

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P412009

Luminaire Tested: **MRI-14ATR-40-L840-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412009  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-14ATR-40-L840-OPL  
Description: 1X4 TROFFER, 4000LM, OPAL LENS  
Light Source: (376) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3929.0 lumens  
Efficiency: N/A  
Efficacy: 63.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

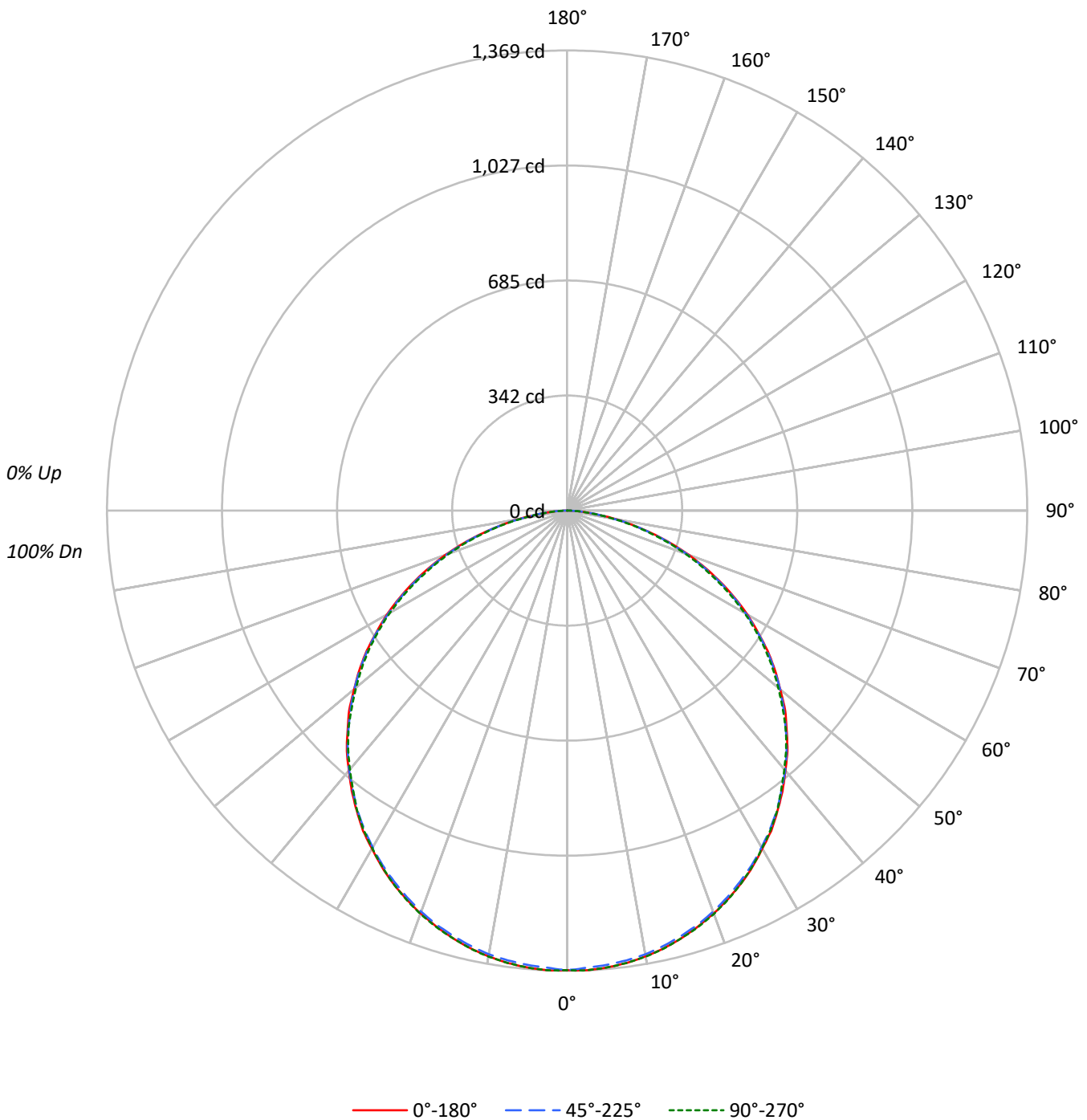
Input Watts (W): 62.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P412009

CATALOG NUMBER: MRI-14ATR-40-L840-OPL

### Luminous Intensity Polar Plot





TEST NUMBER: P412009

CATALOG NUMBER: MRI-14ATR-40-L840-OPL

**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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	34	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3680	3680	3680
5°	3686	3665	3686
10°	3680	3663	3682
15°	3667	3650	3667
20°	3652	3637	3657
25°	3635	3616	3635
30°	3609	3595	3604
35°	3584	3574	3579
40°	3550	3544	3531
45°	3516	3501	3501
50°	3466	3462	3430
55°	3415	3404	3371
60°	3338	3309	3280
65°	3210	3175	3131
70°	3028	2980	2936
75°	2705	2697	2609
80°	2269	2221	2160
85°	1482	1507	1457



TEST NUMBER: P412009

CATALOG NUMBER: MRI-14ATR-40-L840-OPL

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.5	3.3
10°-20°	371.1	9.4
20°-30°	563.2	14.3
30°-40°	681.1	17.3
40°-50°	710.2	18.1
50°-60°	646.3	16.5
60°-70°	492.2	12.5
70°-80°	272.7	6.9
80°-90°	62.7	1.6
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°	1063.7	27.1
0°-40°	1744.9	44.4
0°-60°	3101.4	78.9
0°-90°	3929.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3929.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1364	1364	1357	1364	1364	130
15°	1316	1315	1310	1316	1316	372
25°	1224	1223	1218	1224	1224	564
35°	1091	1090	1088	1087	1090	683
45°	924	924	920	920	920	713
55°	728	729	726	719	719	649
65°	504	502	499	493	492	498
75°	260	262	259	252	251	277
85°	48	49	49	48	47	63
90°	0	0	0	0	0	



TEST NUMBER: P412009

CATALOG NUMBER: MRI-14ATR-40-L840-OPL

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1367.5	1367.5	1367.5	1367.5	1367.5
2.5°	1369.0	1368.3	1361.3	1367.5	1369.0
5°	1364.4	1363.6	1356.6	1363.6	1364.4
7.5°	1357.4	1356.6	1349.7	1356.6	1357.4
10°	1346.6	1345.8	1340.4	1345.8	1347.4
12.5°	1333.4	1332.6	1326.4	1332.6	1334.2
15°	1316.4	1314.8	1310.2	1315.6	1316.4
17.5°	1297.0	1297.0	1291.6	1297.0	1298.6
20°	1275.3	1274.6	1269.9	1275.3	1276.9
22.5°	1250.6	1249.0	1245.1	1250.6	1252.1
25°	1224.2	1222.7	1218.0	1223.5	1224.2
27.5°	1194.8	1192.5	1189.4	1193.3	1193.3
30°	1161.5	1160.7	1156.9	1160.0	1160.0
32.5°	1129.8	1127.4	1123.6	1126.7	1126.7
35°	1091.0	1090.3	1087.9	1087.2	1089.5
37.5°	1052.3	1050.8	1047.7	1050.0	1046.1
40°	1010.5	1010.5	1009.0	1007.4	1005.1
42.5°	970.2	966.4	966.4	963.3	964.1
45°	923.8	923.8	919.9	919.9	919.9
47.5°	879.6	876.6	873.5	871.9	869.6
50°	827.8	829.3	827.0	821.6	819.3
52.5°	779.0	779.0	776.7	775.1	770.5
55°	727.9	729.4	725.6	718.6	718.6
57.5°	672.1	674.4	669.8	664.4	664.4
60°	620.2	618.7	614.8	610.2	609.4
62.5°	561.4	560.6	557.5	551.3	551.3
65°	504.1	501.8	498.7	493.3	491.7
67.5°	444.5	442.1	439.1	435.2	430.5
70°	384.8	382.5	378.7	373.2	373.2
72.5°	324.4	322.1	318.3	312.8	312.8
75°	260.2	261.7	259.4	251.7	250.9
77.5°	201.3	202.1	199.8	195.9	194.4
80°	146.4	144.0	143.3	140.2	139.4
82.5°	92.1	93.7	92.9	90.6	89.0
85°	48.0	48.8	48.8	48.0	47.2
87.5°	17.8	19.4	19.4	19.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)