

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: P1345044

Luminaire Tested: P3A13R309740DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345044
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R309740DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

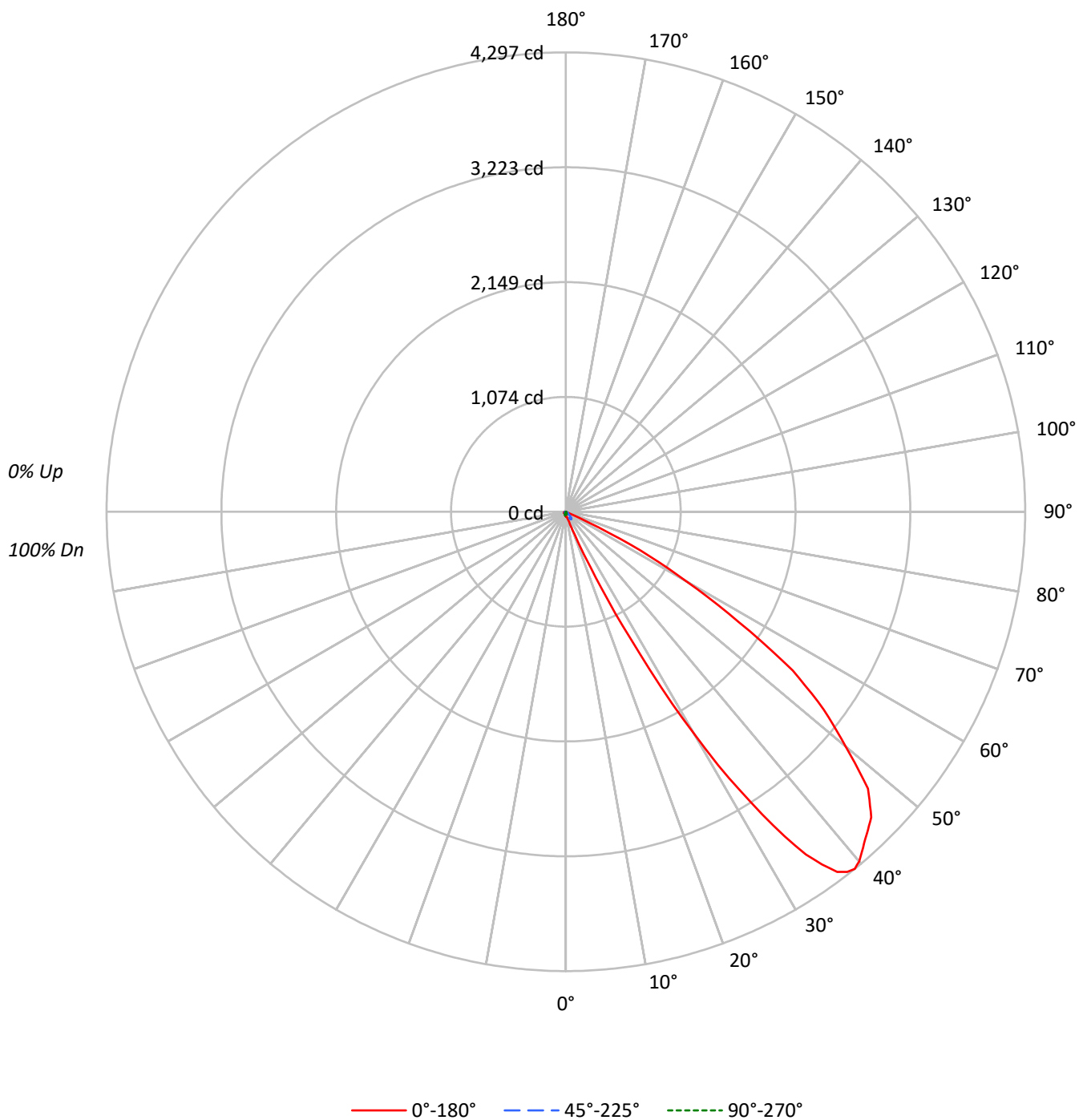
Lumens per Lamp: N/A
Luminaire Lumens: 1117.0 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

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	108	104	100	97	100	97	94		96	93	91		92	90	89	87
2	100	93	86	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	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	37		49	42	37		48	42	37	35
7	62	48	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	32	26		37	31	26	24
9	52	37	29	23	50	37	28	23	36	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	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9495	9495	9495	9495	9495
5°	10147	9949	9311	8497	8276
10°	11111	9842	8172	7326	7125
15°	16232	9830	6833	6198	6402
20°	40837	10758	5274	5274	5927
25°	189640	13428	4089	4791	5468
30°	603713	18585	3089	4532	5469
35°	1047560	22674	2516	4283	5541
40°	1221718	22614	1889	4322	5668
45°	1252936	16064	2047	4683	6140
50°	1165164	8972	1603	4810	7062
55°	990283	4664	1797	5390	7914
60°	571928	1228	2061	5789	8684
65°	116692	0	2439	6849	9755
70°	1795	577	3013	7822	11476
75°	1610	763	3219	7964	13556
80°	1137	1137	4799	9471	15406
85°	0	2264	9561	9561	18870

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1252936 cd/sqm

TEST NUMBER: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.4
10°-20°	11.3	1.0
20°-30°	64.4	5.8
30°-40°	300.9	26.9
40°-50°	425.5	38.1
50°-60°	261.7	23.4
60°-70°	39.9	3.6
70°-80°	6.3	0.6
80°-90°	3.1	0.3
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°	79.6	7.1
0°-40°	380.5	34.1
0°-60°	1067.7	95.6
0°-90°	1117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1117.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	43	43	43	43	43	
5°	46	45	42	39	38	5
15°	72	43	30	27	28	25
25°	784	56	17	20	23	482
35°	3913	85	9	16	21	2349
45°	4040	52	7	15	20	3063
55°	2590	12	5	14	21	2204
65°	225	0	5	13	19	407
75°	2	1	4	9	16	2
85°	0	1	4	4	8	0
90°	0	0	0	0	0	

TEST NUMBER: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3
2.5°	44.2	44.2	45.2	45.2	44.2	45.2	45.2	45.2	43.3	42.3	40.5
5°	46.1	46.1	46.1	47.0	46.1	46.1	45.2	44.2	42.3	39.5	38.6
7.5°	48.0	48.0	47.0	48.0	47.0	47.0	45.2	43.3	40.5	37.6	35.8
10°	49.9	49.9	48.9	48.9	48.0	48.0	44.2	41.4	36.7	33.9	32.9
12.5°	55.5	55.5	54.6	53.6	51.8	50.8	43.3	38.6	32.9	30.1	29.2
15°	71.5	70.6	68.7	65.9	61.2	60.2	43.3	35.8	30.1	27.3	27.3
17.5°	97.9	96.9	94.1	86.6	78.1	75.3	43.3	32.0	26.3	24.5	24.5
20°	175.0	167.5	153.4	134.6	114.8	104.4	46.1	28.2	22.6	21.6	22.6
21°	228.6	221.1	203.2	172.2	137.4	126.1	48.0	27.3	21.6	20.7	22.6
22°	311.4	303.0	266.3	223.9	174.1	154.3	48.9	25.4	19.8	19.8	21.6
23°	434.7	420.6	358.5	290.7	217.4	189.1	50.8	24.5	18.8	19.8	20.7
24°	569.3	557.0	486.5	384.8	277.6	237.1	52.7	23.5	17.9	17.9	19.8
25°	783.8	769.7	644.5	485.5	351.9	285.1	55.5	21.6	16.9	16.9	19.8
26°	1061.4	996.4	829.9	625.7	433.8	357.5	58.3	20.7	16.0	16.9	18.8
27°	1324.8	1271.2	1083.9	802.6	536.3	439.4	62.1	19.8	15.1	16.0	18.8
28°	1671.1	1595.8	1359.6	1015.2	675.6	531.6	65.9	18.8	14.1	16.0	17.9
29°	2058.7	1953.3	1668.2	1254.2	832.7	635.1	69.6	17.9	13.2	15.1	17.9
30°	2384.3	2285.5	2000.4	1537.5	1013.4	771.5	73.4	16.9	12.2	15.1	17.9
31°	2766.3	2616.7	2271.4	1777.4	1168.6	908.0	77.2	15.1	11.3	14.1	16.9
32°	3075.8	2971.4	2604.4	2048.4	1372.8	1058.5	80.0	14.1	11.3	14.1	16.9
33°	3375.1	3234.9	2880.1	2308.1	1557.2	1212.8	82.8	13.2	10.4	13.2	16.9
34°	3661.1	3532.2	3140.8	2517.9	1731.3	1359.6	84.7	11.3	10.4	13.2	16.0
35°	3913.3	3763.7	3370.4	2723.0	1910.1	1493.2	84.7	10.4	9.4	12.2	16.0
36°	4077.0	3969.7	3569.8	2925.3	2071.9	1620.3	84.7	9.4	8.5	12.2	15.1
37°	4217.2	4092.0	3729.8	3080.6	2191.4	1721.9	84.7	8.5	8.5	12.2	15.1
38°	4274.6	4167.3	3839.9	3217.9	2303.4	1825.4	83.7	7.5	7.5	11.3	15.1
39°	4297.2	4201.2	3922.7	3316.7	2386.2	1895.0	81.9	6.6	7.5	11.3	15.1
40°	4268.0	4195.5	3965.0	3380.7	2452.0	1945.8	79.0	5.6	6.6	11.3	15.1
42.5°	4147.5	4099.6	3955.6	3444.7	2508.5	1983.4	68.7	3.8	6.6	10.4	15.1
45°	4040.3	3987.6	3860.6	3377.9	2435.1	1909.1	51.8	1.9	6.6	10.4	15.1
47.5°	3832.3	3799.4	3699.7	3207.6	2274.2	1741.6	36.7	0.9	5.6	9.4	14.1
50°	3415.5	3384.5	3252.7	2785.1	1956.2	1472.5	26.3	0.9	4.7	9.4	14.1
52.5°	3042.0	3009.0	2819.9	2315.6	1502.6	1079.2	16.9	0.9	4.7	9.4	14.1
55°	2590.3	2532.9	2284.5	1757.6	1065.1	723.6	12.2	0.9	4.7	8.5	14.1
57.5°	1917.6	1833.8	1611.8	1198.7	613.5	392.4	6.6	0.9	4.7	8.5	14.1
60°	1304.1	1254.2	1008.7	632.3	261.6	165.6	2.8	0.9	4.7	8.5	13.2
62.5°	790.4	727.3	507.2	269.1	112.9	75.3	0.0	1.9	4.7	8.5	13.2
65°	224.9	199.5	132.7	61.2	32.0	24.5	0.0	1.9	4.7	8.5	13.2
67.5°	7.5	7.5	7.5	6.6	4.7	4.7	0.9	1.9	4.7	8.5	12.2
70°	2.8	2.8	2.8	1.9	1.9	0.9	0.9	1.9	4.7	7.5	12.2
72.5°	1.9	1.9	1.9	1.9	0.9	0.9	0.9	1.9	3.8	6.6	11.3
75°	1.9	1.9	1.9	0.9	0.9	0.9	0.9	2.8	3.8	6.6	9.4
77.5°	1.9	1.9	1.9	0.9	0.9	0.9	0.9	2.8	3.8	5.6	9.4
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8	3.8	5.6	7.5



TEST NUMBER: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.9	2.8	3.8	3.8	5.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.8	3.8	2.8	3.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.8	2.8	2.8	1.9
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: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	43.3	43.3
2.5°	40.5	40.5
5°	37.6	37.6
7.5°	34.8	34.8
10°	32.0	32.0
12.5°	30.1	30.1
15°	27.3	28.2
17.5°	25.4	26.3
20°	24.5	25.4
21°	24.5	25.4
22°	23.5	24.5
23°	23.5	24.5
24°	22.6	23.5
25°	21.6	22.6
26°	21.6	22.6
27°	21.6	22.6
28°	20.7	22.6
29°	20.7	21.6
30°	20.7	21.6
31°	19.8	21.6
32°	19.8	21.6
33°	19.8	20.7
34°	18.8	20.7
35°	18.8	20.7
36°	18.8	20.7
37°	18.8	19.8
38°	18.8	20.7
39°	18.8	19.8
40°	18.8	19.8
42.5°	18.8	19.8
45°	18.8	19.8
47.5°	18.8	20.7
50°	18.8	20.7
52.5°	18.8	20.7
55°	18.8	20.7
57.5°	18.8	19.8
60°	18.8	19.8
62.5°	17.9	19.8
65°	17.9	18.8
67.5°	17.9	18.8
70°	16.9	17.9
72.5°	16.0	16.9
75°	14.1	16.0
77.5°	13.2	14.1
80°	11.3	12.2



TEST NUMBER: P1345044

CATALOG NUMBER: P3A13R309740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	9.4	9.4
85°	6.6	7.5
87.5°	3.8	3.8
90°	0.0	0.0

(END OF REPORT)