

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: P854434

Luminaire Tested: SQ2-WBN-050U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854434
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-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

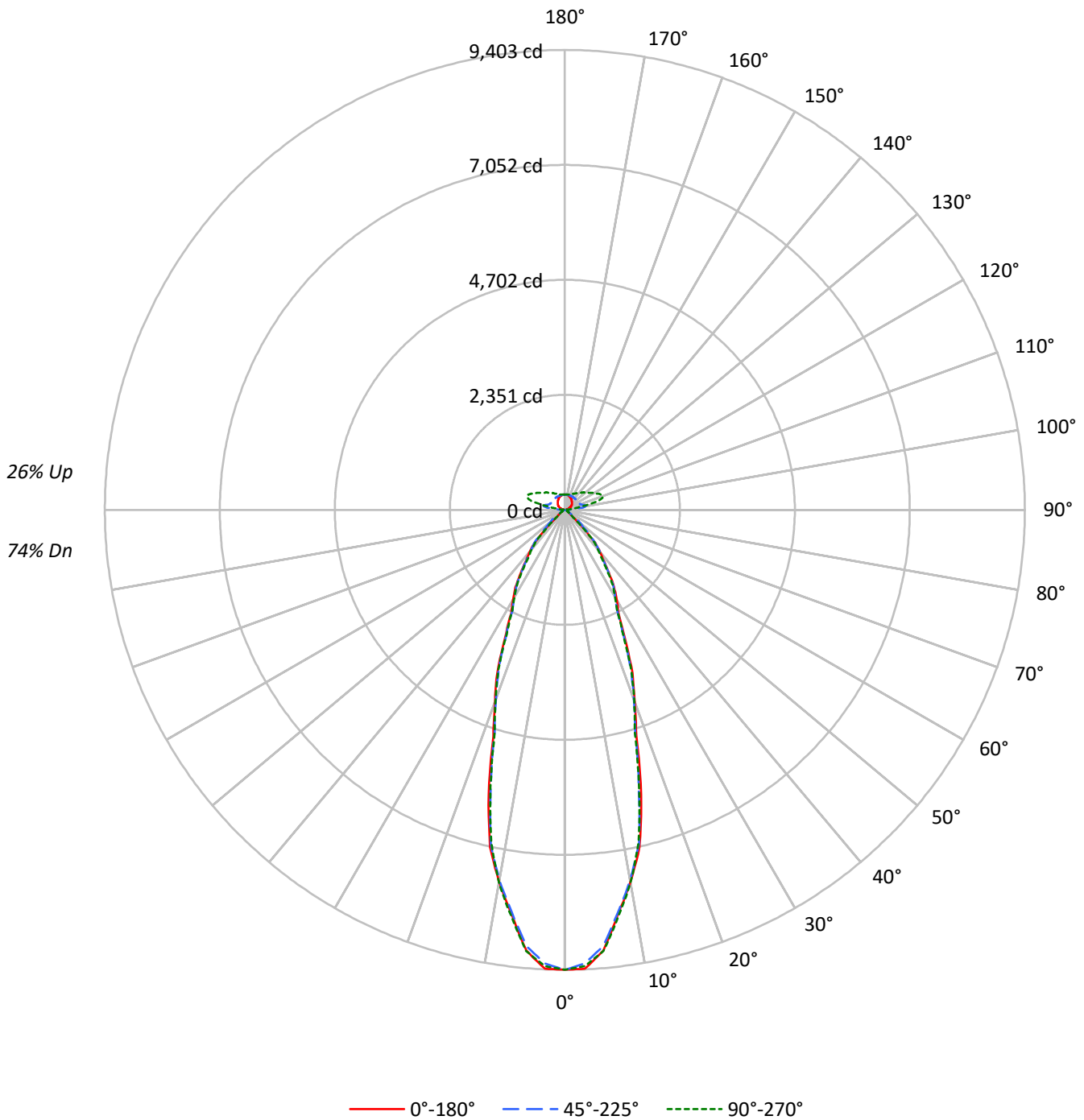
Lumens per Lamp: N/A
Luminaire Lumens: 7410.3 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.5
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	0
RCR																		
0	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74
1	106	103	100	98	101	98	96	94	90	88	86	81	80	79	74	73	72	69
2	100	95	90	86	95	91	87	83	83	80	78	76	74	72	70	68	67	64
3	94	87	82	77	90	84	79	75	77	74	71	71	69	66	66	64	62	59
4	89	81	75	70	85	78	72	68	72	68	65	67	64	61	62	60	58	55
5	84	75	69	64	80	72	67	63	68	63	60	63	60	57	59	56	54	52
6	79	70	63	59	76	68	62	58	63	59	55	60	56	53	56	53	51	48
7	75	65	59	55	72	63	58	54	60	55	51	56	52	49	53	50	47	46
8	71	61	55	51	68	60	54	50	56	52	48	53	49	46	50	47	45	43
9	68	58	52	48	65	56	51	47	53	49	45	51	47	44	48	45	42	41
10	64	54	49	45	62	53	48	44	50	46	43	48	44	41	46	42	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	151813	151813	151813
5°	146579	145120	146741
10°	126698	126097	126998
15°	100819	97641	98031
20°	71622	70675	71190
25°	51526	50516	50160
30°	39370	38313	38219
35°	30904	30378	29589
40°	23414	23098	21973
45°	13102	15655	11693
50°	4609	9635	4064
55°	2818	5258	2677
60°	2154	2748	1992
65°	1975	2040	1849
70°	1888	1888	1733
75°	1772	1772	1666
80°	1553	1553	1553
85°	1538	1241	1241

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15655 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	816.2	11.0
10°-20°	1622.1	21.9
20°-30°	1343.3	18.1
30°-40°	966.4	13.0
40°-50°	492.3	6.6
50°-60°	128.2	1.7
60°-70°	53.2	0.7
70°-80°	29.5	0.4
80°-90°	9.2	0.1
90°-100°	125.1	1.7
100°-110°	396.7	5.4
110°-120°	389.0	5.2
120°-130°	316.5	4.3
130°-140°	258.1	3.5
140°-150°	201.2	2.7
150°-160°	145.0	2.0
160°-170°	88.6	1.2
170°-180°	29.9	0.4
0°-30°	3781.6	51.0
0°-40°	4748.0	64.1
0°-60°	5368.5	72.4
0°-90°	5460.4	73.7
90°-120°	910.7	12.3
90°-150°	1686.5	22.8
90°-180°	1950.0	26.3
0°-180°	7410.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9403	9403	9403	9403	9403	
5°	9044	9031	8954	9083	9054	816
15°	6032	5963	5841	5883	5865	1637
25°	2892	2887	2836	2811	2816	1360
35°	1568	1578	1541	1516	1501	984
45°	574	660	686	638	512	459
55°	100	116	187	108	95	98
65°	52	53	53	50	48	52
75°	28	28	28	27	27	30
85°	8	8	7	8	7	9
90°	0	1	3	3	3	1
95°	17	51	227	84	54	19
105°	69	97	391	745	714	73
115°	123	147	316	656	772	122
125°	171	191	311	515	606	152
135°	206	227	309	443	499	159
145°	241	259	309	382	416	151
155°	274	284	310	341	354	127
165°	299	302	311	323	326	84
175°	313	312	313	315	314	30
180°	314	314	314	314	314	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9402.6	9402.6	9402.6	9402.6	9402.6
2.5°	9387.9	9372.2	9282.5	9356.8	9338.5
5°	9043.9	9030.9	8953.9	9083.3	9053.9
7.5°	8333.7	8344.8	8299.7	8414.1	8382.7
10°	7727.9	7757.2	7691.2	7857.1	7746.2
12.5°	7059.3	7040.4	6994.6	7020.3	6958.9
15°	6031.5	5963.0	5841.4	5882.7	5864.7
17.5°	4858.2	4884.7	4779.2	4774.7	4754.5
20°	4168.4	4176.5	4113.3	4146.6	4143.3
22.5°	3613.2	3614.9	3534.2	3582.9	3553.5
25°	2892.3	2887.4	2835.6	2810.7	2815.6
27.5°	2371.9	2351.7	2312.5	2328.9	2316.9
30°	2111.7	2095.4	2055.0	2064.7	2050.0
32.5°	1878.2	1878.8	1837.5	1832.6	1821.8
35°	1567.9	1577.7	1541.2	1515.9	1501.2
37.5°	1291.0	1300.2	1269.4	1232.4	1220.0
40°	1110.9	1117.4	1095.9	1052.3	1042.5
42.5°	914.7	942.1	921.1	879.9	858.4
45°	573.8	660.2	685.6	637.7	512.1
47.5°	290.2	409.9	489.1	361.2	237.9
50°	183.5	266.7	383.6	217.2	161.8
52.5°	140.8	183.5	306.2	160.4	129.8
55°	100.1	116.4	186.8	108.1	95.1
57.5°	77.4	86.5	111.8	81.9	73.7
60°	66.7	73.2	85.1	69.9	61.7
62.5°	60.0	64.0	69.1	59.3	56.4
65°	51.7	53.3	53.4	50.0	48.4
67.5°	44.0	45.7	45.4	43.7	42.0
70°	40.0	41.7	40.0	38.3	36.7
72.5°	34.7	36.3	34.7	34.3	32.7
75°	28.4	28.4	28.4	26.7	26.7
77.5°	22.0	22.3	20.7	20.7	19.3
80°	16.7	18.3	16.7	16.7	16.7
82.5°	14.0	14.3	12.7	12.7	12.7
85°	8.3	8.3	6.7	8.3	6.7
87.5°	2.7	2.9	3.3	3.3	3.3
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	21.9	70.1	23.3	16.4
95°	16.8	50.6	227.1	84.2	54.3
97.5°	31.2	65.6	384.7	240.4	147.5
100°	41.5	74.3	438.4	399.7	259.7
102.5°	52.5	83.8	428.9	587.0	449.3
105°	69.1	97.1	391.0	744.8	713.9
107.5°	85.7	111.6	354.9	761.3	803.0
110°	96.8	121.9	336.7	742.3	819.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	131.4	326.4	709.6	807.7
115°	123.4	146.6	316.0	656.3	772.2
117.5°	138.6	160.6	311.8	605.0	721.8
120°	148.1	169.4	311.0	573.3	686.3
122.5°	157.6	178.1	311.0	547.8	653.1
125°	170.8	191.1	311.0	514.6	606.3
127.5°	182.5	202.0	311.0	488.8	567.0
130°	189.6	209.9	311.0	473.6	544.1
132.5°	196.7	217.0	310.3	461.6	525.1
135°	206.4	226.6	309.1	442.7	498.7
137.5°	215.9	237.1	308.9	424.5	474.6
140°	222.2	243.4	308.1	411.8	457.2
142.5°	230.1	250.5	308.9	399.1	441.4
145°	240.9	259.3	309.1	381.9	415.7
147.5°	251.8	267.4	309.3	366.8	394.4
150°	259.7	272.2	310.1	358.0	380.2
152.5°	266.0	277.0	310.1	350.8	369.1
155°	274.5	284.2	310.1	341.0	354.5
157.5°	283.6	290.2	311.0	335.0	344.2
160°	288.3	294.1	311.0	331.0	338.7
162.5°	293.1	297.3	311.0	327.8	333.2
165°	299.2	302.1	311.0	323.0	325.9
167.5°	304.9	305.7	312.0	319.6	322.1
170°	308.1	308.1	312.0	318.0	318.9
172.5°	309.7	310.4	312.0	316.4	316.6
175°	313.0	312.1	313.0	315.0	314.0
177.5°	314.0	313.2	313.2	314.8	313.2
180°	314.0	314.0	314.0	314.0	314.0



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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	6.46	7.27	7.23	8.02	8.92	6.08	6.88	6.84	7.64	8.54
	3H	7.51	8.22	8.29	8.99	9.93	7.08	7.79	7.86	8.56	9.49
	4H	7.94	8.61	8.74	9.38	10.33	7.50	8.17	8.30	8.95	9.90
	6H	8.26	8.87	9.06	9.65	10.61	7.84	8.45	8.65	9.23	10.19
	8H	8.36	8.93	9.17	9.73	10.69	7.94	8.52	8.76	9.32	10.28
	12H	8.42	8.97	9.24	9.76	10.75	7.99	8.54	8.81	9.33	10.32
4H	2H	6.69	7.36	7.49	8.13	9.08	6.36	7.03	7.16	7.80	8.75
	3H	7.99	8.53	8.79	9.34	10.31	7.60	8.15	8.41	8.96	9.92
	4H	8.55	9.04	9.37	9.85	10.85	8.16	8.66	8.98	9.47	10.46
	6H	9.00	9.43	9.84	10.26	11.26	8.62	9.05	9.46	9.88	10.88
	8H	9.16	9.55	10.00	10.38	11.39	8.78	9.17	9.62	10.00	11.01
	12H	9.26	9.61	10.12	10.46	11.48	8.87	9.21	9.72	10.06	11.08
8H	4H	8.69	9.09	9.53	9.91	10.92	8.34	8.74	9.18	9.57	10.57
	6H	9.28	9.60	10.14	10.47	11.48	8.93	9.25	9.80	10.12	11.13
	8H	9.52	9.80	10.40	10.67	11.69	9.17	9.45	10.05	10.32	11.34
	12H	9.71	9.95	10.58	10.81	11.90	9.34	9.59	10.22	10.44	11.53
12H	4H	8.67	9.02	9.53	9.87	10.88	8.33	8.68	9.19	9.53	10.54
	6H	9.30	9.58	10.17	10.45	11.47	8.96	9.24	9.84	10.11	11.14
	8H	9.57	9.82	10.45	10.67	11.76	9.23	9.48	10.11	10.34	11.42