

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1191397

Luminaire Tested: SQ2-FA-050D-L840-UNV-STD-W-4

Issue Date: 9/23/2025

Test Information

Test Method: LM-79-2019
Report Number: P1191397
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2502-345-2)
Test Lab: INNOVATION CENTER
Issue Date: 9/23/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-050D-L840-UNV-STD-W-4
Description: CORELITE SQ2 LED LUMINAIRE
FROSTED CONTINUOUS ASYMMETRIC ROLL LENS
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

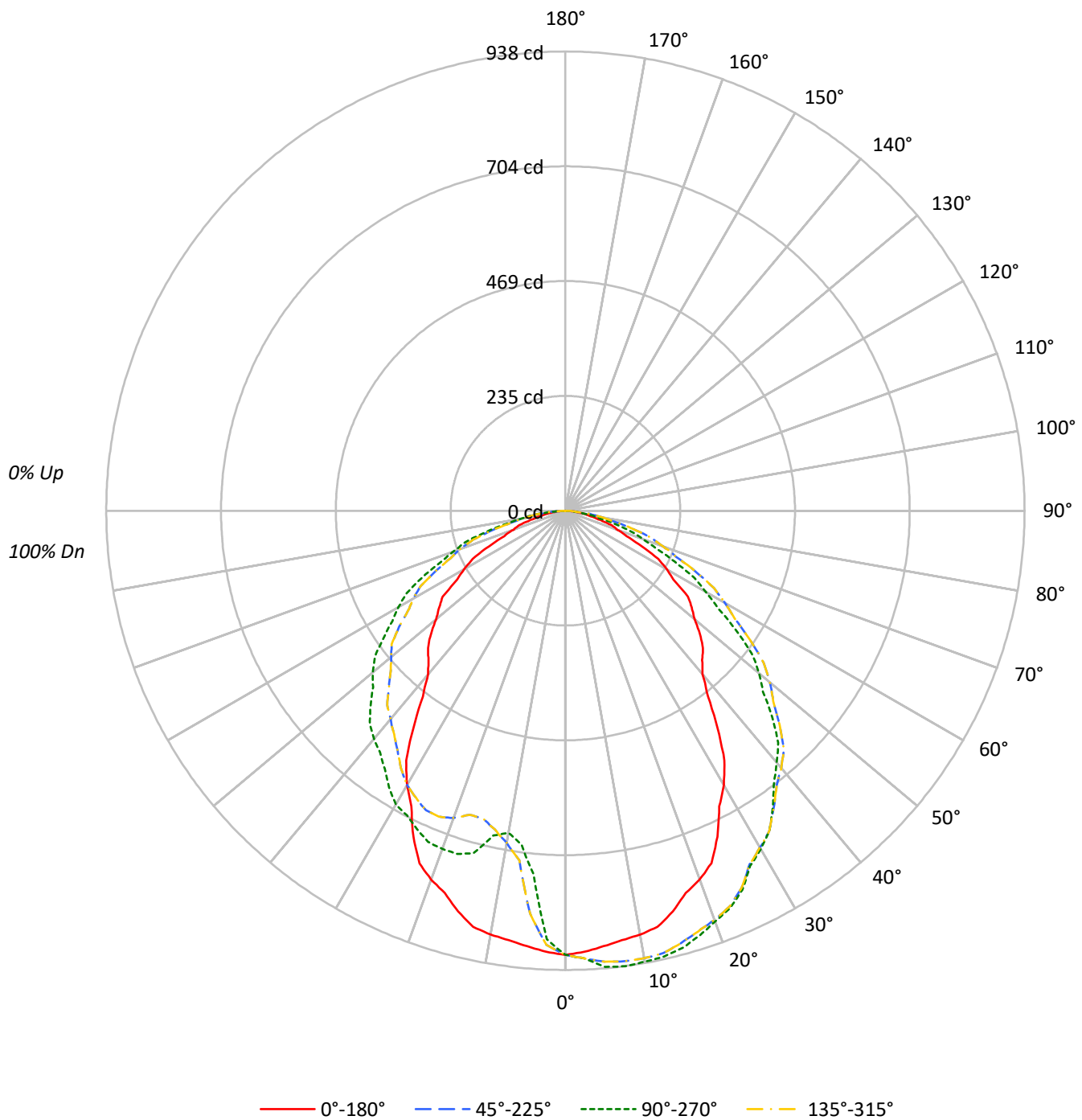
Lumens per Lamp: N/A
Luminaire Lumens: 2253.0 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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

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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	101	97	107	102	99	95	98	95	92		94	92	90		91
2	100	92	85	80	97	90	84	79	86	81	77		83	79	75		80
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	83	72	63	57	81	70	62	56	68	61	55		66	60	55		63
5	77	64	55	49	75	63	55	49	61	54	48		59	53	47		57
6	71	58	49	43	69	57	49	43	55	48	42		53	47	42		52
7	66	53	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14648	14648	14648	14648
5°	14475	15159	14475	12081
10°	14411	15334	14411	10953
15°	14165	15457	14165	12107
20°	13775	15345	13775	12627
25°	13092	15221	13092	12779
30°	12062	14881	12062	12914
35°	10673	14554	10673	12684
40°	9190	14155	9190	12821
45°	9072	13648	9072	12846
50°	8656	12984	8656	12896
55°	8611	11978	8611	12769
60°	7721	10672	7721	12716
65°	6583	9402	6583	12359
70°	5311	7969	5311	11452
75°	4604	6581	4604	10530
80°	3924	4900	3924	8498
85°	2612	2612	2612	5206

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 14129 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.6	3.6
10°-20°	228.1	10.1
20°-30°	346.4	15.4
30°-40°	406.6	18.0
40°-50°	412.6	18.3
50°-60°	361.5	16.0
60°-70°	256.4	11.4
70°-80°	132.0	5.9
80°-90°	27.7	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°	656.1	29.1
0°-40°	1062.7	47.2
0°-60°	1836.8	81.5
0°-90°	2253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2253.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	907	907	907	907	907	
5°	893	935	893	745	893	85
15°	847	925	847	724	847	238
25°	735	854	735	717	735	335
35°	542	738	542	644	542	337
45°	397	598	397	563	397	304
55°	306	426	306	454	306	265
65°	172	246	172	324	172	172
75°	74	106	74	169	74	80
85°	14	14	14	28	14	18
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	907.2	907.2	907.2	907.2	907.2	907.2	907.2	907.2	907.2	907.2	907.2
2.5°	901.5	915.3	915.6	915.6	915.6	915.6	915.6	915.3	901.5	901.5	887.5
5°	893.1	917.2	924.7	928.4	935.3	928.4	924.7	917.2	893.1	882.8	826.3
7.5°	884.7	917.0	928.3	934.7	938.1	934.7	928.3	917.0	884.7	838.6	720.1
10°	879.0	916.9	928.3	931.9	935.3	931.9	928.3	916.9	879.0	786.2	689.2
12.5°	870.6	911.2	925.5	929.0	932.5	929.0	925.5	911.2	870.6	739.3	666.7
15°	847.4	902.4	914.2	921.3	924.7	921.3	914.2	902.4	847.4	699.6	650.5
17.5°	818.6	885.3	900.8	907.2	910.0	907.2	900.8	885.3	818.6	663.9	651.2
20°	801.7	873.9	889.6	893.1	893.1	893.1	889.6	873.9	801.7	647.0	668.1
22.5°	779.2	859.6	875.5	876.3	879.0	876.3	875.5	859.6	779.2	627.2	676.5
25°	734.9	827.7	850.9	847.6	854.4	847.6	850.9	827.7	734.9	600.8	675.1
27.5°	680.7	797.6	814.3	817.9	817.9	817.9	814.3	797.6	680.7	574.8	661.0
30°	647.0	777.6	794.7	798.2	798.2	798.2	794.7	777.6	647.0	557.6	647.0
32.5°	604.8	760.2	775.0	775.7	775.7	775.7	775.0	760.2	604.8	540.1	624.5
35°	541.5	730.6	741.9	741.8	738.4	741.8	741.9	730.6	541.5	514.0	597.7
37.5°	478.2	692.7	708.2	703.2	699.7	703.2	708.2	692.7	478.2	487.1	575.2
40°	436.0	669.8	685.7	675.0	671.6	675.0	685.7	669.8	436.0	466.9	555.6
42.5°	413.5	644.5	660.3	646.9	643.5	646.9	660.3	644.5	413.5	447.2	538.7
45°	397.3	603.6	618.8	604.6	597.7	604.6	618.8	603.6	397.3	418.0	509.8
47.5°	372.7	554.2	575.9	554.7	547.8	554.7	575.9	554.2	372.7	387.8	483.8
50°	344.6	523.4	545.0	523.8	516.9	523.8	545.0	523.4	344.6	365.2	464.1
52.5°	324.9	492.7	511.2	487.2	480.3	487.2	511.2	492.7	324.9	337.3	447.3
55°	305.9	446.9	460.6	435.8	425.5	435.8	460.6	446.9	305.9	295.6	414.9
57.5°	261.6	395.7	410.0	381.6	369.9	381.6	410.0	395.7	261.6	252.7	381.2
60°	239.1	359.4	376.2	347.7	330.5	347.7	376.2	359.4	239.1	221.9	358.6
62.5°	213.8	320.4	342.5	314.0	296.8	314.0	342.5	320.4	213.8	202.1	333.3
65°	172.3	265.1	291.8	263.3	246.1	263.3	291.8	265.1	172.3	179.2	291.8
67.5°	135.0	214.8	244.7	213.5	199.7	213.5	244.7	214.8	135.0	157.7	253.9
70°	112.5	181.3	211.0	182.5	168.8	182.5	211.0	181.3	112.5	143.5	228.6
72.5°	98.5	150.7	182.8	151.6	140.6	151.6	182.8	150.7	98.5	129.4	197.6
75°	73.8	104.8	140.6	112.4	105.5	112.4	140.6	104.8	73.8	104.8	154.7
77.5°	53.4	67.9	99.2	75.2	72.4	75.2	99.2	67.9	53.4	78.9	112.5
80°	42.2	45.6	73.8	52.7	52.7	52.7	73.8	45.6	42.2	59.4	84.4
82.5°	28.1	31.6	51.3	35.8	33.1	35.8	51.3	31.6	28.1	42.6	59.1
85°	14.1	14.1	21.1	14.1	14.1	14.1	21.1	14.1	14.1	20.9	28.1
87.5°	2.8	2.8	5.6	2.8	2.8	2.8	5.6	2.8	2.8	5.6	5.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	907.2	907.2	907.2	907.2	907.2	907.2
2.5°	879.0	876.2	879.0	887.5	901.5	901.5
5°	762.6	745.4	762.6	826.3	882.8	893.1
7.5°	693.3	687.8	693.3	720.1	838.6	884.7
10°	668.1	668.1	668.1	689.2	786.2	879.0
12.5°	665.6	679.3	665.6	666.7	739.3	870.6
15°	707.1	724.3	707.1	650.5	699.6	847.4
17.5°	721.1	734.9	721.1	651.2	663.9	818.6
20°	721.1	734.9	721.1	668.1	647.0	801.7
22.5°	718.3	732.1	718.3	676.5	627.2	779.2
25°	710.4	717.3	710.4	675.1	600.8	734.9
27.5°	696.3	701.1	696.3	661.0	574.8	680.7
30°	682.4	692.7	682.4	647.0	557.6	647.0
32.5°	668.1	670.2	668.1	624.5	540.1	604.8
35°	646.9	643.5	646.9	597.7	514.0	541.5
37.5°	618.2	622.4	618.2	575.2	487.1	478.2
40°	601.4	608.3	601.4	555.6	466.9	436.0
42.5°	584.5	591.4	584.5	538.7	447.2	413.5
45°	559.1	562.6	559.1	509.8	418.0	397.3
47.5°	529.6	533.0	529.6	483.8	387.8	372.7
50°	509.9	513.4	509.9	464.1	365.2	344.6
52.5°	487.4	490.9	487.4	447.3	337.3	324.9
55°	453.6	453.6	453.6	414.9	295.6	305.9
57.5°	415.0	419.1	415.0	381.2	252.7	261.6
60°	386.9	393.8	386.9	358.6	221.9	239.1
62.5°	361.6	365.7	361.6	333.3	202.1	213.8
65°	320.0	323.5	320.0	291.8	179.2	172.3
67.5°	273.6	276.4	273.6	253.9	157.7	135.0
70°	242.6	242.6	242.6	228.6	143.5	112.5
72.5°	211.7	214.5	211.7	197.6	129.4	98.5
75°	165.3	168.8	165.3	154.7	104.8	73.8
77.5°	118.9	122.4	118.9	112.5	78.9	53.4
80°	88.0	91.4	88.0	84.4	59.4	42.2
82.5°	62.6	63.3	62.6	59.1	42.6	28.1
85°	28.1	28.1	28.1	28.1	20.9	14.1
87.5°	5.6	5.6	5.6	5.6	5.6	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

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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	19.50	21.11	19.87	21.43	21.74	20.73	22.34	21.09	22.65	22.96
	3H	20.65	22.09	21.02	22.42	22.78	22.02	23.47	22.40	23.80	24.16
	4H	21.03	22.39	21.43	22.74	23.12	22.45	23.81	22.85	24.16	24.53
	6H	21.23	22.49	21.64	22.86	23.25	22.64	23.90	23.06	24.27	24.66
	8H	21.29	22.49	21.71	22.88	23.28	22.69	23.89	23.11	24.28	24.68
	12H	21.31	22.46	21.74	22.84	23.27	22.70	23.85	23.13	24.23	24.66
4H	2H	20.52	21.88	20.92	22.23	22.60	21.43	22.79	21.83	23.14	23.51
	3H	21.95	23.09	22.36	23.49	23.89	22.95	24.08	23.36	24.48	24.88
	4H	22.43	23.45	22.86	23.87	24.30	23.44	24.47	23.87	24.88	25.32
	6H	22.70	23.59	23.15	24.03	24.49	23.71	24.60	24.16	25.04	25.50
	8H	22.77	23.60	23.23	24.05	24.51	23.77	24.60	24.23	25.05	25.51
	12H	22.81	23.55	23.29	24.03	24.50	23.79	24.54	24.27	25.02	25.49
8H	4H	22.88	23.72	23.35	24.16	24.63	23.71	24.55	24.17	24.99	25.45
	6H	23.26	23.95	23.75	24.44	24.92	24.05	24.74	24.55	25.23	25.71
	8H	23.38	24.00	23.89	24.51	25.00	24.15	24.77	24.66	25.28	25.77
	12H	23.45	24.00	23.96	24.49	25.05	24.20	24.75	24.71	25.24	25.80
12H	4H	22.92	23.67	23.40	24.15	24.62	23.71	24.46	24.19	24.94	25.41
	6H	23.34	23.96	23.85	24.47	24.95	24.08	24.70	24.59	25.21	25.69
	8H	23.52	24.06	24.02	24.55	25.12	24.22	24.77	24.73	25.26	25.82

END OF REPORT