

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-BB-050U-050D-927-1D-UNV-STD-W-8

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-BB-050U-050D-927-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

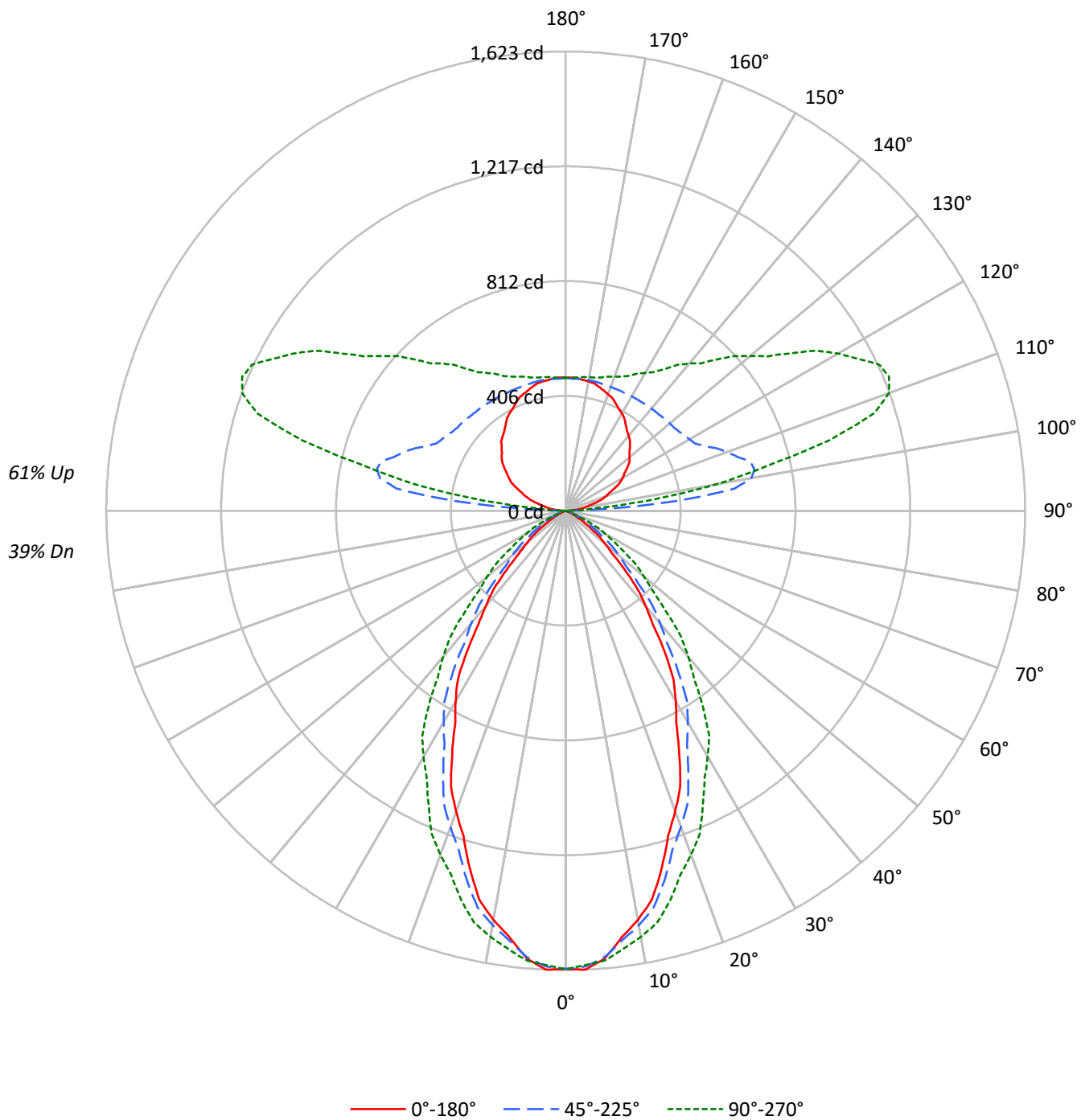
Lumens per Lamp: N/A
Luminaire Lumens: 5001.1 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 58.9
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

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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	50	30	10
RCR																				
0	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46			39
1	97	93	90	87	88	85	82	79	69	68	66	55	54	53	42	42	41			35
2	89	83	77	73	81	76	71	68	63	59	57	50	48	47	39	38	37			32
3	82	74	68	63	75	68	63	58	56	53	50	46	43	41	36	34	33			29
4	76	66	60	54	69	61	55	51	51	47	43	42	39	37	33	31	30			26
5	70	60	53	47	64	55	49	44	46	42	38	38	35	33	31	29	27			24
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	25			22
7	61	50	42	37	55	46	40	35	39	34	31	32	29	27	26	24	22			20
8	56	45	38	33	52	42	36	32	36	31	28	30	27	24	25	22	21			18
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19			17
10	49	38	32	27	45	36	30	26	31	26	23	26	23	20	22	19	18			16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7470	7470	7470
5°	7350	7332	7386
10°	6877	6969	7164
15°	6252	6451	6810
20°	5550	5838	6350
25°	4833	5216	5834
30°	4140	4595	5346
35°	3432	3900	4756
40°	2637	3119	4053
45°	1906	2362	3261
50°	1299	1760	2586
55°	844	1273	2010
60°	484	896	1453
65°	129	547	736
70°	63	169	212
75°	29	14	0
80°	21	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 3261 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	3.0
10°-20°	377.9	7.6
20°-30°	473.1	9.5
30°-40°	437.0	8.7
40°-50°	293.7	5.9
50°-60°	151.7	3.0
60°-70°	47.5	1.0
70°-80°	3.0	0.1
80°-90°	1.9	0.0
90°-100°	225.5	4.5
100°-110°	612.7	12.3
110°-120°	629.9	12.6
120°-130°	503.6	10.1
130°-140°	395.7	7.9
140°-150°	303.4	6.1
150°-160°	218.2	4.4
160°-170°	133.5	2.7
170°-180°	45.0	0.9
0°-30°	998.9	20.0
0°-40°	1435.9	28.7
0°-60°	1881.2	37.6
0°-90°	1933.6	38.7
90°-120°	1468.1	29.4
90°-150°	2670.9	53.4
90°-180°	3068.0	61.3
0°-180°	5001.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1587	1571	1583	1589	1595	147
15°	1309	1304	1351	1396	1426	365
25°	950	957	1025	1095	1146	435
35°	610	625	693	774	845	378
45°	292	310	362	432	500	229
55°	105	123	158	203	250	98
65°	12	22	50	60	67	20
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	2	6	11	14	14	2
95°	33	123	393	171	115	35
105°	109	169	674	1026	965	116
115°	193	235	539	1073	1222	191
125°	266	303	488	822	970	237
135°	320	356	474	670	755	248
145°	370	397	468	569	612	232
155°	418	433	465	511	526	193
165°	453	459	467	486	488	128
175°	470	471	468	474	473	45
180°	470	470	470	470	470	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1619.4	1619.4	1619.4	1619.4	1619.4
2.5°	1623.1	1607.8	1611.9	1611.8	1607.5
5°	1587.3	1571.2	1583.3	1589.0	1595.1
7.5°	1520.2	1507.6	1531.0	1548.5	1561.3
10°	1468.2	1457.5	1487.8	1511.7	1529.3
12.5°	1408.0	1399.7	1436.4	1469.2	1491.7
15°	1309.1	1304.5	1350.7	1396.0	1425.9
17.5°	1203.2	1203.1	1255.7	1312.0	1348.0
20°	1130.5	1132.8	1189.3	1251.3	1293.5
22.5°	1057.8	1063.2	1123.5	1188.2	1236.4
25°	949.5	957.2	1024.7	1094.9	1146.2
27.5°	845.5	856.7	927.8	1000.6	1063.1
30°	777.2	790.2	862.6	939.2	1003.6
32.5°	710.1	725.6	796.1	877.2	942.8
35°	609.5	624.8	692.6	774.1	844.6
37.5°	505.6	520.7	586.8	667.0	743.2
40°	437.9	454.8	517.9	595.6	673.0
42.5°	376.5	393.4	452.7	529.1	602.2
45°	292.2	309.8	362.0	432.4	499.8
47.5°	222.3	241.5	287.2	351.0	412.4
50°	181.0	200.1	245.2	301.4	360.4
52.5°	147.8	166.3	207.0	259.9	314.0
55°	105.0	122.6	158.3	203.2	249.9
57.5°	72.5	87.7	119.7	157.2	193.8
60°	52.5	67.0	97.1	127.6	157.5
62.5°	34.9	48.3	77.7	101.1	121.1
65°	11.8	22.5	50.1	60.5	67.4
67.5°	6.0	7.2	26.3	27.8	30.1
70°	4.7	4.7	12.5	13.4	15.7
72.5°	3.4	3.4	5.0	6.4	6.9
75°	1.6	1.6	0.8	0.0	0.0
77.5°	0.8	0.8	0.6	0.0	0.0
80°	0.8	0.8	0.0	0.0	0.0
82.5°	0.2	0.2	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.3	1.2	2.1	2.7	2.7
90°	1.5	5.9	10.6	13.6	13.6
92.5°	13.6	61.7	107.3	46.1	39.0
95°	33.2	123.3	392.8	170.9	114.8
97.5°	55.0	136.2	602.1	468.5	329.0
100°	69.5	144.8	666.2	675.3	545.3
102.5°	84.0	153.4	683.1	835.2	720.6
105°	108.8	169.3	673.8	1025.9	965.3
107.5°	134.4	187.9	634.8	1124.3	1141.1
110°	152.6	201.3	605.8	1143.7	1216.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	168.3	214.7	576.8	1127.6	1236.6
115°	193.4	234.7	539.3	1072.9	1222.1
117.5°	216.9	256.5	515.4	995.4	1163.5
120°	232.6	271.0	504.6	943.4	1110.3
122.5°	245.9	284.3	497.3	891.3	1052.3
125°	265.9	302.8	487.9	822.1	969.8
127.5°	283.7	320.3	482.8	769.7	896.4
130°	294.6	330.0	480.4	736.8	850.5
132.5°	305.5	340.9	478.0	708.7	809.4
135°	320.3	355.7	474.3	669.7	755.3
137.5°	336.3	368.5	472.5	635.2	707.3
140°	345.9	377.0	471.3	613.3	678.3
142.5°	355.6	384.3	470.1	596.1	650.5
145°	370.1	396.7	468.3	569.0	611.8
147.5°	386.4	409.2	466.8	547.6	581.3
150°	397.3	416.5	466.8	535.4	562.0
152.5°	405.8	422.6	465.6	524.4	546.3
155°	418.5	433.2	465.3	510.9	525.7
157.5°	430.8	442.4	465.3	501.8	513.0
160°	438.1	448.4	465.3	495.7	504.6
162.5°	445.3	453.3	466.5	490.8	497.3
165°	453.2	459.1	466.8	486.5	487.9
167.5°	461.4	464.3	468.3	481.3	482.5
170°	463.8	466.7	468.3	478.9	478.9
172.5°	466.2	468.0	468.3	476.5	476.5
175°	469.8	471.3	468.3	474.3	472.8
177.5°	471.0	471.0	467.4	472.2	469.8
180°	469.8	469.8	469.8	469.8	469.8

(END OF REPORT)