

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: P854474

Luminaire Tested: SQ2-WBN-125U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854474
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-125U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

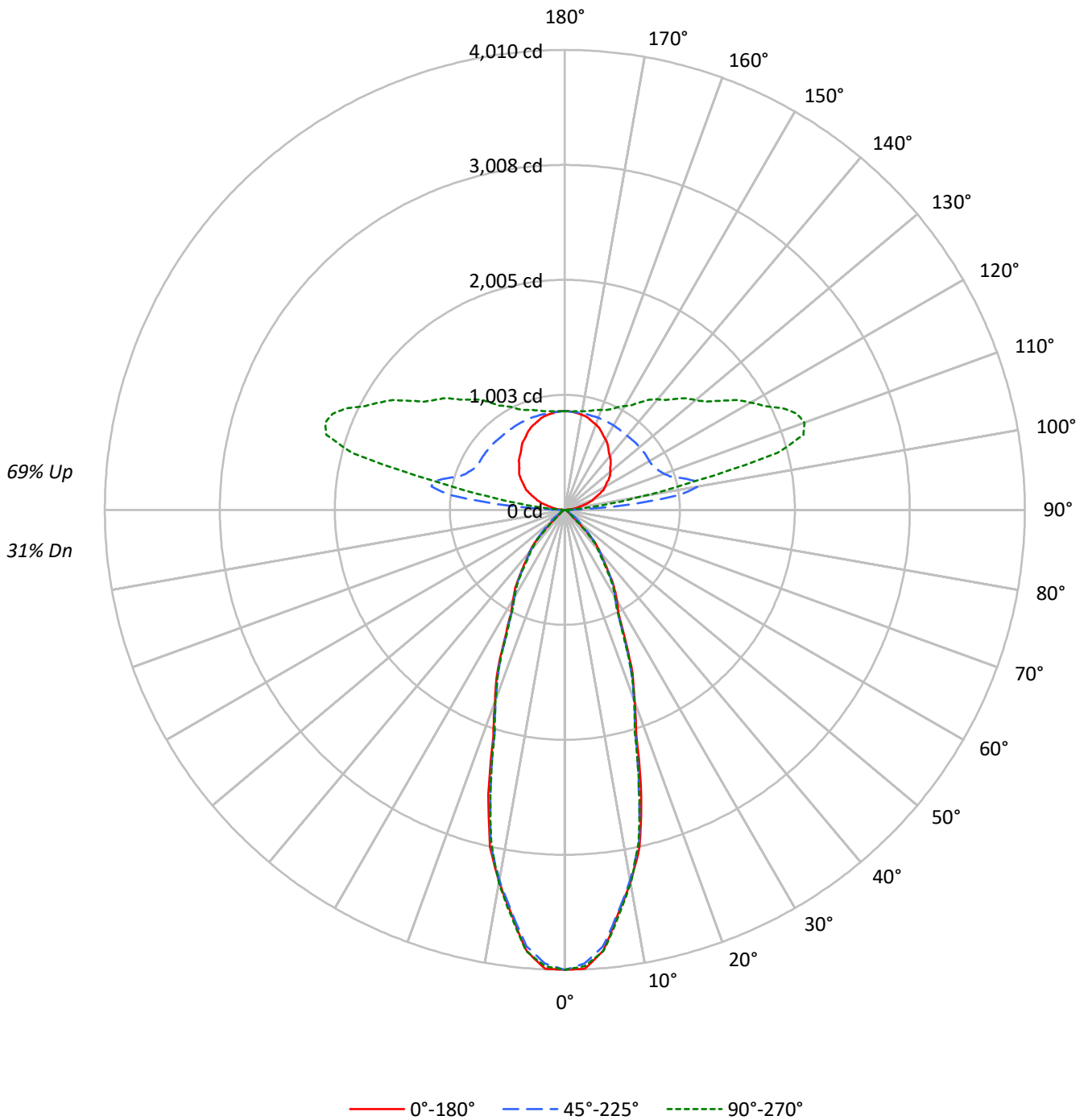
Lumens per Lamp: N/A
Luminaire Lumens: 7634.7 lumens
Efficiency: N/A
Efficacy: 123.1 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 62
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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	38	38	38	31
1	95	91	88	85	85	82	79	77	65	64	62	50	49	48	36	35	35	28
2	88	81	76	72	79	74	69	66	59	56	54	46	44	43	34	33	32	26
3	81	73	67	62	73	66	61	57	54	50	47	42	40	38	31	30	29	25
4	75	66	59	54	68	60	55	50	49	45	42	39	36	34	29	28	27	23
5	70	60	53	48	63	55	49	44	45	41	38	36	33	31	28	26	25	21
6	65	55	48	43	59	50	44	40	41	37	34	33	31	29	26	24	23	20
7	61	50	43	38	55	46	40	36	38	34	31	31	28	26	24	23	22	19
8	57	46	39	35	52	42	37	33	36	31	28	29	26	24	23	21	20	18
9	53	43	36	32	48	39	34	30	33	29	26	27	25	23	22	20	19	17
10	50	40	33	29	46	37	31	27	31	27	24	26	23	21	21	19	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	64745	64745	64745
5°	62514	61892	62584
10°	54034	53779	54162
15°	42997	41641	41809
20°	30545	30142	30362
25°	21975	21544	21392
30°	16790	16339	16300
35°	13180	12956	12619
40°	9986	9851	9371
45°	5587	6677	4987
50°	1967	4109	1733
55°	1202	2244	1140
60°	920	1172	849
65°	844	871	787
70°	807	807	741
75°	755	755	711
80°	660	660	660
85°	667	519	519

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6677 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.1	4.6
10°-20°	691.8	9.1
20°-30°	572.9	7.5
30°-40°	412.2	5.4
40°-50°	210.0	2.8
50°-60°	54.7	0.7
60°-70°	22.7	0.3
70°-80°	12.6	0.2
80°-90°	4.7	0.1
90°-100°	328.9	4.3
100°-110°	1070.9	14.0
110°-120°	1059.3	13.9
120°-130°	865.7	11.3
130°-140°	707.5	9.3
140°-150°	551.1	7.2
150°-160°	397.2	5.2
160°-170°	242.8	3.2
170°-180°	81.9	1.1
0°-30°	1612.8	21.1
0°-40°	2025.0	26.5
0°-60°	2289.6	30.0
0°-90°	2329.5	30.5
90°-120°	2459.0	32.2
90°-150°	4583.3	60.0
90°-180°	5305.0	69.5
0°-180°	7634.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4010	4010	4010	4010	4010	
5°	3857	3852	3819	3874	3861	348
15°	2572	2543	2491	2509	2501	698
25°	1234	1231	1209	1199	1201	580
35°	669	673	657	646	640	420
45°	245	282	292	272	218	196
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	3	7	6	6	2
95°	44	135	603	215	132	52
105°	182	263	1061	2026	1919	194
115°	336	402	864	1781	2095	333
125°	468	521	852	1406	1657	416
135°	565	624	848	1214	1369	436
145°	660	709	846	1045	1144	413
155°	753	778	851	936	971	347
165°	822	829	854	886	896	231
175°	857	857	857	863	861	81
180°	860	860	860	860	860	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4010.0	4010.0	4010.0	4010.0	4010.0
2.5°	4003.8	3997.1	3958.8	3990.5	3982.7
5°	3857.1	3851.5	3818.7	3873.9	3861.4
7.5°	3554.2	3558.9	3539.7	3588.5	3575.1
10°	3295.8	3308.3	3280.2	3350.9	3303.6
12.5°	3010.7	3002.6	2983.1	2994.0	2967.9
15°	2572.3	2543.1	2491.2	2508.9	2501.2
17.5°	2072.0	2083.2	2038.2	2036.3	2027.7
20°	1777.7	1781.2	1754.3	1768.5	1767.1
22.5°	1541.0	1541.7	1507.3	1528.0	1515.5
25°	1233.5	1231.4	1209.3	1198.7	1200.8
27.5°	1011.6	1003.0	986.3	993.3	988.1
30°	900.6	893.6	876.4	880.5	874.3
32.5°	801.0	801.3	783.7	781.6	777.0
35°	668.7	672.9	657.3	646.5	640.2
37.5°	550.6	554.5	541.4	525.6	520.3
40°	473.8	476.6	467.4	448.8	444.6
42.5°	390.1	401.8	392.8	375.3	366.1
45°	244.7	281.6	292.4	272.0	218.4
47.5°	123.8	174.8	208.6	154.0	101.4
50°	78.3	113.7	163.6	92.7	69.0
52.5°	60.0	78.3	130.6	68.4	55.3
55°	42.7	49.6	79.7	46.1	40.5
57.5°	33.0	36.9	47.7	34.9	31.4
60°	28.5	31.2	36.3	29.8	26.3
62.5°	25.6	27.3	29.5	25.3	24.0
65°	22.1	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	15.7
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	8.3
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	1.8	2.6	2.4	2.4
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.7	174.9	57.7	44.4
95°	44.4	135.4	602.9	214.9	132.2
97.5°	83.6	176.2	1023.2	623.1	380.3
100°	108.9	199.9	1181.4	1053.5	683.2
102.5°	137.7	225.4	1161.9	1558.5	1185.0
105°	181.9	262.6	1060.8	2026.1	1918.6
107.5°	229.7	305.6	964.8	2066.7	2180.7
110°	264.4	333.7	919.1	2016.3	2222.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	293.2	361.6	890.3	1925.4	2190.8
115°	336.3	401.5	864.1	1780.8	2095.2
117.5°	380.8	439.5	853.9	1648.4	1961.3
120°	406.1	464.0	851.4	1566.9	1869.9
122.5°	430.7	487.8	852.3	1496.2	1778.5
125°	467.5	521.3	852.5	1406.0	1657.3
127.5°	499.0	554.0	852.3	1338.5	1548.0
130°	519.3	575.1	851.4	1299.9	1487.1
132.5°	537.1	595.4	850.6	1264.1	1439.7
135°	564.8	623.7	848.2	1213.5	1368.6
137.5°	591.9	651.2	845.9	1162.1	1299.8
140°	611.3	668.2	845.1	1127.2	1257.5
142.5°	629.9	684.3	845.1	1093.9	1210.2
145°	660.0	708.6	846.1	1045.1	1144.4
147.5°	689.2	731.4	847.6	1003.5	1080.3
150°	708.6	745.9	849.3	978.7	1043.9
152.5°	728.1	758.7	850.1	959.8	1011.7
155°	753.0	777.9	851.4	935.8	970.9
157.5°	776.7	794.5	852.7	918.0	942.6
160°	791.1	805.6	853.5	906.8	926.5
162.5°	803.8	815.0	853.5	897.4	912.1
165°	821.8	829.0	853.5	885.5	895.8
167.5°	834.5	839.0	853.7	876.5	881.9
170°	842.9	845.0	854.6	870.5	872.6
172.5°	848.9	850.1	856.3	867.0	866.6
175°	856.7	856.7	856.7	863.0	860.9
177.5°	859.9	859.0	858.2	862.3	859.0
180°	859.9	859.9	859.9	859.9	859.9



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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	0.00	0.00	0.27	0.86	2.39	0.00	0.00	0.00	0.47	2.01
	3H	0.18	0.73	1.32	1.84	3.40	0.00	0.29	0.89	1.41	2.96
	4H	0.60	1.12	1.76	2.24	3.80	0.17	0.68	1.32	1.80	3.36
	6H	0.91	1.39	2.07	2.51	4.08	0.49	0.97	1.65	2.09	3.66
	8H	1.01	1.46	2.17	2.60	4.16	0.59	1.05	1.75	2.18	3.74
	12H	1.08	1.50	2.24	2.63	4.21	0.64	1.07	1.80	2.19	3.77
4H	2H	0.00	0.00	0.51	0.99	2.54	0.00	0.00	0.18	0.66	2.21
	3H	0.64	1.08	1.81	2.22	3.79	0.26	0.69	1.42	1.83	3.40
	4H	1.21	1.60	2.37	2.74	4.32	0.82	1.21	1.98	2.35	3.93
	6H	1.66	1.99	2.82	3.15	4.73	1.28	1.61	2.44	2.77	4.35
	8H	1.82	2.13	2.98	3.28	4.87	1.43	1.74	2.60	2.89	4.48
	12H	1.92	2.20	3.10	3.36	4.96	1.51	1.79	2.69	2.95	4.55
8H	4H	1.35	1.66	2.51	2.81	4.40	1.00	1.31	2.16	2.46	4.05
	6H	1.93	2.19	3.12	3.38	4.97	1.58	1.84	2.77	3.03	4.62
	8H	2.18	2.41	3.37	3.57	5.18	1.83	2.05	3.02	3.22	4.83
	12H	2.37	2.57	3.56	3.73	5.38	1.99	2.18	3.18	3.35	4.99
12H	4H	1.32	1.60	2.50	2.76	4.36	0.98	1.26	2.16	2.42	4.02
	6H	1.96	2.18	3.15	3.35	4.96	1.62	1.84	2.81	3.01	4.62
	8H	2.23	2.42	3.42	3.59	5.23	1.88	2.08	3.08	3.24	4.89