

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:

Luminaire Tested: SQ4-F-100U-050D-927-1D-UNV-STD-W-4

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-17)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-100U-050D-927-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

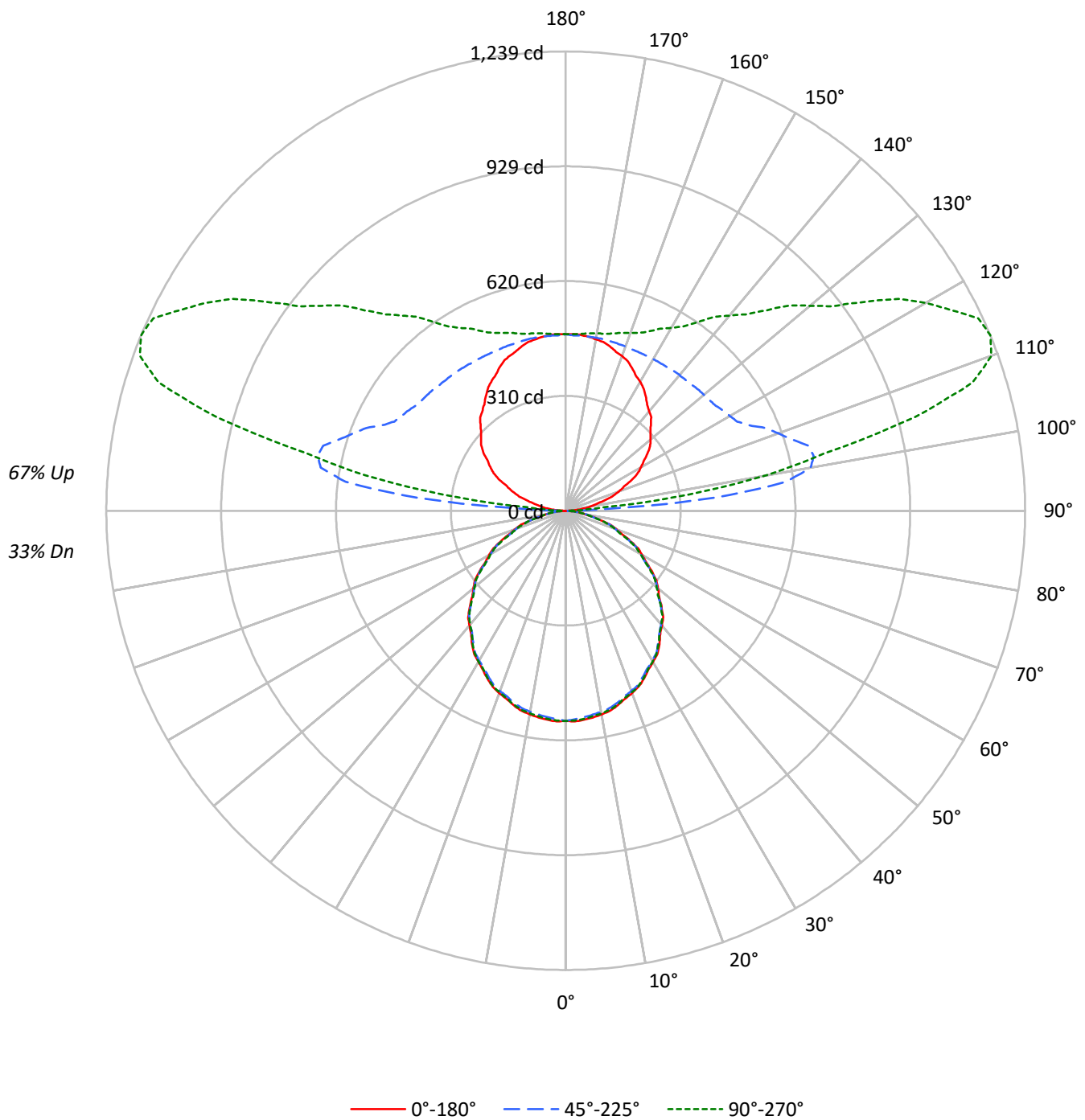
Lumens per Lamp: N/A
Luminaire Lumens: 4641.5 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 41.3
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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34
2	86	78	72	67	77	71	66	61	57	53	50	44	41	39	32	30	29
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21
5	65	54	46	40	59	49	42	37	39	34	31	31	27	24	22	20	18
6	60	48	40	35	54	44	37	32	35	30	27	28	24	21	20	18	16
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	18	16	14
8	51	39	32	27	46	36	29	25	29	24	20	23	19	17	17	14	13
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5233	5233	5233
5°	5246	5183	5224
10°	5229	5164	5200
15°	5192	5127	5171
20°	5144	5084	5121
25°	5086	5024	5071
30°	5015	4975	5007
35°	4960	4901	4925
40°	4865	4819	4828
45°	4765	4726	4726
50°	4665	4620	4599
55°	4555	4494	4470
60°	4386	4316	4286
65°	4176	4093	4045
70°	3893	3809	3728
75°	3490	3383	3301
80°	2821	2784	2704
85°	1683	1927	2011

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 4776 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.5	1.2
10°-20°	152.4	3.3
20°-30°	228.9	4.9
30°-40°	273.2	5.9
40°-50°	280.0	6.0
50°-60°	249.7	5.4
60°-70°	186.0	4.0
70°-80°	101.0	2.2
80°-90°	24.4	0.5
90°-100°	222.9	4.8
100°-110°	615.3	13.3
110°-120°	634.6	13.7
120°-130°	510.0	11.0
130°-140°	400.8	8.6
140°-150°	307.4	6.6
150°-160°	220.9	4.8
160°-170°	135.1	2.9
170°-180°	45.5	1.0
0°-30°	434.8	9.4
0°-40°	708.0	15.3
0°-60°	1237.7	26.7
0°-90°	1549.0	33.4
90°-120°	1472.8	31.7
90°-150°	2691.0	58.0
90°-180°	3093.0	66.6
0°-180°	4641.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	566	566	560	565	564	54
15°	544	542	537	541	541	153
25°	500	498	494	497	498	230
35°	440	439	435	435	437	275
45°	365	366	362	361	362	282
55°	283	283	279	277	278	252
65°	191	191	188	185	185	189
75°	98	97	95	93	93	104
85°	16	17	18	19	19	22
90°	2	3	6	7	8	3
95°	33	121	404	166	108	35
105°	110	169	677	1034	973	117
115°	196	237	545	1079	1228	193
125°	270	307	494	836	982	240
135°	324	359	480	677	764	251
145°	376	402	474	577	621	236
155°	424	438	471	518	534	195
165°	459	465	473	491	495	129
175°	476	477	474	480	479	45
180°	476	476	476	476	476	

TEST NUMBER:

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.2	567.2	567.2	567.2	567.2
2.5°	569.0	567.8	562.9	567.2	566.6
5°	566.4	565.7	559.6	564.9	564.1
7.5°	562.3	560.8	554.9	560.0	559.3
10°	558.1	556.6	551.2	555.8	555.0
12.5°	552.6	551.7	545.8	550.3	550.2
15°	543.6	542.2	536.8	541.4	541.4
17.5°	531.8	530.9	525.7	530.1	529.5
20°	523.9	522.4	517.8	521.6	521.6
22.5°	514.2	513.3	508.7	511.9	512.5
25°	499.6	498.1	493.5	496.6	498.1
27.5°	483.5	482.3	478.5	480.5	481.5
30°	470.7	470.7	467.0	467.8	470.0
32.5°	459.2	459.2	454.8	455.6	456.6
35°	440.4	438.9	435.1	435.1	437.3
37.5°	418.5	417.8	415.3	414.9	415.5
40°	403.9	403.2	400.1	400.9	400.9
42.5°	389.4	388.6	385.6	384.5	385.7
45°	365.2	366.0	362.2	361.4	362.2
47.5°	341.4	341.4	338.3	336.2	337.4
50°	325.0	325.0	321.9	320.4	320.4
52.5°	308.0	308.6	304.9	302.8	303.4
55°	283.2	283.2	279.4	277.2	277.9
57.5°	255.9	255.9	252.1	249.8	251.2
60°	237.7	237.7	233.9	231.6	232.3
62.5°	219.4	219.4	215.6	213.4	213.5
65°	191.3	190.6	187.5	185.3	185.3
67.5°	164.3	162.4	160.1	157.0	157.0
70°	144.3	143.5	141.2	138.2	138.2
72.5°	126.0	124.7	122.4	120.0	120.0
75°	97.9	97.2	94.9	93.4	92.6
77.5°	70.2	69.6	69.4	67.3	67.9
80°	53.1	53.1	52.4	50.9	50.9
82.5°	38.0	38.6	37.2	36.9	36.3
85°	15.9	17.4	18.2	19.0	19.0
87.5°	3.3	5.4	5.5	6.2	6.4
90°	1.5	3.0	6.1	6.9	7.6
92.5°	13.7	56.9	101.7	37.1	28.9
95°	32.7	120.6	404.4	166.2	108.1
97.5°	54.2	135.1	599.0	461.2	334.0
100°	70.1	143.8	670.9	675.7	549.1
102.5°	85.3	153.6	684.9	834.8	714.8
105°	109.7	169.2	677.0	1033.6	973.2
107.5°	135.6	188.6	639.2	1129.4	1151.4
110°	153.8	201.5	610.0	1150.0	1221.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	170.3	216.1	582.6	1133.7	1239.2
115°	196.5	237.4	545.3	1079.4	1227.6
117.5°	219.3	260.1	520.7	1003.0	1171.6
120°	234.6	274.8	511.0	951.2	1121.0
122.5°	249.2	287.6	503.1	902.9	1063.7
125°	269.6	306.8	494.2	836.4	981.6
127.5°	286.9	324.2	489.1	780.2	905.5
130°	298.5	335.8	486.6	745.9	859.8
132.5°	309.5	344.9	484.2	717.0	820.2
135°	324.4	359.4	480.5	677.4	763.8
137.5°	341.2	373.0	478.7	644.3	718.0
140°	350.3	381.6	477.5	622.1	686.9
142.5°	360.7	389.6	476.3	602.5	659.5
145°	376.2	402.3	474.4	576.7	620.7
147.5°	391.1	413.9	472.8	555.0	589.1
150°	402.1	420.7	472.2	542.1	569.6
152.5°	410.6	428.0	471.5	531.0	553.8
155°	424.2	438.3	470.6	517.5	533.8
157.5°	436.7	447.5	470.8	507.6	518.8
160°	444.0	453.7	471.4	502.0	510.2
162.5°	450.1	458.6	472.0	497.1	503.5
165°	459.2	465.2	472.9	491.3	495.0
167.5°	466.2	469.8	473.7	487.7	488.9
170°	469.9	472.8	473.7	485.9	485.9
172.5°	472.9	474.7	473.7	483.4	482.8
175°	476.0	476.7	473.7	480.5	479.0
177.5°	477.2	476.6	473.5	477.8	476.6
180°	476.0	476.0	476.0	476.0	476.0

(END OF REPORT)