

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-100D-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-100D-927-1D-UNV-STD-W-8
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

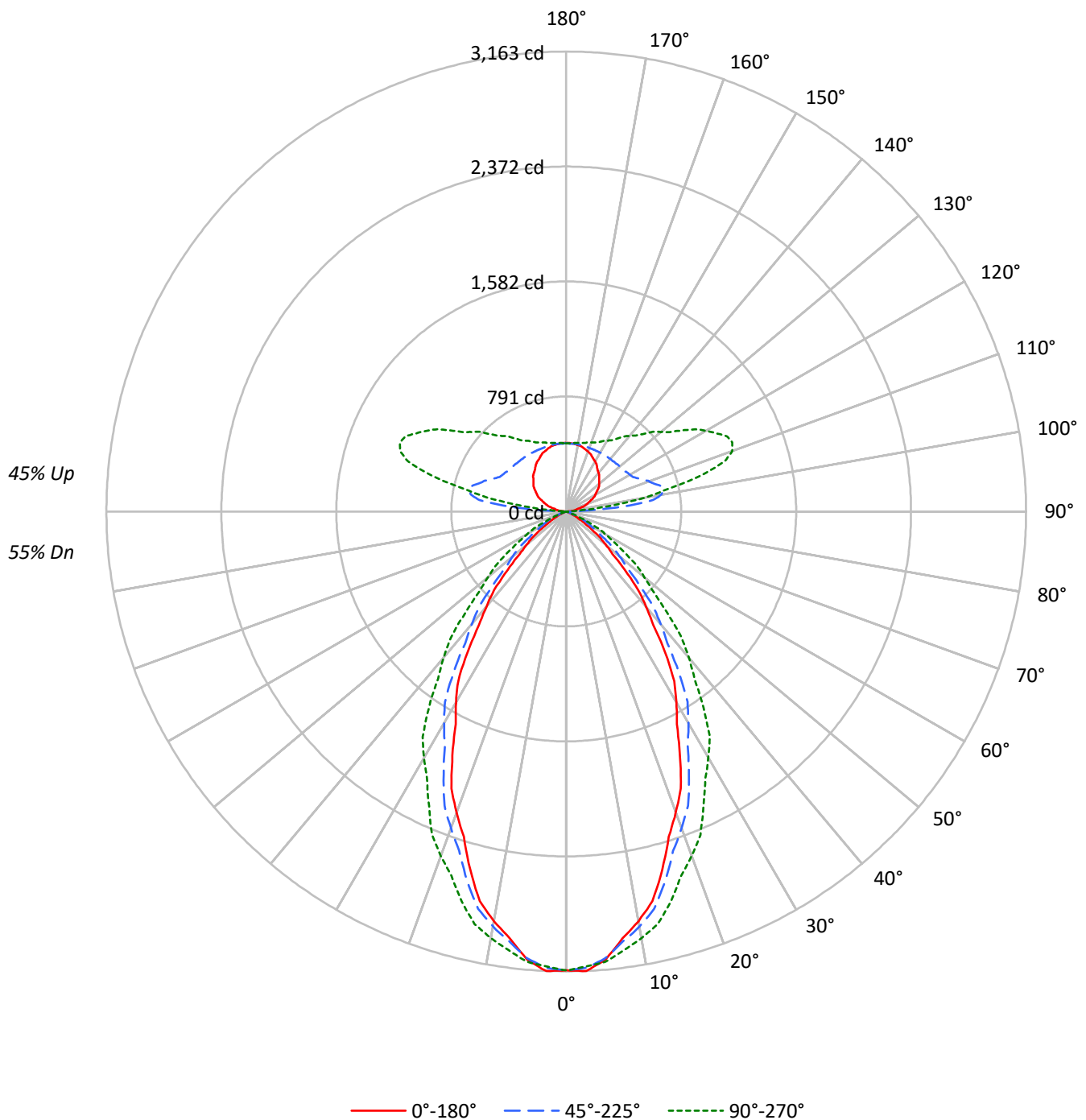
Lumens per Lamp: N/A
Luminaire Lumens: 6834.2 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 95.4
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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61			55
1	101	97	94	91	94	91	88	86	78	77	75	67	66	65	57	56	55			50
2	94	87	82	78	87	82	77	74	71	68	65	61	59	57	52	51	50			45
3	87	79	72	67	81	74	68	64	65	61	57	56	53	51	48	46	45			41
4	80	71	64	59	75	67	61	56	59	54	51	52	48	46	45	42	40			37
5	75	65	57	52	70	61	55	50	54	49	45	47	44	41	41	39	37			34
6	70	59	52	46	65	56	49	45	49	44	41	44	40	37	38	36	33			31
7	65	54	47	42	61	51	45	40	46	41	37	41	37	34	36	33	31			28
8	61	50	43	38	57	47	41	36	42	37	34	38	34	31	33	30	28			26
9	57	46	39	34	53	44	37	33	39	34	31	35	31	28	31	28	26			24
10	54	42	36	31	50	40	34	30	37	32	28	33	29	26	29	26	24			22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14559	14559	14559
5°	14325	14289	14396
10°	13403	13582	13961
15°	12185	12571	13272
20°	10816	11378	12376
25°	9420	10165	11370
30°	8068	8955	10419
35°	6690	7601	9270
40°	5140	6078	7898
45°	3715	4602	6355
50°	2531	3430	5041
55°	1646	2480	3918
60°	944	1747	2832
65°	250	1066	1433
70°	124	329	411
75°	55	27	0
80°	40	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 6355 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.0	4.2
10°-20°	736.6	10.8
20°-30°	922.1	13.5
30°-40°	851.7	12.5
40°-50°	572.3	8.4
50°-60°	295.6	4.3
60°-70°	92.6	1.4
70°-80°	5.8	0.1
80°-90°	1.9	0.0
90°-100°	225.5	3.3
100°-110°	612.7	9.0
110°-120°	629.9	9.2
120°-130°	503.6	7.4
130°-140°	395.7	5.8
140°-150°	303.4	4.4
150°-160°	218.2	3.2
160°-170°	133.5	2.0
170°-180°	45.0	0.7
0°-30°	1946.7	28.5
0°-40°	2798.4	40.9
0°-60°	3666.3	53.6
0°-90°	3766.7	55.1
90°-120°	1468.1	21.5
90°-150°	2670.9	39.1
90°-180°	3068.0	44.9
0°-180°	6834.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3156	3156	3156	3156	3156	
5°	3093	3062	3086	3097	3109	287
15°	2551	2542	2632	2721	2779	711
25°	1851	1866	1997	2134	2234	848
35°	1188	1218	1350	1509	1646	736
45°	570	604	705	843	974	447
55°	205	239	308	396	487	191
65°	23	44	98	118	131	39
75°	3	3	2	0	0	4
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°	3156.0	3156.0	3156.0	3156.0	3156.0
2.5°	3163.4	3133.5	3141.4	3141.2	3132.8
5°	3093.4	3062.1	3085.8	3096.8	3108.7
7.5°	2962.7	2938.2	2983.8	3018.0	3042.7
10°	2861.3	2840.4	2899.5	2946.1	2980.4
12.5°	2744.1	2728.0	2799.4	2863.3	2907.2
15°	2551.4	2542.4	2632.3	2720.7	2778.9
17.5°	2345.0	2344.7	2447.3	2557.0	2627.1
20°	2203.3	2207.7	2317.8	2438.7	2520.9
22.5°	2061.6	2072.0	2189.5	2315.6	2409.7
25°	1850.6	1865.5	1997.1	2133.8	2233.8
27.5°	1647.8	1669.6	1808.1	1950.1	2072.0
30°	1514.7	1540.0	1681.1	1830.5	1955.9
32.5°	1384.0	1414.1	1551.6	1709.6	1837.4
35°	1187.9	1217.8	1349.7	1508.6	1646.0
37.5°	985.4	1014.7	1143.6	1300.0	1448.4
40°	853.5	886.4	1009.3	1160.8	1311.6
42.5°	733.8	766.7	882.2	1031.1	1173.5
45°	569.5	603.9	705.4	842.8	974.1
47.5°	433.3	470.6	559.7	684.0	803.7
50°	352.7	390.0	477.9	587.4	702.4
52.5°	288.0	324.1	403.4	506.6	612.0
55°	204.6	238.9	308.4	396.0	487.1
57.5°	141.4	170.9	233.3	306.4	377.7
60°	102.3	130.7	189.3	248.7	306.9
62.5°	68.1	94.1	151.5	196.9	236.1
65°	22.9	43.8	97.7	117.9	131.3
67.5°	11.6	14.0	51.3	54.2	58.6
70°	9.2	9.2	24.4	26.1	30.5
72.5°	6.7	6.7	9.8	12.5	13.4
75°	3.1	3.1	1.5	0.0	0.0
77.5°	1.5	1.5	1.2	0.0	0.0
80°	1.5	1.5	0.0	0.0	0.0
82.5°	0.3	0.3	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)