A  
Efficacy: 121.3 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): 32.9  
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				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51		
1	100	97	94	91	93	90	88	85	77	75	74	65	64	63	54	53	53	48		
2	94	88	83	79	87	82	78	75	71	68	66	61	59	57	51	50	49	45		
3	88	80	75	70	81	75	70	66	66	62	59	57	54	52	48	47	45	42		
4	82	74	67	63	76	69	64	60	61	57	54	53	50	48	46	44	42	39		
5	77	68	61	57	72	64	58	54	56	52	49	50	47	44	43	41	40	37		
6	72	63	56	51	68	59	53	49	53	48	45	47	43	41	41	39	37	35		
7	68	58	52	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33		
8	64	54	48	43	60	51	46	42	46	42	39	41	38	36	37	35	33	31		
9	61	51	44	40	57	48	43	39	44	39	36	39	36	34	35	33	31	29		
10	58	48	41	37	54	45	40	36	41	37	34	37	34	32	33	31	29	28		

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

	0°	45°	90°
0°	60247	60247	60247
5°	58230	57512	58264
10°	49975	50008	49975
15°	38790	38171	38700
20°	27995	27417	27395
25°	19849	19060	19096
30°	14768	14393	14255
35°	11491	11199	10961
40°	8505	8292	7767
45°	4345	5327	3500
50°	947	2939	693
55°	265	1194	208
60°	42	239	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: 5327 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	322.7	8.1
10°-20°	636.1	15.9
20°-30°	513.1	12.9
30°-40°	356.5	8.9
40°-50°	164.7	4.1
50°-60°	23.1	0.6
60°-70°	0.8	0.0
70°-80°	0.0	0.0
80°-90°	0.5	0.0
90°-100°	126.6	3.2
100°-110°	401.7	10.1
110°-120°	393.9	9.9
120°-130°	320.5	8.0
130°-140°	261.3	6.5
140°-150°	203.8	5.1
150°-160°	146.8	3.7
160°-170°	89.7	2.2
170°-180°	30.3	0.8
0°-30°	1471.9	36.9
0°-40°	1828.4	45.8
0°-60°	2016.2	50.5
0°-90°	2017.5	50.5
90°-120°	922.2	23.1
90°-150°	1707.8	42.8
90°-180°	1975.0	49.5
0°-180°	3992.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3731	3731	3731	3731	3731	
5°	3593	3574	3548	3592	3595	323
15°	2321	2350	2284	2316	2315	639
25°	1114	1089	1070	1086	1072	522
35°	583	583	568	558	556	365
45°	190	227	233	212	153	154
55°	9	15	42	12	7	12
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	3	3	1
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3731.4	3731.4	3731.4	3731.4	3731.4
2.5°	3729.2	3715.5	3683.0	3712.3	3703.4
5°	3592.8	3573.8	3548.5	3592.2	3594.9
7.5°	3291.9	3298.0	3274.5	3322.8	3317.7
10°	3048.2	3052.8	3050.2	3065.9	3048.2
12.5°	2765.7	2784.0	2749.5	2773.9	2781.3
15°	2320.6	2350.2	2283.6	2315.9	2315.2
17.5°	1903.1	1900.1	1865.8	1871.8	1869.8
20°	1629.3	1624.7	1595.7	1591.1	1594.4
22.5°	1394.8	1387.0	1376.8	1365.2	1369.5
25°	1114.2	1089.2	1069.9	1085.7	1071.9
27.5°	894.3	894.0	877.9	879.7	882.4
30°	792.1	787.5	772.0	772.5	764.6
32.5°	701.2	704.5	685.4	681.5	673.7
35°	583.0	583.0	568.2	558.1	556.1
37.5°	473.4	472.2	461.7	447.3	442.2
40°	403.5	400.2	393.4	375.7	368.5
42.5°	323.8	332.7	326.1	308.4	297.5
45°	190.3	227.1	233.3	211.8	153.3
47.5°	81.8	122.3	155.7	101.5	52.9
50°	37.7	69.2	117.0	49.9	27.6
52.5°	22.1	37.8	86.9	29.2	17.3
55°	9.4	14.7	42.4	12.0	7.4
57.5°	3.5	6.4	16.0	5.2	2.8
60°	1.3	2.7	7.4	2.0	0.7
62.5°	0.3	1.1	3.6	0.9	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	0.6	0.6
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0



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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