

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: P1343536

Luminaire Tested: P3A13R159740DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343536
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: P3A13R159740DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

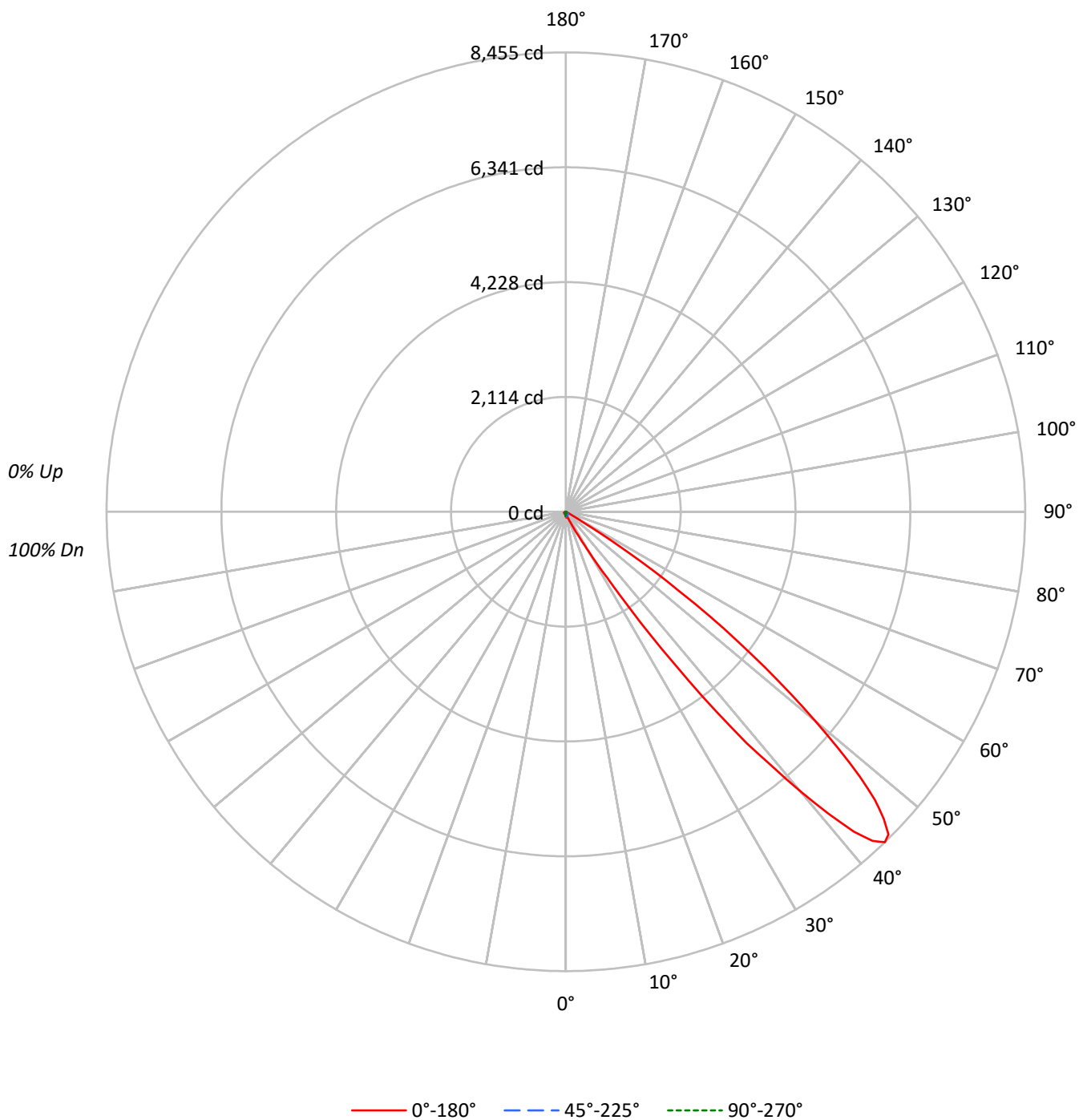
Lumens per Lamp: N/A
Luminaire Lumens: 944.0 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	18376	18376	18376	18376	18376
5°	22782	20295	16575	14506	14286
10°	22422	17390	12781	11311	11534
15°	18593	12395	9194	9398	10034
20°	32296	9894	7024	8121	9217
25°	71956	11831	5686	7525	8662
30°	215223	14534	5013	7394	9065
35°	828481	16383	4524	7549	9583
40°	1922946	14284	4322	7815	10248
45°	2604549	10792	3783	8466	11102
50°	2042202	6413	3855	9006	12213
55°	980228	2867	3594	9711	13304
60°	89598	395	3289	10306	14867
65°	9755	0	2906	10740	16137
70°	2436	0	3590	11476	17503
75°	2372	763	4745	12793	19910
80°	2399	2399	5935	13133	21341
85°	2264	2264	9561	11825	23650

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2604549 cd/sqm

TEST NUMBER: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.2	0.8
10°-20°	14.9	1.6
20°-30°	35.7	3.8
30°-40°	195.3	20.7
40°-50°	472.8	50.1
50°-60°	188.6	20.0
60°-70°	16.3	1.7
70°-80°	9.2	1.0
80°-90°	4.1	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°	57.7	6.1
0°-40°	253.0	26.8
0°-60°	914.4	96.9
0°-90°	944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	944.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	84	84	84	84	84	
5°	104	92	75	66	65	10
15°	82	55	40	41	44	29
25°	297	49	24	31	36	179
35°	3095	61	17	28	36	2187
45°	8399	35	12	27	36	5925
55°	2564	8	9	25	35	2389
65°	19	0	6	21	31	48
75°	3	1	6	15	24	3
85°	1	1	4	5	9	1
90°	0	0	0	0	0	

TEST NUMBER: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
2.5°	94.1	94.1	95.1	94.1	94.1	94.1	94.1	93.2	93.2	93.2	90.4
5°	103.5	103.5	103.5	103.5	102.6	102.6	102.6	101.7	101.7	100.7	92.2
7.5°	107.3	107.3	106.4	106.4	105.4	105.4	104.5	103.5	102.6	101.7	88.5
10°	100.7	100.7	100.7	99.8	99.8	98.8	97.9	96.9	96.0	94.1	78.1
12.5°	89.4	89.4	90.4	89.4	88.5	87.5	85.7	84.7	83.8	81.9	64.9
15°	81.9	81.9	81.9	80.9	80.0	78.1	77.2	75.3	74.4	71.5	54.6
17.5°	104.5	104.5	103.5	101.7	97.9	95.1	90.4	86.6	81.9	76.2	47.1
20°	138.4	138.4	136.5	134.6	129.9	125.2	117.7	111.1	103.5	96.9	42.4
22.5°	200.5	203.3	197.7	191.1	184.5	173.2	162.8	152.5	139.3	128.0	43.3
25°	297.4	300.3	297.4	282.4	270.1	255.1	235.3	214.6	192.0	171.3	48.9
27.5°	481.9	483.8	479.1	442.4	422.6	383.1	348.3	314.4	276.7	239.1	53.7
30°	850.0	850.9	820.8	747.4	682.4	595.8	522.4	451.8	392.5	332.3	57.4
31°	1119.2	1092.8	1028.8	940.3	836.8	720.1	619.3	528.0	439.6	374.6	58.4
32°	1421.3	1417.5	1311.2	1157.7	1019.4	873.5	721.9	605.2	503.6	415.1	59.3
33°	1821.3	1823.2	1655.7	1474.9	1248.1	1052.3	853.7	693.7	571.3	463.1	61.2
34°	2446.3	2299.5	2102.8	1858.0	1549.3	1254.7	996.8	796.3	632.5	509.2	61.2
35°	3094.9	2947.1	2730.6	2359.7	1936.2	1523.9	1167.2	906.4	705.9	559.1	61.2
36°	3821.5	3696.3	3368.8	2895.3	2355.0	1778.0	1347.9	1033.5	778.4	604.3	60.2
37°	4606.5	4423.0	4059.6	3542.9	2820.0	2135.7	1568.1	1159.6	850.9	653.2	58.4
38°	5403.8	5238.1	4779.7	4153.8	3375.3	2513.2	1788.4	1281.1	917.7	689.9	55.5
39°	6008.0	5917.7	5463.1	4763.7	3818.7	2870.8	2015.2	1410.9	988.3	726.7	52.7
40°	6717.7	6571.9	6140.8	5275.7	4343.0	3235.1	2237.4	1525.8	1046.7	755.8	49.9
41°	7365.3	7180.8	6636.8	5801.0	4762.8	3562.7	2448.2	1644.4	1093.7	772.8	48.0
42°	7920.7	7706.1	7137.6	6250.9	5113.8	3824.3	2616.7	1729.1	1138.0	786.9	45.2
43°	8280.2	8094.8	7535.7	6588.8	5414.1	4064.3	2773.9	1817.6	1165.3	796.3	41.4
44°	8455.3	8268.0	7726.8	6800.6	5598.6	4208.4	2875.5	1878.7	1195.4	808.5	38.6
45°	8398.8	8208.7	7685.4	6804.3	5656.0	4260.1	2918.8	1906.0	1211.4	819.8	34.8
46°	8140.0	8006.3	7479.2	6627.4	5546.8	4204.6	2894.4	1885.3	1205.7	819.8	31.1
47°	7776.7	7624.2	7122.5	6323.4	5282.3	4061.5	2795.5	1822.3	1170.9	801.0	27.3
48°	7281.6	7151.7	6624.6	5840.5	4876.7	3750.0	2572.5	1719.7	1116.3	764.3	23.5
49°	6660.3	6479.6	5989.2	5223.0	4347.7	3307.6	2279.7	1546.5	1028.8	712.5	20.7
50°	5986.4	5763.3	5384.9	4604.6	3800.8	2836.0	1894.7	1307.4	905.5	644.8	18.8
51°	5326.6	5099.7	4739.2	4075.6	3217.2	2353.1	1528.6	1043.9	745.5	551.6	16.0
52°	4642.3	4452.1	4048.3	3526.9	2754.1	1907.0	1273.5	882.9	619.3	463.1	13.2
53°	3960.8	3830.9	3446.9	2918.8	2212.9	1557.8	1040.1	755.8	540.3	396.3	10.4
54°	3278.4	3136.3	2844.5	2373.8	1783.7	1229.3	882.0	632.5	468.7	345.4	9.4
55°	2564.0	2490.6	2221.4	1810.0	1351.6	980.8	715.4	544.0	392.5	289.0	7.5
56°	1974.8	1891.9	1646.3	1313.1	1004.3	768.1	578.9	444.3	332.3	241.9	5.6
57°	1293.3	1208.6	1045.7	916.8	731.4	560.0	442.4	350.1	270.1	200.5	4.7
58°	764.3	687.1	661.7	564.8	487.6	380.3	326.6	260.7	199.5	158.1	2.8
59°	351.1	356.7	317.2	297.4	270.1	241.9	198.6	174.1	136.5	113.9	1.9
60°	204.3	193.0	188.3	168.5	149.7	132.7	119.5	105.4	85.7	73.4	0.9
62.5°	69.7	66.8	68.7	62.1	58.4	56.5	51.8	44.2	36.7	30.1	0.0
65°	18.8	18.8	17.9	16.9	16.0	15.1	14.1	12.2	11.3	9.4	0.0



TEST NUMBER: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	6.6	6.6	5.6	5.6	4.7	4.7	3.8	3.8	2.8	2.8	0.0
70°	3.8	3.8	3.8	2.8	2.8	2.8	1.9	1.9	1.9	0.9	0.0
72.5°	2.8	2.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9	0.9	0.9
75°	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.9
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.9	1.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.9
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	83.8	83.8	83.8	83.8	83.8	83.8
2.5°	86.6	82.8	78.1	75.3	74.4	73.4
5°	82.8	75.3	69.7	65.9	64.9	64.9
7.5°	74.4	65.9	60.2	58.4	57.4	57.4
10°	64.9	57.4	52.7	50.8	51.8	51.8
12.5°	54.6	48.0	46.1	46.1	47.1	48.0
15°	44.2	40.5	40.5	41.4	43.3	44.2
17.5°	36.7	34.8	35.8	37.7	39.5	41.4
20°	30.1	30.1	32.0	34.8	37.7	39.5
22.5°	25.4	26.4	29.2	32.0	35.8	37.7
25°	21.6	23.5	26.4	31.1	34.8	35.8
27.5°	18.8	21.6	25.4	30.1	33.9	35.8
30°	16.0	19.8	24.5	29.2	33.9	35.8
31°	15.1	18.8	23.5	29.2	33.9	35.8
32°	14.1	18.8	23.5	29.2	33.9	35.8
33°	13.2	17.9	23.5	28.2	33.9	35.8
34°	12.2	17.9	23.5	29.2	33.9	35.8
35°	11.3	16.9	22.6	28.2	32.9	35.8
36°	10.4	16.9	22.6	28.2	33.9	35.8
37°	9.4	16.9	22.6	28.2	32.9	35.8
38°	9.4	16.0	21.6	28.2	32.9	35.8
39°	8.5	15.1	21.6	28.2	32.9	35.8
40°	7.5	15.1	20.7	27.3	32.9	35.8
41°	6.6	14.1	20.7	27.3	32.9	35.8
42°	5.6	14.1	20.7	27.3	32.9	35.8
43°	4.7	13.2	19.8	27.3	32.9	35.8
44°	4.7	13.2	19.8	27.3	32.9	35.8
45°	3.8	12.2	18.8	27.3	32.9	35.8
46°	3.8	12.2	18.8	26.4	32.9	35.8
47°	2.8	12.2	18.8	26.4	32.9	35.8
48°	2.8	11.3	18.8	26.4	32.9	35.8
49°	1.9	11.3	18.8	26.4	32.9	35.8
50°	1.9	11.3	17.9	26.4	32.9	35.8
51°	1.9	11.3	17.9	26.4	32.9	35.8
52°	1.9	10.4	17.9	26.4	32.9	35.8
53°	1.9	10.4	17.9	26.4	32.9	35.8
54°	1.9	10.4	16.9	26.4	32.9	35.8
55°	1.9	9.4	16.9	25.4	32.9	34.8
56°	1.9	9.4	16.9	25.4	32.9	34.8
57°	1.9	9.4	16.0	25.4	32.9	34.8
58°	1.9	8.5	16.0	24.5	32.0	34.8
59°	1.9	8.5	15.1	24.5	32.0	33.9
60°	1.9	7.5	15.1	23.5	31.1	33.9
62.5°	1.9	6.6	13.2	22.6	30.1	32.0
65°	1.9	5.6	12.2	20.7	29.2	31.1



TEST NUMBER: P1343536

CATALOG NUMBER: P3A13R159740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.9	5.6	11.3	19.8	27.3	30.1
70°	1.9	5.6	10.4	17.9	26.4	27.3
72.5°	2.8	5.6	9.4	16.9	24.5	25.4
75°	3.8	5.6	8.5	15.1	22.6	23.5
77.5°	3.8	5.6	7.5	13.2	19.8	20.7
80°	3.8	4.7	6.6	10.4	16.0	16.9
82.5°	3.8	4.7	4.7	8.5	12.2	13.2
85°	2.8	3.8	3.8	4.7	8.5	9.4
87.5°	2.8	3.8	1.9	2.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)