

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-WB-050U-100D-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 (G3-1910-536-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-WB-050U-100D-927-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

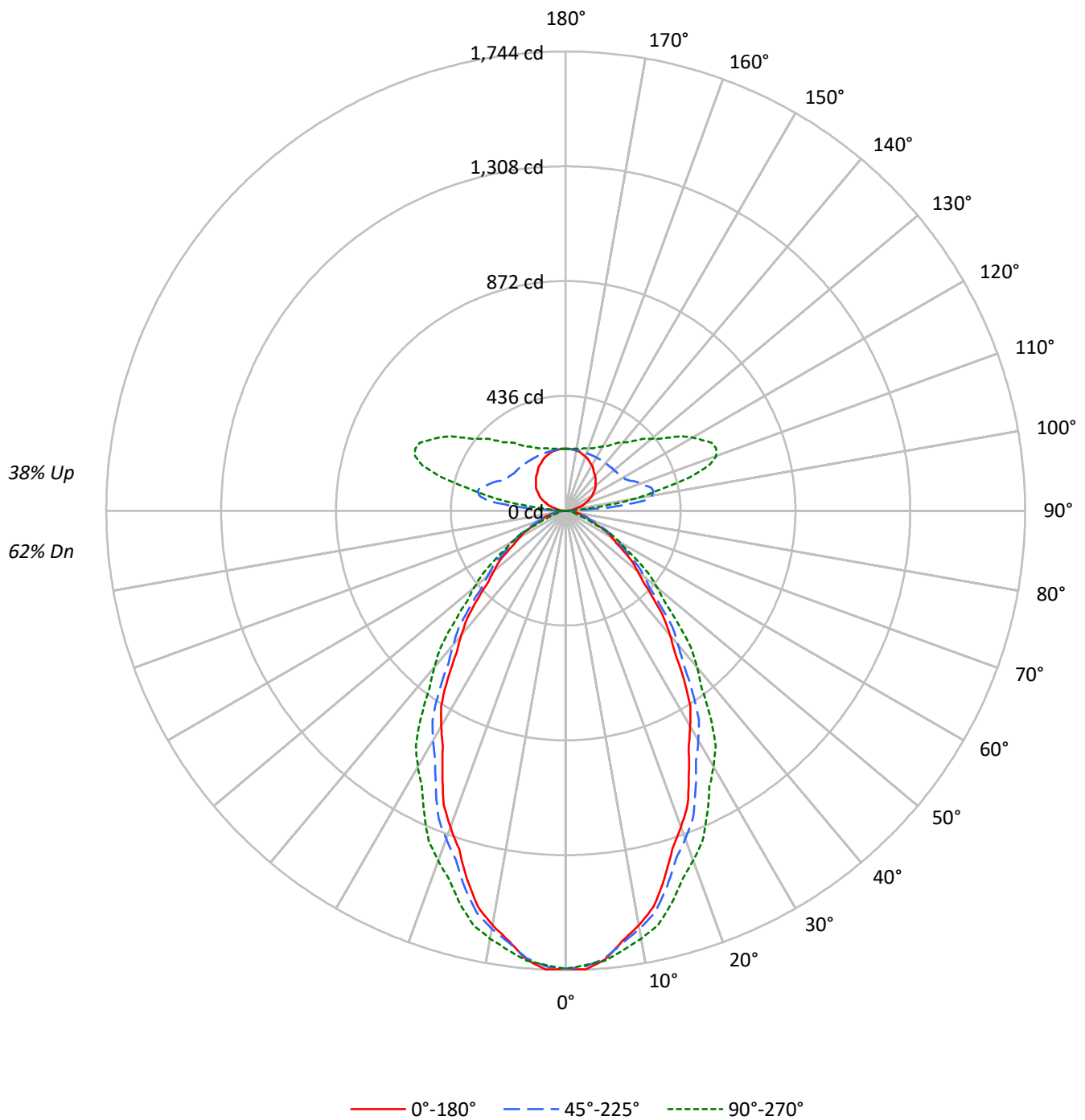
Lumens per Lamp: N/A
Luminaire Lumens: 4069.4 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.1
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	102	98	95	92	96	92	89	87	81	79	77	71	70	68	62	61	60
2	94	87	82	77	88	82	78	73	73	69	66	64	62	59	56	54	53
3	87	78	72	66	81	74	68	63	66	61	58	58	55	52	51	49	47
4	80	70	63	58	75	67	60	55	60	54	50	53	49	46	47	44	41
5	74	64	56	51	70	60	54	49	54	49	45	48	44	41	43	40	37
6	69	58	50	45	65	55	48	43	50	44	40	44	40	37	40	36	34
7	64	53	45	40	61	50	44	39	45	40	36	41	37	33	37	33	31
8	60	49	41	36	57	46	40	35	42	36	33	38	33	30	34	31	28
9	56	45	38	33	53	43	36	32	39	34	30	35	31	28	32	28	26
10	53	41	35	30	50	40	33	29	36	31	27	33	29	25	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16048	16048	16048
5°	15848	15792	15883
10°	14973	15109	15459
15°	13822	14143	14777
20°	12552	13024	13886
25°	11258	11872	12937
30°	10066	10725	11953
35°	8803	9438	10789
40°	7409	7997	9340
45°	6114	6643	7797
50°	5106	5565	6496
55°	4333	4776	5364
60°	3703	4141	4281
65°	2949	3482	2766
70°	2614	2716	1689
75°	2420	2203	1034
80°	2232	2030	893
85°	2022	1863	730

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7797 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.5	3.9
10°-20°	415.0	10.2
20°-30°	537.5	13.2
30°-40°	526.4	12.9
40°-50°	402.9	9.9
50°-60°	268.5	6.6
60°-70°	146.5	3.6
70°-80°	61.0	1.5
80°-90°	18.2	0.4
90°-100°	112.8	2.8
100°-110°	306.3	7.5
110°-120°	315.0	7.7
120°-130°	251.8	6.2
130°-140°	197.9	4.9
140°-150°	151.7	3.7
150°-160°	109.1	2.7
160°-170°	66.7	1.6
170°-180°	22.5	0.6
0°-30°	1112.1	27.3
0°-40°	1638.4	40.3
0°-60°	2309.8	56.8
0°-90°	2535.6	62.3
90°-120°	734.1	18.0
90°-150°	1335.5	32.8
90°-180°	1534.0	37.7
0°-180°	4069.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1739	1739	1739	1739	1739	
5°	1711	1694	1705	1709	1715	159
15°	1447	1442	1481	1521	1547	404
25°	1106	1109	1166	1217	1271	509
35°	782	785	838	894	958	486
45°	469	478	509	548	598	365
55°	269	281	297	308	334	244
65°	135	146	160	139	127	140
75°	68	68	62	42	29	73
85°	19	19	18	11	7	21
90°	1	3	5	7	7	2
95°	17	62	196	86	57	18
105°	54	85	337	513	483	58
115°	97	117	270	536	611	95
125°	133	151	244	411	485	118
135°	160	178	237	335	378	124
145°	185	198	234	284	306	116
155°	209	217	233	256	263	96
165°	227	230	233	243	244	64
175°	235	236	234	237	236	22
180°	235	235	235	235	235	

TEST NUMBER:

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1739.4	1739.4	1739.4	1739.4	1739.4
2.5°	1743.7	1728.2	1732.1	1732.0	1727.2
5°	1711.2	1694.0	1705.1	1709.0	1715.0
7.5°	1647.7	1634.7	1654.9	1669.8	1681.9
10°	1598.2	1587.0	1612.7	1634.5	1650.1
12.5°	1540.8	1531.4	1563.3	1592.4	1612.9
15°	1447.1	1441.9	1480.7	1521.0	1547.1
17.5°	1346.8	1344.3	1388.8	1435.8	1469.2
20°	1278.4	1277.7	1326.5	1375.5	1414.3
22.5°	1209.4	1211.1	1262.4	1313.3	1357.5
25°	1105.9	1108.9	1166.2	1217.1	1270.8
27.5°	1010.2	1011.6	1070.8	1124.5	1181.8
30°	944.9	948.6	1006.7	1062.3	1122.0
32.5°	879.6	883.9	940.8	998.2	1059.1
35°	781.6	785.3	838.0	894.4	957.9
37.5°	680.5	685.6	732.4	785.7	848.1
40°	615.2	622.6	664.0	714.3	775.5
42.5°	552.3	561.5	599.9	647.6	702.8
45°	468.6	477.6	509.1	547.6	597.6
47.5°	396.6	406.9	431.1	464.3	506.9
50°	355.7	365.4	387.7	412.3	452.6
52.5°	319.6	329.3	349.3	368.2	402.5
55°	269.4	280.6	296.9	308.2	333.5
57.5°	228.2	239.0	251.9	257.0	272.3
60°	200.7	212.7	224.4	223.8	232.0
62.5°	175.7	185.8	197.5	189.4	189.9
65°	135.1	146.3	159.5	139.4	126.7
67.5°	109.1	111.5	125.2	97.2	82.1
70°	96.9	96.9	100.7	75.3	62.6
72.5°	85.3	85.3	81.8	61.2	47.9
75°	67.9	67.9	61.8	42.4	29.0
77.5°	52.4	51.8	47.3	31.7	21.1
80°	42.0	42.0	38.2	25.0	16.8
82.5°	32.8	32.8	29.6	19.5	12.5
85°	19.1	19.1	17.6	11.3	6.9
87.5°	6.9	7.3	7.2	5.0	4.4
90°	0.8	3.0	5.3	6.8	6.8
92.5°	6.8	30.9	53.6	23.0	19.5
95°	16.6	61.7	196.4	85.5	57.4
97.5°	27.5	68.1	301.1	234.2	164.5
100°	34.7	72.4	333.1	337.7	272.7
102.5°	42.0	76.7	341.6	417.6	360.3
105°	54.4	84.7	336.9	512.9	482.7
107.5°	67.2	94.0	317.4	562.2	570.6
110°	76.3	100.7	302.9	571.8	608.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	84.1	107.3	288.4	563.8	618.3
115°	96.7	117.4	269.7	536.5	611.1
117.5°	108.5	128.3	257.7	497.7	581.8
120°	116.3	135.5	252.3	471.7	555.2
122.5°	123.0	142.2	248.7	445.7	526.2
125°	132.9	151.4	244.0	411.1	484.9
127.5°	141.9	160.2	241.4	384.8	448.2
130°	147.3	165.0	240.2	368.4	425.2
132.5°	152.7	170.5	239.0	354.3	404.7
135°	160.1	177.9	237.2	334.8	377.7
137.5°	168.1	184.2	236.3	317.6	353.6
140°	173.0	188.5	235.7	306.6	339.1
142.5°	177.8	192.1	235.1	298.1	325.2
145°	185.1	198.3	234.2	284.5	305.9
147.5°	193.2	204.6	233.4	273.8	290.6
150°	198.7	208.3	233.4	267.7	281.0
152.5°	202.9	211.3	232.8	262.2	273.1
155°	209.2	216.6	232.6	255.5	262.9
157.5°	215.4	221.2	232.6	250.9	256.5
160°	219.0	224.2	232.6	247.8	252.3
162.5°	222.7	226.7	233.2	245.4	248.7
165°	226.6	229.6	233.4	243.2	244.0
167.5°	230.7	232.2	234.2	240.7	241.3
170°	231.9	233.4	234.2	239.4	239.4
172.5°	233.1	234.0	234.2	238.2	238.2
175°	234.9	235.6	234.2	237.2	236.4
177.5°	235.5	235.5	233.7	236.1	234.9
180°	234.9	234.9	234.9	234.9	234.9

(END OF REPORT)