

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: P854459

Luminaire Tested: SQ2-WBN-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854459
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

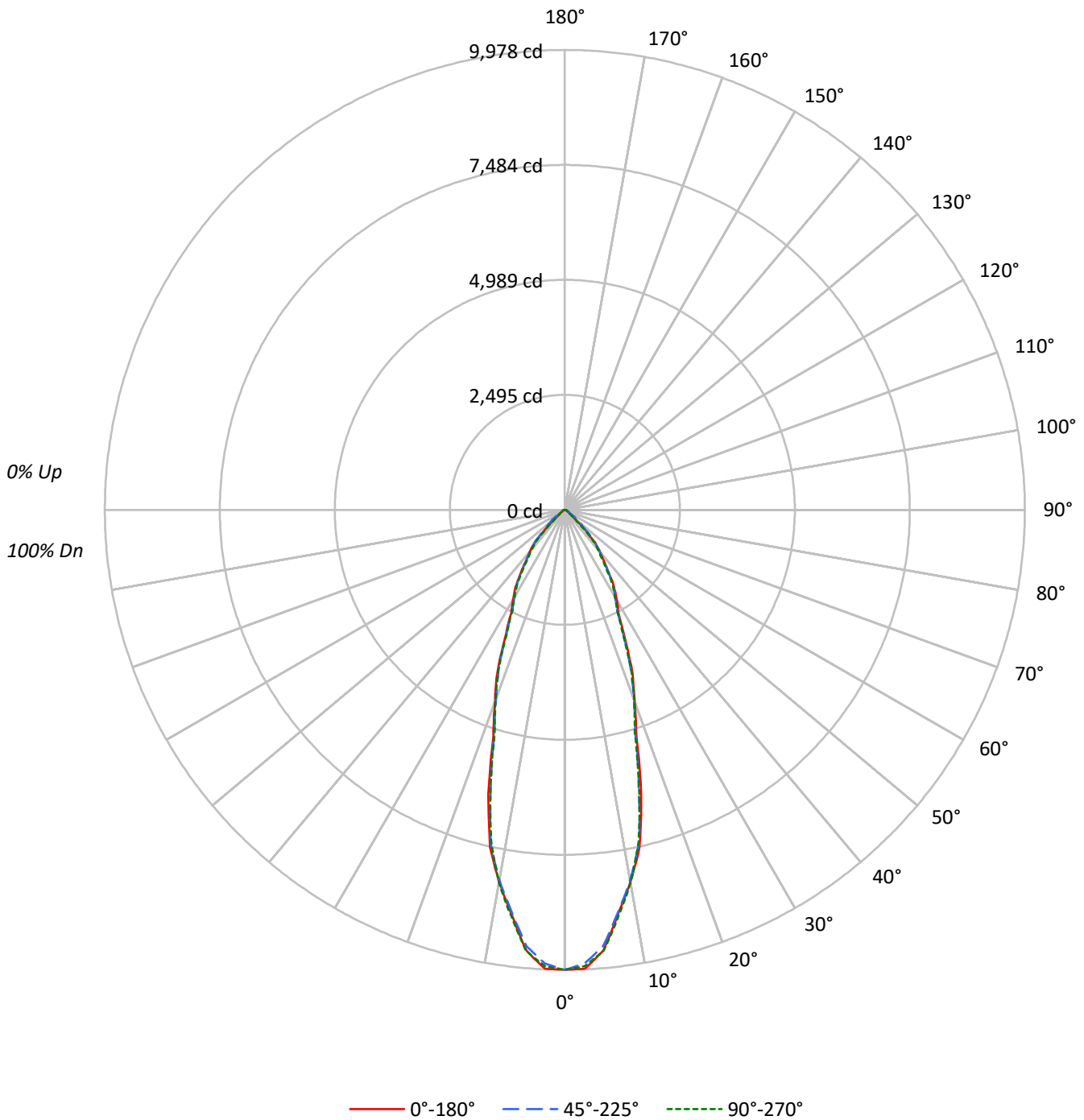
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5793.9 lumens
Efficiency: N/A
Efficacy: 116.6 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: Direct

Input Watts (W): 49.7
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					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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93				93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87				87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81				81
4	97	90	84	80	95	88	83	79	86	82	78	84	81	78	82	79	77	75				75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70				70
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66				66
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62				62
8	80	71	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58				58
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	57	55				55
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52				52

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	161100	161100	161100
5°	155547	153997	155719
10°	134448	133810	134768
15°	106987	103614	104028
20°	76003	74998	75546
25°	54679	53607	53228
30°	41778	40656	40557
35°	32794	32236	31399
40°	24848	24510	23317
45°	13903	16611	12408
50°	4891	10226	4313
55°	2989	5579	2840
60°	2286	2916	2115
65°	2097	2162	1960
70°	2006	2006	1836
75°	1878	1878	1765
80°	1646	1646	1646
85°	1649	1315	1315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16611 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	866.1	14.9
10°-20°	1721.4	29.7
20°-30°	1425.5	24.6
30°-40°	1025.5	17.7
40°-50°	522.4	9.0
50°-60°	136.0	2.3
60°-70°	56.4	1.0
70°-80°	31.3	0.5
80°-90°	9.3	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4013.0	69.3
0°-40°	5038.5	87.0
0°-60°	5696.9	98.3
0°-90°	5793.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5793.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9978	9978	9978	9978	9978	
5°	9597	9583	9502	9639	9608	866
15°	6400	6328	6199	6242	6224	1737
25°	3069	3064	3009	2983	2988	1444
35°	1664	1674	1636	1609	1593	1044
45°	609	701	728	677	543	487
55°	106	124	198	115	101	104
65°	55	57	57	53	51	55
75°	30	30	30	28	28	32
85°	9	9	7	9	7	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9977.8	9977.8	9977.8	9977.8	9977.8
2.5°	9962.2	9945.6	9850.3	9929.2	9909.8
5°	9597.2	9583.4	9501.6	9639.0	9607.8
7.5°	8843.5	8855.3	8807.4	8928.8	8895.6
10°	8200.6	8231.8	8161.7	8337.8	8220.1
12.5°	7491.2	7471.1	7422.5	7449.7	7384.7
15°	6400.5	6327.8	6198.7	6242.5	6223.5
17.5°	5155.5	5183.5	5071.5	5066.8	5045.4
20°	4423.4	4432.0	4364.9	4400.3	4396.8
22.5°	3834.3	3836.0	3750.4	3802.1	3770.9
25°	3069.3	3064.1	3009.1	2982.7	2987.8
27.5°	2517.0	2495.6	2454.0	2471.4	2458.6
30°	2240.9	2223.6	2180.7	2191.0	2175.4
32.5°	1993.1	1993.8	1949.9	1944.7	1933.2
35°	1663.8	1674.2	1635.5	1608.6	1593.0
37.5°	1370.0	1379.7	1347.0	1307.8	1294.6
40°	1178.9	1185.8	1162.9	1116.7	1106.3
42.5°	970.7	999.8	977.4	933.7	910.9
45°	608.9	700.6	727.5	676.7	543.4
47.5°	308.0	435.0	519.0	383.3	252.4
50°	194.7	283.0	407.1	230.5	171.7
52.5°	149.4	194.7	325.0	170.2	137.7
55°	106.2	123.5	198.2	114.7	100.9
57.5°	82.1	91.8	118.6	86.9	78.2
60°	70.8	77.7	90.3	74.1	65.5
62.5°	63.7	67.9	73.3	62.9	59.8
65°	54.9	56.6	56.6	53.1	51.3
67.5°	46.7	48.5	48.1	46.3	44.6
70°	42.5	44.2	42.5	40.7	38.9
72.5°	36.8	38.5	36.8	36.4	34.7
75°	30.1	30.1	30.1	28.3	28.3
77.5°	23.4	23.7	21.9	21.9	20.5
80°	17.7	19.4	17.7	17.7	17.7
82.5°	14.9	15.2	13.5	13.5	13.5
85°	8.9	8.9	7.1	8.8	7.1
87.5°	2.8	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0



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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	8.85	9.91	9.22	10.22	10.54	8.46	9.52	8.83	9.84	10.15
	3H	9.91	10.84	10.29	11.17	11.54	9.48	10.41	9.86	10.74	11.11
	4H	10.35	11.21	10.75	11.56	11.95	9.91	10.77	10.31	11.12	11.51
	6H	10.67	11.46	11.09	11.83	12.23	10.25	11.04	10.67	11.41	11.81
	8H	10.77	11.51	11.21	11.91	12.32	10.36	11.10	10.79	11.49	11.90
	12H	10.84	11.55	11.28	11.94	12.37	10.41	11.12	10.84	11.50	11.93
4H	2H	9.09	9.96	9.50	10.31	10.70	8.76	9.63	9.17	9.98	10.37
	3H	10.40	11.10	10.81	11.51	11.91	10.02	10.72	10.43	11.13	11.53
	4H	10.96	11.59	11.40	12.01	12.46	10.57	11.20	11.01	11.62	12.07
	6H	11.42	11.95	11.89	12.40	12.88	11.04	11.57	11.51	12.02	12.50
	8H	11.57	12.07	12.05	12.52	12.99	11.19	11.69	11.66	12.14	12.61
	12H	11.69	12.12	12.18	12.61	13.08	11.28	11.72	11.77	12.20	12.68
8H	4H	11.10	11.60	11.58	12.05	12.53	10.75	11.25	11.23	11.70	12.18
	6H	11.69	12.09	12.20	12.59	13.07	11.34	11.74	11.85	12.24	12.72
	8H	11.92	12.28	12.45	12.80	13.29	11.57	11.92	12.10	12.44	12.94
	12H	12.12	12.43	12.64	12.93	13.51	11.75	12.06	12.27	12.56	13.13
12H	4H	11.09	11.52	11.58	12.01	12.49	10.75	11.18	11.24	11.67	12.15
	6H	11.70	12.05	12.23	12.57	13.07	11.36	11.72	11.89	12.24	12.73
	8H	11.98	12.29	12.50	12.79	13.37	11.64	11.95	12.16	12.45	13.03