

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: P1342056

Luminaire Tested: P3A09R359835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342056
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R359835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

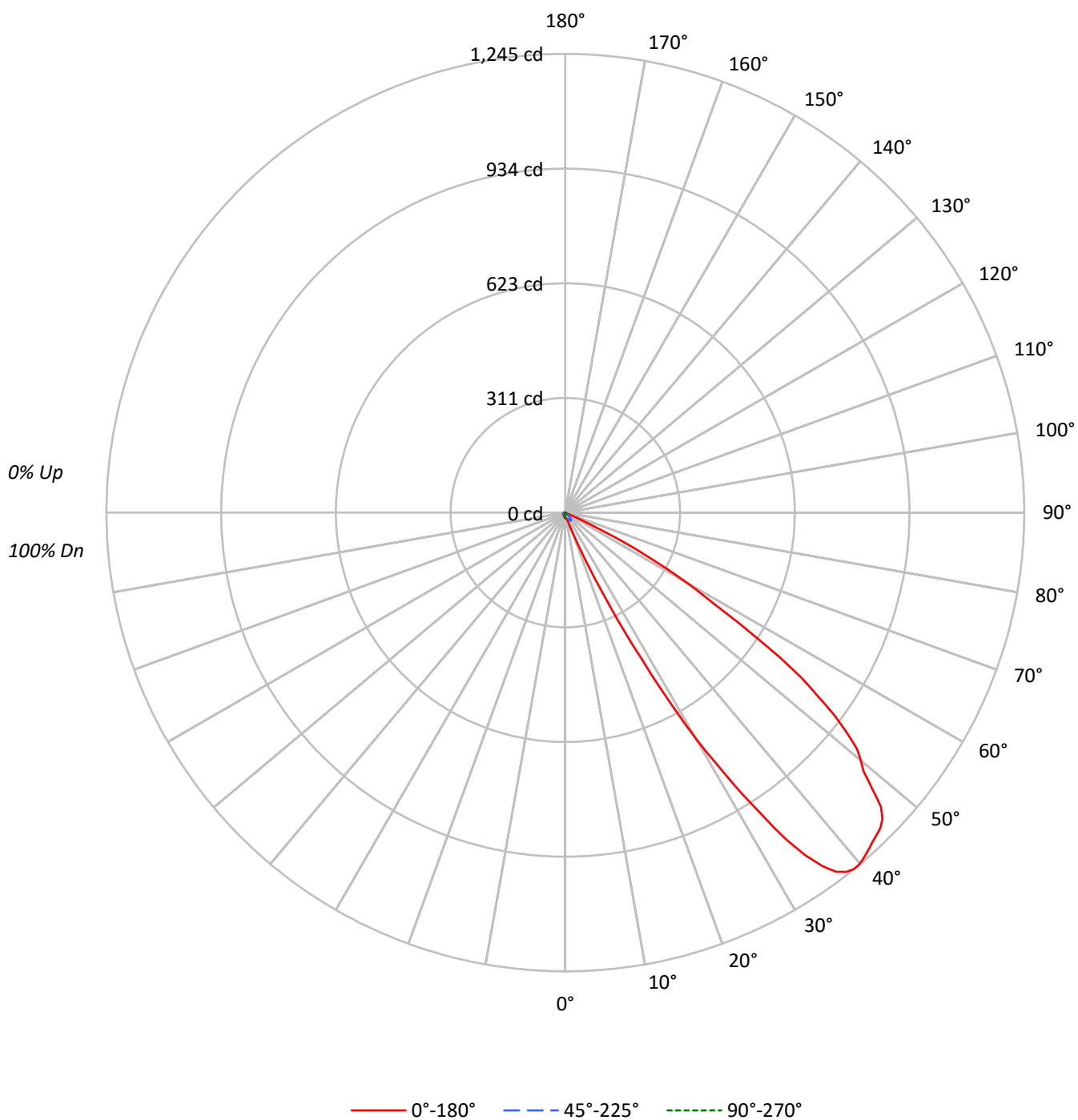
Lumens per Lamp: N/A
Luminaire Lumens: 310.0 lumens
Efficiency: N/A
Efficacy: 28.2 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

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	107	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	61	52	45	58	51	45	56	50	44	55	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	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26	24		
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22	20		
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3136	3136	3136	3136	3136
5°	3390	3324	3082	2773	2707
10°	3563	3251	2739	2360	2360
15°	5085	3178	2225	2043	2089
20°	12741	3407	1773	1773	1960
25°	59108	4331	1355	1621	1839
30°	179699	5874	1063	1494	1848
35°	303697	6826	910	1419	1794
40°	355981	6727	716	1431	1918
45°	374892	4776	620	1551	2078
50°	356833	2866	580	1637	2286
55°	299038	1185	650	1835	2676
60°	167399	263	746	2105	2938
65°	28901	156	726	2335	3321
70°	513	192	898	2500	3783
75°	508	254	1186	2881	4236
80°	379	379	1389	3157	4925
85°	0	755	2768	3522	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 377538 cd/sqm

TEST NUMBER: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.4
10°-20°	3.7	1.2
20°-30°	19.0	6.1
30°-40°	82.1	26.5
40°-50°	117.2	37.8
50°-60°	72.6	23.4
60°-70°	11.1	3.6
70°-80°	2.1	0.7
80°-90°	1.0	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°	24.0	7.7
0°-40°	106.1	34.2
0°-60°	295.9	95.4
0°-90°	310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	310.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	15	15	14	13	12	1
15°	22	14	10	9	9	8
25°	244	18	6	7	8	146
35°	1134	26	3	5	7	681
45°	1209	15	2	5	7	913
55°	782	3	2	5	7	666
65°	56	0	1	4	6	114
75°	1	0	1	3	5	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.3	14.0
5°	15.4	15.4	15.1	15.1	15.1	15.1	15.1	15.1	14.6	14.0	13.2
7.5°	15.7	15.7	15.4	15.4	15.4	15.4	15.1	14.8	14.3	13.2	12.3
10°	16.0	16.0	16.0	16.0	15.7	15.4	15.1	14.6	13.7	12.3	11.5
12.5°	17.9	17.9	17.6	17.1	16.5	16.0	15.4	14.3	12.6	11.2	10.4
15°	22.4	22.1	21.5	20.7	19.6	18.2	17.1	14.0	11.5	9.8	9.2
17.5°	31.3	30.8	29.9	27.1	24.6	22.1	19.9	14.0	10.4	8.7	8.1
20°	54.6	54.8	49.0	42.3	36.7	30.5	24.9	14.6	9.2	7.6	7.3
22.5°	113.9	109.4	95.4	79.2	60.4	46.7	35.3	16.0	8.1	6.4	6.4
25°	244.3	227.2	193.4	146.1	103.0	73.0	51.2	17.9	7.3	5.6	5.9
27.5°	446.1	430.7	362.7	273.1	181.3	110.3	69.4	20.4	6.4	4.8	5.3
30°	709.7	667.1	578.4	447.7	303.1	168.7	93.2	23.2	5.3	4.2	5.0
31°	792.0	772.4	664.3	518.0	355.1	200.4	103.3	24.1	5.0	4.2	4.8
32°	889.6	854.9	758.1	594.9	408.0	228.6	115.3	24.9	4.8	3.6	4.8
33°	976.9	943.3	825.5	662.7	461.5	260.8	128.2	25.2	4.2	3.6	4.5
34°	1068.7	1022.8	906.1	733.5	516.3	295.5	139.9	25.5	3.9	3.4	4.5
35°	1134.5	1088.6	975.5	789.4	563.6	326.3	153.4	25.5	3.6	3.4	4.2
36°	1185.4	1145.1	1035.4	847.1	610.6	354.0	164.0	25.5	3.1	3.1	4.2
37°	1220.4	1182.0	1075.7	896.6	646.4	378.6	173.5	25.5	2.8	3.1	4.2
38°	1237.5	1205.6	1114.6	932.7	681.1	397.9	181.1	24.9	2.5	2.8	3.9
39°	1244.7	1218.7	1138.4	963.2	707.2	414.7	186.7	24.3	2.2	2.8	3.9
40°	1243.6	1220.9	1151.8	984.2	728.1	426.2	189.7	23.5	2.0	2.5	3.9
41°	1237.2	1217.6	1158.8	1002.1	740.7	434.0	190.6	22.7	1.7	2.5	3.6
42°	1229.9	1212.0	1161.1	1011.6	748.9	436.6	188.3	21.5	1.7	2.2	3.6
43°	1222.3	1205.8	1161.1	1014.7	750.8	434.9	184.7	19.6	1.4	2.2	3.6
44°	1216.2	1200.5	1157.4	1013.9	746.6	428.4	178.0	17.4	1.1	2.2	3.6
45°	1208.9	1193.5	1152.7	1008.5	738.5	417.5	169.6	15.4	0.8	2.0	3.6
46°	1196.0	1184.0	1144.3	997.6	725.6	402.4	158.9	14.0	0.6	2.0	3.4
47°	1171.1	1160.8	1128.0	981.4	708.6	384.5	148.0	12.6	0.6	2.0	3.4
48°	1121.0	1120.8	1095.6	951.2	681.4	362.1	136.6	11.2	0.6	2.0	3.4
49°	1072.6	1067.6	1036.3	898.0	642.5	335.2	124.5	10.1	0.3	2.0	3.4
50°	1046.0	1035.1	983.6	835.3	592.7	298.0	111.7	8.4	0.3	1.7	3.4
51°	1018.3	1002.7	941.9	778.8	533.4	262.2	97.7	6.7	0.3	1.7	3.1
52°	968.3	953.4	885.4	724.8	475.7	225.6	84.2	5.6	0.3	1.7	3.4
53°	914.2	893.0	819.1	665.5	425.1	193.1	70.5	4.8	0.3	1.7	3.1
54°	846.2	836.7	751.9	592.7	365.8	161.7	57.9	3.9	0.3	1.7	3.1
55°	782.2	768.2	680.0	518.3	312.0	132.6	48.4	3.1	0.3	1.7	3.1
56°	700.4	679.5	596.9	450.0	257.5	106.9	40.9	2.5	0.3	1.7	3.1
57°	603.1	580.7	515.5	374.1	202.0	81.4	34.1	2.0	0.3	1.7	3.1
58°	510.2	490.8	420.9	288.8	152.2	56.5	28.3	1.4	0.3	1.4	3.1
59°	440.8	419.5	350.1	222.2	105.8	41.7	21.3	1.1	0.3	1.7	3.1
60°	381.7	354.3	281.8	172.1	75.6	29.9	15.7	0.6	0.6	1.7	3.1
62.5°	220.0	194.2	134.6	70.0	31.1	15.4	7.6	0.3	0.6	1.7	3.1
65°	55.7	49.5	32.2	15.1	8.7	5.3	2.8	0.3	0.6	1.4	2.8



TEST NUMBER: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	2.0	2.0	2.0	1.7	1.4	1.1	0.6	0.3	0.6	1.4	2.8
70°	0.8	0.8	0.8	0.6	0.6	0.3	0.3	0.3	0.6	1.4	2.5
72.5°	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.8	1.4	2.2
75°	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.8	1.4	2.2
77.5°	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.1	2.0
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.1	1.7
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.1	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.8	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.1	0.8
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: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	14.3	14.3	14.3
2.5°	13.4	13.4	13.4
5°	12.6	12.6	12.3
7.5°	11.8	11.5	11.5
10°	10.6	10.6	10.6
12.5°	9.8	9.8	9.8
15°	9.0	9.2	9.2
17.5°	8.1	8.7	8.7
20°	7.6	8.1	8.4
22.5°	7.0	7.6	7.8
25°	6.7	7.3	7.6
27.5°	6.2	7.0	7.6
30°	5.9	6.7	7.3
31°	5.9	6.7	7.0
32°	5.6	6.7	7.0
33°	5.6	6.7	7.0
34°	5.6	6.4	7.0
35°	5.3	6.4	6.7
36°	5.3	6.4	6.7
37°	5.3	6.4	7.0
38°	5.3	6.4	6.7
39°	5.0	6.4	6.7
40°	5.0	6.4	6.7
41°	5.0	6.4	6.7
42°	5.0	6.4	6.7
43°	5.0	6.4	6.7
44°	5.0	6.2	6.7
45°	5.0	6.2	6.7
46°	5.0	6.4	6.7
47°	5.0	6.4	7.0
48°	5.0	6.2	6.7
49°	4.8	6.2	6.7
50°	4.8	6.2	6.7
51°	4.8	6.4	7.0
52°	4.8	6.4	7.0
53°	4.8	6.4	7.0
54°	4.8	6.4	6.7
55°	4.8	6.4	7.0
56°	4.8	6.4	6.7
57°	4.8	6.4	6.7
58°	4.8	6.2	6.7
59°	4.8	6.2	6.7
60°	4.8	6.2	6.7
62.5°	4.5	6.2	6.7
65°	4.5	5.9	6.4

TEST NUMBER: P1342056

CATALOG NUMBER: P3A09R359835DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	4.2	5.9	6.2
70°	3.9	5.6	5.9
72.5°	3.6	5.3	5.6
75°	3.4	4.8	5.0
77.5°	2.8	4.2	4.8
80°	2.5	3.6	3.9
82.5°	2.0	3.1	3.4
85°	1.4	2.2	2.2
87.5°	0.6	1.1	1.1
90°	0.0	0.0	0.0

(END OF REPORT)