

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: P853668

Luminaire Tested: SQ2-F-050U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853668
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-050U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

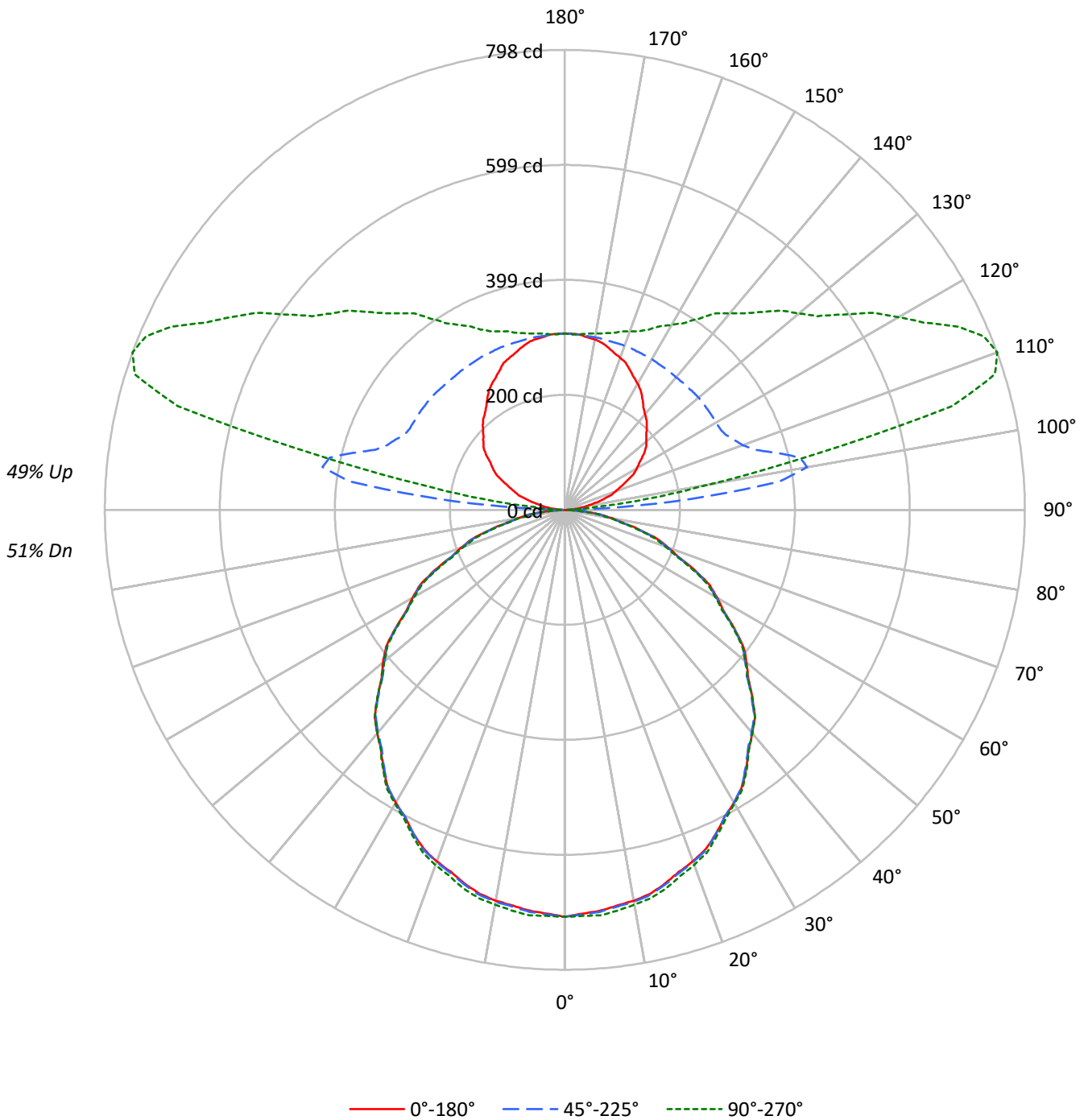
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3881.3 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.6
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: P853668
CATALOG NUMBER: SQ2-F-050U-050D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853668

CATALOG NUMBER: SQ2-F-050U-050D-930-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	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	93	90	86	90	86	83	80	73	71	69	61	60	58	50	49	48	43
2	89	81	75	70	82	75	70	65	64	60	57	54	51	48	44	42	40	36
3	81	71	64	58	75	66	60	54	56	51	47	47	44	41	39	36	34	30
4	74	63	55	49	68	59	51	46	50	45	40	42	38	35	35	32	29	25
5	68	56	48	42	62	52	45	39	45	39	35	38	33	30	31	28	25	22
6	63	50	42	36	58	47	39	34	40	34	30	34	29	26	28	25	22	19
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	26	22	20	17
8	54	41	33	28	49	38	31	26	33	27	23	28	24	20	24	20	18	15
9	50	38	30	25	46	35	28	24	30	25	21	26	22	18	22	18	16	14
10	47	34	27	22	43	32	26	21	28	23	19	24	20	17	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11399	11399	11399
5°	11318	11349	11443
10°	11290	11322	11401
15°	11221	11254	11366
20°	11155	11172	11270
25°	11052	11052	11120
30°	10938	10938	10974
35°	10805	10768	10843
40°	10663	10623	10663
45°	10497	10453	10497
50°	10339	10243	10268
55°	10100	10072	10018
60°	9846	9784	9720
65°	9555	9444	9333
70°	8988	8946	8762
75°	8459	8278	8041
80°	7513	7336	7066
85°	6058	5521	5169

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 10563 cd/sqm



TEST NUMBER: P853668

CATALOG NUMBER: SQ2-F-050U-050D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	1.7
10°-20°	190.7	4.9
20°-30°	286.9	7.4
30°-40°	343.3	8.8
40°-50°	354.2	9.1
50°-60°	319.5	8.2
60°-70°	243.8	6.3
70°-80°	140.2	3.6
80°-90°	37.0	1.0
90°-100°	121.8	3.1
100°-110°	386.3	10.0
110°-120°	378.8	9.8
120°-130°	308.3	7.9
130°-140°	251.4	6.5
140°-150°	196.0	5.0
150°-160°	141.2	3.6
160°-170°	86.3	2.2
170°-180°	29.1	0.8
0°-30°	544.3	14.0
0°-40°	887.5	22.9
0°-60°	1561.2	40.2
0°-90°	1982.2	51.1
90°-120°	887.0	22.9
90°-150°	1642.6	42.3
90°-180°	1899.0	48.9
0°-180°	3881.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	698	708	700	701	706	66
15°	671	680	673	676	680	189
25°	620	627	620	621	624	286
35°	548	552	546	548	550	343
45°	460	463	458	459	460	355
55°	359	361	358	356	356	321
65°	250	249	247	245	244	246
75°	136	135	133	130	129	143
85°	33	31	30	27	28	38
90°	0	1	3	3	3	2
95°	16	49	221	82	53	19
105°	67	95	381	725	695	71
115°	120	143	308	639	752	119
125°	166	186	303	501	590	148
135°	201	221	301	431	486	155
145°	235	252	301	372	405	147
155°	267	277	302	332	345	123
165°	291	294	303	314	317	82
175°	305	304	305	307	306	29
180°	306	306	306	306	306	



TEST NUMBER: P853668

CATALOG NUMBER: SQ2-F-050U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.0	706.0	706.0	706.0	706.0
2.5°	701.3	709.6	702.9	704.4	705.2
5°	698.3	707.7	700.2	701.3	706.0
7.5°	692.5	702.7	694.4	696.3	701.5
10°	688.6	698.1	690.6	691.6	695.4
12.5°	682.5	691.9	684.4	686.2	690.0
15°	671.3	679.8	673.3	676.2	680.0
17.5°	658.4	667.5	660.2	662.8	665.9
20°	649.2	656.7	650.2	651.2	655.9
22.5°	637.7	645.2	639.4	639.7	643.6
25°	620.4	626.9	620.4	621.4	624.2
27.5°	600.5	606.2	600.5	601.6	604.0
30°	586.7	592.3	586.7	587.7	588.6
32.5°	571.3	576.2	570.5	571.6	574.0
35°	548.2	552.0	546.3	548.3	550.1
37.5°	523.6	526.4	521.7	522.7	524.4
40°	505.9	508.7	504.0	505.0	505.9
42.5°	488.2	490.3	485.5	486.5	488.2
45°	459.7	462.6	457.8	458.8	459.7
47.5°	430.9	432.6	428.6	427.8	429.5
50°	411.6	412.6	407.8	407.8	408.8
52.5°	390.9	391.8	388.6	387.0	388.0
55°	358.8	360.6	357.8	355.9	355.9
57.5°	326.4	328.1	324.5	323.5	323.4
60°	304.9	305.8	303.0	302.0	301.0
62.5°	283.3	283.5	280.7	279.7	278.7
65°	250.1	249.1	247.2	245.2	244.3
67.5°	212.7	213.7	211.8	208.7	208.7
70°	190.4	191.4	189.5	185.6	185.6
72.5°	168.9	168.3	167.2	164.0	162.5
75°	135.6	134.7	132.7	129.8	128.9
77.5°	102.3	101.4	100.4	96.8	97.5
80°	80.8	79.9	78.9	76.0	76.0
82.5°	61.6	59.9	58.9	56.0	56.0
85°	32.7	30.8	29.8	27.0	27.9
87.5°	9.2	8.7	8.3	6.7	6.7
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.4	68.3	22.7	16.0
95°	16.3	49.3	221.2	82.0	52.9
97.5°	30.4	63.9	374.7	234.1	143.7
100°	40.4	72.4	427.0	389.3	252.9
102.5°	51.2	81.6	417.8	571.7	437.6
105°	67.3	94.6	380.8	725.4	695.3
107.5°	83.5	108.7	345.6	741.4	782.1
110°	94.2	118.7	327.9	723.0	798.2



TEST NUMBER: P853668

CATALOG NUMBER: SQ2-F-050U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.0	128.0	317.9	691.1	786.7
115°	120.2	142.8	307.7	639.2	752.1
117.5°	135.0	156.5	303.7	589.2	703.0
120°	144.3	164.9	302.9	558.4	668.4
122.5°	153.5	173.4	302.9	533.6	636.1
125°	166.4	186.1	302.9	501.2	590.5
127.5°	177.7	196.7	302.9	476.0	552.2
130°	184.6	204.4	302.9	461.3	529.9
132.5°	191.6	211.3	302.2	449.6	511.4
135°	201.0	220.7	301.0	431.1	485.7
137.5°	210.2	230.9	300.8	413.5	462.2
140°	216.4	237.1	300.1	401.1	445.3
142.5°	224.1	244.0	300.8	388.7	429.9
145°	234.7	252.5	301.0	372.0	404.9
147.5°	245.2	260.5	301.2	357.2	384.1
150°	252.9	265.2	302.0	348.6	370.3
152.5°	259.1	269.8	302.0	341.6	359.5
155°	267.4	276.8	302.0	332.1	345.3
157.5°	276.2	282.6	302.9	326.2	335.3
160°	280.8	286.5	302.9	322.3	329.9
162.5°	285.4	289.6	302.9	319.2	324.5
165°	291.4	294.2	302.9	314.5	317.4
167.5°	297.0	297.7	303.9	311.3	313.7
170°	300.1	300.1	303.9	309.7	310.6
172.5°	301.6	302.3	303.9	308.1	308.3
175°	304.9	303.9	304.9	306.8	305.8
177.5°	305.8	305.1	305.1	306.6	305.1
180°	305.8	305.8	305.8	305.8	305.8



TEST NUMBER: P853668

CATALOG NUMBER: SQ2-F-050U-050D-930-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	16.52	17.40	17.47	18.37	19.62	16.44	17.32	17.39	18.29	19.54
	3H	18.30	19.09	19.26	20.07	21.34	18.18	18.97	19.14	19.95	21.23
	4H	18.96	19.71	19.93	20.69	21.98	18.81	19.56	19.78	20.54	21.82
	6H	19.43	20.12	20.41	21.11	22.41	19.25	19.94	20.23	20.92	22.22
	8H	19.57	20.23	20.56	21.23	22.53	19.37	20.03	20.36	21.03	22.32
	12H	19.65	20.27	20.64	21.27	22.59	19.42	20.05	20.42	21.04	22.36
4H	2H	17.07	17.82	18.05	18.80	20.09	17.01	17.76	17.99	18.74	20.03
	3H	19.06	19.69	20.05	20.70	22.00	18.96	19.58	19.94	20.59	21.89
	4H	19.85	20.43	20.85	21.43	22.75	19.71	20.28	20.71	21.28	22.61
	6H	20.45	20.94	21.45	21.96	23.28	20.27	20.76	21.27	21.78	23.10
	8H	20.63	21.10	21.64	22.11	23.45	20.43	20.89	21.44	21.91	23.25
	12H	20.74	21.15	21.76	22.19	23.53	20.51	20.93	21.54	21.96	23.30
8H	4H	20.10	20.57	21.11	21.58	22.92	19.98	20.44	20.99	21.45	22.79
	6H	20.82	21.20	21.86	22.26	23.60	20.66	21.04	21.69	22.10	23.43
	8H	21.09	21.43	22.13	22.47	23.82	20.90	21.23	21.94	22.28	23.63
	12H	21.26	21.56	22.30	22.59	23.99	21.03	21.33	22.08	22.37	23.76
12H	4H	20.10	20.52	21.13	21.55	22.89	19.98	20.39	21.00	21.43	22.77
	6H	20.87	21.20	21.91	22.25	23.60	20.71	21.04	21.75	22.09	23.44
	8H	21.16	21.46	22.21	22.49	23.89	20.97	21.27	22.02	22.31	23.70