

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: P1339991

Luminaire Tested: P3A09R159740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339991
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: P3A09R159740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

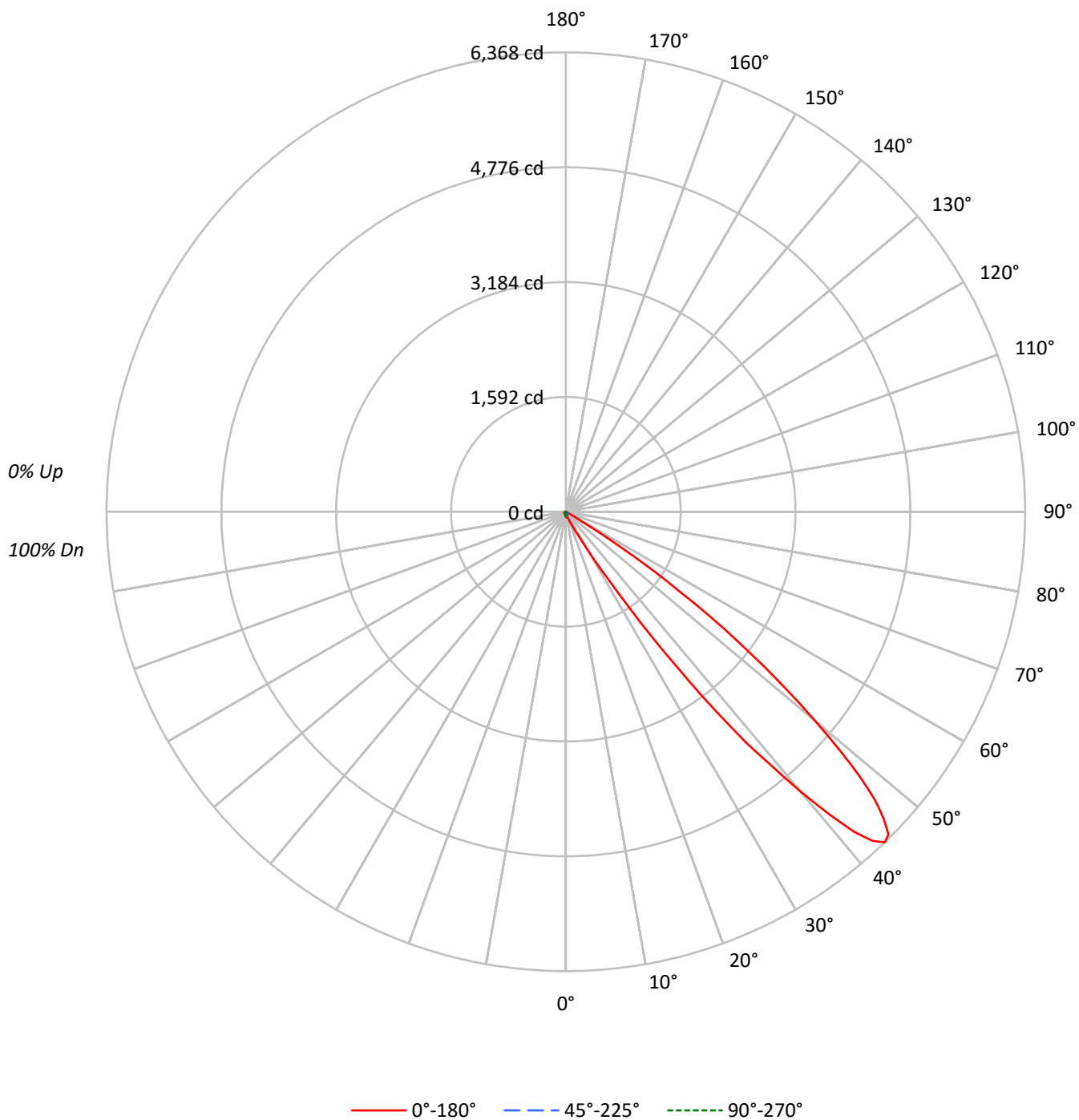
Lumens per Lamp: N/A
Luminaire Lumens: 711.0 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13837	13837	13837	13837	13837
5°	17169	15298	12481	10918	10764
10°	16900	13093	9619	8528	8684
15°	14007	9330	6924	7083	7560
20°	24315	7444	5297	6114	6954
25°	54197	8928	4283	5662	6508
30°	162101	10938	3773	5570	6811
35°	623991	12341	3426	5702	7201
40°	1448342	10763	3235	5897	7700
45°	1961692	8125	2853	6388	8342
50°	1538133	4844	2900	6789	9177
55°	738268	2179	2714	7302	10016
60°	67451	307	2500	7763	11183
65°	7368	0	2231	8094	12141
70°	1795	0	2757	8655	13207
75°	1779	593	3643	9574	14996
80°	1768	1768	4420	9850	16164
85°	1761	1761	7045	8806	17863

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1961692 cd/sqm

TEST NUMBER: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.4	0.8
10°-20°	11.2	1.6
20°-30°	26.9	3.8
30°-40°	147.1	20.7
40°-50°	356.1	50.1
50°-60°	142.1	20.0
60°-70°	12.3	1.7
70°-80°	6.9	1.0
80°-90°	3.0	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°	43.5	6.1
0°-40°	190.5	26.8
0°-60°	688.7	96.9
0°-90°	711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	711.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	63	63	63	63	63	
5°	78	70	57	50	49	7
15°	62	41	30	31	33	21
25°	224	37	18	23	27	135
35°	2331	46	13	21	27	1647
45°	6326	26	9	21	27	4462
55°	1931	6	7	19	26	1799
65°	14	0	4	16	23	36
75°	2	1	4	11	18	2
85°	1	1	3	4	7	1
90°	0	0	0	0	0	

TEST NUMBER: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1	63.1
2.5°	70.9	70.9	71.6	70.9	70.9	70.9	70.9	70.2	70.2	70.2	68.1
5°	78.0	78.0	78.0	78.0	77.3	77.3	77.3	76.6	76.6	75.9	69.5
7.5°	80.8	80.8	80.1	80.1	79.4	79.4	78.7	78.0	77.3	76.6	66.6
10°	75.9	75.9	75.9	75.1	75.1	74.4	73.7	73.0	72.3	70.9	58.8
12.5°	67.3	67.3	68.1	67.3	66.6	65.9	64.5	63.8	63.1	61.7	48.9
15°	61.7	61.7	61.7	61.0	60.3	58.8	58.1	56.7	56.0	53.9	41.1
17.5°	78.7	78.7	78.0	76.6	73.7	71.6	68.1	65.2	61.7	57.4	35.4
20°	104.2	104.2	102.8	101.4	97.8	94.3	88.6	83.7	78.0	73.0	31.9
22.5°	151.0	153.1	148.9	143.9	139.0	130.4	122.6	114.8	104.9	96.4	32.6
25°	224.0	226.1	224.0	212.7	203.5	192.1	177.2	161.6	144.6	129.0	36.9
27.5°	363.0	364.4	360.8	333.2	318.3	288.5	262.3	236.8	208.4	180.1	40.4
30°	640.2	640.9	618.2	562.9	514.0	448.8	393.5	340.3	295.6	250.3	43.2
31°	842.9	823.1	774.9	708.2	630.2	542.3	466.5	397.7	331.1	282.2	44.0
32°	1070.5	1067.7	987.5	872.0	767.8	657.9	543.8	455.8	379.3	312.6	44.7
33°	1371.8	1373.2	1247.0	1110.9	940.0	792.6	643.0	522.5	430.3	348.8	46.1
34°	1842.5	1731.9	1583.8	1399.4	1166.9	945.0	750.8	599.8	476.4	383.5	46.1
35°	2331.0	2219.7	2056.6	1777.3	1458.3	1147.8	879.1	682.7	531.7	421.1	46.1
36°	2878.3	2784.0	2537.3	2180.7	1773.8	1339.2	1015.2	778.4	586.3	455.1	45.4
37°	3469.5	3331.3	3057.6	2668.4	2124.0	1608.6	1181.1	873.4	640.9	492.0	44.0
38°	4070.0	3945.2	3600.0	3128.5	2542.2	1892.9	1347.0	964.9	691.2	519.6	41.8
39°	4525.1	4457.1	4114.7	3587.9	2876.1	2162.2	1517.8	1062.7	744.4	547.3	39.7
40°	5059.7	4949.8	4625.1	3973.6	3271.0	2436.6	1685.1	1149.2	788.3	569.3	37.6
41°	5547.4	5408.5	4998.7	4369.2	3587.2	2683.3	1843.9	1238.5	823.8	582.0	36.2
42°	5965.7	5804.0	5375.8	4708.0	3851.6	2880.4	1970.8	1302.3	857.1	592.7	34.0
43°	6236.5	6096.8	5675.7	4962.5	4077.8	3061.2	2089.2	1369.0	877.7	599.8	31.2
44°	6368.4	6227.3	5819.6	5122.0	4216.7	3169.6	2165.8	1415.0	900.3	609.0	29.1
45°	6325.8	6182.6	5788.4	5124.9	4260.0	3208.6	2198.4	1435.6	912.4	617.5	26.2
46°	6130.9	6030.2	5633.2	4991.6	4177.7	3166.8	2180.0	1420.0	908.1	617.5	23.4
47°	5857.2	5742.4	5364.5	4762.6	3978.5	3059.0	2105.5	1372.5	881.9	603.3	20.6
48°	5484.3	5386.5	4989.5	4398.9	3673.0	2824.4	1937.5	1295.2	840.8	575.7	17.7
49°	5016.4	4880.3	4510.9	3933.9	3274.6	2491.2	1717.0	1164.8	774.9	536.7	15.6
50°	4508.8	4340.8	4055.8	3468.1	2862.7	2136.0	1427.1	984.7	682.0	485.6	14.2
51°	4011.9	3841.0	3569.5	3069.7	2423.1	1772.3	1151.3	786.2	561.5	415.4	12.1
52°	3496.5	3353.3	3049.1	2656.4	2074.3	1436.3	959.2	665.0	466.5	348.8	9.9
53°	2983.2	2885.4	2596.1	2198.4	1666.7	1173.3	783.4	569.3	406.9	298.5	7.8
54°	2469.2	2362.2	2142.4	1787.9	1343.4	925.9	664.3	476.4	353.0	260.2	7.1
55°	1931.1	1875.8	1673.1	1363.3	1018.0	738.7	538.8	409.8	295.6	217.6	5.7
56°	1487.3	1425.0	1239.9	989.0	756.4	578.5	436.0	334.6	250.3	182.2	4.3
57°	974.1	910.3	787.6	690.5	550.8	421.8	333.2	263.7	203.5	151.0	3.5
58°	575.7	517.5	498.4	425.4	367.2	286.4	246.0	196.4	150.3	119.1	2.1
59°	264.4	268.7	238.9	224.0	203.5	182.2	149.6	131.2	102.8	85.8	1.4
60°	153.8	145.3	141.8	126.9	112.7	100.0	90.0	79.4	64.5	55.3	0.7
62.5°	52.5	50.3	51.8	46.8	44.0	42.5	39.0	33.3	27.6	22.7	0.0
65°	14.2	14.2	13.5	12.8	12.1	11.3	10.6	9.2	8.5	7.1	0.0



TEST NUMBER: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	5.0	5.0	4.3	4.3	3.5	3.5	2.8	2.8	2.1	2.1	0.0
70°	2.8	2.8	2.8	2.1	2.1	2.1	1.4	1.4	1.4	0.7	0.0
72.5°	2.1	2.1	2.1	2.1	2.1	2.1	1.4	1.4	1.4	0.7	0.7
75°	2.1	2.1	2.1	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	1.4
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4
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: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	63.1	63.1	63.1	63.1	63.1	63.1
2.5°	65.2	62.4	58.8	56.7	56.0	55.3
5°	62.4	56.7	52.5	49.6	48.9	48.9
7.5°	56.0	49.6	45.4	44.0	43.2	43.2
10°	48.9	43.2	39.7	38.3	39.0	39.0
12.5°	41.1	36.2	34.7	34.7	35.4	36.2
15°	33.3	30.5	30.5	31.2	32.6	33.3
17.5°	27.6	26.2	26.9	28.4	29.8	31.2
20°	22.7	22.7	24.1	26.2	28.4	29.8
22.5°	19.1	19.9	22.0	24.1	26.9	28.4
25°	16.3	17.7	19.9	23.4	26.2	26.9
27.5°	14.2	16.3	19.1	22.7	25.5	26.9
30°	12.1	14.9	18.4	22.0	25.5	26.9
31°	11.3	14.2	17.7	22.0	25.5	26.9
32°	10.6	14.2	17.7	22.0	25.5	26.9
33°	9.9	13.5	17.7	21.3	25.5	26.9
34°	9.2	13.5	17.7	22.0	25.5	26.9
35°	8.5	12.8	17.0	21.3	24.8	26.9
36°	7.8	12.8	17.0	21.3	25.5	26.9
37°	7.1	12.8	17.0	21.3	24.8	26.9
38°	7.1	12.1	16.3	21.3	24.8	26.9
39°	6.4	11.3	16.3	21.3	24.8	26.9
40°	5.7	11.3	15.6	20.6	24.8	26.9
41°	5.0	10.6	15.6	20.6	24.8	26.9
42°	4.3	10.6	15.6	20.6	24.8	26.9
43°	3.5	9.9	14.9	20.6	24.8	26.9
44°	3.5	9.9	14.9	20.6	24.8	26.9
45°	2.8	9.2	14.2	20.6	24.8	26.9
46°	2.8	9.2	14.2	19.9	24.8	26.9
47°	2.1	9.2	14.2	19.9	24.8	26.9
48°	2.1	8.5	14.2	19.9	24.8	26.9
49°	1.4	8.5	14.2	19.9	24.8	26.9
50°	1.4	8.5	13.5	19.9	24.8	26.9
51°	1.4	8.5	13.5	19.9	24.8	26.9
52°	1.4	7.8	13.5	19.9	24.8	26.9
53°	1.4	7.8	13.5	19.9	24.8	26.9
54°	1.4	7.8	12.8	19.9	24.8	26.9
55°	1.4	7.1	12.8	19.1	24.8	26.2
56°	1.4	7.1	12.8	19.1	24.8	26.2
57°	1.4	7.1	12.1	19.1	24.8	26.2
58°	1.4	6.4	12.1	18.4	24.1	26.2
59°	1.4	6.4	11.3	18.4	24.1	25.5
60°	1.4	5.7	11.3	17.7	23.4	25.5
62.5°	1.4	5.0	9.9	17.0	22.7	24.1
65°	1.4	4.3	9.2	15.6	22.0	23.4



TEST NUMBER: P1339991

CATALOG NUMBER: P3A09R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.4	4.3	8.5	14.9	20.6	22.7
70°	1.4	4.3	7.8	13.5	19.9	20.6
72.5°	2.1	4.3	7.1	12.8	18.4	19.1
75°	2.8	4.3	6.4	11.3	17.0	17.7
77.5°	2.8	4.3	5.7	9.9	14.9	15.6
80°	2.8	3.5	5.0	7.8	12.1	12.8
82.5°	2.8	3.5	3.5	6.4	9.2	9.9
85°	2.1	2.8	2.8	3.5	6.4	7.1
87.5°	2.1	2.8	1.4	2.1	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)