

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: P1337309

Luminaire Tested: P3A05R259027DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1337309
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R259027DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R25 optic, 2700K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

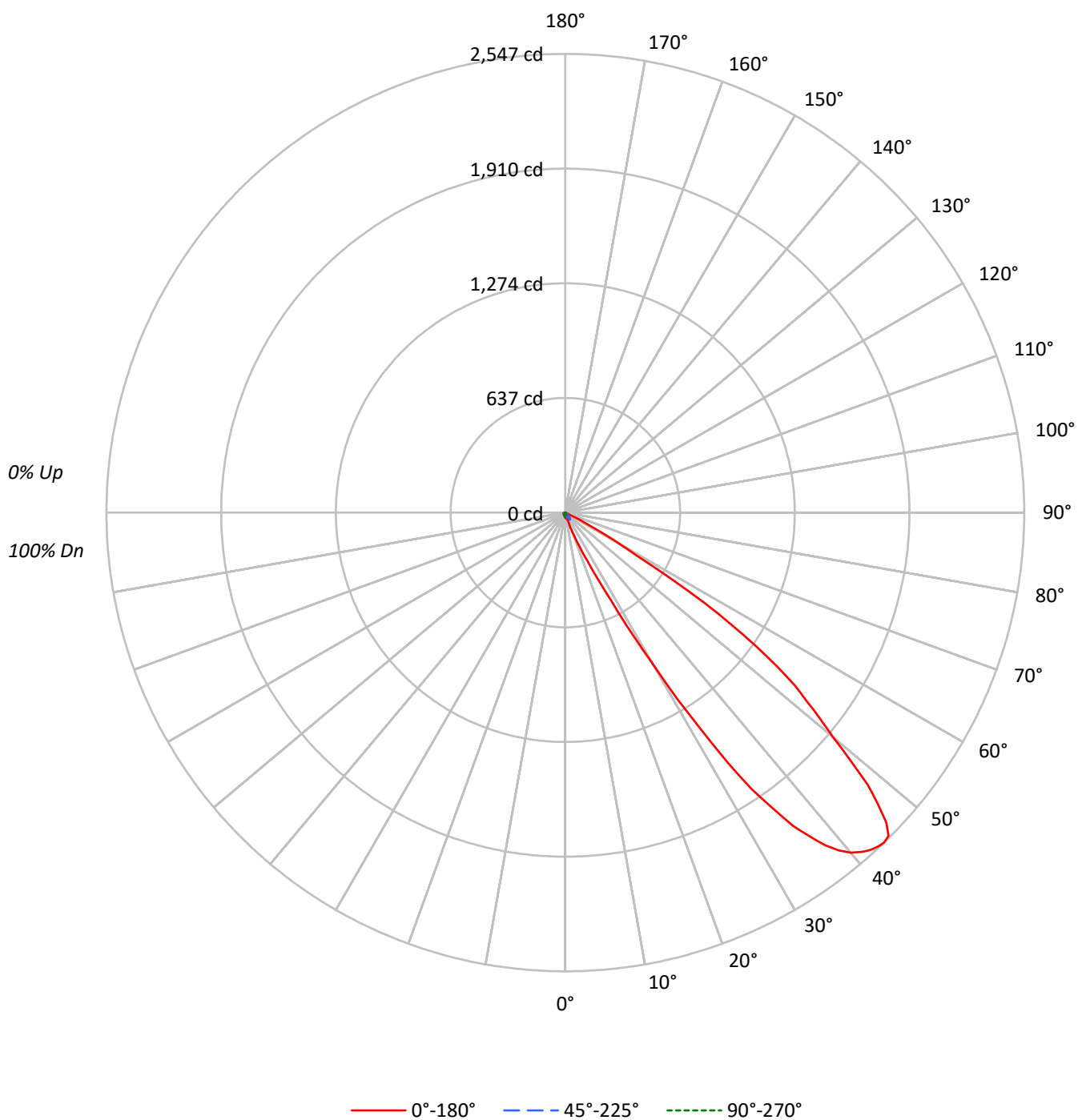
Lumens per Lamp: N/A
Luminaire Lumens: 531.0 lumens
Efficiency: N/A
Efficacy: 73.7 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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: P1337309

CATALOG NUMBER: P3A05R259027DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1337309

CATALOG NUMBER: P3A05R259027DE010 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	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	64		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	39	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	39	32	46	38	32		44	37	32		43	36	32	29
8	57	43	34	27	55	42	33	27	40	33	27		39	32	27		38	32	27	25
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	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5943	5943	5943	5943	5943
5°	6780	6471	5767	5151	5041
10°	6769	6146	4899	4275	4275
15°	7537	5312	3814	3610	3814
20°	26602	5227	2940	3057	3384
25°	76529	6678	2371	2831	3291
30°	244189	10305	1899	2709	3317
35°	534849	12126	1633	2623	3373
40°	705550	10963	1345	2662	3607
45°	786841	7691	1302	2884	3907
50°	662324	3991	1262	3036	4298
55°	495199	1606	1262	3403	4817
60°	153277	395	1228	3684	5307
65°	13075	0	1453	3891	5811
70°	898	321	1475	4488	6604
75°	763	424	1949	4745	7540
80°	631	631	2904	5304	8840
85°	1258	1258	4780	5787	9309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 786841 cd/sqm

TEST NUMBER: P1337309

CATALOG NUMBER: P3A05R259027DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.5
10°-20°	6.3	1.2
20°-30°	29.4	5.5
30°-40°	141.4	26.6
40°-50°	221.7	41.8
50°-60°	113.7	21.4
60°-70°	10.7	2.0
70°-80°	3.6	0.7
80°-90°	1.8	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°	38.1	7.2
0°-40°	179.5	33.8
0°-60°	514.9	97.0
0°-90°	531.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	531.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	27	27	27	27	27	
5°	31	29	26	23	23	3
15°	33	23	17	16	17	14
25°	316	28	10	12	14	196
35°	1998	45	6	10	13	1213
45°	2537	25	4	9	13	1857
55°	1295	4	3	9	13	1078
65°	25	0	3	8	11	79
75°	1	0	2	6	9	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

TEST NUMBER: P1337309

CATALOG NUMBER: P3A05R259027DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
2.5°	29.4	29.4	29.4	29.4	29.4	29.4	29.0	29.0	29.4	29.0	29.0
5°	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.4	30.4	30.4	29.4
7.5°	31.3	30.8	30.8	30.8	30.8	30.8	30.8	30.8	30.4	30.4	29.0
10°	30.4	30.4	30.4	30.4	29.9	29.9	29.9	29.4	29.4	29.4	27.6
12.5°	30.4	30.4	30.4	30.4	29.9	29.9	29.4	29.4	29.0	28.5	25.2
15°	33.2	33.2	33.2	32.7	32.2	31.8	31.3	30.8	30.4	29.4	23.4
17.5°	48.6	47.2	46.7	44.9	42.5	40.2	38.3	36.4	34.6	33.2	22.4
20°	114.0	113.5	111.2	105.6	99.5	92.5	85.5	77.6	66.4	58.9	22.4
22.5°	197.7	194.9	190.6	186.4	175.7	163.1	150.0	135.0	120.6	105.1	23.8
25°	316.3	322.9	308.9	297.6	279.0	256.1	231.3	210.7	184.6	160.3	27.6
27.5°	550.0	554.2	526.6	490.2	446.7	398.6	351.9	316.8	272.9	232.7	34.6
30°	964.4	968.6	922.4	844.8	755.1	676.1	569.1	475.2	388.8	321.9	40.7
31°	1203.7	1171.0	1117.2	1042.0	928.5	809.3	680.8	567.3	457.9	370.1	42.5
32°	1411.6	1408.8	1346.2	1232.2	1118.2	971.0	811.6	663.5	529.4	418.7	43.9
33°	1656.9	1638.2	1549.9	1442.5	1291.5	1143.4	937.8	768.7	602.8	472.9	44.9
34°	1853.7	1803.2	1766.7	1643.8	1484.5	1295.7	1075.6	879.9	694.4	525.2	45.3
35°	1998.0	1987.3	1916.3	1801.8	1639.6	1446.7	1224.2	995.3	771.0	586.0	45.3
36°	2150.8	2117.7	2048.5	1944.8	1786.8	1587.3	1337.8	1095.3	860.2	640.6	44.9
37°	2246.6	2227.0	2158.3	2051.3	1896.6	1706.0	1464.9	1200.9	931.3	695.3	43.9
38°	2345.2	2305.5	2237.7	2135.4	1983.6	1804.6	1556.9	1282.2	996.7	743.4	42.5
39°	2413.4	2372.3	2303.2	2201.3	2052.7	1875.1	1629.8	1351.3	1053.7	779.4	40.7
40°	2464.8	2425.1	2355.0	2250.4	2103.6	1930.7	1690.6	1412.5	1101.3	810.7	38.3
41°	2496.6	2459.7	2390.1	2285.9	2138.7	1962.5	1730.3	1452.3	1133.6	831.7	36.0
42°	2523.2	2485.4	2414.4	2307.8	2160.2	1989.6	1754.6	1477.5	1155.6	842.5	34.1
43°	2538.2	2500.3	2431.2	2322.3	2173.3	2002.2	1767.7	1489.2	1163.0	841.1	30.8
44°	2546.6	2507.4	2437.7	2328.9	2178.9	2005.5	1768.6	1486.8	1157.9	829.9	28.0
45°	2537.3	2498.5	2431.2	2322.3	2169.1	1995.2	1759.3	1474.2	1138.3	807.9	24.8
46°	2476.5	2446.6	2384.9	2284.9	2138.2	1969.1	1735.4	1449.9	1107.9	780.8	21.0
47°	2369.5	2345.7	2285.9	2211.6	2078.9	1920.9	1691.5	1403.7	1065.4	740.2	16.8
48°	2257.8	2222.8	2167.2	2091.0	1978.9	1834.5	1619.1	1335.9	1000.9	686.9	15.0
49°	2092.9	2072.3	2023.3	1938.2	1845.2	1718.1	1516.8	1249.0	921.9	628.9	13.1
50°	1941.5	1927.5	1858.8	1796.2	1697.6	1578.9	1378.0	1134.5	823.8	557.0	11.7
51°	1823.3	1806.5	1756.9	1678.9	1573.8	1435.9	1246.7	985.9	711.2	471.5	9.3
52°	1699.9	1690.6	1646.7	1566.3	1463.0	1325.6	1119.1	859.8	601.8	398.6	7.5
53°	1599.0	1585.4	1531.7	1460.2	1348.5	1206.5	980.8	742.5	509.8	335.0	6.5
54°	1451.8	1446.2	1411.6	1336.9	1215.8	1061.2	855.6	625.2	425.2	284.1	5.6
55°	1295.3	1276.6	1241.5	1182.2	1071.0	926.6	710.7	518.2	343.9	239.2	4.2
56°	1104.6	1103.7	1041.1	991.5	892.9	739.7	567.7	404.7	279.4	199.5	3.7
57°	922.4	892.9	832.7	783.6	677.5	561.2	421.5	303.3	218.7	161.7	2.8
58°	682.2	666.8	650.9	578.9	480.8	397.6	300.9	213.1	161.7	123.4	1.9
59°	463.1	462.6	443.9	389.2	332.7	247.7	187.8	144.9	111.2	90.6	1.4
60°	349.5	341.1	303.7	267.7	209.3	156.5	111.2	85.5	69.2	58.4	0.9
62.5°	122.4	127.1	111.7	92.5	70.6	57.9	44.4	36.0	29.4	23.8	0.0
65°	25.2	27.6	23.8	22.4	17.8	15.4	13.6	11.7	9.8	8.4	0.0



TEST NUMBER: P1337309

CATALOG NUMBER: P3A05R259027DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.3	2.8	2.8	2.8	2.3	2.3	2.3	2.3	1.9	1.9	0.5
70°	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.5
72.5°	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5
75°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9
85°	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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: P1337309

CATALOG NUMBER: P3A05R259027DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	27.1	27.1	27.1	27.1	27.1	27.1
2.5°	28.5	27.6	26.2	25.7	25.2	25.2
5°	28.0	26.2	24.8	23.4	22.9	22.9
7.5°	26.6	24.3	22.4	21.5	21.0	20.6
10°	25.2	22.0	20.1	19.2	19.2	19.2
12.5°	22.4	19.6	17.8	17.3	17.8	17.8
15°	20.1	16.8	15.9	15.9	16.4	16.8
17.5°	17.3	15.0	14.0	14.5	15.0	15.4
20°	15.4	12.6	12.6	13.1	14.5	14.5
22.5°	13.6	11.2	11.2	12.6	13.6	14.0
25°	12.1	9.8	10.3	11.7	13.1	13.6
27.5°	10.3	8.4	9.3	11.2	12.6	13.1
30°	8.9	7.5	8.9	10.7	12.1	13.1
31°	8.4	7.0	8.9	10.3	12.1	13.1
32°	7.5	7.0	8.4	10.3	12.1	12.6
33°	7.0	6.5	8.4	10.3	12.1	12.6
34°	6.5	6.1	7.9	10.3	12.1	12.6
35°	5.6	6.1	7.9	9.8	11.7	12.6
36°	5.1	5.6	7.9	9.8	11.7	12.6
37°	4.7	5.6	7.5	9.8	11.7	12.6
38°	4.2	5.1	7.5	9.8	11.7	12.6
39°	3.7	5.1	7.0	9.8	11.7	12.6
40°	3.3	4.7	7.0	9.3	11.7	12.6
41°	3.3	4.7	7.0	9.3	11.7	12.6
42°	2.8	4.7	7.0	9.3	11.7	12.6
43°	2.3	4.2	7.0	9.3	11.7	12.6
44°	1.9	4.2	6.5	9.3	11.7	12.6
45°	1.9	4.2	6.5	9.3	11.7	12.6
46°	1.4	3.7	6.5	9.3	11.7	12.6
47°	0.9	3.7	6.5	8.9	11.7	12.6
48°	0.9	3.7	6.5	8.9	11.7	12.6
49°	0.9	3.7	6.1	8.9	11.7	12.6
50°	0.9	3.7	6.1	8.9	11.7	12.6
51°	0.5	3.3	6.1	8.9	11.7	12.6
52°	0.5	3.3	6.1	8.9	11.7	13.1
53°	0.5	3.3	6.1	8.9	11.7	12.6
54°	0.5	3.3	5.6	8.9	11.7	12.6
55°	0.5	3.3	5.6	8.9	11.7	12.6
56°	0.5	2.8	5.6	8.4	11.7	12.6
57°	0.9	2.8	5.6	8.4	11.7	12.1
58°	0.9	2.8	5.6	8.4	11.2	12.1
59°	0.9	2.8	5.6	8.4	11.2	12.1
60°	0.9	2.8	5.1	8.4	11.2	12.1
62.5°	0.9	2.8	5.1	7.9	10.7	11.7
65°	0.9	2.8	4.7	7.5	10.7	11.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.3	4.7	7.0	10.3	10.7
70°	1.4	2.3	4.2	7.0	9.8	10.3
72.5°	1.4	2.3	4.2	6.1	8.9	9.8
75°	1.4	2.3	3.7	5.6	8.4	8.9
77.5°	1.4	2.3	3.3	5.1	7.5	7.9
80°	1.9	2.3	2.8	4.2	6.5	7.0
82.5°	1.9	2.3	2.3	3.3	5.1	5.6
85°	1.4	1.9	1.9	2.3	3.3	3.7
87.5°	1.4	1.9	1.4	0.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)