

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: P854456

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854456
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-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

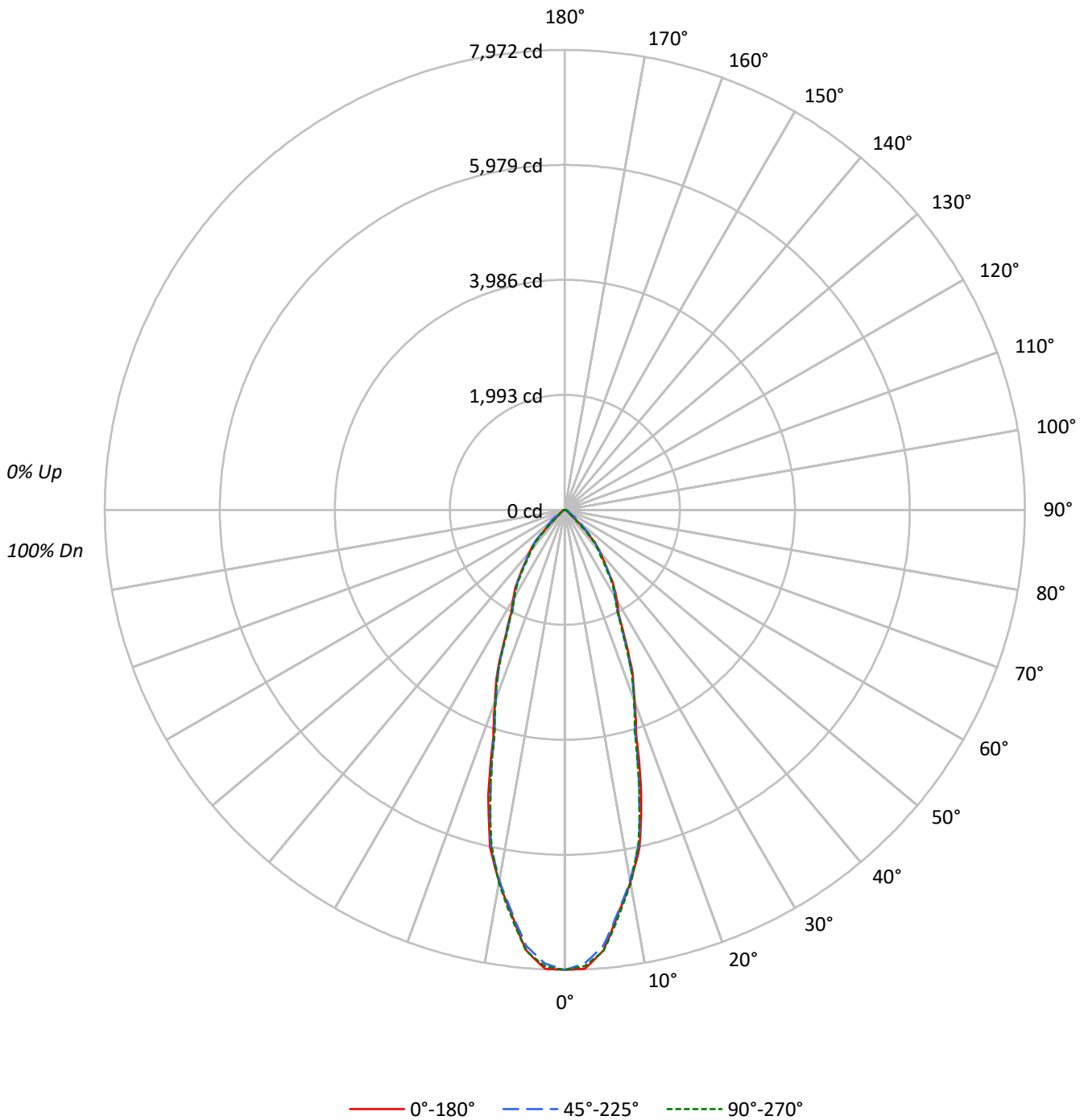
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4629.4 lumens
Efficiency: N/A
Efficacy: 121.5 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: Direct

Input Watts (W): 38.1
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81
4	97	90	84	80	95	88	83	79	86	82	78	84	81	78	82	79	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62
8	80	71	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	57	55
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	128721	128721	128721
5°	124284	123046	124422
10°	107426	106916	107682
15°	85484	82790	83121
20°	60726	59924	60362
25°	43689	42833	42530
30°	33381	32485	32406
35°	26203	25758	25089
40°	19852	19585	18630
45°	11109	13273	9914
50°	3908	8171	3446
55°	2390	4459	2269
60°	1828	2328	1689
65°	1673	1731	1566
70°	1600	1600	1468
75°	1497	1497	1410
80°	1311	1311	1311
85°	1315	1056	1056

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13273 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	692.0	14.9
10°-20°	1375.4	29.7
20°-30°	1139.0	24.6
30°-40°	819.4	17.7
40°-50°	417.4	9.0
50°-60°	108.7	2.3
60°-70°	45.1	1.0
70°-80°	25.0	0.5
80°-90°	7.4	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°	3206.4	69.3
0°-40°	4025.8	87.0
0°-60°	4551.9	98.3
0°-90°	4629.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4629.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7972	7972	7972	7972	7972	
5°	7668	7657	7592	7702	7677	692
15°	5114	5056	4953	4988	4973	1388
25°	2452	2448	2404	2383	2387	1153
35°	1329	1338	1307	1285	1273	834
45°	486	560	581	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	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7972.4	7972.4	7972.4	7972.4	7972.4
2.5°	7959.9	7946.6	7870.5	7933.5	7918.1
5°	7668.3	7657.2	7591.9	7701.7	7676.8
7.5°	7066.1	7075.5	7037.2	7134.2	7107.7
10°	6552.4	6577.3	6521.3	6662.0	6568.0
12.5°	5985.6	5969.5	5930.7	5952.4	5900.4
15°	5114.1	5056.0	4952.9	4987.9	4972.7
17.5°	4119.3	4141.7	4052.2	4048.4	4031.3
20°	3534.3	3541.2	3487.6	3515.9	3513.1
22.5°	3063.6	3065.0	2996.6	3037.9	3013.0
25°	2452.4	2448.2	2404.3	2383.2	2387.3
27.5°	2011.1	1994.0	1960.8	1974.7	1964.5
30°	1790.5	1776.7	1742.4	1750.6	1738.2
32.5°	1592.5	1593.0	1558.0	1553.8	1544.7
35°	1329.4	1337.7	1306.8	1285.3	1272.9
37.5°	1094.7	1102.4	1076.3	1044.9	1034.4
40°	941.9	947.5	929.2	892.2	883.9
42.5°	775.6	798.8	781.0	746.0	727.8
45°	486.5	559.8	581.3	540.7	434.2
47.5°	246.1	347.6	414.7	306.2	201.7
50°	155.6	226.1	325.3	184.2	137.2
52.5°	119.4	155.6	259.7	136.0	110.0
55°	84.9	98.7	158.4	91.7	80.6
57.5°	65.6	73.4	94.8	69.4	62.5
60°	56.6	62.1	72.1	59.2	52.3
62.5°	50.9	54.2	58.6	50.3	47.8
65°	43.8	45.2	45.3	42.4	41.0
67.5°	37.3	38.7	38.5	37.0	35.6
70°	33.9	35.3	33.9	32.5	31.1
72.5°	29.4	30.8	29.4	29.1	27.7
75°	24.0	24.0	24.0	22.6	22.6
77.5°	18.7	18.9	17.5	17.5	16.4
80°	14.1	15.5	14.1	14.1	14.1
82.5°	11.9	12.2	10.7	10.7	10.7
85°	7.1	7.1	5.7	7.0	5.7
87.5°	2.3	2.3	2.3	2.3	2.3
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	8.07	9.13	8.44	9.45	9.76	7.68	8.75	8.05	9.06	9.37
	3H	9.13	10.06	9.51	10.39	10.76	8.70	9.63	9.08	9.96	10.33
	4H	9.56	10.43	9.97	10.78	11.17	9.13	9.99	9.53	10.34	10.73
	6H	9.88	10.67	10.30	11.05	11.44	9.47	10.26	9.88	10.63	11.03
	8H	9.99	10.73	10.42	11.12	11.53	9.57	10.32	10.01	10.71	11.12
	12H	10.06	10.77	10.49	11.15	11.58	9.63	10.34	10.06	10.72	11.15
4H	2H	8.32	9.18	8.72	9.53	9.92	7.98	8.85	8.39	9.20	9.59
	3H	9.62	10.32	10.03	10.73	11.13	9.24	9.94	9.65	10.35	10.75
	4H	10.18	10.80	10.62	11.23	11.67	9.79	10.42	10.23	10.84	11.29
	6H	10.64	11.17	11.11	11.62	12.09	10.26	10.79	10.73	11.24	11.71
	8H	10.79	11.28	11.26	11.74	12.21	10.41	10.90	10.88	11.35	11.83
	12H	10.90	11.33	11.39	11.82	12.30	10.50	10.93	10.99	11.42	11.90
8H	4H	10.32	10.82	10.80	11.27	11.74	9.97	10.47	10.45	10.92	11.40
	6H	10.90	11.30	11.41	11.80	12.29	10.56	10.95	11.06	11.45	11.94
	8H	11.13	11.49	11.67	12.01	12.51	10.78	11.14	11.31	11.66	12.16
	12H	11.34	11.65	11.86	12.15	12.72	10.96	11.27	11.48	11.77	12.35
12H	4H	10.31	10.74	10.80	11.23	11.70	9.97	10.40	10.46	10.89	11.36
	6H	10.91	11.27	11.44	11.79	12.28	10.58	10.93	11.11	11.45	11.95
	8H	11.20	11.51	11.72	12.00	12.58	10.86	11.17	11.38	11.67	12.24