

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: P853861

Luminaire Tested: SQ2-FB-0U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853861
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FB-0U-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

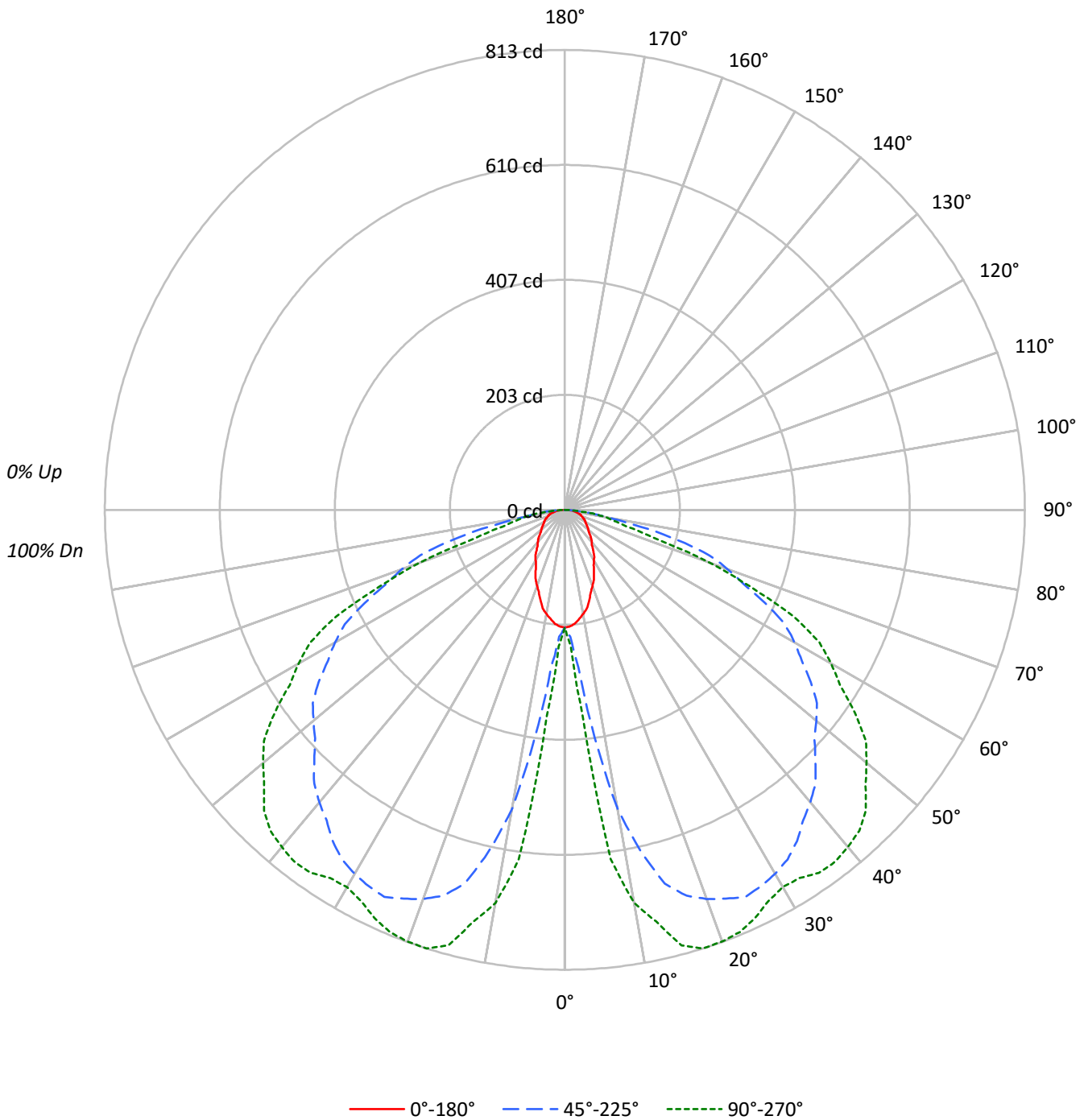
Lumens per Lamp: N/A
Luminaire Lumens: 2055.4 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.8
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: P853861

CATALOG NUMBER: SQ2-FB-0U-050D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853861

CATALOG NUMBER: SQ2-FB-0U-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	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84	84	84	
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69	69	69	
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57	57	57	
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48	48	48	
5	74	61	52	45	72	60	51	45	58	50	44	56	49	43	54	48	43	41	41	41	
6	68	54	45	39	66	53	45	38	52	44	38	50	43	38	48	42	37	35	35	35	
7	63	49	40	34	61	48	40	33	47	39	33	45	38	33	44	37	33	31	31	31	
8	58	44	36	30	57	44	35	29	42	35	29	41	34	29	40	34	29	27	27	27	
9	54	40	32	26	53	40	32	26	39	31	26	38	31	26	37	30	26	24	24	24	
10	51	37	29	23	49	37	29	23	36	28	23	35	28	23	34	28	23	21	21	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3358	3358	3358
5°	3274	4538	5948
10°	3066	8788	11575
15°	2775	11433	13322
20°	2457	12577	13952
25°	2173	13450	14181
30°	1920	13852	14356
35°	1715	14093	15433
40°	1560	14227	16398
45°	1439	14294	17171
50°	1356	14569	17482
55°	1323	14947	17622
60°	1356	15145	17534
65°	1414	14938	17039
70°	1463	14445	12888
75°	1622	12976	7112
80°	1674	6695	6602
85°	1667	4631	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 52.5°
 Luminance: 17781 cd/sqm



TEST NUMBER: P853861

CATALOG NUMBER: SQ2-FB-0U-050D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	1.7
10°-20°	159.1	7.7
20°-30°	279.9	13.6
30°-40°	362.3	17.6
40°-50°	399.5	19.4
50°-60°	373.0	18.1
60°-70°	288.3	14.0
70°-80°	133.0	6.5
80°-90°	25.4	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	473.8	23.1
0°-40°	836.1	40.7
0°-60°	1608.6	78.3
0°-90°	2055.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	208	208	208	208	208	
5°	202	231	280	342	367	19
15°	166	327	684	766	797	46
25°	122	440	755	788	796	56
35°	87	424	715	740	783	55
45°	63	325	626	719	752	49
55°	47	194	531	610	626	42
65°	37	109	391	438	446	36
75°	26	67	208	112	114	27
85°	9	20	25	17	15	10
90°	0	0	0	0	0	



TEST NUMBER: P853861

CATALOG NUMBER: SQ2-FB-0U-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	208.0	208.0	208.0	208.0	208.0
2.5°	206.4	215.0	224.8	236.1	240.8
5°	202.0	231.3	280.0	341.6	367.0
7.5°	194.2	253.8	407.2	572.0	622.8
10°	187.0	270.1	536.0	678.6	706.0
12.5°	179.0	291.8	616.8	717.0	745.2
15°	166.0	327.3	684.0	765.7	797.0
17.5°	152.6	367.3	715.2	795.8	812.8
20°	143.0	395.3	732.0	801.3	812.0
22.5°	134.2	416.2	744.0	796.5	808.0
25°	122.0	439.8	755.0	788.2	796.0
27.5°	110.2	446.0	750.2	772.0	779.6
30°	103.0	444.2	743.0	759.3	770.0
32.5°	96.6	439.4	732.6	748.3	771.6
35°	87.0	424.3	715.0	740.0	783.0
37.5°	78.8	400.1	691.8	742.9	784.4
40°	74.0	382.0	675.0	742.8	778.0
42.5°	69.2	360.8	655.8	734.8	770.0
45°	63.0	325.0	626.0	718.8	752.0
47.5°	57.2	284.8	598.4	696.6	720.8
50°	54.0	257.4	580.0	676.4	696.0
52.5°	50.8	230.7	561.6	652.4	670.4
55°	47.0	193.7	531.0	610.4	626.0
57.5°	43.6	161.9	496.2	563.9	576.6
60°	42.0	144.7	469.0	530.3	543.0
62.5°	39.6	129.0	438.6	495.1	507.0
65°	37.0	109.4	391.0	438.2	446.0
67.5°	33.4	94.8	340.4	369.3	354.6
70°	31.0	87.7	306.0	315.0	273.0
72.5°	29.4	79.9	268.4	244.6	165.0
75°	26.0	67.1	208.0	112.0	114.0
77.5°	21.2	51.9	136.8	86.0	87.8
80°	18.0	42.4	72.0	70.0	71.0
82.5°	14.8	33.0	49.6	51.6	50.2
85°	9.0	19.8	25.0	17.0	15.0
87.5°	3.2	7.1	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P853861

CATALOG NUMBER: SQ2-FB-0U-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	15.03	16.72	15.40	17.03	17.35	23.77	25.45	24.13	25.77	26.08
	3H	15.82	17.35	16.20	17.67	18.03	25.45	26.97	25.83	27.30	27.66
	4H	16.16	17.59	16.56	17.94	18.32	25.67	27.10	26.06	27.45	27.82
	6H	16.42	17.75	16.83	18.11	18.50	25.79	27.12	26.20	27.49	27.88
	8H	16.50	17.77	16.92	18.16	18.56	25.82	27.09	26.25	27.48	27.88
	12H	16.55	17.77	16.98	18.15	18.58	25.82	27.04	26.25	27.42	27.85
4H	2H	19.53	20.96	19.92	21.31	21.68	24.31	25.74	24.70	26.09	26.46
	3H	20.53	21.74	20.94	22.13	22.53	26.21	27.41	26.62	27.81	28.20
	4H	20.85	21.94	21.28	22.35	22.79	26.48	27.57	26.91	27.98	28.41
	6H	21.03	21.98	21.49	22.42	22.87	26.68	27.62	27.13	28.06	28.52
	8H	21.08	21.96	21.53	22.40	22.87	26.72	27.61	27.18	28.05	28.51
	12H	21.11	21.90	21.59	22.38	22.85	26.73	27.53	27.21	28.00	28.47
8H	4H	22.10	22.98	22.56	23.42	23.89	26.67	27.55	27.13	27.99	28.46
	6H	22.37	23.11	22.87	23.59	24.07	26.91	27.65	27.40	28.13	28.61
	8H	22.46	23.11	22.96	23.62	24.10	26.98	27.64	27.49	28.15	28.63
	12H	22.52	23.10	23.03	23.59	24.15	27.02	27.60	27.52	28.09	28.64
12H	4H	22.16	22.95	22.63	23.42	23.89	26.66	27.46	27.14	27.93	28.40
	6H	22.48	23.13	22.98	23.64	24.12	26.90	27.56	27.41	28.07	28.55
	8H	22.62	23.20	23.13	23.69	24.25	27.01	27.59	27.52	28.08	28.64