

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: P1336896

Luminaire Tested: P3A05R209727DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336896
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: P3A05R209727DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

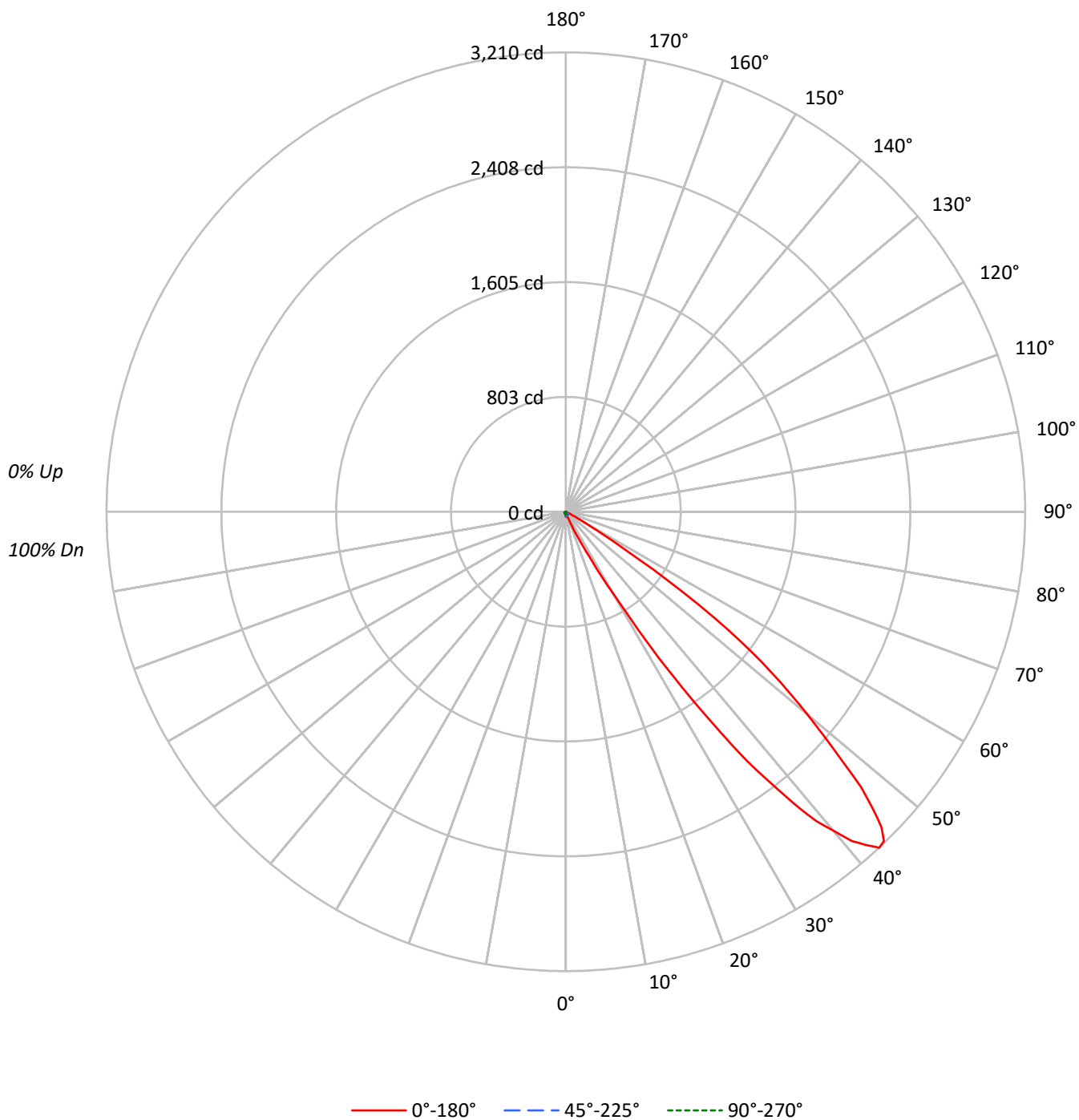
Lumens per Lamp: N/A
Luminaire Lumens: 446.0 lumens
Efficiency: N/A
Efficacy: 61.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	108	104	101	97	100	97	94		96	94	92		92
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6798	6798	6798	6798	6798
5°	7924	7374	6361	5525	5349
10°	7838	6724	5032	4297	4208
15°	6856	5131	3700	3428	3610
20°	10174	4294	2730	2940	3220
25°	43817	4452	2129	2637	3145
30°	165671	5419	1798	2557	3089
35°	502191	6505	1686	2570	3266
40°	832760	6469	1431	2748	3492
45°	967945	4435	1302	2853	3783
50°	751395	2422	1296	3002	4298
55°	434871	1606	1300	3364	4664
60°	73547	351	1096	3508	5131
65°	5656	0	1297	3891	5863
70°	833	0	1603	4296	6732
75°	678	339	1779	4999	7795
80°	505	505	2652	5304	8966
85°	1006	1006	4277	5284	9561

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 967945 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.6
10°-20°	5.6	1.3
20°-30°	17.8	4.0
30°-40°	113.7	25.5
40°-50°	208.2	46.7
50°-60°	85.5	19.2
60°-70°	7.2	1.6
70°-80°	3.6	0.8
80°-90°	1.7	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°	26.1	5.8
0°-40°	139.8	31.3
0°-60°	433.5	97.2
0°-90°	446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	446.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	31	31	31	31	31	
5°	36	34	29	25	24	3
15°	30	23	16	15	16	10
25°	181	18	9	11	13	119
35°	1876	24	6	10	12	1187
45°	3121	14	4	9	12	2241
55°	1138	4	3	9	12	994
65°	11	0	2	8	11	36
75°	1	0	2	6	9	1
85°	0	0	2	2	4	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°	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
2.5°	33.9	33.9	33.9	33.5	33.5	33.9	33.5	33.5	33.5	33.5	33.1
5°	36.0	36.0	36.0	36.0	36.0	36.0	36.0	35.6	35.6	35.2	33.5
7.5°	36.9	36.9	36.9	36.9	36.5	36.5	36.5	36.5	36.0	35.6	32.7
10°	35.2	35.2	35.2	34.8	34.8	34.8	34.4	34.4	33.9	33.5	30.2
12.5°	31.9	31.9	31.9	31.9	31.4	31.4	31.0	31.0	30.6	30.2	26.4
15°	30.2	30.2	30.2	29.8	29.8	29.3	28.9	28.5	28.1	27.2	22.6
17.5°	32.7	32.7	32.3	32.3	31.4	30.6	30.2	28.9	28.1	26.8	20.1
20°	43.6	44.0	42.3	41.1	40.2	37.7	36.5	34.4	32.7	30.6	18.4
22.5°	88.0	86.3	83.4	78.8	73.3	68.7	60.4	53.6	49.0	42.8	18.0
25°	181.1	179.4	171.4	164.7	148.0	135.0	116.9	102.3	87.2	72.5	18.4
27.5°	344.1	332.8	330.7	300.1	276.6	243.1	208.3	179.0	152.1	122.4	19.7
30°	654.3	641.3	595.6	549.5	486.2	414.5	346.2	282.5	229.3	181.1	21.4
31°	830.3	842.9	789.2	696.6	603.1	511.3	417.9	337.0	268.2	208.3	22.2
32°	1091.4	1036.5	979.9	884.8	749.0	631.6	514.3	397.8	307.2	237.6	23.1
33°	1338.3	1306.0	1219.7	1101.1	938.0	773.3	621.2	469.4	355.0	273.3	23.5
34°	1601.5	1565.9	1495.9	1325.7	1146.8	930.9	728.0	552.0	412.0	308.1	23.9
35°	1876.0	1861.0	1726.0	1578.5	1358.4	1098.1	856.7	642.5	467.8	339.9	24.3
36°	2152.3	2103.6	1998.0	1782.6	1552.9	1252.8	991.7	726.8	524.3	377.6	24.3
37°	2360.2	2349.3	2209.3	1999.3	1729.4	1417.9	1108.2	820.2	581.3	409.9	24.3
38°	2589.4	2546.2	2404.2	2190.4	1895.3	1569.2	1230.2	901.6	635.4	439.3	23.9
39°	2782.6	2718.5	2575.2	2363.9	2040.4	1684.1	1327.0	980.4	683.2	463.6	23.5
40°	2909.2	2864.8	2715.2	2477.5	2172.0	1792.6	1425.1	1045.3	718.8	482.0	22.6
41°	3048.8	2975.0	2827.1	2588.2	2267.5	1888.2	1486.7	1088.1	746.5	494.2	21.8
42°	3132.2	3071.8	2896.2	2662.3	2335.8	1942.7	1537.0	1120.8	763.2	500.4	20.1
43°	3210.2	3128.0	2957.0	2705.5	2381.1	1981.3	1560.0	1135.9	767.0	500.4	18.0
44°	3199.7	3121.7	2944.4	2711.4	2391.2	1992.6	1569.7	1136.3	761.1	494.2	15.9
45°	3121.3	3043.8	2884.1	2660.3	2355.1	1970.4	1550.4	1119.5	744.8	483.3	14.3
46°	2977.5	2900.4	2778.0	2574.7	2288.1	1920.1	1505.5	1083.0	717.6	465.7	12.6
47°	2821.2	2746.2	2620.9	2436.9	2173.6	1830.4	1440.6	1031.9	679.4	440.1	11.3
48°	2594.4	2547.5	2421.8	2264.6	2014.8	1690.0	1326.6	948.5	628.3	407.0	9.6
49°	2394.1	2344.6	2234.4	2065.5	1807.7	1526.5	1190.3	847.1	561.6	370.1	8.4
50°	2202.6	2159.4	2057.5	1866.8	1620.8	1329.1	1006.3	719.2	477.8	324.4	7.1
51°	2015.2	1982.9	1879.0	1703.8	1454.0	1177.4	871.8	598.9	394.8	269.1	6.7
52°	1827.0	1823.2	1710.5	1533.2	1291.8	1026.0	741.0	505.5	334.9	225.9	6.3
53°	1624.6	1600.3	1501.8	1342.5	1110.7	868.4	628.3	426.3	288.4	192.4	5.4
54°	1394.0	1366.8	1261.2	1117.4	907.4	711.3	506.3	344.5	240.2	162.6	5.0
55°	1137.5	1091.0	1014.3	866.8	708.8	542.8	391.1	272.9	192.0	135.4	4.2
56°	863.0	816.5	773.3	664.7	520.1	404.9	291.3	209.1	150.1	106.9	3.8
57°	600.2	597.7	526.9	443.4	347.9	275.8	199.5	147.5	106.0	83.0	2.9
58°	389.4	376.4	331.1	282.9	227.6	172.3	128.3	100.2	72.1	56.6	2.5
59°	272.9	246.9	222.6	188.6	143.3	108.6	82.6	64.1	49.9	39.4	1.7
60°	167.7	162.2	145.9	114.8	93.0	76.7	61.6	47.4	36.5	28.1	0.8
62.5°	47.8	48.6	44.0	39.0	33.5	28.9	26.0	22.2	18.4	14.7	0.0
65°	10.9	10.5	11.3	10.5	9.6	9.6	8.4	7.5	6.7	6.3	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°	3.4	3.4	2.9	2.9	2.9	2.5	2.5	2.1	2.1	1.7	0.0
70°	1.3	1.3	1.3	1.3	1.3	0.8	0.8	0.8	0.4	0.4	0.0
72.5°	1.3	1.3	1.3	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.0	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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°	31.0	31.0	31.0	31.0	31.0	31.0
2.5°	32.3	30.6	29.3	28.1	27.7	27.7
5°	31.4	28.9	26.4	25.1	24.3	24.3
7.5°	28.9	26.0	23.5	22.2	21.8	21.8
10°	26.0	22.6	20.1	19.3	19.3	18.9
12.5°	22.6	19.3	17.6	17.2	17.2	17.2
15°	18.9	16.3	15.1	15.1	15.5	15.9
17.5°	15.9	13.4	13.0	13.8	14.7	14.7
20°	13.4	11.7	11.7	12.6	13.4	13.8
22.5°	11.3	10.1	10.5	11.7	13.0	13.4
25°	10.1	8.8	9.6	10.9	12.2	13.0
27.5°	8.4	8.0	8.8	10.5	12.2	12.6
30°	7.1	7.1	8.4	10.1	11.7	12.2
31°	6.7	6.7	8.4	10.1	11.7	12.2
32°	6.3	6.7	8.0	10.1	11.7	12.2
33°	5.9	6.3	8.0	9.6	11.7	12.2
34°	5.4	6.3	8.0	9.6	11.7	12.2
35°	5.0	6.3	8.0	9.6	11.7	12.2
36°	4.6	5.9	7.5	9.6	11.7	12.2
37°	4.2	5.9	7.5	9.6	11.7	12.2
38°	3.8	5.4	7.5	9.6	11.7	12.2
39°	3.8	5.4	7.1	9.6	11.3	12.2
40°	3.4	5.0	7.1	9.6	11.3	12.2
41°	2.9	5.0	7.1	9.2	11.3	12.2
42°	2.5	4.6	6.7	9.2	11.3	12.2
43°	2.1	4.6	6.7	9.2	11.3	12.2
44°	2.1	4.2	6.7	9.2	11.3	12.2
45°	1.7	4.2	6.7	9.2	11.3	12.2
46°	1.3	4.2	6.7	9.2	11.3	12.2
47°	1.3	3.8	6.3	9.2	11.3	12.2
48°	0.8	3.8	6.3	9.2	11.3	12.2
49°	0.8	3.8	6.3	9.2	11.3	12.6
50°	0.8	3.8	6.3	8.8	11.3	12.6
51°	0.4	3.8	6.3	8.8	11.3	12.6
52°	0.4	3.8	5.9	8.8	11.7	12.6
53°	0.4	3.4	5.9	8.8	11.7	12.6
54°	0.4	3.4	5.9	8.8	11.7	12.2
55°	0.4	3.4	5.9	8.8	11.3	12.2
56°	0.4	2.9	5.9	8.8	11.3	12.2
57°	0.4	2.9	5.4	8.4	11.3	11.7
58°	0.4	2.9	5.4	8.4	11.3	11.7
59°	0.4	2.9	5.4	8.4	10.9	11.7
60°	0.8	2.5	5.0	8.0	10.9	11.7
62.5°	0.8	2.5	5.0	8.0	10.5	11.3
65°	0.8	2.5	4.6	7.5	10.5	11.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.1	4.2	7.1	10.1	10.9
70°	0.8	2.5	4.2	6.7	9.6	10.5
72.5°	1.3	2.1	3.8	6.3	9.2	10.1
75°	1.3	2.1	3.8	5.9	8.8	9.2
77.5°	1.7	2.1	3.4	5.0	8.0	8.4
80°	1.7	2.1	2.9	4.2	6.7	7.1
82.5°	1.7	2.1	2.1	3.4	5.0	5.4
85°	1.3	1.7	1.7	2.1	3.4	3.8
87.5°	1.3	1.7	1.3	0.8	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)