

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: P854414

Luminaire Tested: SQ2-WBN-025U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854414
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-025U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

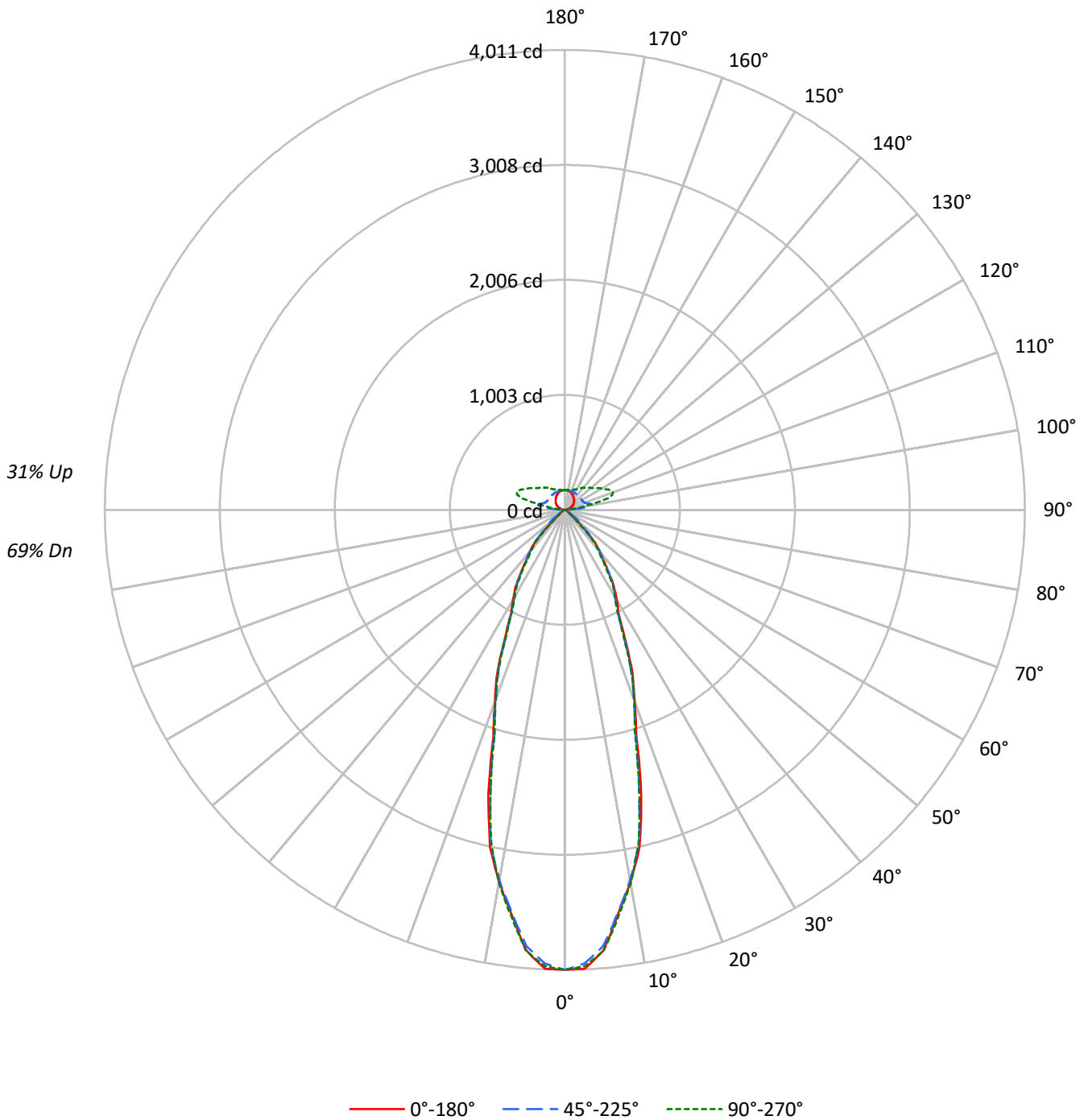
Lumens per Lamp: N/A
Luminaire Lumens: 3398.5 lumens
Efficiency: N/A
Efficacy: 133.3 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 25.5
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
RCR																				
0	112	112	112	112	105	105	105	105	94	94	94	83	83	83	73	73	73	69		
1	105	102	99	96	99	97	94	92	87	85	83	78	76	75	69	69	68	64		
2	99	93	89	85	93	89	85	81	80	77	75	73	71	69	66	64	63	59		
3	93	86	80	76	88	82	77	73	75	71	68	68	65	63	62	60	58	55		
4	87	79	73	68	83	76	70	66	69	65	62	64	61	58	58	56	54	51		
5	82	73	67	62	78	70	65	60	65	60	57	60	56	54	55	53	50	48		
6	78	68	62	57	74	66	60	56	61	56	53	56	53	50	52	49	47	45		
7	73	63	57	53	70	61	56	51	57	52	49	53	50	47	50	47	44	42		
8	69	59	53	49	66	58	52	48	54	49	46	50	47	44	47	44	42	40		
9	66	56	50	46	63	54	49	45	51	46	43	48	44	41	45	42	40	38		
10	63	53	47	43	60	51	46	42	48	44	40	45	42	39	43	40	37	36		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	64767	64767	64767
5°	62535	61911	62603
10°	54052	53795	54180
15°	43012	41656	41822
20°	30555	30151	30371
25°	21982	21551	21399
30°	16796	16345	16306
35°	13184	12960	12625
40°	9988	9853	9375
45°	5590	6679	4989
50°	1967	4112	1733
55°	1202	2244	1143
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: 6679 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.2	10.2
10°-20°	692.0	20.4
20°-30°	573.1	16.9
30°-40°	412.3	12.1
40°-50°	210.0	6.2
50°-60°	54.7	1.6
60°-70°	22.7	0.7
70°-80°	12.6	0.4
80°-90°	4.2	0.1
90°-100°	69.7	2.1
100°-110°	216.8	6.4
110°-120°	212.1	6.2
120°-130°	173.1	5.1
130°-140°	141.6	4.2
140°-150°	110.5	3.3
150°-160°	79.8	2.3
160°-170°	48.8	1.4
170°-180°	16.4	0.5
0°-30°	1613.3	47.5
0°-40°	2025.6	59.6
0°-60°	2290.3	67.4
0°-90°	2329.8	68.6
90°-120°	498.5	14.7
90°-150°	923.8	27.2
90°-180°	1069.0	31.5
0°-180°	3398.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4011	4011	4011	4011	4011	
5°	3858	3853	3820	3875	3863	348
15°	2573	2544	2492	2510	2502	699
25°	1234	1232	1210	1199	1201	580
35°	669	673	658	647	640	420
45°	245	282	292	272	218	196
55°	43	50	80	46	41	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°	10	28	128	47	31	11
105°	38	54	213	407	389	40
115°	68	80	173	357	418	67
125°	94	104	171	281	330	83
135°	113	125	170	243	273	87
145°	132	142	170	210	228	83
155°	151	156	171	188	194	70
165°	166	167	172	178	180	47
175°	172	172	172	173	172	16
180°	172	172	172	172	172	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4011.4	4011.4	4011.4	4011.4	4011.4
2.5°	4005.1	3998.4	3960.1	3991.8	3984.0
5°	3858.4	3852.8	3819.9	3875.2	3862.6
7.5°	3555.4	3560.1	3540.8	3589.6	3576.3
10°	3296.9	3309.4	3281.2	3352.0	3304.7
12.5°	3011.7	3003.6	2984.1	2995.0	2968.9
15°	2573.2	2544.0	2492.1	2509.7	2502.0
17.5°	2072.6	2083.9	2038.9	2037.0	2028.4
20°	1778.3	1781.8	1754.8	1769.0	1767.6
22.5°	1541.5	1542.2	1507.8	1528.5	1516.0
25°	1233.9	1231.8	1209.7	1199.1	1201.2
27.5°	1011.9	1003.3	986.6	993.6	988.4
30°	900.9	893.9	876.7	880.8	874.6
32.5°	801.3	801.6	783.9	781.8	777.2
35°	668.9	673.1	657.5	646.7	640.5
37.5°	550.8	554.7	541.5	525.8	520.5
40°	473.9	476.7	467.5	448.9	444.8
42.5°	390.2	401.9	393.0	375.4	366.2
45°	244.8	281.7	292.5	272.0	218.5
47.5°	123.8	174.9	208.6	154.1	101.5
50°	78.3	113.8	163.7	92.7	69.0
52.5°	60.1	78.3	130.7	68.4	55.4
55°	42.7	49.7	79.7	46.1	40.6
57.5°	33.0	36.9	47.7	34.9	31.5
60°	28.5	31.2	36.3	29.8	26.3
62.5°	25.6	27.3	29.5	25.3	24.1
65°	22.1	22.8	22.8	21.3	20.6
67.5°	18.8	19.5	19.4	18.6	17.9
70°	17.1	17.8	17.1	16.4	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	1.3	1.8	1.8	1.8
90°	0.0	1.0	3.2	3.2	3.2
92.5°	3.4	11.9	40.4	13.3	10.8
95°	9.5	28.1	127.8	47.2	30.6
97.5°	17.3	36.5	211.7	131.8	83.0
100°	23.2	40.8	238.8	223.3	149.0
102.5°	29.2	45.9	233.7	319.0	250.4
105°	38.0	53.5	213.4	407.4	388.8
107.5°	46.9	61.4	194.0	414.2	434.6
110°	52.8	67.3	183.8	404.5	444.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	58.7	72.4	178.8	387.0	438.0
115°	67.6	80.0	173.3	357.4	418.4
117.5°	76.3	87.6	170.9	329.1	391.5
120°	81.3	92.7	170.1	313.0	372.9
122.5°	86.4	97.8	170.9	299.4	354.3
125°	94.0	104.4	171.1	281.1	329.6
127.5°	100.2	110.7	171.1	267.4	308.7
130°	103.5	114.9	171.1	259.7	296.9
132.5°	107.8	119.1	170.3	252.9	287.6
135°	113.0	125.4	170.1	242.6	272.6
137.5°	119.2	130.5	170.1	232.4	259.7
140°	122.6	133.9	170.1	225.6	250.4
142.5°	126.8	137.3	170.1	218.8	241.1
145°	132.1	142.4	170.1	209.6	228.2
147.5°	138.4	147.3	171.1	201.1	215.7
150°	142.6	149.9	171.1	196.8	208.1
152.5°	146.0	152.4	171.1	192.5	202.2
155°	151.1	156.2	171.1	188.2	194.4
157.5°	156.1	160.1	171.1	184.3	188.3
160°	159.5	162.6	171.1	181.8	184.9
162.5°	162.1	164.3	171.1	180.1	182.3
165°	165.9	166.9	172.2	177.5	179.6
167.5°	168.2	168.4	171.1	176.0	177.1
170°	169.0	170.1	171.1	174.3	175.4
172.5°	170.7	170.9	172.0	173.5	173.7
175°	172.2	172.2	172.2	173.2	172.2
177.5°	172.2	172.2	172.2	172.2	172.2
180°	172.2	172.2	172.2	172.2	172.2



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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	3.07	3.84	3.89	4.66	5.65	2.68	3.46	3.51	4.27	5.26
	3H	4.12	4.81	4.96	5.63	6.66	3.68	4.37	4.52	5.19	6.22
	4H	4.55	5.19	5.40	6.02	7.06	4.11	4.75	4.96	5.58	6.62
	6H	4.86	5.45	5.72	6.29	7.34	4.44	5.03	5.31	5.87	6.92
	8H	4.96	5.52	5.83	6.37	7.42	4.54	5.10	5.42	5.95	7.00
	12H	5.03	5.56	5.90	6.40	7.47	4.59	5.12	5.46	5.97	7.04
4H	2H	3.29	3.94	4.15	4.77	5.80	2.96	3.61	3.82	4.43	5.47
	3H	4.59	5.12	5.46	5.99	7.04	4.21	4.74	5.07	5.60	6.65
	4H	5.15	5.63	6.03	6.50	7.58	4.77	5.25	5.64	6.11	7.19
	6H	5.61	6.02	6.50	6.90	7.99	5.23	5.64	6.12	6.52	7.61
	8H	5.76	6.14	6.65	7.02	8.12	5.38	5.76	6.27	6.64	7.73
	12H	5.87	6.21	6.78	7.11	8.21	5.46	5.80	6.37	6.70	7.80
8H	4H	5.30	5.68	6.19	6.56	7.65	4.95	5.33	5.84	6.21	7.30
	6H	5.88	6.19	6.80	7.11	8.21	5.53	5.84	6.45	6.76	7.86
	8H	6.12	6.39	7.05	7.31	8.42	5.77	6.04	6.70	6.96	8.07
	12H	6.32	6.56	7.24	7.46	8.63	5.93	6.17	6.86	7.08	8.24
12H	4H	5.27	5.61	6.18	6.51	7.61	4.93	5.27	5.84	6.17	7.27
	6H	5.90	6.17	6.83	7.09	8.20	5.56	5.84	6.49	6.75	7.86
	8H	6.17	6.41	7.10	7.32	8.48	5.83	6.07	6.76	6.98	8.14