

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: P1343972

Luminaire Tested: P3A13R209050DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343972
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R209050DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R20 optic, 5000K CCT AND, 90CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

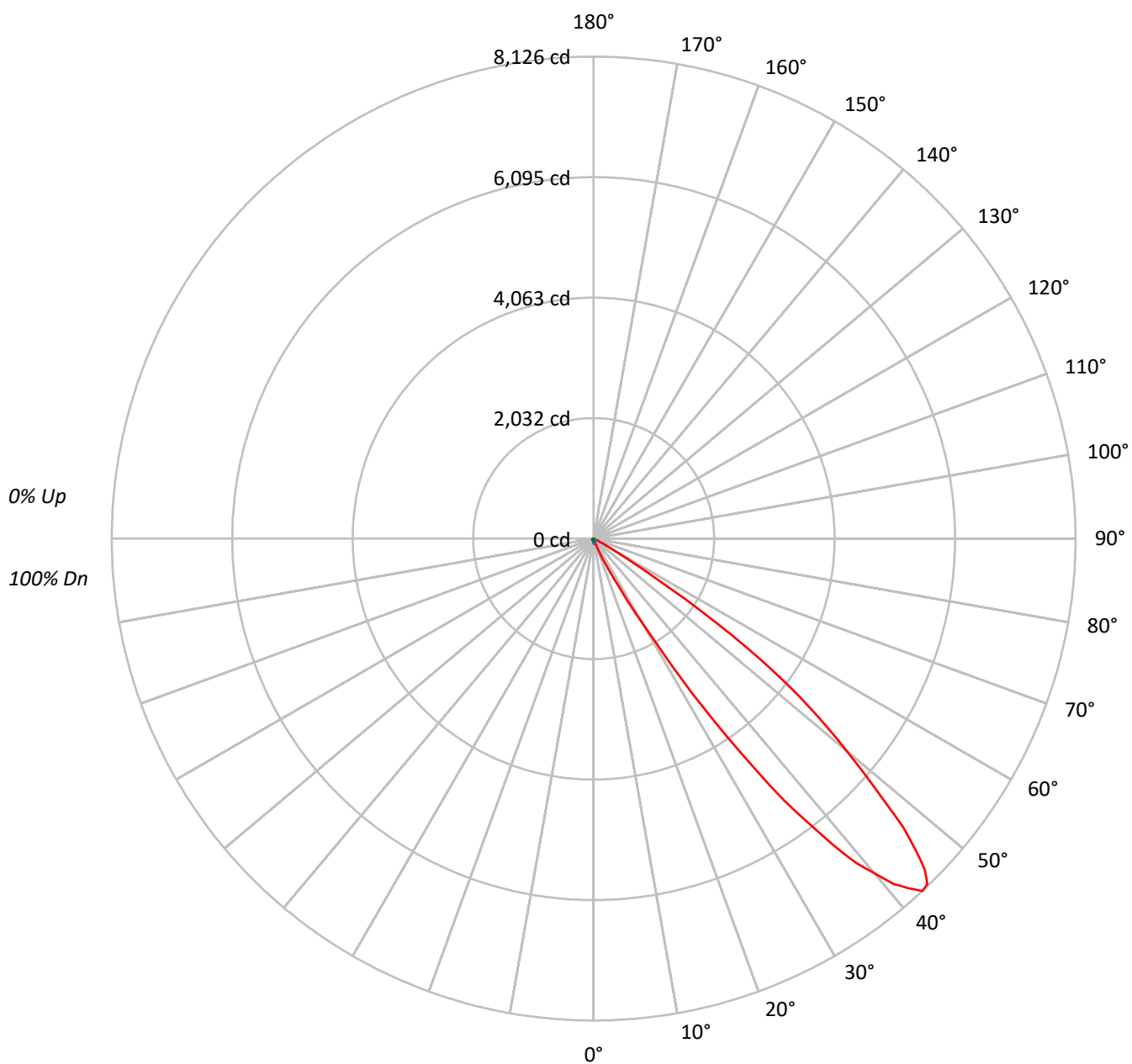
Lumens per Lamp: N/A
Luminaire Lumens: 1129.0 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1343972

CATALOG NUMBER: P3A13R209050DE010 E3CA451MB

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°

TEST NUMBER: P1343972

CATALOG NUMBER: P3A13R209050DE010 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		
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21		
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	17214	17214	17214	17214	17214
5°	20075	18688	16113	14022	13537
10°	19839	17011	12759	10866	10621
15°	17344	13008	9398	8672	9149
20°	25739	10898	6931	7421	8167
25°	110885	11299	5395	6678	7960
30°	419356	13698	4558	6457	7799
35°	1271271	16463	4256	6532	8245
40°	2108064	16402	3635	6985	8817
45°	2450239	11195	3287	7226	9551
50°	1902027	6141	3241	7607	10848
55°	1100845	4052	3250	8525	11775
60°	186125	921	2807	8859	13025
65°	14321	0	3321	9910	14839
70°	2052	0	4103	10899	16990
75°	1779	932	4490	12624	19741
80°	1389	1389	6693	13386	22730
85°	2768	2768	10567	13335	23902

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2450239 cd/sqm

TEST NUMBER: P1343972

CATALOG NUMBER: P3A13R209050DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.7	0.6
10°-20°	14.1	1.3
20°-30°	45.1	4.0
30°-40°	287.9	25.5
40°-50°	527.0	46.7
50°-60°	216.5	19.2
60°-70°	18.3	1.6
70°-80°	9.1	0.8
80°-90°	4.3	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°	66.0	5.8
0°-40°	353.9	31.3
0°-60°	1097.3	97.2
0°-90°	1129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1129.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	78	78	78	78	78	
5°	91	85	73	64	62	9
15°	76	57	41	38	40	24
25°	458	47	22	28	33	301
35°	4749	62	16	24	31	3006
45°	7901	36	11	23	31	5673
55°	2880	11	8	22	31	2517
65°	28	0	6	19	29	90
75°	2	1	5	15	23	3
85°	1	1	4	5	10	1
90°	0	0	0	0	0	

TEST NUMBER: P1343972

CATALOG NUMBER: P3A13R209050DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
2.5°	85.9	85.9	85.9	84.9	84.9	85.9	84.9	84.9	84.9	84.9	83.8
5°	91.2	91.2	91.2	91.2	91.2	91.2	91.2	90.2	90.2	89.1	84.9
7.5°	93.4	93.4	93.4	93.4	92.3	92.3	92.3	92.3	91.2	90.2	82.8
10°	89.1	89.1	89.1	88.1	88.1	88.1	87.0	87.0	85.9	84.9	76.4
12.5°	80.6	80.6	80.6	80.6	79.6	79.6	78.5	78.5	77.5	76.4	66.8
15°	76.4	76.4	76.4	75.3	75.3	74.3	73.2	72.1	71.1	69.0	57.3
17.5°	82.8	82.8	81.7	81.7	79.6	77.5	76.4	73.2	71.1	67.9	50.9
20°	110.3	111.4	107.2	104.0	101.9	95.5	92.3	87.0	82.8	77.5	46.7
22.5°	222.8	218.6	211.1	199.5	185.7	174.0	152.8	135.8	124.1	108.2	45.6
25°	458.3	454.1	433.9	417.0	374.5	341.6	296.0	258.9	220.7	183.6	46.7
27.5°	871.1	842.4	837.1	759.7	700.3	615.4	527.3	453.0	385.1	309.8	49.9
30°	1656.2	1623.3	1507.7	1391.0	1230.8	1049.3	876.4	715.1	580.4	458.3	54.1
31°	2101.8	2133.7	1997.9	1763.4	1526.8	1294.4	1057.8	853.0	679.0	527.3	56.2
32°	2762.8	2623.8	2480.6	2239.8	1896.0	1598.9	1301.8	1006.9	777.7	601.6	58.4
33°	3387.8	3306.1	3087.5	2787.2	2374.5	1957.5	1572.4	1188.3	898.7	691.8	59.4
34°	4054.1	3963.9	3786.7	3355.9	2902.9	2356.5	1842.9	1397.3	1043.0	779.8	60.5
35°	4749.0	4710.8	4369.2	3995.7	3438.7	2779.8	2168.7	1626.5	1184.1	860.5	61.5
36°	5448.2	5325.1	5057.8	4512.4	3931.0	3171.3	2510.3	1839.8	1327.3	956.0	61.5
37°	5974.5	5946.9	5592.5	5060.9	4377.7	3589.3	2805.3	2076.4	1471.6	1037.7	61.5
38°	6554.8	6445.5	6085.9	5544.8	4797.8	3972.4	3114.0	2282.2	1608.5	1111.9	60.5
39°	7043.9	6881.6	6518.8	5984.0	5164.9	4263.1	3359.1	2481.7	1729.4	1173.5	59.4
40°	7364.4	7251.9	6873.1	6271.5	5498.1	4537.9	3607.4	2646.1	1819.6	1220.1	57.3
41°	7717.7	7530.9	7156.4	6551.6	5740.0	4779.8	3763.3	2754.3	1889.6	1250.9	55.2
42°	7928.8	7776.0	7331.5	6739.4	5912.9	4917.7	3890.7	2837.1	1932.1	1266.8	50.9
43°	8126.2	7918.2	7485.3	6848.7	6027.5	5015.3	3949.0	2875.3	1941.6	1266.8	45.6
44°	8099.6	7902.3	7453.5	6863.6	6053.0	5044.0	3973.4	2876.4	1926.8	1250.9	40.3
45°	7901.2	7704.9	7300.7	6734.1	5961.7	4987.7	3924.6	2833.9	1885.4	1223.3	36.1
46°	7537.3	7342.1	7032.3	6517.7	5792.0	4860.4	3811.1	2741.6	1816.4	1178.8	31.8
47°	7141.6	6951.6	6634.4	6168.6	5502.3	4633.4	3646.6	2612.2	1719.9	1114.0	28.6
48°	6567.6	6448.7	6130.4	5732.6	5100.2	4277.9	3358.0	2401.0	1590.4	1030.2	24.4
49°	6060.4	5935.2	5656.2	5228.6	4576.1	3864.1	3013.2	2144.3	1421.7	936.9	21.2
50°	5575.5	5466.2	5208.4	4725.7	4102.9	3364.4	2547.4	1820.7	1209.5	821.2	18.0
51°	5101.3	5019.6	4756.4	4312.9	3680.6	2980.3	2206.9	1516.2	999.5	681.2	17.0
52°	4624.9	4615.3	4329.9	3881.1	3270.0	2597.3	1875.8	1279.6	847.7	571.9	15.9
53°	4112.4	4050.9	3801.5	3398.4	2811.6	2198.4	1590.4	1079.0	730.0	487.0	13.8
54°	3528.9	3459.9	3192.5	2828.6	2297.1	1800.5	1281.7	872.1	608.0	411.7	12.7
55°	2879.5	2761.8	2567.6	2194.1	1794.1	1374.0	989.9	690.7	485.9	342.7	10.6
56°	2184.6	2066.8	1957.5	1682.7	1316.7	1024.9	737.4	529.4	379.8	270.6	9.5
57°	1519.3	1513.0	1333.7	1122.5	880.6	698.1	505.0	373.5	268.4	210.1	7.4
58°	985.7	952.8	838.2	716.2	576.1	436.1	324.7	253.6	182.5	143.2	6.4
59°	690.7	624.9	563.4	477.4	362.9	274.8	209.0	162.3	126.3	99.7	4.2
60°	424.4	410.6	369.2	290.7	235.5	194.2	156.0	119.9	92.3	71.1	2.1
62.5°	121.0	123.1	111.4	98.7	84.9	73.2	65.8	56.2	46.7	37.1	0.0
65°	27.6	26.5	28.6	26.5	24.4	24.4	21.2	19.1	17.0	15.9	0.0



TEST NUMBER: P1343972

CATALOG NUMBER: P3A13R209050DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	8.5	8.5	7.4	7.4	7.4	6.4	6.4	5.3	5.3	4.2	0.0
70°	3.2	3.2	3.2	3.2	3.2	2.1	2.1	2.1	1.1	1.1	0.0
72.5°	3.2	3.2	3.2	2.1	2.1	2.1	2.1	2.1	1.1	1.1	1.1
75°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.1	1.1	1.1	1.1
77.5°	2.1	2.1	2.1	2.1	2.1	1.1	2.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	0.0	0.0	1.1	1.1	1.1	0.0	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
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: P1343972

CATALOG NUMBER: P3A13R209050DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	78.5	78.5	78.5	78.5	78.5	78.5
2.5°	81.7	77.5	74.3	71.1	70.0	70.0
5°	79.6	73.2	66.8	63.7	61.5	61.5
7.5°	73.2	65.8	59.4	56.2	55.2	55.2
10°	65.8	57.3	50.9	48.8	48.8	47.7
12.5°	57.3	48.8	44.6	43.5	43.5	43.5
15°	47.7	41.4	38.2	38.2	39.3	40.3
17.5°	40.3	34.0	32.9	35.0	37.1	37.1
20°	34.0	29.7	29.7	31.8	34.0	35.0
22.5°	28.6	25.5	26.5	29.7	32.9	34.0
25°	25.5	22.3	24.4	27.6	30.8	32.9
27.5°	21.2	20.2	22.3	26.5	30.8	31.8
30°	18.0	18.0	21.2	25.5	29.7	30.8
31°	17.0	17.0	21.2	25.5	29.7	30.8
32°	15.9	17.0	20.2	25.5	29.7	30.8
33°	14.9	15.9	20.2	24.4	29.7	30.8
34°	13.8	15.9	20.2	24.4	29.7	30.8
35°	12.7	15.9	20.2	24.4	29.7	30.8
36°	11.7	14.9	19.1	24.4	29.7	30.8
37°	10.6	14.9	19.1	24.4	29.7	30.8
38°	9.5	13.8	19.1	24.4	29.7	30.8
39°	9.5	13.8	18.0	24.4	28.6	30.8
40°	8.5	12.7	18.0	24.4	28.6	30.8
41°	7.4	12.7	18.0	23.3	28.6	30.8
42°	6.4	11.7	17.0	23.3	28.6	30.8
43°	5.3	11.7	17.0	23.3	28.6	30.8
44°	5.3	10.6	17.0	23.3	28.6	30.8
45°	4.2	10.6	17.0	23.3	28.6	30.8
46°	3.2	10.6	17.0	23.3	28.6	30.8
47°	3.2	9.5	15.9	23.3	28.6	30.8
48°	2.1	9.5	15.9	23.3	28.6	30.8
49°	2.1	9.5	15.9	23.3	28.6	31.8
50°	2.1	9.5	15.9	22.3	28.6	31.8
51°	1.1	9.5	15.9	22.3	28.6	31.8
52°	1.1	9.5	14.9	22.3	29.7	31.8
53°	1.1	8.5	14.9	22.3	29.7	31.8
54°	1.1	8.5	14.9	22.3	29.7	30.8
55°	1.1	8.5	14.9	22.3	28.6	30.8
56°	1.1	7.4	14.9	22.3	28.6	30.8
57°	1.1	7.4	13.8	21.2	28.6	29.7
58°	1.1	7.4	13.8	21.2	28.6	29.7
59°	1.1	7.4	13.8	21.2	27.6	29.7
60°	2.1	6.4	12.7	20.2	27.6	29.7
62.5°	2.1	6.4	12.7	20.2	26.5	28.6
65°	2.1	6.4	11.7	19.1	26.5	28.6



TEST NUMBER: P1343972

CATALOG NUMBER: P3A13R209050DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.1	5.3	10.6	18.0	25.5	27.6
70°	2.1	6.4	10.6	17.0	24.4	26.5
72.5°	3.2	5.3	9.5	15.9	23.3	25.5
75°	3.2	5.3	9.5	14.9	22.3	23.3
77.5°	4.2	5.3	8.5	12.7	20.2	21.2
80°	4.2	5.3	7.4	10.6	17.0	18.0
82.5°	4.2	5.3	5.3	8.5	12.7	13.8
85°	3.2	4.2	4.2	5.3	8.5	9.5
87.5°	3.2	4.2	3.2	2.1	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)