

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: P1336960

Luminaire Tested: P3A05R209827DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336960
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R209827DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

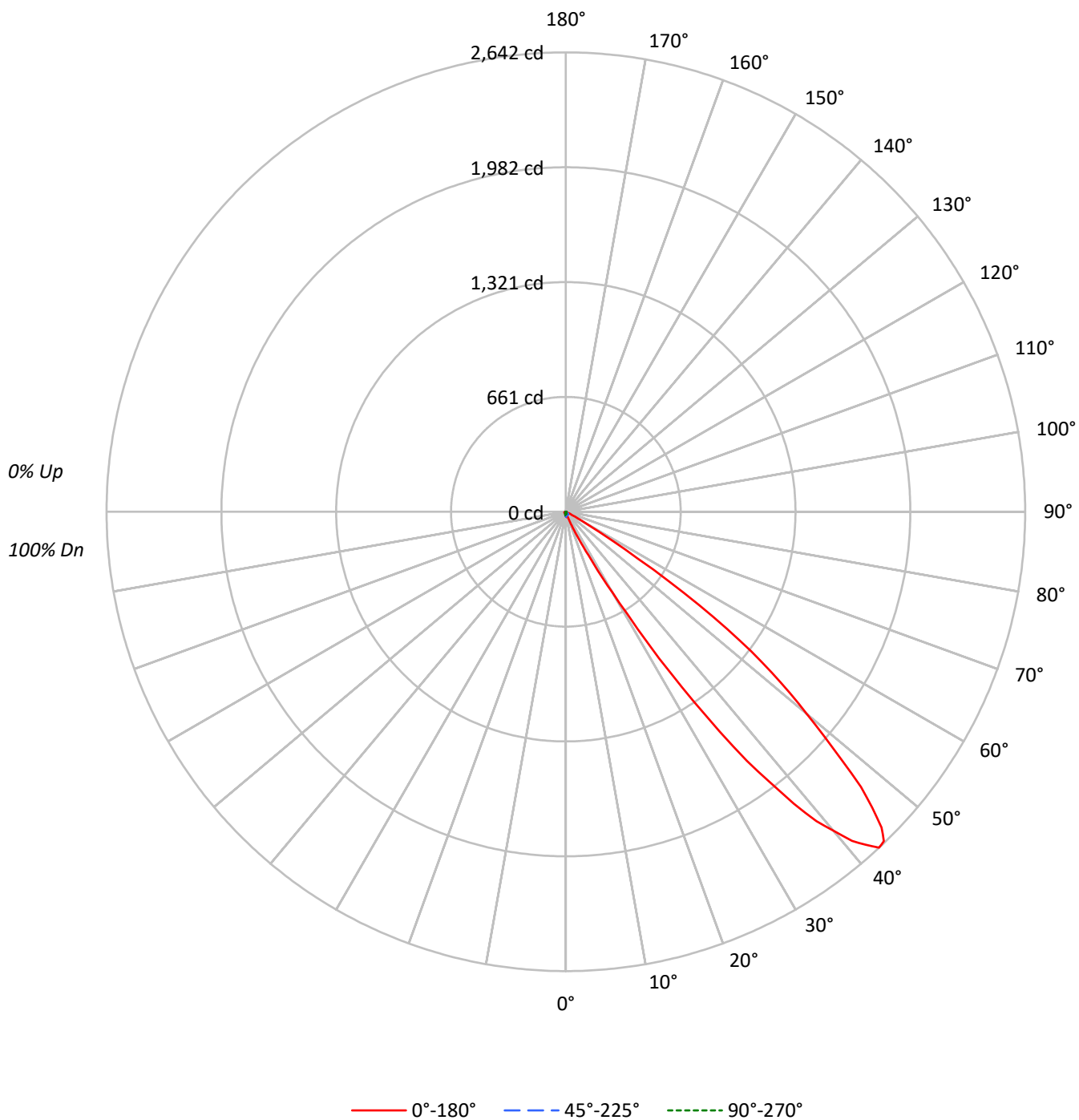
Lumens per Lamp: N/A
Luminaire Lumens: 367.0 lumens
Efficiency: N/A
Efficacy: 51.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



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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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
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	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5592	5592	5592	5592	5592
5°	6538	6075	5239	4556	4402
10°	6457	5522	4142	3540	3451
15°	5630	4222	3065	2815	2974
20°	8377	3547	2264	2404	2660
25°	36050	3678	1742	2178	2589
30°	136325	4456	1494	2102	2532
35°	413237	5354	1392	2115	2677
40°	685255	5324	1174	2261	2863
45°	796486	3628	1054	2357	3101
50°	618282	2013	1058	2456	3514
55°	357837	1300	1070	2753	3823
60°	60521	307	921	2895	4254
65°	4670	0	1090	3217	4825
70°	641	0	1346	3526	5514
75°	593	254	1440	4067	6439
80°	379	379	2147	4293	7450
85°	755	755	3522	4277	7799

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 796486 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.6
10°-20°	4.6	1.3
20°-30°	14.7	4.0
30°-40°	93.6	25.5
40°-50°	171.3	46.7
50°-60°	70.4	19.2
60°-70°	5.9	1.6
70°-80°	2.9	0.8
80°-90°	1.4	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°	21.4	5.8
0°-40°	115.0	31.3
0°-60°	356.7	97.2
0°-90°	367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	367.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	26	26	26	26	26	
5°	30	28	24	21	20	3
15°	25	19	14	12	13	8
25°	149	15	7	9	11	98
35°	1544	20	5	8	10	977
45°	2568	12	3	8	10	1844
55°	936	3	3	7	10	818
65°	9	0	2	6	9	29
75°	1	0	2	5	8	1
85°	0	0	1	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
2.5°	27.9	27.9	27.9	27.6	27.6	27.9	27.6	27.6	27.6	27.6	27.2
5°	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.3	29.3	29.0	27.6
7.5°	30.4	30.4	30.4	30.4	30.0	30.0	30.0	30.0	29.7	29.3	26.9
10°	29.0	29.0	29.0	28.6	28.6	28.6	28.3	28.3	27.9	27.6	24.8
12.5°	26.2	26.2	26.2	26.2	25.9	25.9	25.5	25.5	25.2	24.8	21.7
15°	24.8	24.8	24.8	24.5	24.5	24.1	23.8	23.5	23.1	22.4	18.6
17.5°	26.9	26.9	26.6	26.6	25.9	25.2	24.8	23.8	23.1	22.1	16.6
20°	35.9	36.2	34.8	33.8	33.1	31.0	30.0	28.3	26.9	25.2	15.2
22.5°	72.4	71.0	68.6	64.8	60.4	56.6	49.7	44.1	40.4	35.2	14.8
25°	149.0	147.6	141.1	135.5	121.7	111.1	96.2	84.2	71.7	59.7	15.2
27.5°	283.2	273.8	272.1	246.9	227.6	200.0	171.4	147.3	125.2	100.7	16.2
30°	538.4	527.7	490.1	452.2	400.1	341.1	284.9	232.5	188.7	149.0	17.6
31°	683.2	693.6	649.4	573.2	496.3	420.8	343.9	277.3	220.7	171.4	18.3
32°	898.1	852.9	806.4	728.1	616.3	519.8	423.2	327.3	252.8	195.6	19.0
33°	1101.2	1074.7	1003.6	906.0	771.9	636.3	511.1	386.3	292.1	224.9	19.3
34°	1317.8	1288.5	1230.9	1090.9	943.6	766.0	599.1	454.2	339.0	253.5	19.7
35°	1543.7	1531.3	1420.3	1298.9	1117.8	903.6	705.0	528.7	384.9	279.7	20.0
36°	1771.0	1731.0	1644.1	1466.8	1277.8	1030.9	816.0	598.0	431.5	310.7	20.0
37°	1942.1	1933.1	1817.9	1645.1	1423.0	1166.8	911.9	675.0	478.4	337.3	20.0
38°	2130.8	2095.2	1978.3	1802.4	1559.6	1291.3	1012.3	741.9	522.9	361.4	19.7
39°	2289.8	2237.0	2119.0	1945.2	1678.9	1385.8	1091.9	806.7	562.2	381.5	19.3
40°	2393.9	2357.3	2234.2	2038.7	1787.2	1475.1	1172.6	860.2	591.5	396.6	18.6
41°	2508.8	2448.1	2326.3	2129.7	1865.9	1553.7	1223.3	895.3	614.3	406.6	17.9
42°	2577.4	2527.7	2383.2	2190.8	1922.1	1598.6	1264.7	922.2	628.1	411.8	16.6
43°	2641.5	2573.9	2433.2	2226.3	1959.3	1630.3	1283.7	934.7	631.2	411.8	14.8
44°	2632.9	2568.8	2422.9	2231.1	1967.6	1639.6	1291.6	935.0	626.3	406.6	13.1
45°	2568.4	2504.6	2373.2	2189.0	1938.0	1621.3	1275.8	921.2	612.9	397.7	11.7
46°	2450.1	2386.7	2286.0	2118.7	1882.8	1580.0	1238.9	891.2	590.5	383.2	10.3
47°	2321.5	2259.7	2156.6	2005.2	1788.6	1506.2	1185.4	849.1	559.1	362.1	9.3
48°	2134.9	2096.3	1992.8	1863.5	1657.9	1390.6	1091.6	780.5	517.0	334.9	7.9
49°	1970.0	1929.3	1838.6	1699.6	1487.5	1256.1	979.5	697.0	462.2	304.5	6.9
50°	1812.4	1776.9	1693.1	1536.2	1333.7	1093.7	828.1	591.8	393.2	266.9	5.9
51°	1658.2	1631.7	1546.2	1402.0	1196.4	968.8	717.4	492.9	324.9	221.4	5.5
52°	1503.4	1500.3	1407.5	1261.6	1063.0	844.3	609.8	415.9	275.6	185.9	5.2
53°	1336.8	1316.8	1235.8	1104.7	914.0	714.6	517.0	350.8	237.3	158.3	4.5
54°	1147.1	1124.7	1037.8	919.5	746.7	585.3	416.6	283.5	197.6	133.8	4.1
55°	936.0	897.8	834.6	713.2	583.2	446.6	321.8	224.5	158.0	111.4	3.4
56°	710.1	671.9	636.3	547.0	428.0	333.2	239.7	172.1	123.5	87.9	3.1
57°	493.9	491.8	433.5	364.9	286.3	226.9	164.2	121.4	87.3	68.3	2.4
58°	320.4	309.7	272.5	232.8	187.3	141.8	105.5	82.4	59.3	46.6	2.1
59°	224.5	203.1	183.1	155.2	118.0	89.3	67.9	52.8	41.0	32.4	1.4
60°	138.0	133.5	120.0	94.5	76.6	63.1	50.7	39.0	30.0	23.1	0.7
62.5°	39.3	40.0	36.2	32.1	27.6	23.8	21.4	18.3	15.2	12.1	0.0
65°	9.0	8.6	9.3	8.6	7.9	7.9	6.9	6.2	5.5	5.2	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.8	2.8	2.4	2.4	2.4	2.1	2.1	1.7	1.7	1.4	0.0
70°	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.3	0.0
72.5°	1.0	1.0	1.0	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3
77.5°	0.7	0.7	0.7	0.7	0.7	0.3	0.7	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	25.5	25.5	25.5	25.5	25.5	25.5
2.5°	26.6	25.2	24.1	23.1	22.8	22.8
5°	25.9	23.8	21.7	20.7	20.0	20.0
7.5°	23.8	21.4	19.3	18.3	17.9	17.9
10°	21.4	18.6	16.6	15.9	15.9	15.5
12.5°	18.6	15.9	14.5	14.1	14.1	14.1
15°	15.5	13.5	12.4	12.4	12.8	13.1
17.5°	13.1	11.0	10.7	11.4	12.1	12.1
20°	11.0	9.7	9.7	10.3	11.0	11.4
22.5°	9.3	8.3	8.6	9.7	10.7	11.0
25°	8.3	7.2	7.9	9.0	10.0	10.7
27.5°	6.9	6.6	7.2	8.6	10.0	10.3
30°	5.9	5.9	6.9	8.3	9.7	10.0
31°	5.5	5.5	6.9	8.3	9.7	10.0
32°	5.2	5.5	6.6	8.3	9.7	10.0
33°	4.8	5.2	6.6	7.9	9.7	10.0
34°	4.5	5.2	6.6	7.9	9.7	10.0
35°	4.1	5.2	6.6	7.9	9.7	10.0
36°	3.8	4.8	6.2	7.9	9.7	10.0
37°	3.4	4.8	6.2	7.9	9.7	10.0
38°	3.1	4.5	6.2	7.9	9.7	10.0
39°	3.1	4.5	5.9	7.9	9.3	10.0
40°	2.8	4.1	5.9	7.9	9.3	10.0
41°	2.4	4.1	5.9	7.6	9.3	10.0
42°	2.1	3.8	5.5	7.6	9.3	10.0
43°	1.7	3.8	5.5	7.6	9.3	10.0
44°	1.7	3.4	5.5	7.6	9.3	10.0
45°	1.4	3.4	5.5	7.6	9.3	10.0
46°	1.0	3.4	5.5	7.6	9.3	10.0
47°	1.0	3.1	5.2	7.6	9.3	10.0
48°	0.7	3.1	5.2	7.6	9.3	10.0
49°	0.7	3.1	5.2	7.6	9.3	10.3
50°	0.7	3.1	5.2	7.2	9.3	10.3
51°	0.3	3.1	5.2	7.2	9.3	10.3
52°	0.3	3.1	4.8	7.2	9.7	10.3
53°	0.3	2.8	4.8	7.2	9.7	10.3
54°	0.3	2.8	4.8	7.2	9.7	10.0
55°	0.3	2.8	4.8	7.2	9.3	10.0
56°	0.3	2.4	4.8	7.2	9.3	10.0
57°	0.3	2.4	4.5	6.9	9.3	9.7
58°	0.3	2.4	4.5	6.9	9.3	9.7
59°	0.3	2.4	4.5	6.9	9.0	9.7
60°	0.7	2.1	4.1	6.6	9.0	9.7
62.5°	0.7	2.1	4.1	6.6	8.6	9.3
65°	0.7	2.1	3.8	6.2	8.6	9.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	1.7	3.4	5.9	8.3	9.0
70°	0.7	2.1	3.4	5.5	7.9	8.6
72.5°	1.0	1.7	3.1	5.2	7.6	8.3
75°	1.0	1.7	3.1	4.8	7.2	7.6
77.5°	1.4	1.7	2.8	4.1	6.6	6.9
80°	1.4	1.7	2.4	3.4	5.5	5.9
82.5°	1.4	1.7	1.7	2.8	4.1	4.5
85°	1.0	1.4	1.4	1.7	2.8	3.1
87.5°	1.0	1.4	1.0	0.7	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)