

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: P1342554

Luminaire Tested: P3A09R409830DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342554
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: P3A09R409830DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

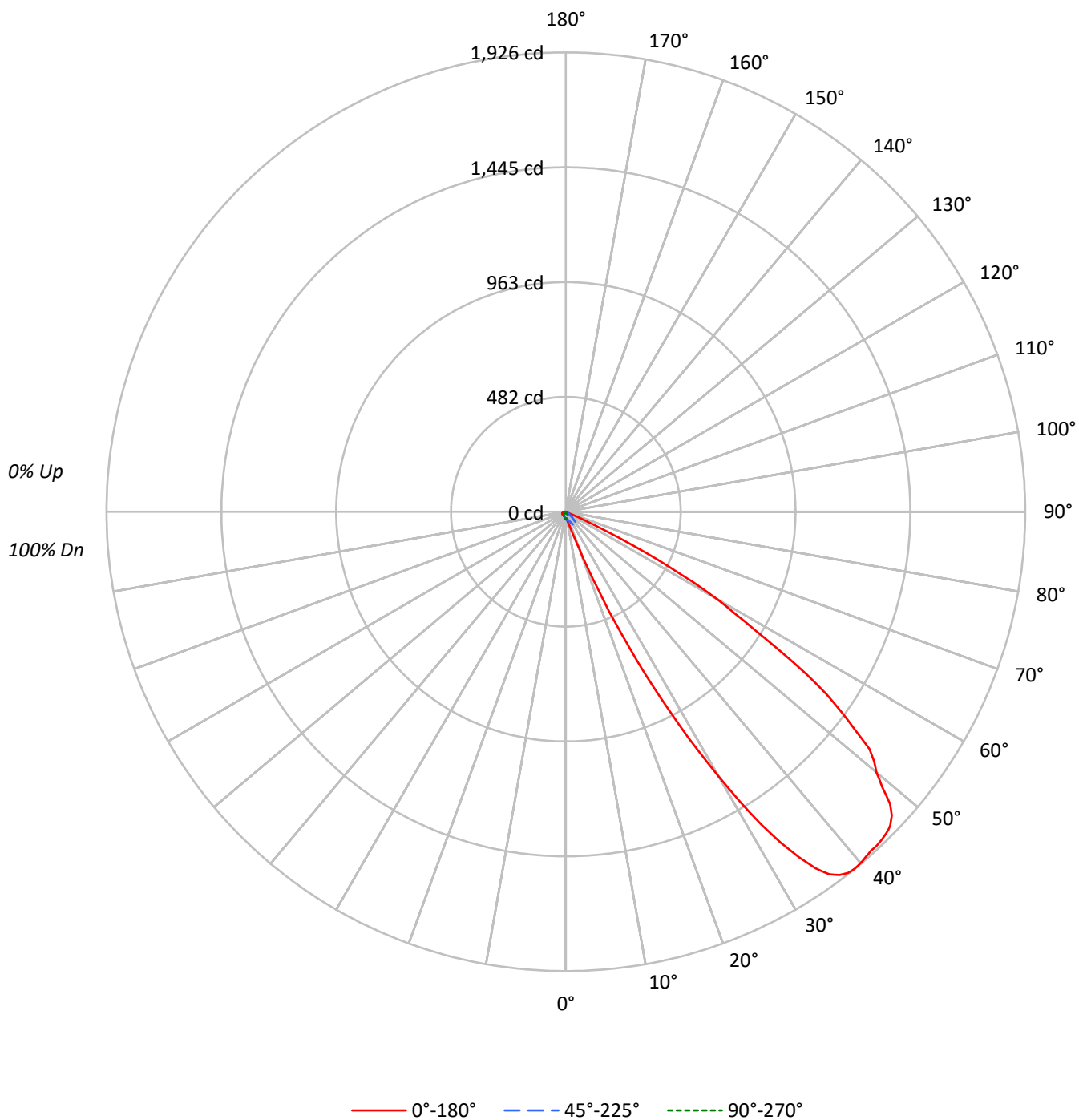
Lumens per Lamp: N/A
Luminaire Lumens: 595.0 lumens
Efficiency: N/A
Efficacy: 54.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1342554

CATALOG NUMBER: P3A09R409830DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1342554

CATALOG NUMBER: P3A09R409830DE010 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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6710	6710	6710	6710	6710
5°	7462	7220	6626	6009	5899
10°	8996	7660	6079	5478	5344
15°	14756	8309	5199	4835	4972
20°	39017	9824	4340	4340	4714
25°	150444	12170	3436	3968	4621
30°	324582	16180	2760	3874	4558
35°	488565	19167	2329	3801	4685
40°	550431	19236	2032	3922	5009
45°	590201	14916	1861	4062	5427
50°	580109	9313	1672	4298	5970
55°	510338	4588	1682	4817	6690
60°	323044	965	1930	5263	7412
65°	66051	259	1972	5656	8198
70°	1410	321	2116	6283	9489
75°	1356	932	2288	6947	10675
80°	1389	631	2778	7577	12375
85°	1258	1258	5535	8303	13838

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 600869 cd/sqm

TEST NUMBER: P1342554

CATALOG NUMBER: P3A09R409830DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.9	0.5
10°-20°	9.4	1.6
20°-30°	46.2	7.8
30°-40°	150.3	25.3
40°-50°	207.2	34.8
50°-60°	144.3	24.3
60°-70°	27.4	4.6
70°-80°	4.9	0.8
80°-90°	2.3	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°	58.5	9.8
0°-40°	208.8	35.1
0°-60°	560.4	94.2
0°-90°	595.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	595.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	31	31	31	31	31	
5°	34	33	30	27	27	3
15°	65	37	23	21	22	24
25°	622	50	14	16	19	320
35°	1825	72	9	14	18	1103
45°	1903	48	6	13	18	1447
55°	1335	12	4	13	18	1141
65°	127	0	4	11	16	225
75°	2	1	3	8	13	2
85°	0	0	2	3	6	0
90°	0	0	0	0	0	

TEST NUMBER: P1342554

CATALOG NUMBER: P3A09R409830DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
2.5°	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.1	30.6
5°	33.9	33.9	33.9	33.9	33.3	33.3	33.3	32.8	32.8	31.7	30.1
7.5°	36.1	36.1	36.1	36.1	35.5	35.0	34.4	34.4	33.9	31.1	29.0
10°	40.4	40.4	39.9	39.3	38.8	37.7	37.2	36.1	34.4	30.6	27.3
12.5°	49.2	48.1	47.5	46.4	44.8	42.6	40.4	38.8	35.0	29.5	25.7
15°	65.0	63.9	61.7	58.5	55.2	50.8	47.0	43.2	36.6	27.9	22.9
17.5°	92.9	89.6	86.3	80.9	72.7	65.0	56.8	49.7	38.8	26.2	20.8
20°	167.2	165.0	145.3	130.0	105.5	88.0	71.6	59.6	42.1	24.6	18.6
22.5°	344.8	321.8	289.6	237.1	184.7	136.1	98.9	74.9	45.4	22.4	16.4
25°	621.8	585.8	516.4	415.3	306.5	216.9	143.2	97.8	50.3	20.2	14.2
27.5°	941.5	904.9	797.2	657.9	480.3	327.3	204.4	129.5	56.8	18.0	12.6
30°	1281.9	1250.8	1114.2	921.3	677.0	458.5	273.8	161.7	63.9	15.8	10.9
31°	1419.1	1379.2	1231.6	1026.2	769.4	512.5	301.6	175.4	66.7	15.3	10.4
32°	1545.3	1499.9	1346.9	1126.7	844.2	571.0	332.2	187.4	68.8	14.2	9.8
33°	1654.0	1601.0	1453.5	1221.8	926.7	625.7	363.9	198.9	70.5	13.1	9.3
34°	1746.4	1700.5	1542.0	1317.4	1000.0	678.1	395.1	210.4	71.6	12.6	8.7
35°	1825.1	1783.5	1626.7	1390.1	1071.5	728.9	423.5	221.3	71.6	11.5	8.7
36°	1878.1	1842.0	1699.9	1464.4	1131.6	772.1	447.5	231.1	71.6	10.4	8.2
37°	1907.0	1872.1	1748.0	1525.6	1190.7	814.7	469.4	238.8	71.0	9.8	7.6
38°	1921.8	1891.2	1783.5	1575.3	1231.6	845.3	488.5	244.8	70.5	8.7	7.6
39°	1925.6	1899.9	1805.9	1611.4	1271.5	875.9	502.2	248.1	68.8	8.2	7.1
40°	1922.9	1900.5	1818.0	1643.6	1302.1	900.0	512.0	249.2	67.2	7.1	7.1
41°	1917.4	1899.9	1826.7	1666.0	1326.7	915.3	515.8	247.0	65.0	6.0	6.6
42°	1912.5	1893.4	1830.5	1681.3	1343.7	922.9	515.3	242.6	61.7	5.5	6.6
43°	1912.5	1890.6	1831.1	1691.2	1351.9	923.5	508.7	234.4	57.4	4.9	6.0
44°	1909.2	1889.0	1833.8	1697.7	1354.0	918.5	498.3	225.7	52.5	4.4	6.0
45°	1903.2	1881.9	1833.3	1698.3	1350.2	906.5	481.4	214.2	48.1	3.3	6.0
46°	1891.7	1872.6	1828.3	1694.5	1338.7	889.0	461.2	202.7	43.2	2.7	5.5
47°	1868.8	1854.0	1815.2	1681.3	1321.3	863.4	437.1	189.6	39.3	2.2	5.5
48°	1829.4	1819.0	1792.8	1652.4	1287.9	831.7	411.5	175.4	35.5	2.2	5.5
49°	1757.3	1749.1	1733.8	1605.9	1245.3	792.9	383.6	159.6	31.7	1.6	5.5
50°	1700.5	1691.7	1660.6	1527.8	1184.1	743.7	353.0	143.7	27.3	1.1	4.9
51°	1662.8	1648.6	1599.4	1437.1	1095.0	678.1	319.7	127.9	22.9	1.1	4.9
52°	1615.2	1593.9	1532.7	1355.7	1013.6	612.5	283.6	112.0	20.2	1.1	4.9
53°	1515.8	1508.1	1447.5	1268.3	932.2	549.7	246.4	98.9	17.5	1.1	4.9
54°	1428.9	1417.4	1334.9	1146.9	843.7	479.8	208.2	87.4	14.8	1.1	4.9
55°	1334.9	1312.5	1239.3	1044.8	739.9	415.3	171.6	75.4	12.0	1.1	4.4
56°	1216.3	1196.7	1118.0	935.5	644.2	349.7	143.7	61.7	9.3	1.1	4.4
57°	1072.1	1054.1	993.4	801.1	544.8	285.8	116.9	49.7	7.1	1.1	4.4
58°	932.7	912.5	843.1	672.1	439.9	226.8	97.8	40.4	5.5	1.1	4.4
59°	825.6	798.3	708.7	564.5	344.2	172.1	77.6	32.2	3.8	1.1	4.4
60°	736.6	714.2	621.3	469.9	269.9	126.8	57.4	24.6	2.2	1.1	4.4
62.5°	426.8	420.7	337.1	242.1	127.3	59.0	28.4	11.5	1.1	1.6	4.4
65°	127.3	110.9	86.3	51.4	32.8	19.7	10.4	3.8	0.5	1.6	3.8



TEST NUMBER: P1342554

CATALOG NUMBER: P3A09R409830DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.8	3.8	3.8	3.8	3.8	3.8	2.2	1.1	0.5	1.6	3.8
70°	2.2	1.6	1.6	1.6	1.6	1.1	1.1	0.5	0.5	1.6	3.3
72.5°	1.6	1.6	1.6	1.6	1.1	1.1	1.1	0.5	1.1	1.6	2.7
75°	1.6	1.1	1.1	1.1	1.1	0.5	0.5	0.5	1.1	1.6	2.7
77.5°	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5	1.1	1.6	2.7
80°	1.1	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.2
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.2
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.6	1.6
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: P1342554

CATALOG NUMBER: P3A09R409830DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	30.6	30.6	30.6	30.6
2.5°	29.5	29.0	28.4	28.4
5°	28.4	27.3	27.3	26.8
7.5°	26.8	25.7	25.7	25.7
10°	25.1	24.6	24.6	24.0
12.5°	22.9	22.9	22.9	22.9
15°	21.3	21.3	21.9	21.9
17.5°	19.1	19.7	20.8	21.3
20°	17.5	18.6	19.7	20.2
22.5°	16.4	17.5	19.1	19.7
25°	14.8	16.4	18.6	19.1
27.5°	13.7	15.8	17.5	18.6
30°	12.6	15.3	16.9	18.0
31°	12.6	14.8	16.9	18.0
32°	12.0	14.2	16.9	17.5
33°	12.0	14.2	16.9	17.5
34°	11.5	14.2	16.4	17.5
35°	11.5	14.2	16.4	17.5
36°	10.9	13.7	16.4	17.5
37°	10.9	13.7	16.4	17.5
38°	10.4	13.7	16.4	17.5
39°	10.4	13.7	16.4	17.5
40°	10.4	13.7	16.4	17.5
41°	9.8	13.7	16.4	17.5
42°	9.8	13.7	16.4	17.5
43°	9.8	13.1	16.4	17.5
44°	9.8	13.1	16.4	17.5
45°	9.3	13.1	16.4	17.5
46°	9.3	13.1	16.4	17.5
47°	9.3	13.1	16.4	17.5
48°	9.3	13.1	16.4	17.5
49°	9.3	13.1	16.4	17.5
50°	8.7	12.6	16.4	17.5
51°	8.7	12.6	16.4	17.5
52°	8.7	12.6	16.4	17.5
53°	8.7	12.6	16.4	17.5
54°	8.2	12.6	16.4	17.5
55°	8.2	12.6	16.4	17.5
56°	8.2	12.6	16.4	16.9
57°	8.2	12.6	15.8	16.9
58°	8.2	12.0	15.8	16.9
59°	8.2	12.0	15.8	16.9
60°	8.2	12.0	15.8	16.9
62.5°	7.6	12.0	15.3	16.4
65°	7.1	10.9	15.3	15.8



TEST NUMBER: P1342554

CATALOG NUMBER: P3A09R409830DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	7.1	10.4	14.2	15.3
70°	6.6	9.8	13.7	14.8
72.5°	5.5	9.3	12.6	13.7
75°	4.9	8.2	11.5	12.6
77.5°	4.4	7.1	10.4	10.9
80°	3.8	6.0	8.7	9.8
82.5°	2.7	4.4	7.1	7.6
85°	2.2	3.3	4.9	5.5
87.5°	1.6	1.6	2.7	2.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)