

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: P854421

Luminaire Tested: SQ2-WBN-025U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854421
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-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

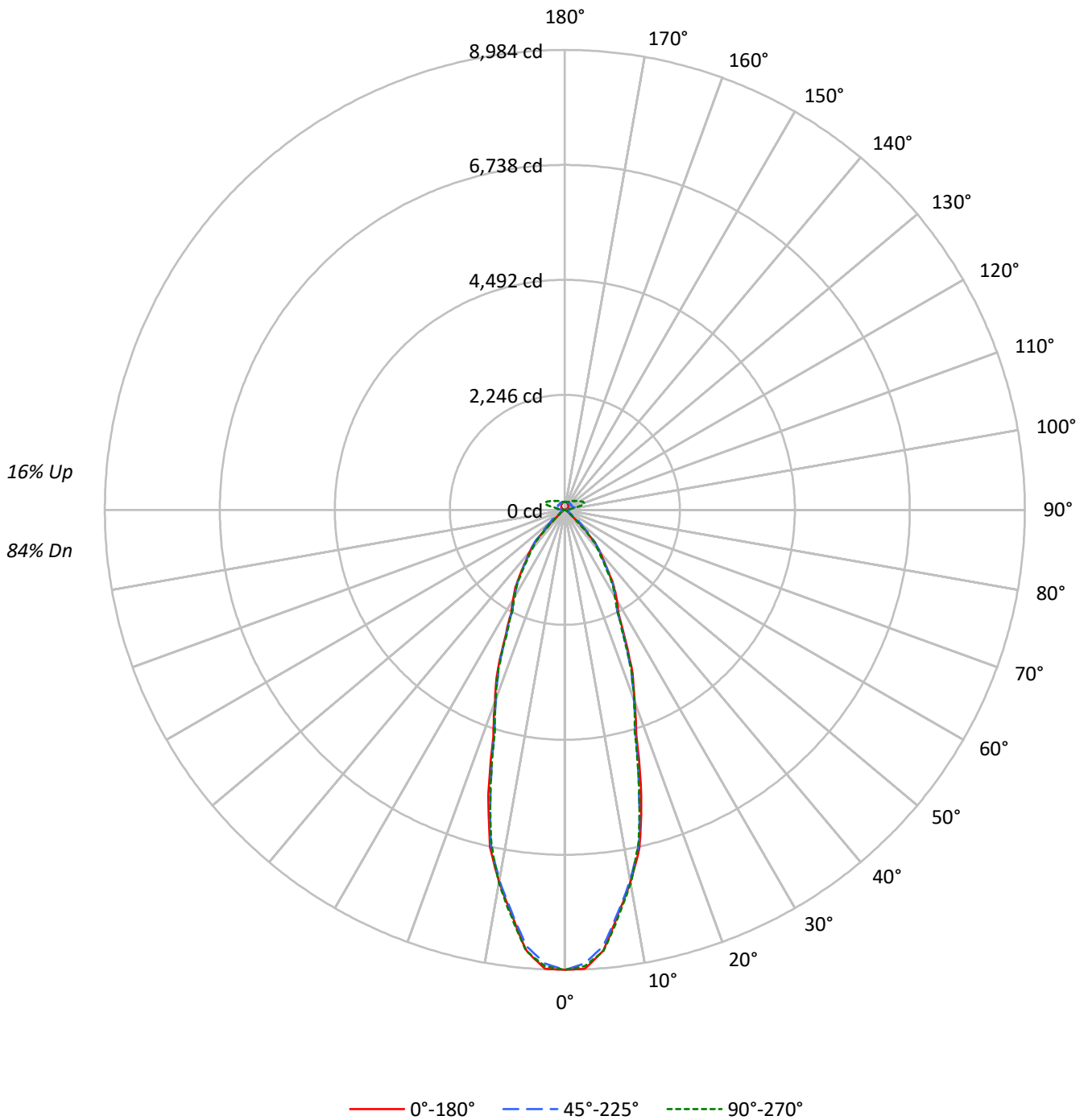
Lumens per Lamp: N/A
Luminaire Lumens: 6183.7 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 57.1
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

TEST NUMBER: P854421

CATALOG NUMBER: SQ2-WBN-025U-125D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	115	115	115	115	111	111	111	111	102	102	102	95	95	95	88	88	88	84		
1	109	106	103	101	105	103	100	98	96	94	92	89	88	87	83	82	82	79		
2	103	98	94	90	99	95	91	88	89	86	84	84	81	79	79	77	76	73		
3	98	91	85	81	94	88	83	80	83	79	76	79	76	73	75	72	70	68		
4	92	84	78	74	89	82	77	73	78	74	70	74	71	68	71	68	65	63		
5	87	79	73	68	85	77	71	67	73	69	65	70	66	63	67	64	61	59		
6	83	74	67	63	80	72	66	62	69	64	61	66	62	59	63	60	57	56		
7	79	69	63	59	76	68	62	58	65	60	57	62	58	55	60	57	54	52		
8	75	65	59	55	73	64	58	54	61	57	53	59	55	52	57	54	51	49		
9	71	61	55	51	69	60	55	51	58	53	50	56	52	49	54	51	48	47		
10	68	58	52	48	66	57	52	48	55	51	47	54	49	46	52	48	46	44		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	145057	145057	145057
5°	140059	138663	140213
10°	121062	120486	121349
15°	96334	93297	93670
20°	68434	67531	68024
25°	49233	48270	47928
30°	37619	36609	36519
35°	29530	29028	28273
40°	22373	22070	20995
45°	12520	14958	11173
50°	4403	9208	3883
55°	2691	5025	2556
60°	2060	2625	1905
65°	1887	1948	1765
70°	1808	1808	1657
75°	1691	1691	1591
80°	1478	1478	1478
85°	1482	1186	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 14958 cd/sqm



TEST NUMBER: P854421

CATALOG NUMBER: SQ2-WBN-025U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	779.9	12.6
10°-20°	1550.0	25.1
20°-30°	1283.6	20.8
30°-40°	923.4	14.9
40°-50°	470.4	7.6
50°-60°	122.5	2.0
60°-70°	50.8	0.8
70°-80°	28.2	0.5
80°-90°	8.7	0.1
90°-100°	63.0	1.0
100°-110°	196.0	3.2
110°-120°	191.7	3.1
120°-130°	156.5	2.5
130°-140°	128.0	2.1
140°-150°	99.9	1.6
150°-160°	72.1	1.2
160°-170°	44.1	0.7
170°-180°	14.9	0.2
0°-30°	3613.4	58.4
0°-40°	4536.8	73.4
0°-60°	5129.7	83.0
0°-90°	5217.4	84.4
90°-120°	450.7	7.3
90°-150°	835.2	13.5
90°-180°	966.0	15.6
0°-180°	6183.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8984	8984	8984	8984	8984	
5°	8642	8629	8556	8679	8651	779
15°	5763	5698	5582	5621	5604	1564
25°	2764	2759	2710	2686	2690	1300
35°	1498	1508	1473	1448	1434	940
45°	548	631	655	609	489	438
55°	96	111	178	103	91	94
65°	49	51	51	48	46	49
75°	27	27	27	26	26	29
85°	8	8	6	8	6	8
90°	0	1	3	3	3	1
95°	9	25	116	43	28	10
105°	34	48	193	368	352	36
115°	61	72	157	323	378	60
125°	85	94	155	254	298	75
135°	102	113	154	219	246	79
145°	119	129	154	190	206	75
155°	137	141	155	170	176	63
165°	150	151	156	160	162	42
175°	156	156	156	157	156	15
180°	156	156	156	156	156	



TEST NUMBER: P854421

CATALOG NUMBER: SQ2-WBN-025U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8984.2	8984.2	8984.2	8984.2	8984.2
2.5°	8970.2	8955.3	8869.5	8940.5	8923.0
5°	8641.6	8629.1	8555.5	8679.2	8651.1
7.5°	7962.9	7973.5	7930.4	8039.7	8009.8
10°	7384.1	7412.1	7349.0	7507.6	7401.6
12.5°	6745.3	6727.2	6683.4	6707.9	6649.3
15°	5763.2	5697.7	5581.5	5620.9	5603.8
17.5°	4642.1	4667.3	4566.6	4562.3	4543.0
20°	3982.9	3990.7	3930.3	3962.1	3959.0
22.5°	3452.5	3454.0	3376.9	3423.5	3395.4
25°	2763.6	2759.0	2709.5	2685.7	2690.3
27.5°	2266.4	2247.1	2209.6	2225.3	2213.8
30°	2017.8	2002.2	1963.6	1972.8	1958.8
32.5°	1794.6	1795.2	1755.7	1751.0	1740.7
35°	1498.2	1507.5	1472.7	1448.4	1434.4
37.5°	1233.6	1242.3	1212.9	1177.5	1165.7
40°	1061.5	1067.7	1047.1	1005.5	996.1
42.5°	874.0	900.2	880.1	840.7	820.2
45°	548.3	630.9	655.1	609.3	489.3
47.5°	277.3	391.7	467.3	345.1	227.3
50°	175.3	254.8	366.6	207.6	154.6
52.5°	134.5	175.3	292.6	153.3	124.0
55°	95.6	111.2	178.5	103.3	90.8
57.5°	74.0	82.7	106.8	78.2	70.4
60°	63.8	70.0	81.3	66.8	59.0
62.5°	57.4	61.1	66.0	56.7	53.9
65°	49.4	51.0	51.0	47.8	46.2
67.5°	42.1	43.6	43.4	41.7	40.2
70°	38.3	39.8	38.3	36.6	35.1
72.5°	33.2	34.7	33.2	32.8	31.2
75°	27.1	27.1	27.1	25.5	25.5
77.5°	21.0	21.3	19.8	19.7	18.5
80°	15.9	17.5	15.9	15.9	15.9
82.5°	13.4	13.7	12.1	12.1	12.1
85°	8.0	8.0	6.4	7.9	6.4
87.5°	2.6	2.7	3.1	3.1	3.1
90°	0.0	0.9	2.9	2.9	2.9
92.5°	3.1	10.7	36.5	12.0	9.7
95°	8.6	25.4	115.6	42.6	27.7
97.5°	15.7	33.0	191.4	119.2	75.1
100°	21.0	36.9	215.9	201.9	134.7
102.5°	26.4	41.5	211.3	288.4	226.4
105°	34.4	48.4	192.9	368.3	351.5
107.5°	42.4	55.5	175.4	374.5	393.0
110°	47.8	60.8	166.2	365.7	402.1



TEST NUMBER: P854421

CATALOG NUMBER: SQ2-WBN-025U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	53.1	65.4	161.6	349.9	396.0
115°	61.1	72.3	156.6	323.1	378.2
117.5°	69.0	79.2	154.5	297.6	354.0
120°	73.5	83.8	153.8	283.0	337.2
122.5°	78.1	88.4	154.5	270.7	320.4
125°	85.0	94.3	154.7	254.1	298.0
127.5°	90.5	100.1	154.7	241.7	279.1
130°	93.6	103.9	154.7	234.8	268.4
132.5°	97.4	107.7	154.0	228.6	260.0
135°	102.2	113.4	153.8	219.3	246.4
137.5°	107.7	118.0	153.8	210.1	234.8
140°	110.8	121.1	153.8	204.0	226.4
142.5°	114.6	124.1	153.8	197.8	218.0
145°	119.4	128.7	153.8	189.5	206.3
147.5°	125.1	133.2	154.7	181.8	195.0
150°	128.9	135.5	154.7	177.9	188.2
152.5°	132.0	137.8	154.7	174.0	182.8
155°	136.6	141.3	154.7	170.1	175.8
157.5°	141.2	144.7	154.7	166.7	170.2
160°	144.2	147.0	154.7	164.4	167.2
162.5°	146.5	148.6	154.7	162.8	164.9
165°	150.0	150.9	155.7	160.5	162.4
167.5°	152.1	152.2	154.7	159.2	160.1
170°	152.8	153.8	154.7	157.6	158.6
172.5°	154.4	154.5	155.5	156.8	157.0
175°	155.7	155.7	155.7	156.6	155.7
177.5°	155.7	155.7	155.7	155.7	155.7
180°	155.7	155.7	155.7	155.7	155.7

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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	7.19	8.08	7.82	8.68	9.37	6.80	7.69	7.43	8.30	8.99
	3H	8.24	9.03	8.88	9.65	10.38	7.81	8.59	8.45	9.21	9.94
	4H	8.67	9.40	9.34	10.04	10.78	8.23	8.97	8.90	9.60	10.35
	6H	8.99	9.66	9.66	10.31	11.06	8.57	9.24	9.24	9.89	10.64
	8H	9.09	9.72	9.78	10.39	11.15	8.67	9.31	9.36	9.97	10.73
	12H	9.16	9.76	9.85	10.42	11.20	8.73	9.33	9.41	9.98	10.77
4H	2H	7.42	8.15	8.08	8.78	9.53	7.09	7.82	7.76	8.46	9.20
	3H	8.72	9.32	9.39	9.99	10.75	8.34	8.94	9.01	9.61	10.37
	4H	9.28	9.82	9.97	10.50	11.29	8.89	9.43	9.58	10.11	10.91
	6H	9.74	10.20	10.45	10.90	11.71	9.36	9.82	10.07	10.52	11.33
	8H	9.89	10.32	10.61	11.02	11.83	9.51	9.94	10.22	10.64	11.45
	12H	10.00	10.38	10.73	11.11	11.92	9.60	9.97	10.33	10.70	11.52
8H	4H	9.43	9.85	10.14	10.55	11.37	9.08	9.50	9.79	10.21	11.02
	6H	10.01	10.35	10.75	11.10	11.92	9.66	10.00	10.40	10.75	11.57
	8H	10.25	10.55	11.01	11.30	12.14	9.89	10.20	10.65	10.95	11.78
	12H	10.44	10.71	11.20	11.45	12.35	10.07	10.33	10.82	11.07	11.97
12H	4H	9.40	9.78	10.14	10.51	11.33	9.07	9.44	9.80	10.17	10.99
	6H	10.02	10.33	10.78	11.08	11.91	9.69	9.99	10.45	10.74	11.58
	8H	10.30	10.57	11.06	11.30	12.20	9.96	10.23	10.72	10.96	11.86