

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: IRiS

Report Number: P1339871

Luminaire Tested: P3A09R159030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R159030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R15 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

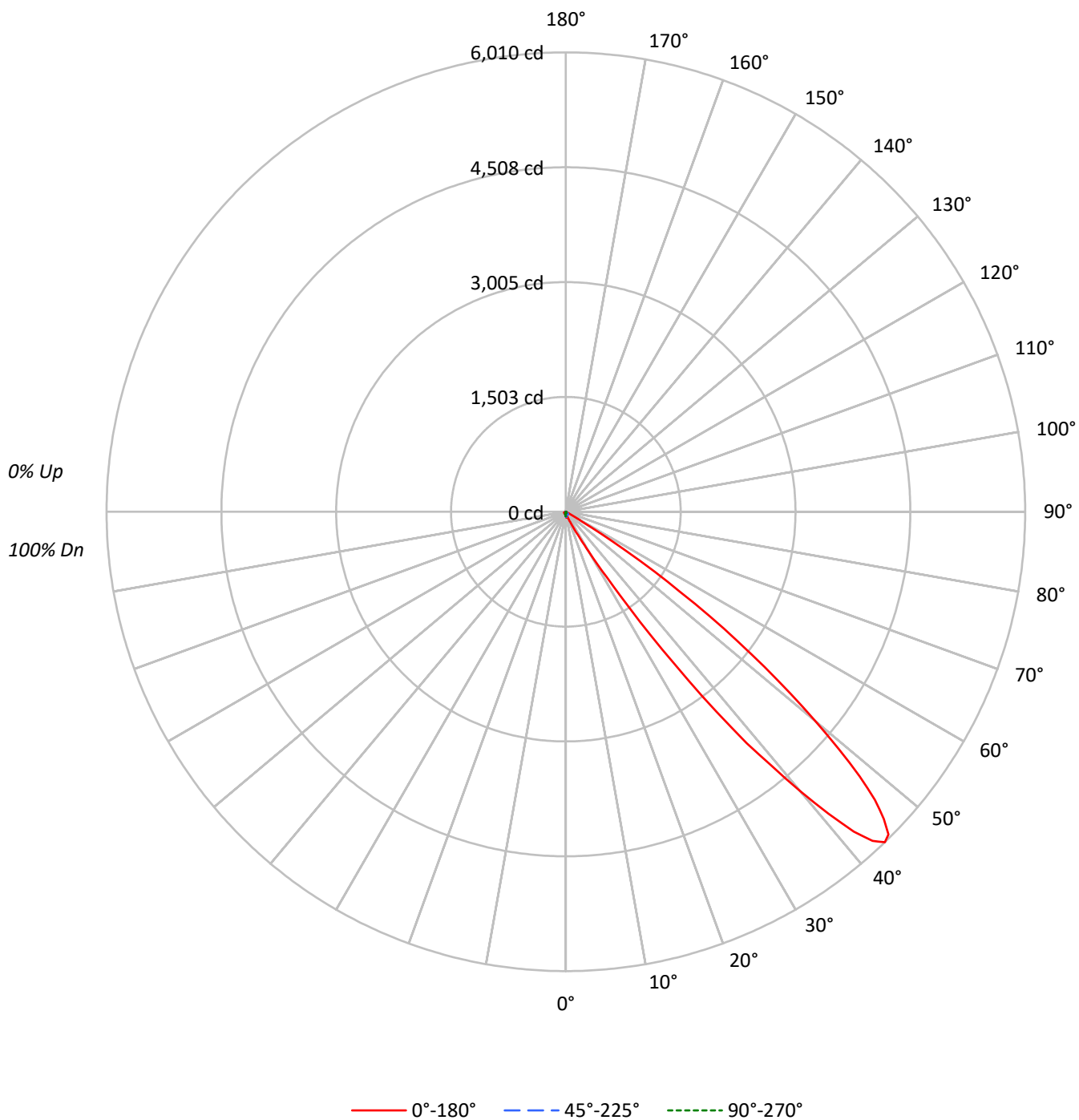
Lumens per Lamp: N/A
Luminaire Lumens: 671.0 lumens
Efficiency: N/A
Efficacy: 45.6 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.7
Input Voltage (V): NR
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

TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13047	13047	13047	13047	13047
5°	16201	14440	11776	10302	10169
10°	15943	12358	9085	8038	8194
15°	13212	8808	6538	6674	7128
20°	22962	7024	4994	5787	6557
25°	51148	8420	4041	5347	6146
30°	152986	10331	3570	5241	6431
35°	588869	11645	3212	5381	6799
40°	1366847	10162	3063	5553	7271
45°	1851324	7691	2698	6016	7877
50°	1451620	4571	2729	6379	8665
55°	696749	2064	2561	6920	9481
60°	63679	307	2368	7324	10569
65°	6953	0	2075	7627	11467
70°	1731	0	2565	8142	12438
75°	1694	593	3389	9065	14149
80°	1642	1642	4167	9345	15153
85°	1761	1761	6793	8303	16857

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1851324 cd/sqm

TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.1	0.8
10°-20°	10.6	1.6
20°-30°	25.4	3.8
30°-40°	138.8	20.7
40°-50°	336.1	50.1
50°-60°	134.1	20.0
60°-70°	11.6	1.7
70°-80°	6.5	1.0
80°-90°	2.9	0.4
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°	41.0	6.1
0°-40°	179.8	26.8
0°-60°	650.0	96.9
0°-90°	671.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	671.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	60	60	60	60	60	
5°	74	66	54	47	46	7
15°	58	39	29	29	31	20
25°	211	35	17	22	25	128
35°	2200	44	12	20	25	1554
45°	5970	25	9	19	25	4211
55°	1822	5	7	18	25	1698
65°	13	0	4	15	22	34
75°	2	1	4	11	17	2
85°	1	1	3	3	7	1
90°	0	0	0	0	0	

TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5	59.5
2.5°	66.9	66.9	67.6	66.9	66.9	66.9	66.9	66.2	66.2	66.2	64.2
5°	73.6	73.6	73.6	73.6	72.9	72.9	72.9	72.3	72.3	71.6	65.6
7.5°	76.3	76.3	75.6	75.6	74.9	74.9	74.3	73.6	72.9	72.3	62.9
10°	71.6	71.6	71.6	70.9	70.9	70.3	69.6	68.9	68.2	66.9	55.5
12.5°	63.6	63.6	64.2	63.6	62.9	62.2	60.9	60.2	59.5	58.2	46.2
15°	58.2	58.2	58.2	57.5	56.9	55.5	54.9	53.5	52.9	50.8	38.8
17.5°	74.3	74.3	73.6	72.3	69.6	67.6	64.2	61.6	58.2	54.2	33.5
20°	98.4	98.4	97.0	95.7	92.3	89.0	83.6	78.9	73.6	68.9	30.1
22.5°	142.5	144.5	140.5	135.8	131.1	123.1	115.7	108.4	99.0	91.0	30.8
25°	211.4	213.4	211.4	200.7	192.0	181.3	167.3	152.5	136.5	121.8	34.8
27.5°	342.6	343.9	340.5	314.5	300.4	272.3	247.5	223.5	196.7	169.9	38.1
30°	604.2	604.8	583.4	531.2	485.1	423.5	371.3	321.1	279.0	236.2	40.8
31°	795.5	776.8	731.3	668.4	594.8	511.8	440.2	375.3	312.4	266.3	41.5
32°	1010.3	1007.6	932.0	822.9	724.6	620.9	513.2	430.2	357.9	295.1	42.2
33°	1294.6	1296.0	1176.9	1048.4	887.2	748.0	606.8	493.1	406.1	329.2	43.5
34°	1738.9	1634.5	1494.7	1320.7	1101.3	891.8	708.5	566.0	449.6	362.0	43.5
35°	2199.8	2094.8	1940.9	1677.3	1376.2	1083.2	829.6	644.3	501.8	397.4	43.5
36°	2716.3	2627.4	2394.5	2058.0	1674.0	1263.8	958.1	734.6	553.3	429.5	42.8
37°	3274.3	3143.9	2885.6	2518.3	2004.5	1518.1	1114.6	824.3	604.8	464.3	41.5
38°	3841.0	3723.3	3397.4	2952.5	2399.2	1786.4	1271.2	910.6	652.3	490.4	39.5
39°	4270.5	4206.3	3883.2	3386.1	2714.3	2040.6	1432.4	1002.9	702.5	516.5	37.5
40°	4775.0	4671.3	4364.9	3750.0	3087.0	2299.5	1590.3	1084.5	744.0	537.2	35.5
41°	5235.3	5104.2	4717.5	4123.4	3385.4	2532.4	1740.2	1168.8	777.4	549.3	34.1
42°	5630.1	5477.5	5073.4	4443.2	3634.9	2718.4	1860.0	1229.0	808.9	559.3	32.1
43°	5885.6	5753.8	5356.4	4683.4	3848.4	2889.0	1971.7	1291.9	828.3	566.0	29.4
44°	6010.1	5876.9	5492.2	4833.9	3979.5	2991.3	2043.9	1335.4	849.7	574.7	27.4
45°	5969.9	5834.8	5462.8	4836.6	4020.3	3028.1	2074.7	1354.8	861.1	582.7	24.8
46°	5785.9	5690.9	5316.3	4710.8	3942.7	2988.6	2057.3	1340.1	857.1	582.7	22.1
47°	5527.7	5419.3	5062.7	4494.7	3754.7	2887.0	1987.1	1295.3	832.3	569.4	19.4
48°	5175.8	5083.4	4708.8	4151.5	3466.3	2665.5	1828.5	1222.4	793.5	543.3	16.7
49°	4734.2	4605.7	4257.2	3712.6	3090.3	2351.0	1620.4	1099.2	731.3	506.5	14.7
50°	4255.2	4096.6	3827.6	3273.0	2701.6	2015.8	1346.8	929.3	643.6	458.3	13.4
51°	3786.2	3624.9	3368.7	2897.0	2286.8	1672.6	1086.5	742.0	529.9	392.1	11.4
52°	3299.8	3164.6	2877.6	2506.9	1957.6	1355.5	905.2	627.6	440.2	329.2	9.4
53°	2815.4	2723.0	2450.1	2074.7	1572.9	1107.3	739.3	537.2	384.0	281.7	7.4
54°	2330.3	2229.3	2021.9	1687.3	1267.8	873.8	626.9	449.6	333.2	245.5	6.7
55°	1822.5	1770.3	1579.0	1286.6	960.8	697.2	508.5	386.7	279.0	205.4	5.4
56°	1403.7	1344.8	1170.2	933.3	713.9	545.9	411.5	315.8	236.2	171.9	4.0
57°	919.3	859.1	743.3	651.7	519.9	398.1	314.5	248.9	192.0	142.5	3.3
58°	543.3	488.4	470.3	401.4	346.6	270.3	232.2	185.3	141.8	112.4	2.0
59°	249.6	253.6	225.5	211.4	192.0	171.9	141.2	123.8	97.0	81.0	1.3
60°	145.2	137.2	133.8	119.8	106.4	94.3	85.0	74.9	60.9	52.2	0.7
62.5°	49.5	47.5	48.8	44.2	41.5	40.1	36.8	31.4	26.1	21.4	0.0
65°	13.4	13.4	12.7	12.0	11.4	10.7	10.0	8.7	8.0	6.7	0.0



TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.7	4.7	4.0	4.0	3.3	3.3	2.7	2.7	2.0	2.0	0.0
70°	2.7	2.7	2.7	2.0	2.0	2.0	1.3	1.3	1.3	0.7	0.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.3	1.3	0.7	0.7
75°	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.7
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.7	1.3
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	59.5	59.5	59.5	59.5	59.5	59.5
2.5°	61.6	58.9	55.5	53.5	52.9	52.2
5°	58.9	53.5	49.5	46.8	46.2	46.2
7.5°	52.9	46.8	42.8	41.5	40.8	40.8
10°	46.2	40.8	37.5	36.1	36.8	36.8
12.5°	38.8	34.1	32.8	32.8	33.5	34.1
15°	31.4	28.8	28.8	29.4	30.8	31.4
17.5°	26.1	24.8	25.4	26.8	28.1	29.4
20°	21.4	21.4	22.7	24.8	26.8	28.1
22.5°	18.1	18.7	20.7	22.7	25.4	26.8
25°	15.4	16.7	18.7	22.1	24.8	25.4
27.5°	13.4	15.4	18.1	21.4	24.1	25.4
30°	11.4	14.1	17.4	20.7	24.1	25.4
31°	10.7	13.4	16.7	20.7	24.1	25.4
32°	10.0	13.4	16.7	20.7	24.1	25.4
33°	9.4	12.7	16.7	20.1	24.1	25.4
34°	8.7	12.7	16.7	20.7	24.1	25.4
35°	8.0	12.0	16.1	20.1	23.4	25.4
36°	7.4	12.0	16.1	20.1	24.1	25.4
37°	6.7	12.0	16.1	20.1	23.4	25.4
38°	6.7	11.4	15.4	20.1	23.4	25.4
39°	6.0	10.7	15.4	20.1	23.4	25.4
40°	5.4	10.7	14.7	19.4	23.4	25.4
41°	4.7	10.0	14.7	19.4	23.4	25.4
42°	4.0	10.0	14.7	19.4	23.4	25.4
43°	3.3	9.4	14.1	19.4	23.4	25.4
44°	3.3	9.4	14.1	19.4	23.4	25.4
45°	2.7	8.7	13.4	19.4	23.4	25.4
46°	2.7	8.7	13.4	18.7	23.4	25.4
47°	2.0	8.7	13.4	18.7	23.4	25.4
48°	2.0	8.0	13.4	18.7	23.4	25.4
49°	1.3	8.0	13.4	18.7	23.4	25.4
50°	1.3	8.0	12.7	18.7	23.4	25.4
51°	1.3	8.0	12.7	18.7	23.4	25.4
52°	1.3	7.4	12.7	18.7	23.4	25.4
53°	1.3	7.4	12.7	18.7	23.4	25.4
54°	1.3	7.4	12.0	18.7	23.4	25.4
55°	1.3	6.7	12.0	18.1	23.4	24.8
56°	1.3	6.7	12.0	18.1	23.4	24.8
57°	1.3	6.7	11.4	18.1	23.4	24.8
58°	1.3	6.0	11.4	17.4	22.7	24.8
59°	1.3	6.0	10.7	17.4	22.7	24.1
60°	1.3	5.4	10.7	16.7	22.1	24.1
62.5°	1.3	4.7	9.4	16.1	21.4	22.7
65°	1.3	4.0	8.7	14.7	20.7	22.1



TEST NUMBER: P1339871

CATALOG NUMBER: P3A09R159030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.3	4.0	8.0	14.1	19.4	21.4
70°	1.3	4.0	7.4	12.7	18.7	19.4
72.5°	2.0	4.0	6.7	12.0	17.4	18.1
75°	2.7	4.0	6.0	10.7	16.1	16.7
77.5°	2.7	4.0	5.4	9.4	14.1	14.7
80°	2.7	3.3	4.7	7.4	11.4	12.0
82.5°	2.7	3.3	3.3	6.0	8.7	9.4
85°	2.0	2.7	2.7	3.3	6.0	6.7
87.5°	2.0	2.7	1.3	2.0	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)