

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: P854468

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854468
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-100U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

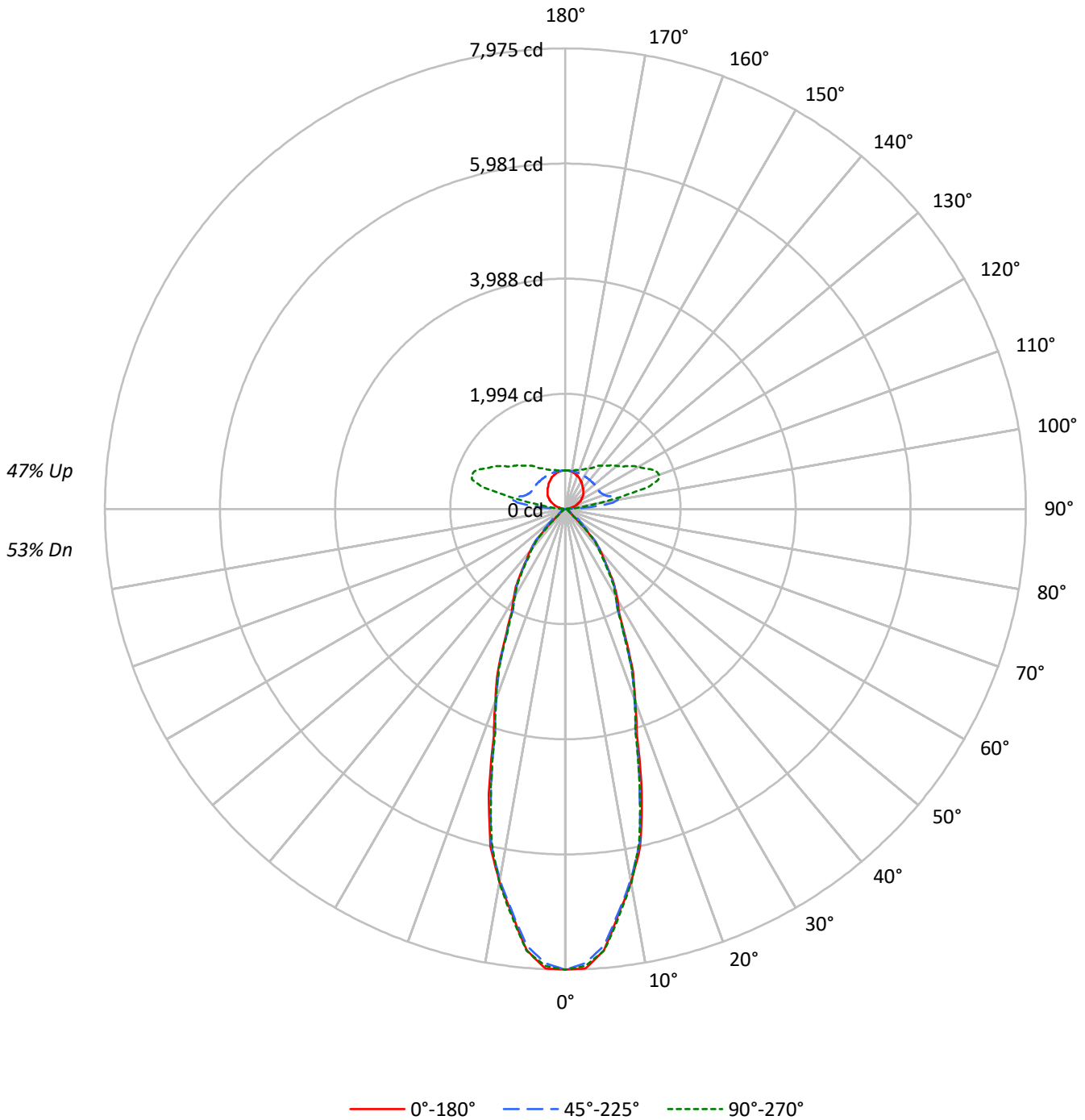
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8786.8 lumens
Efficiency: N/A
Efficacy: 124.3 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: General Diffuse

Input Watts (W): 70.7
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53		
1	101	97	94	92	93	91	88	86	78	76	74	66	65	64	55	55	54	49		
2	94	88	83	79	87	82	78	75	72	69	66	62	60	58	52	51	50	46		
3	88	80	75	70	82	75	70	66	66	62	59	57	55	53	49	48	46	42		
4	82	74	67	62	77	69	64	59	61	57	54	53	51	48	46	44	43	40		
5	77	68	61	56	72	64	58	54	57	52	49	50	47	44	44	42	40	37		
6	72	62	56	51	68	59	53	49	53	48	45	47	44	41	41	39	37	35		
7	68	58	51	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33		
8	64	54	47	43	60	51	46	42	46	42	39	42	38	36	37	35	33	31		
9	61	50	44	40	57	48	42	39	44	39	36	39	36	33	35	33	31	29		
10	57	47	41	37	54	45	40	36	41	37	34	37	34	31	34	31	29	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	128770	128770	128770
5°	124331	123093	124469
10°	107467	106957	107723
15°	85516	82820	83151
20°	60751	59948	60385
25°	43705	42849	42546
30°	33394	32498	32418
35°	26213	25767	25097
40°	19861	19591	18638
45°	11113	13278	9919
50°	3908	8174	3446
55°	2390	4462	2269
60°	1828	2331	1689
65°	1677	1731	1566
70°	1605	1605	1468
75°	1503	1503	1410
80°	1311	1311	1311
85°	1315	1056	1056

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13278 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	692.3	7.9
10°-20°	1375.9	15.7
20°-30°	1139.4	13.0
30°-40°	819.7	9.3
40°-50°	417.6	4.8
50°-60°	108.7	1.2
60°-70°	45.1	0.5
70°-80°	25.0	0.3
80°-90°	8.6	0.1
90°-100°	278.8	3.2
100°-110°	843.2	9.6
110°-120°	823.1	9.4
120°-130°	672.6	7.7
130°-140°	549.0	6.2
140°-150°	427.4	4.9
150°-160°	308.1	3.5
160°-170°	188.6	2.1
170°-180°	63.7	0.7
0°-30°	3207.6	36.5
0°-40°	4027.3	45.8
0°-60°	4553.6	51.8
0°-90°	4632.4	52.7
90°-120°	1945.0	22.1
90°-150°	3594.0	40.9
90°-180°	4154.0	47.3
0°-180°	8786.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7975	7975	7975	7975	7975	
5°	7671	7660	7595	7705	7680	692
15°	5116	5058	4955	4990	4974	1389
25°	2453	2449	2405	2384	2388	1154
35°	1330	1338	1307	1286	1273	835
45°	487	560	582	541	434	389
55°	85	99	158	92	81	83
65°	44	45	45	42	41	44
75°	24	24	24	23	23	25
85°	7	7	6	7	6	7
90°	0	2	13	7	6	2
95°	35	109	526	194	123	41
105°	147	206	828	1572	1494	154
115°	261	311	670	1386	1627	258
125°	365	405	660	1094	1288	324
135°	437	483	656	944	1062	338
145°	510	548	656	812	888	320
155°	582	601	660	728	756	268
165°	636	643	663	689	697	179
175°	665	665	666	672	670	63
180°	668	668	668	668	668	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7975.4	7975.4	7975.4	7975.4	7975.4
2.5°	7962.9	7949.7	7873.5	7936.6	7921.1
5°	7671.2	7660.1	7594.8	7704.6	7679.7
7.5°	7068.8	7078.2	7039.9	7136.9	7110.4
10°	6554.9	6579.8	6523.8	6664.5	6570.5
12.5°	5987.8	5971.8	5932.9	5954.7	5902.7
15°	5116.0	5057.9	4954.7	4989.8	4974.5
17.5°	4120.8	4143.2	4053.8	4050.0	4032.8
20°	3535.7	3542.6	3489.0	3517.2	3514.4
22.5°	3064.8	3066.2	2997.7	3039.1	3014.2
25°	2453.3	2449.2	2405.2	2384.1	2388.2
27.5°	2011.9	1994.7	1961.5	1975.4	1965.2
30°	1791.2	1777.3	1743.1	1751.3	1738.8
32.5°	1593.1	1593.7	1558.6	1554.4	1545.3
35°	1329.9	1338.2	1307.3	1285.8	1273.3
37.5°	1095.1	1102.8	1076.7	1045.3	1034.8
40°	942.3	947.8	929.5	892.6	884.3
42.5°	775.9	799.1	781.3	746.3	728.1
45°	486.7	560.0	581.5	540.9	434.4
47.5°	246.2	347.7	414.8	306.3	201.8
50°	155.6	226.2	325.4	184.3	137.2
52.5°	119.4	155.7	259.8	136.1	110.1
55°	84.9	98.7	158.5	91.7	80.6
57.5°	65.6	73.4	94.8	69.5	62.5
60°	56.6	62.1	72.2	59.3	52.3
62.5°	50.9	54.3	58.6	50.3	47.8
65°	43.9	45.2	45.3	42.4	41.0
67.5°	37.4	38.7	38.5	37.0	35.7
70°	34.0	35.3	34.0	32.5	31.1
72.5°	29.4	30.8	29.4	29.1	27.7
75°	24.1	24.1	24.1	22.6	22.6
77.5°	18.7	19.0	17.5	17.5	16.4
80°	14.1	15.5	14.1	14.1	14.1
82.5°	11.9	12.2	10.8	10.8	10.8
85°	7.1	7.1	5.7	7.0	5.7
87.5°	2.3	2.7	4.8	3.7	3.5
90°	0.0	2.0	12.6	7.3	6.3
92.5°	11.7	47.4	170.2	56.4	40.7
95°	34.6	109.4	526.1	194.3	122.6
97.5°	66.9	139.2	829.1	548.6	334.1
100°	87.0	157.7	926.4	895.6	601.5
102.5°	109.6	177.9	906.2	1256.1	1001.4
105°	146.7	206.1	827.9	1572.2	1494.3
107.5°	181.9	238.7	752.4	1603.5	1693.7
110°	205.4	259.7	714.7	1564.1	1728.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	228.0	280.7	692.1	1498.0	1705.4
115°	260.9	311.1	669.6	1385.6	1627.4
117.5°	293.6	341.2	661.7	1280.3	1527.9
120°	315.4	360.5	659.1	1218.9	1456.6
122.5°	335.5	378.2	659.1	1164.8	1384.5
125°	364.7	404.6	660.2	1094.2	1287.9
127.5°	388.4	429.8	659.1	1041.0	1206.2
130°	403.5	446.5	659.1	1010.5	1160.1
132.5°	416.9	460.7	658.3	982.5	1120.7
135°	437.0	483.1	656.0	943.7	1061.5
137.5°	459.4	503.3	656.0	902.2	1011.5
140°	473.7	516.7	656.0	875.3	978.8
142.5°	487.9	529.3	655.2	850.7	941.0
145°	510.3	548.3	656.0	811.8	887.6
147.5°	532.8	564.9	657.3	779.7	837.9
150°	547.0	576.7	658.1	761.9	811.1
152.5°	560.4	586.9	658.9	746.6	786.8
155°	581.6	601.1	660.2	727.9	755.6
157.5°	600.0	615.8	661.5	714.1	733.3
160°	610.9	624.3	662.3	705.6	719.9
162.5°	621.8	631.9	663.1	698.0	709.9
165°	636.1	643.3	663.3	688.7	696.9
167.5°	648.2	651.9	664.6	681.4	684.9
170°	655.0	657.0	665.4	678.0	679.1
172.5°	659.1	660.4	665.4	674.7	674.9
175°	665.4	665.4	666.5	671.7	669.6
177.5°	668.4	667.5	666.7	669.2	667.5
180°	667.5	667.5	667.5	667.5	667.5



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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	4.03	4.73	5.01	5.69	6.93	3.65	4.34	4.62	5.30	6.55
	3H	5.08	5.70	6.06	6.66	7.94	4.65	5.26	5.63	6.23	7.50
	4H	5.51	6.09	6.50	7.06	8.34	5.07	5.65	6.06	6.62	7.90
	6H	5.82	6.35	6.82	7.33	8.62	5.40	5.93	6.40	6.91	8.20
	8H	5.92	6.42	6.93	7.41	8.70	5.50	6.00	6.51	6.99	8.28
	12H	5.98	6.46	7.00	7.45	8.75	5.55	6.02	6.56	7.01	8.32
4H	2H	4.25	4.83	5.26	5.80	7.09	3.92	4.50	4.93	5.48	6.76
	3H	5.55	6.03	6.56	7.03	8.32	5.16	5.64	6.17	6.65	7.94
	4H	6.11	6.55	7.13	7.54	8.86	5.72	6.16	6.73	7.15	8.47
	6H	6.56	6.94	7.59	7.95	9.27	6.18	6.55	7.20	7.57	8.88
	8H	6.72	7.07	7.74	8.08	9.40	6.33	6.68	7.36	7.69	9.02
	12H	6.82	7.13	7.86	8.16	9.49	6.42	6.73	7.46	7.75	9.08
8H	4H	6.25	6.60	7.28	7.61	8.94	5.90	6.25	6.93	7.26	8.59
	6H	6.84	7.12	7.88	8.17	9.50	6.48	6.77	7.53	7.82	9.15
	8H	7.08	7.33	8.14	8.37	9.71	6.73	6.97	7.78	8.01	9.36
	12H	7.27	7.49	8.33	8.52	9.91	6.89	7.11	7.95	8.14	9.53
12H	4H	6.23	6.54	7.27	7.57	8.89	5.89	6.20	6.93	7.22	8.55
	6H	6.86	7.11	7.92	8.15	9.49	6.52	6.77	7.58	7.81	9.15
	8H	7.13	7.35	8.19	8.38	9.77	6.79	7.00	7.84	8.04	9.42