

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: P854426

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854426
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-050U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

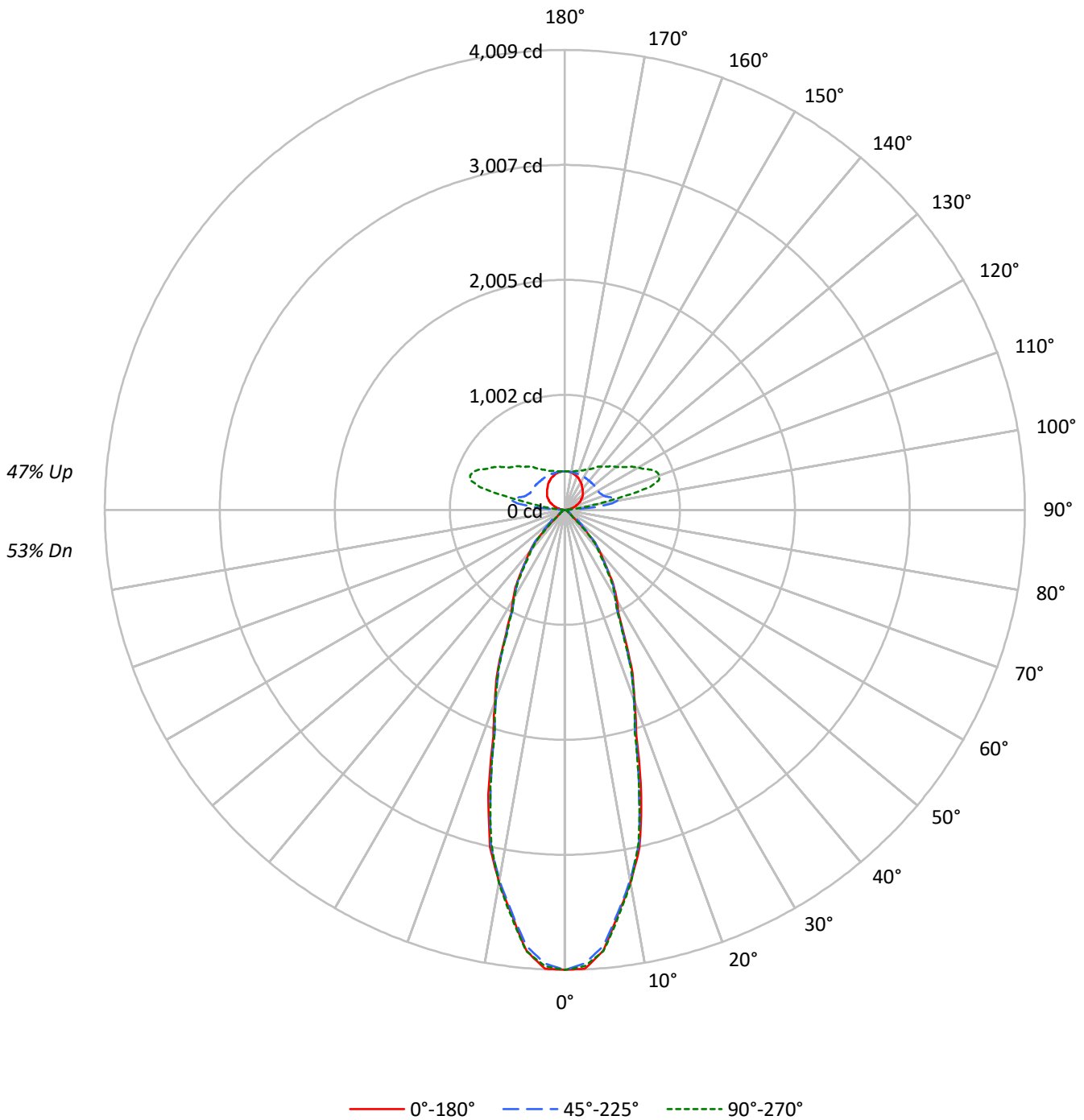
Lumens per Lamp: N/A
Luminaire Lumens: 4417.2 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.9
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53				
1	101	97	94	92	93	91	88	86	78	76	74	66	65	64	55	55	54	49				
2	94	88	83	79	87	82	78	75	72	69	66	62	60	58	52	51	50	46				
3	88	80	75	70	82	75	70	66	66	62	59	57	55	53	49	48	46	42				
4	82	74	67	62	77	69	64	59	61	57	54	53	51	48	46	44	43	40				
5	77	68	61	56	72	64	58	54	57	52	49	50	47	44	44	42	40	37				
6	72	62	56	51	68	59	53	49	53	48	45	47	44	41	41	39	37	35				
7	68	58	51	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33				
8	64	54	47	43	60	51	46	42	46	42	39	42	38	36	37	35	33	31				
9	61	50	44	40	57	48	42	39	44	39	36	39	36	33	35	33	31	29				
10	57	47	41	37	54	45	40	36	41	37	34	37	34	31	34	31	29	28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	64734	64734	64734
5°	62501	61879	62571
10°	54025	53767	54152
15°	42989	41635	41800
20°	30539	30136	30356
25°	21971	21540	21389
30°	16787	16336	16296
35°	13178	12954	12617
40°	9984	9849	9369
45°	5587	6674	4987
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	7.9
10°-20°	691.7	15.7
20°-30°	572.8	13.0
30°-40°	412.1	9.3
40°-50°	209.9	4.8
50°-60°	54.7	1.2
60°-70°	22.7	0.5
70°-80°	12.6	0.3
80°-90°	4.2	0.1
90°-100°	134.0	3.0
100°-110°	424.9	9.6
110°-120°	416.6	9.4
120°-130°	339.0	7.7
130°-140°	276.4	6.3
140°-150°	215.5	4.9
150°-160°	155.3	3.5
160°-170°	94.9	2.1
170°-180°	32.0	0.7
0°-30°	1612.5	36.5
0°-40°	2024.6	45.8
0°-60°	2289.1	51.8
0°-90°	2328.5	52.7
90°-120°	975.5	22.1
90°-150°	1806.5	40.9
90°-180°	2089.0	47.3
0°-180°	4417.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4009	4009	4009	4009	4009	
5°	3856	3851	3818	3873	3861	348
15°	2572	2543	2491	2508	2501	698
25°	1233	1231	1209	1198	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	1	3	3	3	1
95°	18	54	243	90	58	21
105°	74	104	419	798	765	78
115°	132	157	338	703	827	131
125°	183	205	333	551	649	163
135°	221	243	331	474	534	171
145°	258	278	331	409	445	162
155°	294	304	332	365	380	136
165°	320	324	333	346	349	90
175°	335	334	335	337	336	32
180°	336	336	336	336	336	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4009.3	4009.3	4009.3	4009.3	4009.3
2.5°	4003.0	3996.3	3958.1	3989.7	3982.0
5°	3856.3	3850.8	3817.9	3873.1	3860.6
7.5°	3553.5	3558.2	3539.0	3587.8	3574.4
10°	3295.2	3307.7	3279.5	3350.3	3303.0
12.5°	3010.1	3002.0	2982.5	2993.4	2967.3
15°	2571.8	2542.6	2490.8	2508.4	2500.7
17.5°	2071.6	2082.8	2037.8	2035.9	2027.3
20°	1777.4	1780.9	1753.9	1768.1	1766.7
22.5°	1540.7	1541.4	1507.0	1527.7	1515.2
25°	1233.3	1231.2	1209.1	1198.5	1200.6
27.5°	1011.4	1002.8	986.1	993.1	987.9
30°	900.4	893.5	876.2	880.4	874.1
32.5°	800.9	801.1	783.5	781.4	776.8
35°	668.6	672.7	657.2	646.4	640.1
37.5°	550.5	554.4	541.3	525.5	520.2
40°	473.7	476.5	467.3	448.7	444.5
42.5°	390.0	401.7	392.7	375.2	366.0
45°	244.7	281.5	292.3	271.9	218.4
47.5°	123.8	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	47.7	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	8.3
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	1.3	1.8	1.8	1.8
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.5	75.1	25.0	17.6
95°	18.0	54.2	243.3	90.2	58.2
97.5°	33.4	70.2	412.1	257.5	158.0
100°	44.4	79.6	469.6	428.1	278.2
102.5°	56.3	89.8	459.5	628.7	481.2
105°	74.0	104.0	418.8	797.8	764.7
107.5°	91.8	119.5	380.1	815.4	860.1
110°	103.7	130.5	360.7	795.1	877.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	115.5	140.7	349.7	760.1	865.2
115°	132.2	157.0	338.5	703.0	827.1
117.5°	148.5	172.1	334.0	648.0	773.2
120°	158.7	181.4	333.2	614.1	735.1
122.5°	168.8	190.7	333.2	586.8	699.5
125°	183.0	204.7	333.2	551.2	649.4
127.5°	195.5	216.3	333.2	523.5	607.3
130°	203.1	224.8	333.2	507.3	582.8
132.5°	210.7	232.4	332.3	494.4	562.5
135°	221.1	242.8	331.1	474.1	534.1
137.5°	231.2	254.0	330.8	454.7	508.3
140°	238.0	260.7	330.0	441.1	489.7
142.5°	246.4	268.4	330.8	427.5	472.8
145°	258.1	277.7	331.1	409.1	445.3
147.5°	269.7	286.5	331.3	392.9	422.4
150°	278.2	291.6	332.1	383.4	407.2
152.5°	284.9	296.7	332.1	375.7	395.4
155°	294.0	304.4	332.1	365.2	379.7
157.5°	303.8	310.8	333.2	358.8	368.7
160°	308.8	315.0	333.2	354.5	362.8
162.5°	313.9	318.5	333.2	351.1	356.9
165°	320.5	323.6	333.2	345.9	349.0
167.5°	326.6	327.4	334.2	342.3	345.0
170°	330.0	330.0	334.2	340.6	341.6
172.5°	331.7	332.5	334.2	338.9	339.1
175°	335.3	334.2	335.3	337.4	336.3
177.5°	336.3	335.5	335.5	337.1	335.5
180°	336.3	336.3	336.3	336.3	336.3



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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	1.64	2.34	2.62	3.29	4.54	1.26	1.95	2.23	2.91	4.16
	3H	2.69	3.31	3.67	4.27	5.55	2.25	2.87	3.24	3.84	5.11
	4H	3.12	3.70	4.11	4.67	5.95	2.68	3.26	3.67	4.23	5.51
	6H	3.43	3.96	4.43	4.94	6.23	3.01	3.54	4.01	4.52	5.81
	8H	3.53	4.03	4.54	5.02	6.31	3.11	3.61	4.12	4.60	5.89
	12H	3.59	4.07	4.61	5.06	6.36	3.15	3.63	4.17	4.62	5.92
4H	2H	1.86	2.44	2.87	3.41	4.69	1.53	2.12	2.54	3.09	4.37
	3H	3.16	3.64	4.17	4.64	5.93	2.77	3.25	3.78	4.25	5.55
	4H	3.72	4.16	4.74	5.15	6.47	3.33	3.77	4.35	4.76	6.08
	6H	4.17	4.55	5.20	5.56	6.88	3.79	4.16	4.82	5.18	6.50
	8H	4.33	4.68	5.36	5.69	7.01	3.94	4.29	4.97	5.30	6.63
	12H	4.44	4.75	5.48	5.78	7.10	4.03	4.34	5.07	5.36	6.69
8H	4H	3.86	4.21	4.89	5.22	6.55	3.51	3.86	4.54	4.87	6.20
	6H	4.45	4.73	5.50	5.79	7.11	4.10	4.38	5.15	5.44	6.76
	8H	4.69	4.94	5.75	5.98	7.33	4.34	4.58	5.39	5.63	6.97
	12H	4.89	5.10	5.94	6.14	7.52	4.50	4.72	5.56	5.75	7.14
12H	4H	3.84	4.15	4.88	5.18	6.50	3.50	3.81	4.54	4.83	6.16
	6H	4.47	4.72	5.53	5.76	7.10	4.13	4.38	5.19	5.42	6.76
	8H	4.74	4.96	5.80	5.99	7.38	4.40	4.62	5.45	5.65	7.04