

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: P854485

Luminaire Tested: SQ2-WBN-150U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854485
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-150U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

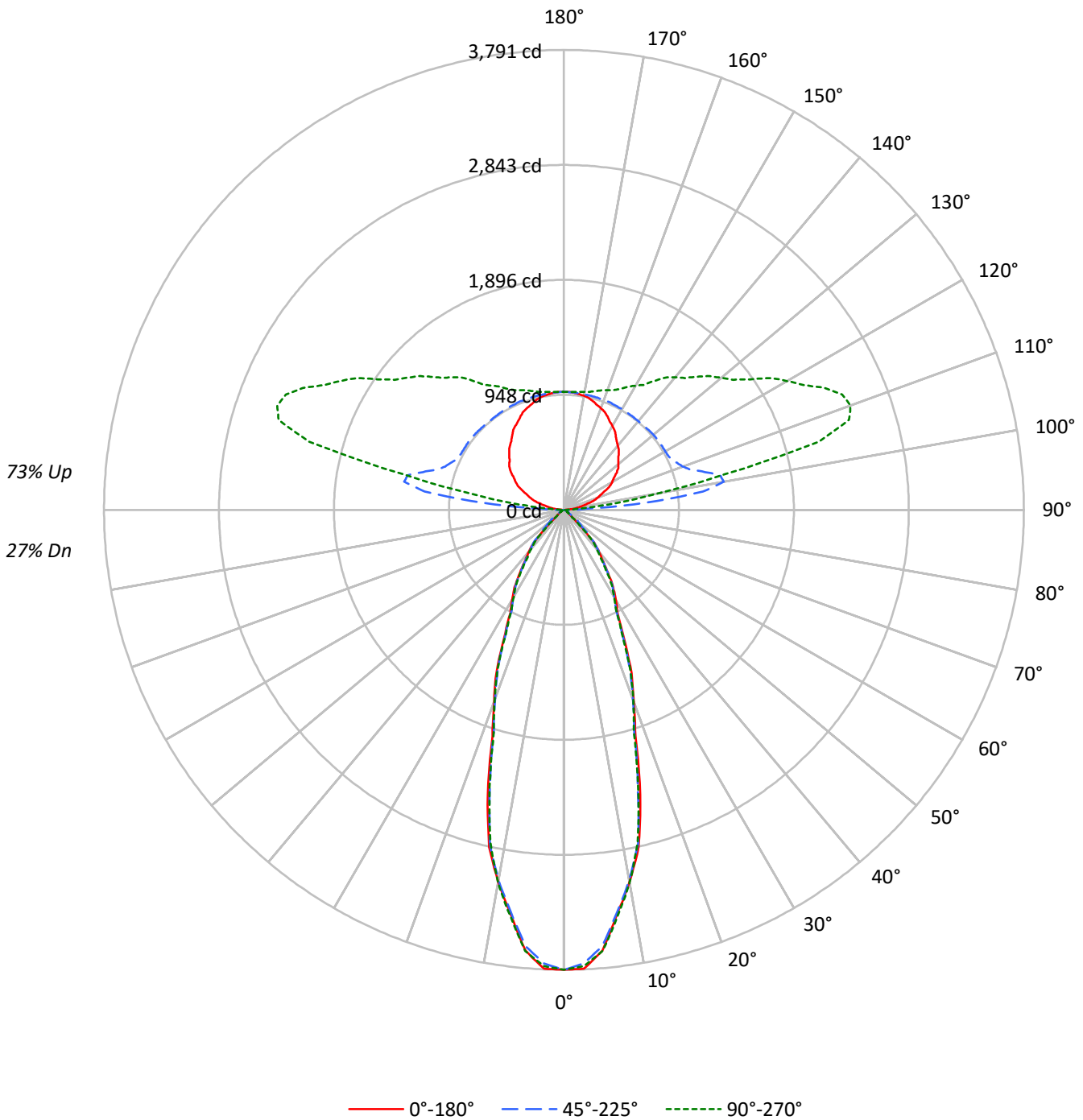
Lumens per Lamp: N/A
Luminaire Lumens: 8207.4 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.7
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: P854485

CATALOG NUMBER: SQ2-WBN-150U-050D-935-UNV-STD-W-4

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	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27				27
1	94	90	87	84	84	81	78	76	63	62	60	47	46	45	33	32	32				25	
2	87	80	75	71	77	72	68	64	57	54	52	43	42	40	30	30	29				23	
3	80	72	66	61	72	65	60	56	52	48	46	40	38	36	28	27	26				22	
4	74	65	58	53	66	59	53	49	47	43	40	37	34	32	27	25	24				20	
5	69	59	52	46	62	53	47	43	43	39	36	34	31	29	25	24	22				19	
6	64	53	46	41	57	49	43	38	40	35	32	31	29	26	23	22	21				18	
7	59	49	42	37	53	45	39	34	37	32	29	29	26	24	22	21	19				17	
8	55	45	38	33	50	41	35	31	34	30	27	27	24	22	21	19	18				16	
9	52	41	35	30	47	38	32	28	31	27	25	25	23	21	20	18	17				15	
10	49	38	32	28	44	35	30	26	29	25	23	24	21	19	19	17	16				14	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	61206	61206	61206
5°	59096	58508	59161
10°	51080	50837	51201
15°	40647	39365	39522
20°	28874	28493	28701
25°	20774	20366	20224
30°	15873	15446	15409
35°	12459	12248	11929
40°	9440	9312	8859
45°	5281	6311	4715
50°	1859	3886	1638
55°	1134	2120	1078
60°	869	1108	804
65°	795	821	745
70°	760	760	699
75°	711	711	674
80°	623	623	623
85°	630	500	500

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6311 cd/sqm



TEST NUMBER: P854485

CATALOG NUMBER: SQ2-WBN-150U-050D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.0	4.0
10°-20°	654.0	8.0
20°-30°	541.6	6.6
30°-40°	389.6	4.7
40°-50°	198.5	2.4
50°-60°	51.7	0.6
60°-70°	21.4	0.3
70°-80°	11.9	0.1
80°-90°	4.6	0.1
90°-100°	370.7	4.5
100°-110°	1213.9	14.8
110°-120°	1200.1	14.6
120°-130°	981.0	12.0
130°-140°	800.6	9.8
140°-150°	623.0	7.6
150°-160°	448.6	5.5
160°-170°	274.4	3.3
170°-180°	92.7	1.1
0°-30°	1524.6	18.6
0°-40°	1914.2	23.3
0°-60°	2164.4	26.4
0°-90°	2202.3	26.8
90°-120°	2784.7	33.9
90°-150°	5189.3	63.2
90°-180°	6005.0	73.2
0°-180°	8207.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3791	3791	3791	3791	3791	
5°	3646	3641	3610	3662	3650	329
15°	2432	2404	2355	2372	2364	660
25°	1166	1164	1143	1133	1135	548
35°	632	636	621	611	605	397
45°	231	266	276	257	206	185
55°	40	47	75	44	38	40
65°	21	22	22	20	20	21
75°	11	11	11	11	11	12
85°	3	3	3	3	3	4
90°	1	3	8	7	8	3
95°	52	151	674	240	156	59
105°	211	301	1205	2289	2175	222
115°	380	454	979	2023	2375	375
125°	529	590	965	1595	1874	471
135°	637	704	957	1376	1551	493
145°	745	800	955	1184	1297	467
155°	849	877	961	1059	1100	391
165°	927	936	965	1002	1013	261
175°	969	969	970	977	975	92
180°	973	973	973	973	973	



TEST NUMBER: P854485

CATALOG NUMBER: SQ2-WBN-150U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3790.8	3790.8	3790.8	3790.8	3790.8
2.5°	3784.9	3778.6	3742.4	3772.3	3765.0
5°	3646.2	3640.9	3609.9	3662.1	3650.2
7.5°	3359.9	3364.3	3346.1	3392.3	3379.6
10°	3115.6	3127.4	3100.8	3167.7	3123.0
12.5°	2846.1	2838.5	2820.0	2830.3	2805.6
15°	2431.7	2404.1	2355.0	2371.7	2364.4
17.5°	1958.7	1969.3	1926.8	1925.0	1916.8
20°	1680.5	1683.8	1658.3	1671.8	1670.4
22.5°	1456.7	1457.4	1424.9	1444.5	1432.7
25°	1166.1	1164.1	1143.2	1133.2	1135.2
27.5°	956.3	948.1	932.3	938.9	934.1
30°	851.4	844.8	828.5	832.4	826.5
32.5°	757.2	757.5	740.8	738.8	734.5
35°	632.1	636.1	621.4	611.2	605.2
37.5°	520.5	524.2	511.8	496.9	491.9
40°	447.9	450.5	441.8	424.2	420.3
42.5°	368.8	379.8	371.3	354.7	346.1
45°	231.3	266.2	276.4	257.1	206.5
47.5°	117.0	165.3	197.2	145.6	95.9
50°	74.0	107.5	154.7	87.6	65.2
52.5°	56.8	74.0	123.5	64.7	52.3
55°	40.3	46.9	75.3	43.6	38.3
57.5°	31.2	34.9	45.1	33.0	29.7
60°	26.9	29.5	34.3	28.2	24.9
62.5°	24.2	25.8	27.8	23.9	22.7
65°	20.8	21.5	21.5	20.2	19.5
67.5°	17.8	18.4	18.3	17.6	16.9
70°	16.1	16.8	16.1	15.5	14.8
72.5°	14.0	14.6	14.0	13.8	13.2
75°	11.4	11.4	11.4	10.8	10.8
77.5°	8.9	9.0	8.3	8.3	7.8
80°	6.7	7.4	6.7	6.7	6.7
82.5°	5.6	5.8	5.1	5.1	5.1
85°	3.4	3.4	2.7	3.3	2.7
87.5°	1.3	1.7	2.7	2.5	2.7
90°	1.0	3.0	8.0	7.0	8.0
92.5°	17.0	62.0	190.4	61.9	49.6
95°	52.0	150.7	674.0	240.1	156.0
97.5°	94.4	198.8	1156.3	699.5	433.6
100°	124.0	223.7	1337.9	1194.8	791.9
102.5°	157.6	255.0	1317.9	1760.5	1364.7
105°	211.0	300.9	1204.9	2289.2	2174.8
107.5°	263.6	346.1	1094.7	2338.7	2464.4
110°	298.0	378.2	1041.9	2281.1	2514.8



TEST NUMBER: P854485

CATALOG NUMBER: SQ2-WBN-150U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	330.8	408.6	1009.9	2181.0	2480.4
115°	380.0	454.3	978.9	2022.9	2374.8
117.5°	427.8	497.2	967.1	1867.4	2224.8
120°	459.0	524.5	963.9	1776.8	2124.8
122.5°	487.0	550.9	963.9	1698.6	2021.7
125°	529.0	589.6	964.9	1595.2	1873.9
127.5°	564.6	626.3	963.7	1519.0	1761.5
130°	587.0	649.5	962.9	1472.9	1691.9
132.5°	607.0	671.1	960.5	1433.2	1631.9
135°	637.0	704.4	956.9	1375.9	1550.9
137.5°	668.6	735.4	954.7	1316.1	1474.3
140°	690.9	755.5	953.9	1278.3	1427.9
142.5°	713.3	774.0	953.9	1238.0	1373.5
145°	744.9	799.7	954.9	1183.5	1296.9
147.5°	778.1	823.7	956.3	1136.1	1221.7
150°	798.9	839.0	957.9	1108.6	1180.9
152.5°	819.7	855.1	958.7	1085.9	1145.7
155°	848.9	877.3	960.9	1058.9	1099.9
157.5°	875.1	895.7	963.1	1037.6	1067.3
160°	891.9	908.6	963.9	1025.5	1048.9
162.5°	906.3	919.8	963.9	1015.7	1032.9
165°	926.9	935.7	964.9	1002.2	1012.9
167.5°	944.3	948.6	966.1	991.7	997.5
170°	953.9	955.9	966.9	986.0	987.9
172.5°	961.1	962.3	969.3	981.9	982.3
175°	968.9	968.9	969.9	976.9	974.9
177.5°	972.9	972.1	971.3	976.1	972.9
180°	972.9	972.9	972.9	972.9	972.9

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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	0.00	0.13	1.71	0.00	0.00	0.00	0.00	1.33
	3H	0.00	0.00	0.61	1.12	2.71	0.00	0.00	0.18	0.69	2.29
	4H	0.00	0.37	1.03	1.51	3.11	0.00	0.00	0.61	1.09	2.68
	6H	0.17	0.64	1.35	1.78	3.39	0.00	0.24	0.95	1.38	2.98
	8H	0.27	0.71	1.45	1.87	3.47	0.00	0.31	1.05	1.46	3.06
	12H	0.33	0.75	1.52	1.90	3.52	0.00	0.33	1.10	1.48	3.10
4H	2H	0.00	0.00	0.00	0.26	1.86	0.00	0.00	0.00	0.00	1.53
	3H	0.00	0.33	1.08	1.49	3.10	0.00	0.00	0.71	1.12	2.72
	4H	0.46	0.85	1.65	2.00	3.63	0.09	0.48	1.27	1.63	3.26
	6H	0.91	1.25	2.10	2.42	4.04	0.55	0.88	1.73	2.05	3.67
	8H	1.07	1.38	2.26	2.55	4.18	0.70	1.01	1.89	2.18	3.81
	12H	1.18	1.46	2.38	2.63	4.27	0.78	1.06	1.98	2.24	3.87
8H	4H	0.60	0.91	1.79	2.08	3.71	0.27	0.58	1.45	1.74	3.38
	6H	1.19	1.44	2.39	2.65	4.28	0.85	1.11	2.06	2.31	3.94
	8H	1.44	1.66	2.65	2.85	4.50	1.10	1.31	2.30	2.50	4.15
	12H	1.63	1.82	2.84	3.01	4.69	1.26	1.45	2.47	2.64	4.32
12H	4H	0.58	0.86	1.77	2.03	3.67	0.25	0.53	1.45	1.71	3.34
	6H	1.22	1.44	2.42	2.62	4.27	0.89	1.11	2.10	2.30	3.95
	8H	1.49	1.68	2.70	2.86	4.54	1.15	1.35	2.36	2.53	4.21