

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: P854431

Luminaire Tested: SQ2-WBN-050U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854431
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-100D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

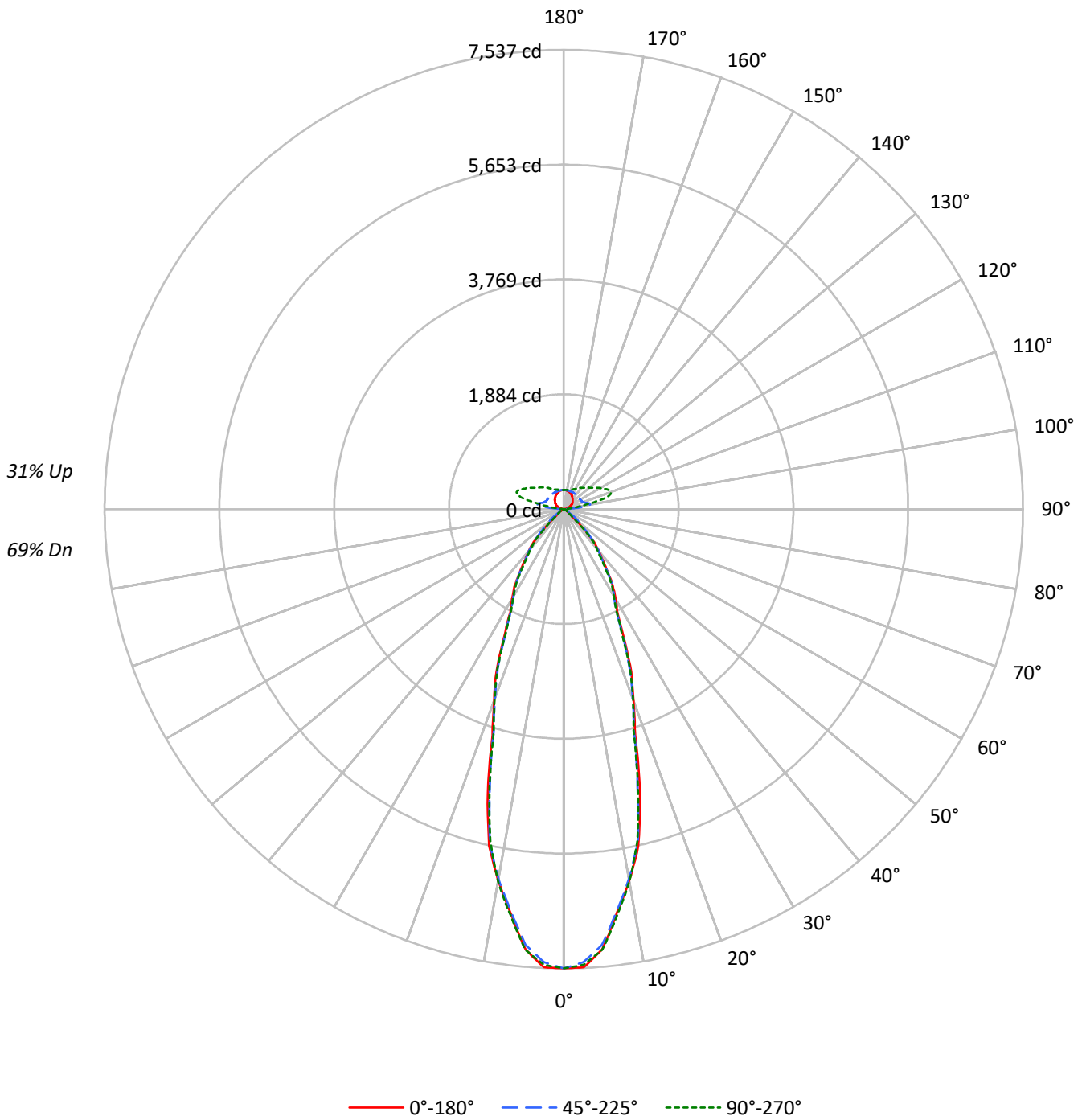
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6333.5 lumens
Efficiency: N/A
Efficacy: 119.7 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): 52.9
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: P854431
CATALOG NUMBER: SQ2-WBN-050U-100D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854431

CATALOG NUMBER: SQ2-WBN-050U-100D-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
RCR																				
0	112	112	112	112	106	106	106	106	94	94	94	83	83	83	74	74	74	69		
1	105	102	99	96	99	97	94	92	87	85	84	78	77	76	70	69	68	64		
2	99	93	89	85	94	89	85	82	81	78	75	73	71	69	66	65	63	60		
3	93	86	80	76	88	82	77	73	75	71	68	68	66	63	62	60	59	56		
4	87	79	73	68	83	76	71	66	70	66	62	64	61	58	59	56	55	52		
5	82	73	67	62	78	70	65	61	65	61	57	60	57	54	56	53	51	49		
6	78	68	62	57	74	66	60	56	61	56	53	57	53	50	53	50	48	45		
7	73	64	57	53	70	62	56	52	57	53	49	54	50	47	50	47	45	43		
8	70	60	53	49	67	58	52	48	54	49	46	51	47	44	47	44	42	40		
9	66	56	50	46	63	54	49	45	51	46	43	48	44	42	45	42	40	38		
10	63	53	47	43	60	51	46	42	48	44	41	46	42	39	43	40	38	36		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	121685	121685	121685
5°	117490	116320	117621
10°	101555	101071	101796
15°	80811	78263	78576
20°	57407	56649	57063
25°	41300	40492	40205
30°	31556	30710	30635
35°	24772	24350	23718
40°	18767	18514	17612
45°	10501	12547	9373
50°	3695	7724	3258
55°	2258	4214	2145
60°	1728	2202	1598
65°	1582	1635	1482
70°	1515	1515	1388
75°	1416	1416	1335
80°	1246	1246	1246
85°	1241	982	982

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12547 cd/sqm



TEST NUMBER: P854431

CATALOG NUMBER: SQ2-WBN-050U-100D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	654.2	10.3
10°-20°	1300.2	20.5
20°-30°	1076.7	17.0
30°-40°	774.6	12.2
40°-50°	394.6	6.2
50°-60°	102.7	1.6
60°-70°	42.6	0.7
70°-80°	23.6	0.4
80°-90°	7.4	0.1
90°-100°	125.5	2.0
100°-110°	398.1	6.3
110°-120°	390.3	6.2
120°-130°	317.6	5.0
130°-140°	259.0	4.1
140°-150°	201.9	3.2
150°-160°	145.5	2.3
160°-170°	88.9	1.4
170°-180°	30.0	0.5
0°-30°	3031.1	47.9
0°-40°	3805.7	60.1
0°-60°	4303.1	67.9
0°-90°	4376.8	69.1
90°-120°	913.9	14.4
90°-150°	1692.4	26.7
90°-180°	1957.0	30.9
0°-180°	6333.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7537	7537	7537	7537	7537	
5°	7249	7239	7177	7281	7257	654
15°	4834	4780	4682	4715	4701	1312
25°	2318	2314	2273	2253	2257	1090
35°	1257	1265	1235	1215	1203	789
45°	460	529	550	511	410	368
55°	80	93	150	87	76	79
65°	41	43	43	40	39	41
75°	23	23	23	21	21	24
85°	7	7	5	7	5	7
90°	0	1	3	3	3	1
95°	17	51	228	84	54	19
105°	69	98	392	747	716	73
115°	124	147	317	659	775	122
125°	171	192	312	516	608	153
135°	207	227	310	444	500	160
145°	242	260	310	383	417	151
155°	276	285	311	342	356	127
165°	300	303	312	324	327	85
175°	314	313	314	316	315	30
180°	315	315	315	315	315	



TEST NUMBER: P854431

CATALOG NUMBER: SQ2-WBN-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7536.6	7536.6	7536.6	7536.6	7536.6
2.5°	7524.8	7512.3	7440.3	7499.9	7485.3
5°	7249.1	7238.7	7176.9	7280.7	7257.2
7.5°	6679.9	6688.7	6652.6	6744.3	6719.2
10°	6194.3	6217.8	6164.8	6297.9	6209.0
12.5°	5658.4	5643.2	5606.5	5627.1	5577.9
15°	4834.5	4779.6	4682.1	4715.2	4700.8
17.5°	3894.1	3915.3	3830.7	3827.2	3810.9
20°	3341.1	3347.7	3297.0	3323.7	3321.1
22.5°	2896.2	2897.5	2832.8	2871.8	2848.3
25°	2318.3	2314.4	2272.9	2252.9	2256.8
27.5°	1901.2	1885.0	1853.6	1866.7	1857.1
30°	1692.6	1679.6	1647.2	1654.9	1643.2
32.5°	1505.4	1506.0	1472.8	1468.9	1460.3
35°	1256.8	1264.6	1235.4	1215.1	1203.3
37.5°	1034.8	1042.1	1017.4	987.8	977.9
40°	890.4	895.7	878.4	843.5	835.6
42.5°	733.2	755.2	738.3	705.3	688.0
45°	459.9	529.2	549.5	511.1	410.5
47.5°	232.6	328.6	392.0	289.5	190.7
50°	147.1	213.7	307.5	174.1	129.7
52.5°	112.8	147.1	245.5	128.6	104.0
55°	80.2	93.3	149.7	86.7	76.2
57.5°	62.0	69.4	89.6	65.6	59.1
60°	53.5	58.7	68.2	56.0	49.5
62.5°	48.1	51.3	55.4	47.5	45.2
65°	41.4	42.8	42.8	40.1	38.8
67.5°	35.3	36.6	36.4	35.0	33.7
70°	32.1	33.4	32.1	30.7	29.4
72.5°	27.8	29.1	27.8	27.5	26.2
75°	22.7	22.7	22.7	21.4	21.4
77.5°	17.6	17.9	16.6	16.6	15.5
80°	13.4	14.7	13.4	13.4	13.4
82.5°	11.2	11.5	10.2	10.2	10.2
85°	6.7	6.7	5.3	6.7	5.3
87.5°	2.1	2.3	2.7	2.7	2.7
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	22.0	70.4	23.4	16.4
95°	16.8	50.8	227.9	84.5	54.5
97.5°	31.3	65.8	386.0	241.2	148.0
100°	41.6	74.6	439.9	401.1	260.6
102.5°	52.7	84.1	430.4	589.0	450.8
105°	69.4	97.5	392.4	747.4	716.4
107.5°	86.0	112.0	356.1	763.9	805.8
110°	97.1	122.3	337.9	744.9	822.4



TEST NUMBER: P854431

CATALOG NUMBER: SQ2-WBN-050U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	108.2	131.8	327.6	712.1	810.5
115°	123.9	147.1	317.1	658.6	774.9
117.5°	139.1	161.2	312.9	607.1	724.3
120°	148.6	169.9	312.1	575.3	688.7
122.5°	158.1	178.7	312.1	549.8	655.4
125°	171.4	191.8	312.1	516.4	608.4
127.5°	183.1	202.7	312.1	490.5	569.0
130°	190.2	210.6	312.1	475.2	546.0
132.5°	197.4	217.7	311.3	463.2	526.9
135°	207.1	227.4	310.1	444.2	500.4
137.5°	216.6	237.9	309.9	426.0	476.2
140°	222.9	244.3	309.2	413.2	458.8
142.5°	230.9	251.4	309.9	400.5	442.9
145°	241.8	260.2	310.1	383.2	417.2
147.5°	252.7	268.4	310.3	368.0	395.8
150°	260.6	273.2	311.1	359.2	381.5
152.5°	266.9	278.0	311.1	352.0	370.4
155°	275.5	285.2	311.1	342.2	355.7
157.5°	284.6	291.2	312.1	336.1	345.4
160°	289.3	295.1	312.1	332.1	339.9
162.5°	294.1	298.4	312.1	328.9	334.3
165°	300.2	303.1	312.1	324.1	327.0
167.5°	306.0	306.8	313.1	320.7	323.2
170°	309.2	309.2	313.1	319.1	320.1
172.5°	310.7	311.5	313.1	317.5	317.7
175°	314.1	313.1	314.1	316.1	315.1
177.5°	315.1	314.3	314.3	315.9	314.3
180°	315.1	315.1	315.1	315.1	315.1



TEST NUMBER: P854431

CATALOG NUMBER: SQ2-WBN-050U-100D-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	5.31	6.09	6.13	6.89	7.88	4.92	5.70	5.74	6.51	7.49
	3H	6.36	7.04	7.19	7.86	8.88	5.92	6.61	6.75	7.43	8.44
	4H	6.78	7.43	7.63	8.25	9.28	6.35	6.99	7.19	7.82	8.85
	6H	7.10	7.69	7.95	8.52	9.56	6.68	7.27	7.54	8.11	9.14
	8H	7.20	7.76	8.06	8.61	9.64	6.78	7.34	7.65	8.19	9.23
	12H	7.26	7.80	8.13	8.64	9.70	6.83	7.37	7.70	8.21	9.27
4H	2H	5.53	6.18	6.38	7.00	8.03	5.20	5.85	6.05	6.67	7.70
	3H	6.83	7.36	7.69	8.22	9.26	6.45	6.98	7.30	7.84	8.88
	4H	7.39	7.87	8.26	8.73	9.80	7.00	7.48	7.87	8.34	9.41
	6H	7.84	8.25	8.73	9.13	10.21	7.47	7.88	8.35	8.76	9.83
	8H	8.00	8.38	8.89	9.26	10.34	7.62	8.00	8.51	8.88	9.96
	12H	8.11	8.45	9.01	9.34	10.43	7.71	8.05	8.61	8.94	10.03
8H	4H	7.53	7.91	8.42	8.79	9.87	7.18	7.57	8.07	8.44	9.52
	6H	8.12	8.43	9.03	9.35	10.43	7.77	8.08	8.68	9.00	10.08
	8H	8.36	8.63	9.28	9.55	10.65	8.01	8.28	8.93	9.20	10.30
	12H	8.55	8.79	9.47	9.69	10.85	8.18	8.42	9.10	9.32	10.48
12H	4H	7.51	7.85	8.41	8.74	9.83	7.17	7.51	8.07	8.40	9.49
	6H	8.14	8.41	9.06	9.32	10.42	7.80	8.08	8.73	8.99	10.09
	8H	8.41	8.65	9.33	9.55	10.71	8.08	8.32	9.00	9.22	10.37