

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: P1335782

Luminaire Tested: P3A02R409740DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335782
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: P3A02R409740DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

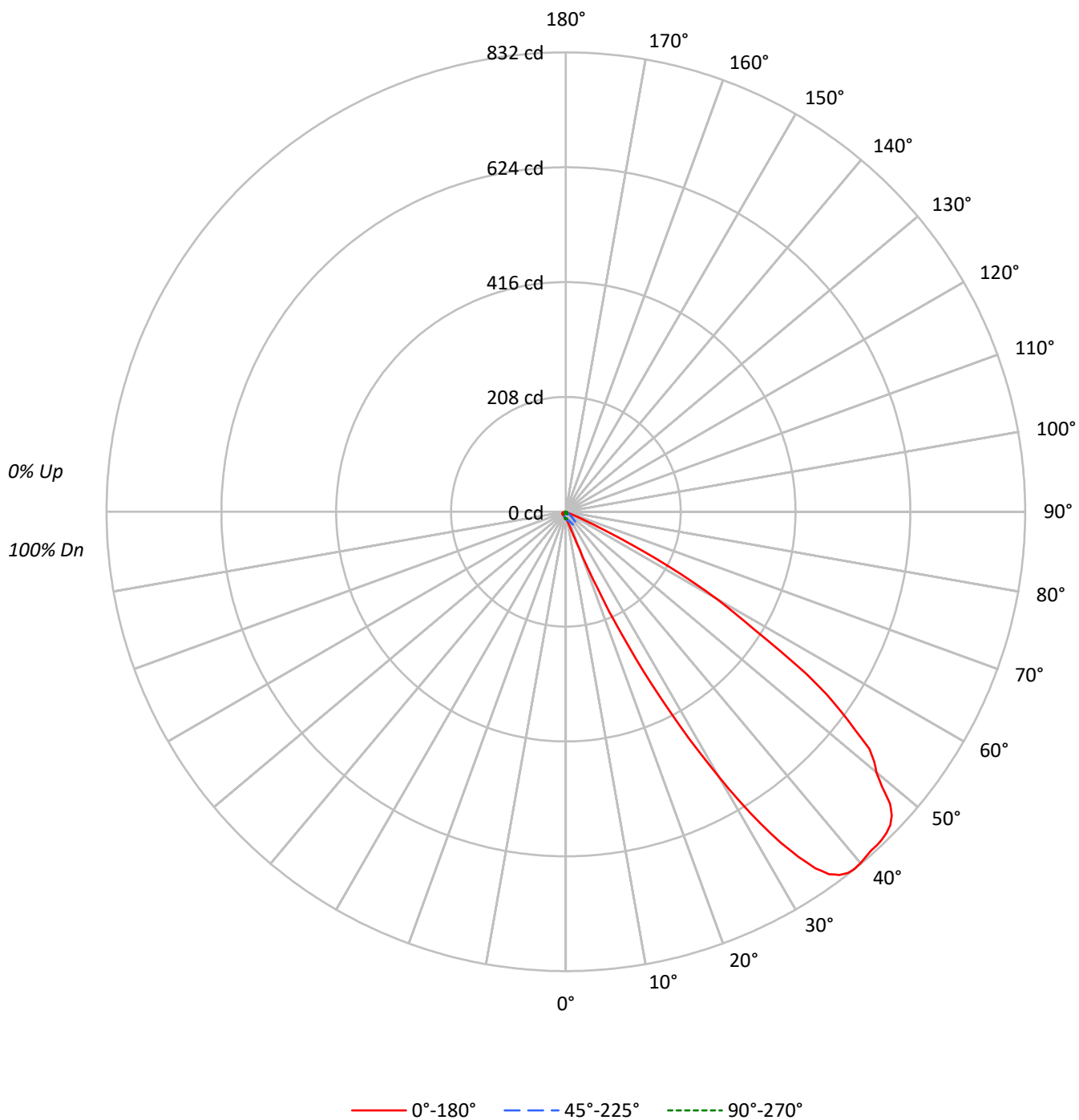
Lumens per Lamp: N/A
Luminaire Lumens: 257.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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: P1335782

CATALOG NUMBER: P3A02R409740DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1335782

CATALOG NUMBER: P3A02R409740DE010 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	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°	2895	2895	2895	2895	2895
5°	3214	3126	2862	2597	2553
10°	3897	3318	2627	2360	2316
15°	6379	3587	2247	2089	2134
20°	16848	4247	1867	1867	2030
25°	64988	5250	1476	1718	2008
30°	140199	6988	1190	1671	1975
35°	211022	8272	1017	1633	2034
40°	237760	8301	887	1689	2176
45°	254941	6450	806	1768	2357
50°	250567	4025	716	1842	2593
55°	220437	1988	726	2064	2906
60°	139550	395	833	2281	3201
65°	28537	104	882	2439	3528
70°	577	128	898	2693	4103
75°	593	424	1017	2965	4575
80°	631	253	1137	3283	5304
85°	503	503	2264	3522	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 259536 cd/sqm

TEST NUMBER: P1335782

CATALOG NUMBER: P3A02R409740DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.2	0.5
10°-20°	4.1	1.6
20°-30°	20.0	7.8
30°-40°	64.9	25.3
40°-50°	89.5	34.8
50°-60°	62.3	24.3
60°-70°	11.8	4.6
70°-80°	2.1	0.8
80°-90°	1.0	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°	25.3	9.8
0°-40°	90.2	35.1
0°-60°	242.1	94.2
0°-90°	257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	257.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13	13	13	13	13	
5°	15	14	13	12	12	1
15°	28	16	10	9	9	10
25°	269	22	6	7	8	138
35°	788	31	4	6	8	476
45°	822	21	3	6	8	625
55°	577	5	2	5	8	493
65°	55	0	2	5	7	97
75°	1	0	1	4	5	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1335782

CATALOG NUMBER: P3A02R409740DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2.5°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.5	13.2
5°	14.6	14.6	14.6	14.6	14.4	14.4	14.4	14.2	14.2	13.7	13.0
7.5°	15.6	15.6	15.6	15.6	15.3	15.1	14.9	14.9	14.6	13.5	12.5
10°	17.5	17.5	17.2	17.0	16.8	16.3	16.0	15.6	14.9	13.2	11.8
12.5°	21.2	20.8	20.5	20.1	19.4	18.4	17.5	16.8	15.1	12.7	11.1
15°	28.1	27.6	26.7	25.3	23.8	21.9	20.3	18.6	15.8	12.0	9.9
17.5°	40.1	38.7	37.3	34.9	31.4	28.1	24.5	21.5	16.8	11.3	9.0
20°	72.2	71.3	62.8	56.2	45.6	38.0	30.9	25.7	18.2	10.6	8.0
22.5°	148.9	139.0	125.1	102.4	79.8	58.8	42.7	32.3	19.6	9.7	7.1
25°	268.6	253.0	223.0	179.4	132.4	93.7	61.8	42.2	21.7	8.7	6.1
27.5°	406.7	390.8	344.4	284.2	207.5	141.4	88.3	55.9	24.5	7.8	5.4
30°	553.7	540.2	481.2	397.9	292.4	198.0	118.2	69.9	27.6	6.8	4.7
31°	612.9	595.7	532.0	443.2	332.3	221.4	130.3	75.8	28.8	6.6	4.5
32°	667.5	647.9	581.8	486.7	364.6	246.6	143.5	81.0	29.7	6.1	4.2
33°	714.4	691.5	627.8	527.7	400.3	270.2	157.2	85.9	30.4	5.7	4.0
34°	754.3	734.5	666.0	569.0	431.9	292.9	170.6	90.9	30.9	5.4	3.8
35°	788.3	770.4	702.6	600.4	462.8	314.8	182.9	95.6	30.9	5.0	3.8
36°	811.2	795.6	734.3	632.5	488.8	333.5	193.3	99.8	30.9	4.5	3.5
37°	823.7	808.6	755.0	659.0	514.3	351.9	202.7	103.1	30.7	4.2	3.3
38°	830.1	816.9	770.4	680.4	532.0	365.1	211.0	105.7	30.4	3.8	3.3
39°	831.7	820.6	780.0	696.0	549.2	378.3	216.9	107.2	29.7	3.5	3.1
40°	830.6	820.9	785.2	709.9	562.4	388.7	221.1	107.6	29.0	3.1	3.1
41°	828.2	820.6	789.0	719.6	573.1	395.3	222.8	106.7	28.1	2.6	2.8
42°	826.1	817.8	790.7	726.2	580.4	398.6	222.6	104.8	26.7	2.4	2.8
43°	826.1	816.6	790.9	730.5	583.9	398.9	219.7	101.3	24.8	2.1	2.6
44°	824.6	815.9	792.1	733.3	584.9	396.7	215.2	97.5	22.7	1.9	2.6
45°	822.1	812.8	791.8	733.5	583.2	391.6	207.9	92.5	20.8	1.4	2.6
46°	817.1	808.8	789.7	731.9	578.2	384.0	199.2	87.6	18.6	1.2	2.4
47°	807.2	800.8	784.1	726.2	570.7	372.9	188.8	81.9	17.0	0.9	2.4
48°	790.2	785.7	774.4	713.7	556.3	359.2	177.7	75.8	15.3	0.9	2.4
49°	759.0	755.5	748.9	693.7	537.9	342.5	165.7	68.9	13.7	0.7	2.4
50°	734.5	730.7	717.3	659.9	511.5	321.2	152.5	62.1	11.8	0.5	2.1
51°	718.2	712.1	690.8	620.7	473.0	292.9	138.1	55.2	9.9	0.5	2.1
52°	697.7	688.5	662.0	585.6	437.8	264.6	122.5	48.4	8.7	0.5	2.1
53°	654.7	651.4	625.2	547.8	402.6	237.4	106.4	42.7	7.6	0.5	2.1
54°	617.2	612.2	576.6	495.4	364.4	207.2	89.9	37.8	6.4	0.5	2.1
55°	576.6	566.9	535.3	451.3	319.6	179.4	74.1	32.6	5.2	0.5	1.9
56°	525.4	516.9	482.9	404.1	278.3	151.1	62.1	26.7	4.0	0.5	1.9
57°	463.1	455.3	429.1	346.0	235.3	123.4	50.5	21.5	3.1	0.5	1.9
58°	402.9	394.2	364.2	290.3	190.0	97.9	42.2	17.5	2.4	0.5	1.9
59°	356.6	344.8	306.1	243.8	148.7	74.3	33.5	13.9	1.7	0.5	1.9
60°	318.2	308.5	268.4	203.0	116.6	54.8	24.8	10.6	0.9	0.5	1.9
62.5°	184.3	181.7	145.6	104.6	55.0	25.5	12.3	5.0	0.5	0.7	1.9
65°	55.0	47.9	37.3	22.2	14.2	8.5	4.5	1.7	0.2	0.7	1.7



TEST NUMBER: P1335782

CATALOG NUMBER: P3A02R409740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.7	1.7	1.7	1.7	1.7	1.7	0.9	0.5	0.2	0.7	1.7
70°	0.9	0.7	0.7	0.7	0.7	0.5	0.5	0.2	0.2	0.7	1.4
72.5°	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.5	0.7	1.2
75°	0.7	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.5	0.7	1.2
77.5°	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.5	0.7	1.2
80°	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7	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: P1335782

CATALOG NUMBER: P3A02R409740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	13.2	13.2	13.2	13.2
2.5°	12.7	12.5	12.3	12.3
5°	12.3	11.8	11.8	11.6
7.5°	11.6	11.1	11.1	11.1
10°	10.9	10.6	10.6	10.4
12.5°	9.9	9.9	9.9	9.9
15°	9.2	9.2	9.4	9.4
17.5°	8.3	8.5	9.0	9.2
20°	7.6	8.0	8.5	8.7
22.5°	7.1	7.6	8.3	8.5
25°	6.4	7.1	8.0	8.3
27.5°	5.9	6.8	7.6	8.0
30°	5.4	6.6	7.3	7.8
31°	5.4	6.4	7.3	7.8
32°	5.2	6.1	7.3	7.6
33°	5.2	6.1	7.3	7.6
34°	5.0	6.1	7.1	7.6
35°	5.0	6.1	7.1	7.6
36°	4.7	5.9	7.1	7.6
37°	4.7	5.9	7.1	7.6
38°	4.5	5.9	7.1	7.6
39°	4.5	5.9	7.1	7.6
40°	4.5	5.9	7.1	7.6
41°	4.2	5.9	7.1	7.6
42°	4.2	5.9	7.1	7.6
43°	4.2	5.7	7.1	7.6
44°	4.2	5.7	7.1	7.6
45°	4.0	5.7	7.1	7.6
46°	4.0	5.7	7.1	7.6
47°	4.0	5.7	7.1	7.6
48°	4.0	5.7	7.1	7.6
49°	4.0	5.7	7.1	7.6
50°	3.8	5.4	7.1	7.6
51°	3.8	5.4	7.1	7.6
52°	3.8	5.4	7.1	7.6
53°	3.8	5.4	7.1	7.6
54°	3.5	5.4	7.1	7.6
55°	3.5	5.4	7.1	7.6
56°	3.5	5.4	7.1	7.3
57°	3.5	5.4	6.8	7.3
58°	3.5	5.2	6.8	7.3
59°	3.5	5.2	6.8	7.3
60°	3.5	5.2	6.8	7.3
62.5°	3.3	5.2	6.6	7.1
65°	3.1	4.7	6.6	6.8



TEST NUMBER: P1335782

CATALOG NUMBER: P3A02R409740DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	3.1	4.5	6.1	6.6
70°	2.8	4.2	5.9	6.4
72.5°	2.4	4.0	5.4	5.9
75°	2.1	3.5	5.0	5.4
77.5°	1.9	3.1	4.5	4.7
80°	1.7	2.6	3.8	4.2
82.5°	1.2	1.9	3.1	3.3
85°	0.9	1.4	2.1	2.4
87.5°	0.7	0.7	1.2	1.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)