

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: P854450

Luminaire Tested: SQ2-WBN-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854450
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-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

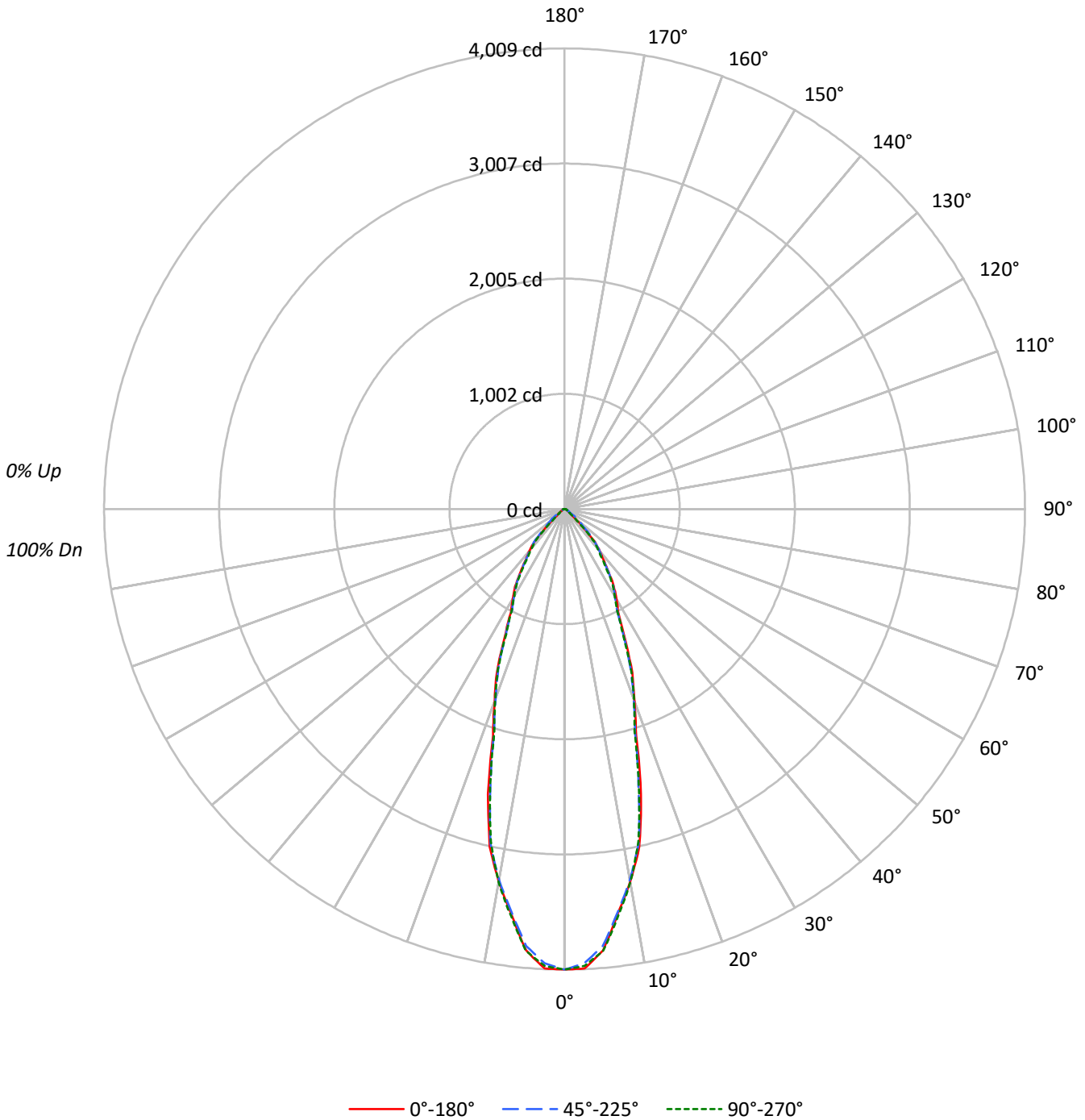
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2327.9 lumens
Efficiency: N/A
Efficacy: 128.6 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): 18.1
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°	64727	64727	64727
5°	62496	61874	62566
10°	54020	53762	54147
15°	42985	41630	41797
20°	30536	30134	30354
25°	21969	21538	21387
30°	16785	16336	16295
35°	13176	12952	12617
40°	9982	9847	9369
45°	5585	6674	4985
50°	1964	4109	1733
55°	1202	2244	1140
60°	917	1172	849
65°	840	871	787
70°	807	807	736
75°	755	755	711
80°	660	660	660
85°	667	519	519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6674 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.0	14.9
10°-20°	691.6	29.7
20°-30°	572.7	24.6
30°-40°	412.0	17.7
40°-50°	209.9	9.0
50°-60°	54.6	2.3
60°-70°	22.7	1.0
70°-80°	12.6	0.5
80°-90°	3.7	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°	1612.3	69.3
0°-40°	2024.4	87.0
0°-60°	2288.9	98.3
0°-90°	2327.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2327.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4009	4009	4009	4009	4009	
5°	3856	3850	3818	3873	3860	348
15°	2572	2542	2490	2508	2500	698
25°	1233	1231	1209	1198	1200	580
35°	668	673	657	646	640	419
45°	245	282	292	272	218	195
55°	43	50	80	46	40	42
65°	22	23	23	21	21	22
75°	12	12	12	11	11	13
85°	4	4	3	4	3	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4008.9	4008.9	4008.9	4008.9	4008.9
2.5°	4002.6	3996.0	3957.7	3989.4	3981.6
5°	3856.0	3850.4	3817.6	3872.8	3860.3
7.5°	3553.2	3557.9	3538.7	3587.4	3574.1
10°	3294.9	3307.4	3279.2	3350.0	3302.7
12.5°	3009.8	3001.8	2982.2	2993.2	2967.0
15°	2571.6	2542.4	2490.5	2508.1	2500.5
17.5°	2071.4	2082.6	2037.7	2035.8	2027.1
20°	1777.2	1780.7	1753.8	1767.9	1766.6
22.5°	1540.5	1541.2	1506.8	1527.6	1515.1
25°	1233.2	1231.1	1209.0	1198.4	1200.5
27.5°	1011.3	1002.7	986.0	993.0	987.8
30°	900.3	893.4	876.2	880.3	874.0
32.5°	800.8	801.1	783.4	781.3	776.7
35°	668.5	672.7	657.1	646.3	640.1
37.5°	550.4	554.3	541.2	525.4	520.2
40°	473.6	476.4	467.2	448.7	444.5
42.5°	390.0	401.7	392.7	375.1	366.0
45°	244.6	281.5	292.3	271.9	218.3
47.5°	123.7	174.8	208.5	154.0	101.4
50°	78.2	113.7	163.6	92.6	69.0
52.5°	60.0	78.2	130.6	68.4	55.3
55°	42.7	49.6	79.7	46.1	40.5
57.5°	33.0	36.9	47.6	34.9	31.4
60°	28.4	31.2	36.3	29.8	26.3
62.5°	25.6	27.3	29.4	25.3	24.0
65°	22.0	22.7	22.8	21.3	20.6
67.5°	18.8	19.5	19.3	18.6	17.9
70°	17.1	17.8	17.1	16.3	15.6
72.5°	14.8	15.5	14.8	14.6	13.9
75°	12.1	12.1	12.1	11.4	11.4
77.5°	9.4	9.5	8.8	8.8	8.2
80°	7.1	7.8	7.1	7.1	7.1
82.5°	6.0	6.1	5.4	5.4	5.4
85°	3.6	3.6	2.8	3.5	2.8
87.5°	1.1	1.1	1.1	1.1	1.1
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	5.68	6.74	6.05	7.05	7.37	5.30	6.36	5.66	6.67	6.99
	3H	6.74	7.67	7.12	8.01	8.37	6.30	7.24	6.69	7.57	7.94
	4H	7.18	8.04	7.59	8.40	8.78	6.74	7.60	7.15	7.96	8.34
	6H	7.50	8.29	7.92	8.66	9.06	7.08	7.87	7.50	8.24	8.64
	8H	7.60	8.35	8.04	8.74	9.15	7.19	7.93	7.62	8.32	8.73
	12H	7.68	8.39	8.11	8.77	9.20	7.24	7.95	7.67	8.33	8.76
4H	2H	5.92	6.79	6.33	7.14	7.53	5.60	6.46	6.00	6.81	7.20
	3H	7.23	7.93	7.65	8.34	8.75	6.85	7.55	7.26	7.96	8.36
	4H	7.80	8.42	8.23	8.84	9.29	7.41	8.03	7.84	8.45	8.90
	6H	8.25	8.79	8.72	9.24	9.71	7.87	8.40	8.34	8.85	9.33
	8H	8.41	8.90	8.88	9.35	9.83	8.02	8.52	8.50	8.97	9.44
	12H	8.52	8.96	9.01	9.44	9.92	8.11	8.54	8.60	9.03	9.51
8H	4H	7.94	8.44	8.42	8.89	9.36	7.59	8.09	8.06	8.54	9.01
	6H	8.52	8.92	9.03	9.42	9.91	8.17	8.57	8.68	9.07	9.56
	8H	8.75	9.11	9.29	9.63	10.13	8.40	8.75	8.93	9.27	9.77
	12H	8.96	9.27	9.48	9.77	10.35	8.57	8.88	9.09	9.38	9.96
12H	4H	7.92	8.36	8.41	8.84	9.32	7.58	8.01	8.07	8.50	8.98
	6H	8.53	8.89	9.06	9.41	9.90	8.19	8.55	8.72	9.07	9.57
	8H	8.82	9.13	9.34	9.62	10.20	8.47	8.78	8.99	9.28	9.86