

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: P854437

Luminaire Tested: SQ2-WBN-075U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854437
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-075U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

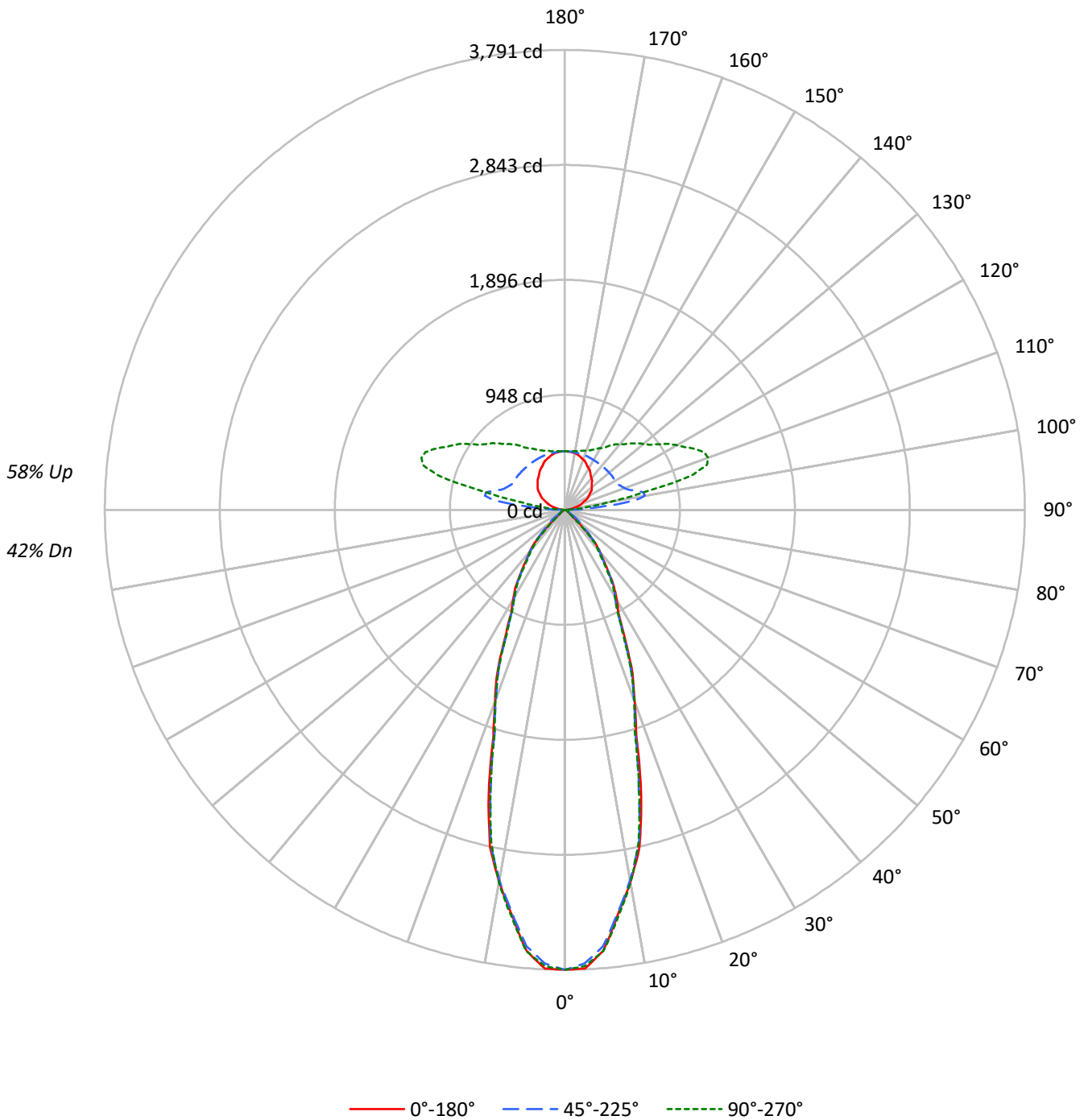
Lumens per Lamp: N/A
Luminaire Lumens: 5191.8 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 41.4
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: P854437

CATALOG NUMBER: SQ2-WBN-075U-050D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854437

CATALOG NUMBER: SQ2-WBN-075U-050D-935-UNV-STD-W-4

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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42				42
1	98	94	91	88	90	87	84	82	72	70	69	59	58	57	46	46	45	40				40
2	91	85	80	76	83	78	74	71	66	63	60	54	52	51	44	42	42	37				37
3	85	77	71	66	78	71	66	62	60	57	54	50	48	46	41	39	38	34				34
4	79	70	64	59	72	65	59	55	56	52	48	47	44	42	38	37	35	32				32
5	74	64	57	52	68	60	54	49	51	47	44	43	41	38	36	34	33	30				30
6	69	59	52	47	63	55	49	45	48	43	40	41	38	35	34	32	31	28				28
7	65	54	48	43	60	51	45	41	44	40	37	38	35	33	32	30	29	26				26
8	61	50	44	39	56	47	41	37	41	37	34	36	33	30	31	29	27	25				25
9	57	47	40	36	53	44	38	34	39	34	31	34	31	28	29	27	25	23				23
10	54	44	37	33	50	41	36	32	36	32	29	32	29	27	28	26	24	22				22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	61204	61204	61204
5°	59094	58506	59159
10°	51078	50836	51200
15°	40645	39365	39522
20°	28874	28493	28701
25°	20772	20366	20222
30°	15871	15446	15409
35°	12459	12248	11929
40°	9440	9312	8859
45°	5281	6311	4713
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: P854437

CATALOG NUMBER: SQ2-WBN-075U-050D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.0	6.3
10°-20°	654.0	12.6
20°-30°	541.6	10.4
30°-40°	389.6	7.5
40°-50°	198.5	3.8
50°-60°	51.7	1.0
60°-70°	21.4	0.4
70°-80°	11.9	0.2
80°-90°	4.0	0.1
90°-100°	182.6	3.5
100°-110°	605.5	11.7
110°-120°	600.9	11.6
120°-130°	489.5	9.4
130°-140°	397.8	7.7
140°-150°	308.9	6.0
150°-160°	222.6	4.3
160°-170°	136.3	2.6
170°-180°	46.0	0.9
0°-30°	1524.6	29.4
0°-40°	1914.2	36.9
0°-60°	2164.3	41.7
0°-90°	2201.7	42.4
90°-120°	1389.0	26.8
90°-150°	2585.2	49.8
90°-180°	2990.0	57.6
0°-180°	5191.8	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°	0	1	3	4	4	1
95°	26	77	331	118	79	30
105°	106	151	606	1143	1069	112
115°	189	226	488	1016	1188	187
125°	264	293	479	798	941	235
135°	316	348	475	685	773	245
145°	367	394	474	589	645	230
155°	419	434	477	526	546	193
165°	460	465	479	498	503	130
175°	481	481	482	485	484	46
180°	483	483	483	483	483	



TEST NUMBER: P854437

CATALOG NUMBER: SQ2-WBN-075U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3790.7	3790.7	3790.7	3790.7	3790.7
2.5°	3784.7	3778.4	3742.2	3772.2	3764.8
5°	3646.1	3640.8	3609.8	3662.0	3650.1
7.5°	3359.7	3364.2	3346.0	3392.1	3379.5
10°	3115.5	3127.3	3100.7	3167.6	3122.9
12.5°	2846.0	2838.4	2819.9	2830.2	2805.5
15°	2431.6	2404.0	2355.0	2371.6	2364.4
17.5°	1958.6	1969.3	1926.7	1924.9	1916.8
20°	1680.5	1683.8	1658.3	1671.7	1670.4
22.5°	1456.7	1457.3	1424.8	1444.4	1432.6
25°	1166.0	1164.1	1143.2	1133.1	1135.1
27.5°	956.2	948.1	932.3	938.9	934.0
30°	851.3	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	611.1	605.2
37.5°	520.5	524.2	511.7	496.8	491.8
40°	447.9	450.5	441.8	424.2	420.3
42.5°	368.8	379.8	371.3	354.7	346.0
45°	231.3	266.2	276.4	257.1	206.4
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°	1.1	1.3	1.7	1.9	1.9
90°	0.0	1.0	3.0	4.0	4.0
92.5°	8.0	30.9	91.0	29.5	24.8
95°	26.0	76.8	331.0	118.1	79.0
97.5°	47.8	101.0	577.7	336.9	213.0
100°	63.0	113.8	668.9	574.5	381.0
102.5°	79.8	129.1	663.3	878.0	663.3
105°	106.0	151.0	605.9	1143.2	1068.9
107.5°	132.8	172.9	550.9	1170.1	1226.6
110°	148.0	188.1	522.9	1143.5	1257.8



TEST NUMBER: P854437

CATALOG NUMBER: SQ2-WBN-075U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	164.0	203.3	506.1	1096.2	1241.8
115°	189.0	226.1	487.9	1015.8	1187.9
117.5°	213.8	246.8	481.3	939.0	1119.5
120°	229.0	261.2	478.9	890.9	1065.9
122.5°	242.6	274.1	478.9	851.4	1013.1
125°	264.0	293.3	478.9	798.1	940.9
127.5°	281.6	310.3	477.7	757.9	879.9
130°	292.0	322.3	476.9	734.4	843.9
132.5°	301.6	332.7	476.1	715.0	813.5
135°	316.0	348.2	474.9	684.9	772.9
137.5°	331.6	362.6	473.7	655.9	733.5
140°	342.0	372.3	472.9	636.5	707.9
142.5°	351.6	381.1	473.7	617.2	680.7
145°	367.0	394.3	473.9	589.2	644.9
147.5°	383.6	406.4	474.1	565.5	606.9
150°	394.0	414.5	474.9	551.7	586.9
152.5°	403.5	423.3	475.7	540.4	568.5
155°	418.9	433.6	476.9	526.4	545.9
157.5°	433.9	445.3	478.1	516.5	530.3
160°	441.9	451.7	478.9	509.2	519.9
162.5°	449.9	457.4	478.9	504.3	512.7
165°	459.9	464.8	478.9	498.0	502.9
167.5°	469.1	471.7	479.9	492.4	494.9
170°	473.9	474.9	479.9	490.0	490.9
172.5°	477.1	478.1	480.7	487.5	487.7
175°	480.9	480.9	481.9	484.9	483.9
177.5°	482.9	482.9	482.1	483.7	482.1
180°	482.9	482.9	482.9	482.9	482.9



TEST NUMBER: P854437

CATALOG NUMBER: SQ2-WBN-075U-050D-935-UNV-STD-W-4

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	0.39	1.05	1.45	2.08	3.47	0.01	0.67	1.07	1.70	3.09
	3H	1.44	2.02	2.50	3.06	4.47	1.01	1.59	2.08	2.64	4.05
	4H	1.86	2.41	2.94	3.45	4.87	1.44	1.99	2.51	3.03	4.45
	6H	2.17	2.67	3.25	3.72	5.15	1.77	2.27	2.85	3.32	4.75
	8H	2.27	2.75	3.36	3.81	5.23	1.87	2.34	2.95	3.41	4.83
	12H	2.33	2.79	3.42	3.84	5.29	1.91	2.37	3.00	3.42	4.87
4H	2H	0.61	1.16	1.69	2.20	3.62	0.29	0.83	1.37	1.88	3.30
	3H	1.90	2.36	2.99	3.43	4.86	1.53	1.98	2.61	3.06	4.48
	4H	2.46	2.88	3.55	3.94	5.39	2.09	2.51	3.18	3.57	5.02
	6H	2.91	3.27	4.01	4.36	5.80	2.55	2.90	3.64	3.99	5.43
	8H	3.07	3.40	4.17	4.48	5.94	2.70	3.03	3.80	4.11	5.57
	12H	3.18	3.47	4.29	4.57	6.03	2.78	3.08	3.89	4.17	5.63
8H	4H	2.60	2.93	3.70	4.01	5.47	2.27	2.60	3.36	3.68	5.13
	6H	3.19	3.46	4.31	4.58	6.04	2.85	3.12	3.97	4.24	5.70
	8H	3.44	3.67	4.56	4.78	6.25	3.09	3.33	4.22	4.43	5.91
	12H	3.63	3.84	4.75	4.93	6.45	3.26	3.46	4.38	4.56	6.08
12H	4H	2.58	2.87	3.69	3.97	5.43	2.25	2.55	3.36	3.64	5.10
	6H	3.21	3.45	4.34	4.55	6.03	2.89	3.12	4.01	4.23	5.70
	8H	3.49	3.69	4.61	4.79	6.31	3.15	3.36	4.28	4.46	5.97