

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: P1345941

Luminaire Tested: P3A13R409030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345941
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R409030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R40 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

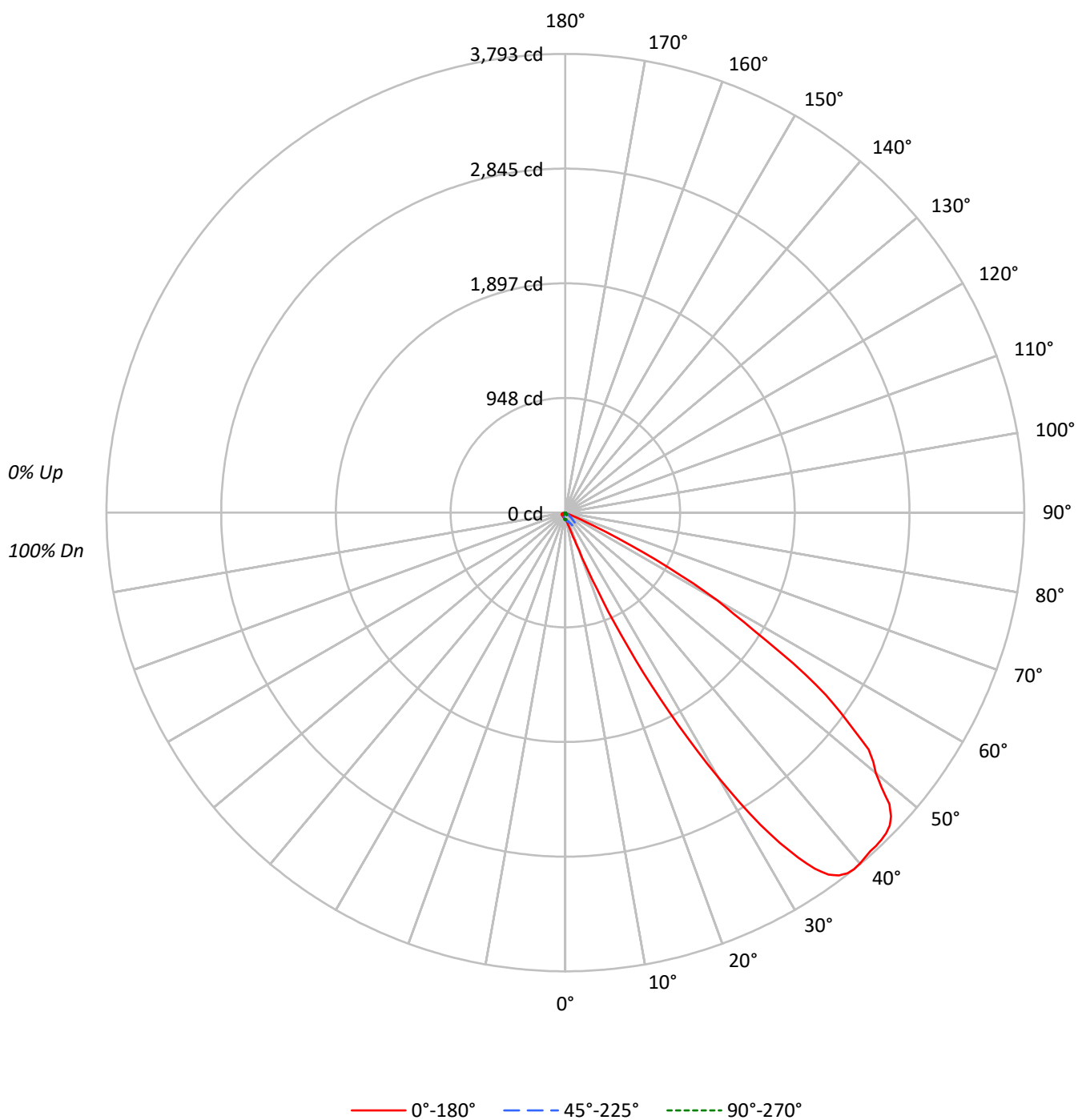
Lumens per Lamp: N/A
Luminaire Lumens: 1172.0 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 20.1
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: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 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	0
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	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
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	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13223	13223	13223	13223	13223
5°	14682	14220	13031	11842	11600
10°	17724	15097	11979	10777	10554
15°	29081	16368	10261	9535	9784
20°	76867	19345	8541	8541	9287
25°	296364	23953	6775	7815	9121
30°	639339	31878	5444	7621	8989
35°	962327	37745	4604	7495	9209
40°	1084203	37900	4008	7700	9847
45°	1162539	29367	3659	8001	10668
50°	1142649	18353	3309	8460	11735
55°	1005231	9061	3288	9481	13151
60°	636309	1886	3772	10394	14648
65°	130131	571	3891	11156	16189
70°	2757	705	4167	12438	18657
75°	2711	1864	4575	13640	21011
80°	2778	1389	5430	14901	24498
85°	2768	2768	10819	16354	27172

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1183540 cd/sqm

TEST NUMBER: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.6	0.5
10°-20°	18.6	1.6
20°-30°	91.0	7.8
30°-40°	296.1	25.3
40°-50°	408.2	34.8
50°-60°	284.3	24.3
60°-70°	53.9	4.6
70°-80°	9.8	0.8
80°-90°	4.5	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°	115.2	9.8
0°-40°	411.3	35.1
0°-60°	1103.8	94.2
0°-90°	1172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1172.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	60	60	60	60	60	
5°	67	65	59	54	53	7
15°	128	72	45	42	43	47
25°	1225	99	28	32	38	631
35°	3595	141	17	28	34	2172
45°	3749	95	12	26	34	2851
55°	2629	24	9	25	34	2247
65°	251	1	8	22	31	443
75°	3	2	5	16	25	3
85°	1	1	4	6	11	1
90°	0	0	0	0	0	

TEST NUMBER: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
2.5°	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	61.4	60.3
5°	66.7	66.7	66.7	66.7	65.7	65.7	65.7	64.6	64.6	62.4	59.2
7.5°	71.0	71.0	71.0	71.0	70.0	68.9	67.8	67.8	66.7	61.4	57.0
10°	79.6	79.6	78.6	77.5	76.4	74.3	73.2	71.0	67.8	60.3	53.8
12.5°	96.9	94.7	93.6	91.5	88.3	84.0	79.6	76.4	68.9	58.1	50.6
15°	128.1	125.9	121.6	115.2	108.7	100.1	92.6	85.0	72.1	54.9	45.2
17.5°	183.0	176.5	170.1	159.3	143.2	128.1	111.9	97.9	76.4	51.7	40.9
20°	329.4	325.0	286.3	256.2	207.7	173.3	141.0	117.3	82.9	48.4	36.6
22.5°	679.2	634.0	570.4	467.1	363.8	268.0	194.8	147.5	89.3	44.1	32.3
25°	1224.9	1153.8	1017.1	818.0	603.8	427.3	282.0	192.7	99.0	39.8	28.0
27.5°	1854.5	1782.4	1570.3	1295.9	946.1	644.7	402.5	255.1	111.9	35.5	24.8
30°	2525.0	2463.7	2194.6	1814.7	1333.6	903.0	539.2	318.6	125.9	31.2	21.5
31°	2795.2	2716.6	2426.0	2021.3	1515.5	1009.6	594.1	345.5	131.3	30.1	20.5
32°	3043.8	2954.5	2653.1	2219.4	1662.9	1124.8	654.4	369.2	135.6	28.0	19.4
33°	3258.0	3153.6	2863.0	2406.6	1825.4	1232.4	716.8	391.8	138.8	25.8	18.3
34°	3439.9	3349.5	3037.4	2595.0	1969.7	1335.7	778.2	414.4	141.0	24.8	17.2
35°	3594.9	3513.1	3204.2	2738.2	2110.7	1435.8	834.1	435.9	141.0	22.6	17.2
36°	3699.3	3628.3	3348.4	2884.5	2229.1	1520.8	881.5	455.3	141.0	20.5	16.1
37°	3756.4	3687.5	3443.1	3005.1	2345.3	1604.8	924.6	470.4	139.9	19.4	15.1
38°	3785.4	3725.1	3513.1	3103.0	2426.0	1665.1	962.2	482.2	138.8	17.2	15.1
39°	3792.9	3742.4	3557.2	3174.1	2504.6	1725.3	989.1	488.6	135.6	16.1	14.0
40°	3787.6	3743.4	3580.9	3237.6	2564.9	1772.7	1008.5	490.8	132.4	14.0	14.0
41°	3776.8	3742.4	3598.1	3281.7	2613.3	1802.8	1016.0	486.5	128.1	11.8	12.9
42°	3767.1	3729.4	3605.7	3311.8	2646.7	1817.9	1015.0	477.9	121.6	10.8	12.9
43°	3767.1	3724.1	3606.7	3331.2	2662.8	1819.0	1002.1	461.7	113.0	9.7	11.8
44°	3760.7	3720.8	3612.1	3344.1	2667.1	1809.3	981.6	444.5	103.3	8.6	11.8
45°	3748.8	3706.8	3611.1	3345.2	2659.6	1785.6	948.2	421.9	94.7	6.5	11.8
46°	3726.2	3688.5	3601.4	3337.7	2637.0	1751.2	908.4	399.3	85.0	5.4	10.8
47°	3681.0	3652.0	3575.5	3311.8	2602.5	1700.6	861.1	373.5	77.5	4.3	10.8
48°	3603.5	3583.1	3531.4	3254.8	2536.9	1638.2	810.5	345.5	70.0	4.3	10.8
49°	3461.4	3445.3	3415.2	3163.3	2452.9	1561.7	755.6	314.3	62.4	3.2	10.8
50°	3349.5	3332.3	3270.9	3009.4	2332.4	1464.9	695.3	283.1	53.8	2.2	9.7
51°	3275.2	3247.3	3150.4	2830.7	2156.9	1335.7	629.6	251.9	45.2	2.2	9.7
52°	3181.6	3139.6	3019.1	2670.3	1996.6	1206.6	558.6	220.6	39.8	2.2	9.7
53°	2985.7	2970.6	2851.2	2498.1	1836.2	1082.8	485.4	194.8	34.4	2.2	9.7
54°	2814.6	2792.0	2629.4	2259.2	1661.8	945.0	410.1	172.2	29.1	2.2	9.7
55°	2629.4	2585.3	2441.1	2057.9	1457.3	818.0	338.0	148.5	23.7	2.2	8.6
56°	2395.9	2357.1	2202.1	1842.7	1269.0	688.8	283.1	121.6	18.3	2.2	8.6
57°	2111.7	2076.2	1956.7	1577.9	1073.1	562.9	230.3	97.9	14.0	2.2	8.6
58°	1837.3	1797.5	1660.8	1323.9	866.4	446.7	192.7	79.6	10.8	2.2	8.6
59°	1626.3	1572.5	1396.0	1111.8	678.1	339.0	152.8	63.5	7.5	2.2	8.6
60°	1450.9	1406.7	1223.8	925.6	531.7	249.7	113.0	48.4	4.3	2.2	8.6
62.5°	840.6	828.8	664.1	476.8	250.8	116.2	56.0	22.6	2.2	3.2	8.6
65°	250.8	218.5	170.1	101.2	64.6	38.7	20.5	7.5	1.1	3.2	7.5



TEST NUMBER: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	7.5	7.5	7.5	7.5	7.5	7.5	4.3	2.2	1.1	3.2	7.5
70°	4.3	3.2	3.2	3.2	3.2	2.2	2.2	1.1	1.1	3.2	6.5
72.5°	3.2	3.2	3.2	3.2	2.2	2.2	2.2	1.1	2.2	3.2	5.4
75°	3.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	2.2	3.2	5.4
77.5°	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	2.2	3.2	5.4
80°	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.2	4.3
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.2	4.3
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.2	4.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	3.2	3.2
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: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	60.3	60.3	60.3	60.3
2.5°	58.1	57.0	56.0	56.0
5°	56.0	53.8	53.8	52.7
7.5°	52.7	50.6	50.6	50.6
10°	49.5	48.4	48.4	47.4
12.5°	45.2	45.2	45.2	45.2
15°	42.0	42.0	43.1	43.1
17.5°	37.7	38.7	40.9	42.0
20°	34.4	36.6	38.7	39.8
22.5°	32.3	34.4	37.7	38.7
25°	29.1	32.3	36.6	37.7
27.5°	26.9	31.2	34.4	36.6
30°	24.8	30.1	33.4	35.5
31°	24.8	29.1	33.4	35.5
32°	23.7	28.0	33.4	34.4
33°	23.7	28.0	33.4	34.4
34°	22.6	28.0	32.3	34.4
35°	22.6	28.0	32.3	34.4
36°	21.5	26.9	32.3	34.4
37°	21.5	26.9	32.3	34.4
38°	20.5	26.9	32.3	34.4
39°	20.5	26.9	32.3	34.4
40°	20.5	26.9	32.3	34.4
41°	19.4	26.9	32.3	34.4
42°	19.4	26.9	32.3	34.4
43°	19.4	25.8	32.3	34.4
44°	19.4	25.8	32.3	34.4
45°	18.3	25.8	32.3	34.4
46°	18.3	25.8	32.3	34.4
47°	18.3	25.8	32.3	34.4
48°	18.3	25.8	32.3	34.4
49°	18.3	25.8	32.3	34.4
50°	17.2	24.8	32.3	34.4
51°	17.2	24.8	32.3	34.4
52°	17.2	24.8	32.3	34.4
53°	17.2	24.8	32.3	34.4
54°	16.1	24.8	32.3	34.4
55°	16.1	24.8	32.3	34.4
56°	16.1	24.8	32.3	33.4
57°	16.1	24.8	31.2	33.4
58°	16.1	23.7	31.2	33.4
59°	16.1	23.7	31.2	33.4
60°	16.1	23.7	31.2	33.4
62.5°	15.1	23.7	30.1	32.3
65°	14.0	21.5	30.1	31.2

TEST NUMBER: P1345941

CATALOG NUMBER: P3A13R409030D2WDE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	14.0	20.5	28.0	30.1
70°	12.9	19.4	26.9	29.1
72.5°	10.8	18.3	24.8	26.9
75°	9.7	16.1	22.6	24.8
77.5°	8.6	14.0	20.5	21.5
80°	7.5	11.8	17.2	19.4
82.5°	5.4	8.6	14.0	15.1
85°	4.3	6.5	9.7	10.8
87.5°	3.2	3.2	5.4	5.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)