

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: P854420

Luminaire Tested: SQ2-WBN-025U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854420
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-025U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

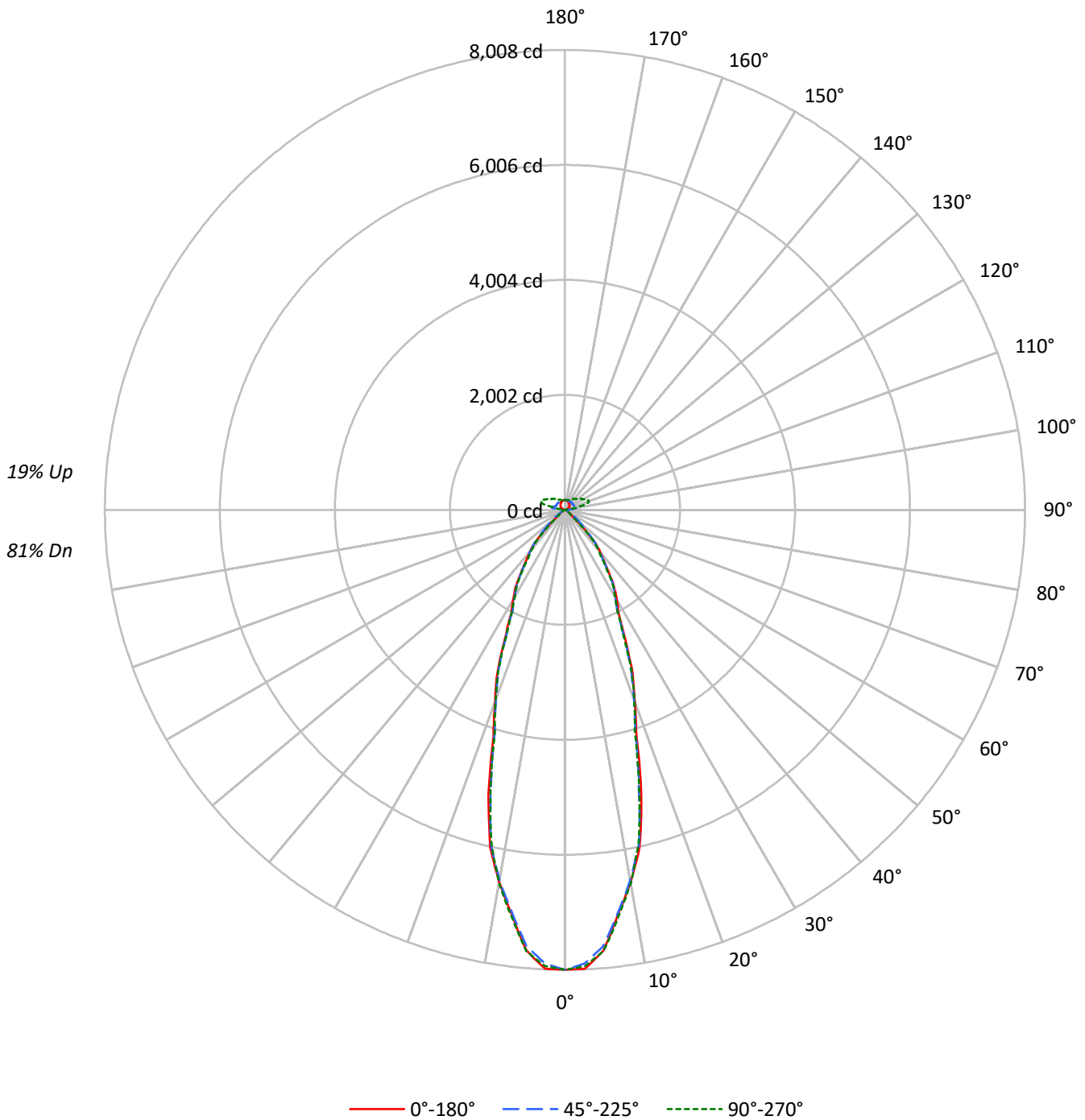
Lumens per Lamp: N/A
Luminaire Lumens: 5711.4 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.5
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	81
1	108	105	103	100	104	101	99	97	94	92	91	87	86	85	81	80	79	76
2	102	97	93	89	98	94	90	87	87	84	82	82	79	77	76	75	73	71
3	97	90	84	80	93	87	82	78	82	78	75	77	74	71	72	70	68	66
4	91	83	77	73	88	81	76	72	76	72	69	72	69	66	68	66	63	61
5	86	78	71	67	83	76	70	66	72	67	64	68	64	61	65	62	59	57
6	82	73	66	62	79	71	65	61	67	63	59	64	60	57	61	58	55	54
7	78	68	62	57	75	66	61	57	63	59	55	61	57	54	58	55	52	50
8	74	64	58	54	71	63	57	53	60	55	52	58	53	50	55	52	49	48
9	70	60	54	50	68	59	54	50	57	52	49	55	51	48	53	49	46	45
10	67	57	51	47	65	56	51	47	54	49	46	52	48	45	50	47	44	43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	129296	129296	129296
5°	124838	123595	124978
10°	107906	107393	108162
15°	85865	83159	83492
20°	60998	60192	60632
25°	43884	43023	42720
30°	33531	32630	32550
35°	26321	25872	25200
40°	19941	19671	18714
45°	11159	13333	9958
50°	3926	8206	3461
55°	2398	4479	2280
60°	1834	2341	1699
65°	1681	1738	1574
70°	1610	1610	1478
75°	1510	1510	1416
80°	1320	1320	1320
85°	1315	1056	1056

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13333 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	695.1	12.2
10°-20°	1381.5	24.2
20°-30°	1144.1	20.0
30°-40°	823.1	14.4
40°-50°	419.3	7.3
50°-60°	109.2	1.9
60°-70°	45.3	0.8
70°-80°	25.1	0.4
80°-90°	7.9	0.1
90°-100°	69.2	1.2
100°-110°	215.2	3.8
110°-120°	210.5	3.7
120°-130°	171.8	3.0
130°-140°	140.6	2.5
140°-150°	109.7	1.9
150°-160°	79.2	1.4
160°-170°	48.4	0.8
170°-180°	16.3	0.3
0°-30°	3220.7	56.4
0°-40°	4043.8	70.8
0°-60°	4572.2	80.1
0°-90°	4650.5	81.4
90°-120°	494.8	8.7
90°-150°	917.0	16.1
90°-180°	1061.0	18.6
0°-180°	5711.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8008	8008	8008	8008	8008	
5°	7702	7691	7626	7736	7711	695
15°	5137	5079	4975	5010	4995	1394
25°	2463	2459	2415	2394	2398	1159
35°	1335	1344	1313	1291	1278	838
45°	489	562	584	543	436	391
55°	85	99	159	92	81	84
65°	44	45	46	43	41	44
75°	24	24	24	23	23	25
85°	7	7	6	7	6	7
90°	0	1	3	3	3	1
95°	9	28	127	47	30	11
105°	38	53	212	404	386	40
115°	67	79	172	355	415	66
125°	93	104	170	279	327	83
135°	112	124	169	241	271	87
145°	131	141	169	208	226	82
155°	150	155	170	187	193	69
165°	165	166	171	176	178	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8008.0	8008.0	8008.0	8008.0	8008.0
2.5°	7995.5	7982.1	7905.7	7969.0	7953.4
5°	7702.5	7691.4	7625.8	7736.1	7711.1
7.5°	7097.6	7107.1	7068.7	7166.1	7139.4
10°	6581.7	6606.7	6550.4	6691.7	6597.3
12.5°	6012.3	5996.2	5957.2	5979.0	5926.8
15°	5136.9	5078.6	4975.0	5010.1	4994.9
17.5°	4137.7	4160.2	4070.3	4066.5	4049.3
20°	3550.1	3557.0	3503.2	3531.6	3528.8
22.5°	3077.3	3078.7	3010.0	3051.5	3026.5
25°	2463.3	2459.2	2415.0	2393.8	2398.0
27.5°	2020.1	2002.9	1969.5	1983.5	1973.2
30°	1798.5	1784.6	1750.2	1758.4	1745.9
32.5°	1599.6	1600.2	1564.9	1560.8	1551.6
35°	1335.4	1343.7	1312.6	1291.0	1278.5
37.5°	1099.5	1107.3	1081.1	1049.6	1039.0
40°	946.1	951.7	933.3	896.2	887.9
42.5°	779.1	802.4	784.5	749.4	731.0
45°	488.7	562.3	583.9	543.1	436.1
47.5°	247.2	349.1	416.5	307.6	202.6
50°	156.3	227.1	326.7	185.0	137.8
52.5°	119.9	156.3	260.8	136.6	110.5
55°	85.2	99.1	159.1	92.1	81.0
57.5°	65.9	73.7	95.2	69.7	62.8
60°	56.8	62.4	72.5	59.5	52.6
62.5°	51.1	54.5	58.8	50.5	48.0
65°	44.0	45.4	45.5	42.6	41.2
67.5°	37.5	38.9	38.6	37.2	35.8
70°	34.1	35.5	34.1	32.6	31.3
72.5°	29.5	30.9	29.5	29.2	27.8
75°	24.2	24.2	24.2	22.7	22.7
77.5°	18.8	19.0	17.6	17.6	16.5
80°	14.2	15.6	14.2	14.2	14.2
82.5°	11.9	12.2	10.8	10.8	10.8
85°	7.1	7.1	5.7	7.1	5.7
87.5°	2.3	2.5	2.9	2.9	2.9
90°	0.0	1.0	3.1	3.1	3.1
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.4	27.9	126.9	46.8	30.4
97.5°	17.2	36.3	210.2	130.8	82.4
100°	23.1	40.5	237.0	221.7	147.9
102.5°	28.9	45.6	232.0	316.6	248.5
105°	37.8	53.1	211.8	404.4	385.9
107.5°	46.6	60.9	192.5	411.1	431.4
110°	52.4	66.8	182.5	401.5	441.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.3	71.8	177.4	384.1	434.8
115°	67.1	79.4	172.0	354.8	415.3
117.5°	75.7	87.0	169.7	326.7	388.7
120°	80.8	92.0	168.8	310.7	370.2
122.5°	85.8	97.1	169.7	297.2	351.7
125°	93.3	103.6	169.9	279.0	327.2
127.5°	99.4	109.9	169.9	265.4	306.4
130°	102.8	114.1	169.9	257.8	294.7
132.5°	107.0	118.2	169.1	251.0	285.5
135°	112.2	124.5	168.8	240.8	270.6
137.5°	118.3	129.6	168.8	230.7	257.8
140°	121.7	132.9	168.8	223.9	248.5
142.5°	125.8	136.3	168.8	217.2	239.3
145°	131.1	141.3	168.8	208.1	226.5
147.5°	137.4	146.2	169.9	199.6	214.1
150°	141.6	148.8	169.9	195.3	206.6
152.5°	144.9	151.3	169.9	191.1	200.7
155°	150.0	155.1	169.9	186.8	193.0
157.5°	155.0	158.9	169.9	183.0	186.9
160°	158.4	161.4	169.9	180.5	183.5
162.5°	160.9	163.1	169.9	178.8	181.0
165°	164.7	165.7	170.9	176.2	178.3
167.5°	167.0	167.2	169.9	174.7	175.8
170°	167.8	168.8	169.9	173.1	174.1
172.5°	169.5	169.7	170.7	172.2	172.4
175°	170.9	170.9	170.9	172.0	170.9
177.5°	170.9	170.9	170.9	170.9	170.9
180°	170.9	170.9	170.9	170.9	170.9

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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	6.54	7.41	7.21	8.06	8.81	6.16	7.02	6.83	7.68	8.43
	3H	7.60	8.36	8.28	9.02	9.81	7.16	7.93	7.85	8.59	9.38
	4H	8.03	8.74	8.73	9.42	10.22	7.59	8.30	8.29	8.98	9.78
	6H	8.34	9.00	9.06	9.69	10.50	7.92	8.58	8.64	9.27	10.08
	8H	8.45	9.06	9.17	9.77	10.59	8.03	8.64	8.76	9.35	10.17
	12H	8.51	9.10	9.24	9.80	10.64	8.08	8.67	8.81	9.36	10.20
4H	2H	6.77	7.49	7.48	8.16	8.97	6.45	7.16	7.15	7.84	8.64
	3H	8.07	8.66	8.79	9.37	10.19	7.69	8.28	8.41	8.99	9.81
	4H	8.64	9.16	9.37	9.88	10.73	8.25	8.77	8.98	9.49	10.34
	6H	9.09	9.54	9.84	10.29	11.15	8.71	9.16	9.46	9.90	10.77
	8H	9.25	9.67	10.00	10.41	11.28	8.86	9.28	9.62	10.02	10.89
	12H	9.36	9.73	10.13	10.49	11.36	8.95	9.32	9.72	10.09	10.96
8H	4H	8.78	9.20	9.54	9.94	10.81	8.43	8.85	9.18	9.59	10.46
	6H	9.37	9.70	10.15	10.49	11.36	9.02	9.35	9.80	10.14	11.01
	8H	9.61	9.90	10.40	10.69	11.58	9.25	9.55	10.05	10.34	11.23
	12H	9.80	10.06	10.59	10.83	11.79	9.43	9.69	10.22	10.46	11.41
12H	4H	8.76	9.13	9.53	9.89	10.77	8.42	8.79	9.19	9.55	10.43
	6H	9.38	9.68	10.18	10.47	11.36	9.04	9.34	9.84	10.13	11.02
	8H	9.66	9.92	10.45	10.69	11.65	9.32	9.58	10.11	10.35	11.31