

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: P412031

Luminaire Tested: **MRI-22ATR-40-L950-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-2)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-22ATR-40-L950-OPL
Description: 2X2 TROFFER, 4000LM, OPAL LENS
Light Source: (588) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3658.0 lumens
Efficiency: N/A
Efficacy: 61.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

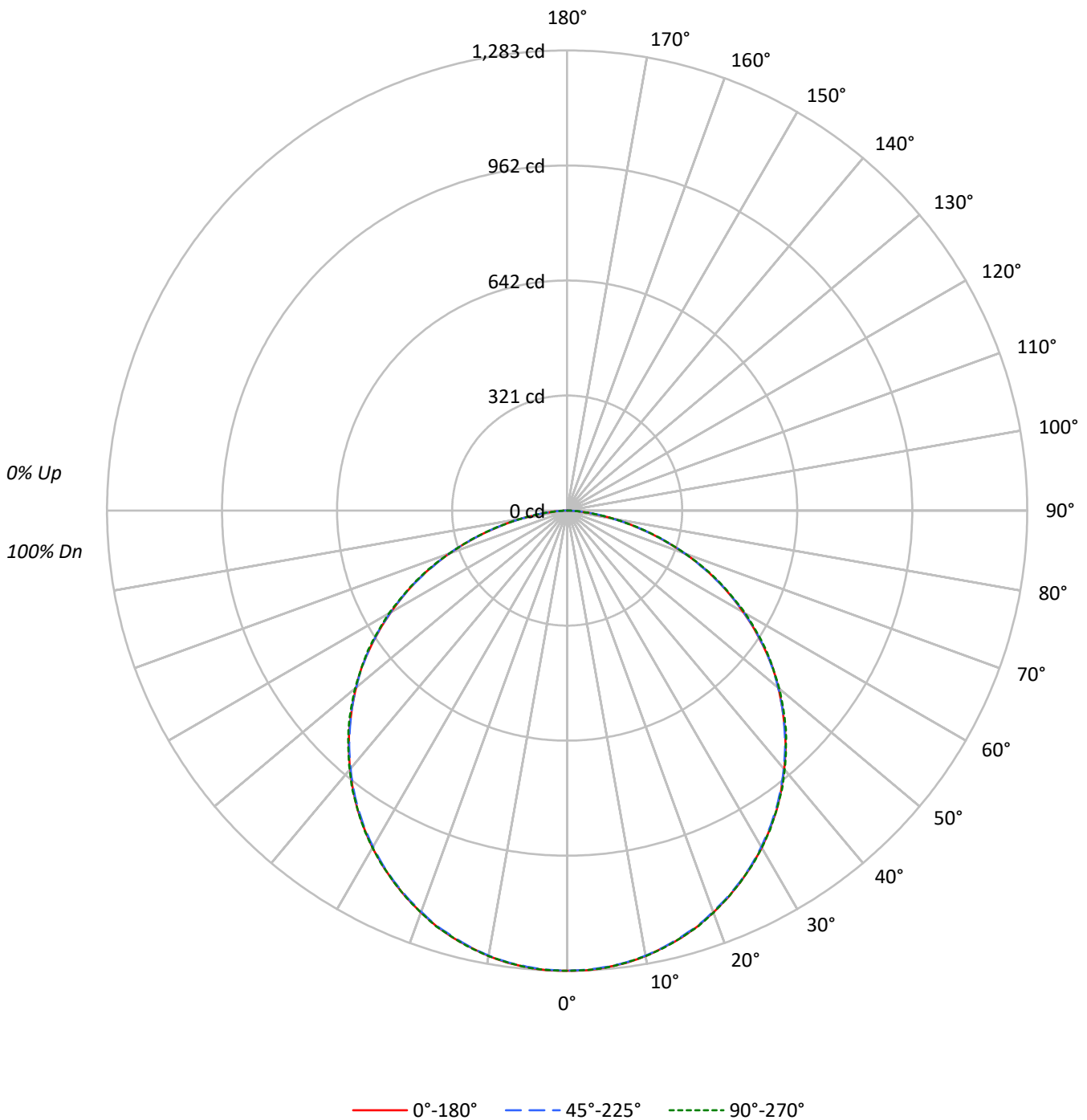
Input Watts (W): 59.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P412031

CATALOG NUMBER: MRI-22ATR-40-L950-OPL

Luminous Intensity Polar Plot





TEST NUMBER: P412031

CATALOG NUMBER: MRI-22ATR-40-L950-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	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3453	3453	3453
5°	3452	3449	3454
10°	3446	3443	3446
15°	3434	3428	3433
20°	3414	3409	3416
25°	3394	3388	3394
30°	3373	3363	3373
35°	3347	3337	3345
40°	3306	3300	3315
45°	3266	3259	3282
50°	3217	3217	3232
55°	3153	3159	3176
60°	3056	3066	3085
65°	2944	2933	2960
70°	2747	2751	2751
75°	2432	2438	2470
80°	2001	2001	2038
85°	1309	1383	1291



TEST NUMBER: P412031

CATALOG NUMBER: MRI-22ATR-40-L950-OPL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.4	3.3
10°-20°	347.5	9.5
20°-30°	526.5	14.4
30°-40°	636.1	17.4
40°-50°	662.4	18.1
50°-60°	601.3	16.4
60°-70°	456.0	12.5
70°-80°	250.1	6.8
80°-90°	56.8	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°	995.4	27.2
0°-40°	1631.5	44.6
0°-60°	2895.2	79.1
0°-90°	3658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1278	1278	1277	1278	1279	121
15°	1233	1232	1230	1231	1232	348
25°	1143	1141	1141	1144	1143	527
35°	1019	1016	1016	1017	1018	637
45°	858	858	856	861	862	662
55°	672	672	673	676	677	600
65°	462	459	461	462	465	455
75°	234	235	234	237	238	249
85°	42	44	45	44	42	56
90°	0	0	0	0	0	



TEST NUMBER: P412031

CATALOG NUMBER: MRI-22ATR-40-L950-OPL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1283.0	1283.0	1283.0	1283.0	1283.0
2.5°	1283.0	1281.8	1281.2	1281.8	1282.4
5°	1278.1	1277.5	1276.9	1277.5	1278.8
7.5°	1271.5	1270.9	1270.3	1270.3	1270.9
10°	1261.2	1260.6	1260.0	1260.6	1261.2
12.5°	1247.2	1247.2	1246.6	1246.6	1248.4
15°	1232.7	1231.5	1230.3	1230.9	1232.1
17.5°	1214.5	1212.7	1212.7	1213.3	1215.1
20°	1192.1	1192.1	1190.3	1191.5	1192.7
22.5°	1169.1	1167.8	1167.2	1168.5	1169.1
25°	1143.0	1141.2	1141.2	1143.6	1143.0
27.5°	1115.1	1113.3	1113.3	1113.9	1115.7
30°	1085.4	1084.2	1082.4	1084.2	1085.4
32.5°	1052.1	1050.3	1050.3	1052.1	1053.9
35°	1018.8	1016.3	1015.7	1016.9	1018.2
37.5°	980.6	978.8	978.8	981.8	983.0
40°	941.2	941.2	939.4	942.4	943.6
42.5°	901.8	900.6	899.4	903.0	903.0
45°	858.2	857.6	856.3	860.6	862.4
47.5°	813.3	815.1	813.9	816.9	817.6
50°	768.5	767.9	768.5	770.3	772.1
52.5°	723.6	720.6	721.8	722.4	723.6
55°	672.1	671.5	673.3	676.3	677.0
57.5°	620.6	620.6	621.8	625.4	624.8
60°	567.9	568.5	569.7	572.1	573.3
62.5°	514.5	515.1	515.7	519.4	518.2
65°	462.4	459.4	460.6	461.8	464.8
67.5°	405.4	403.6	403.6	406.7	409.1
70°	349.1	347.9	349.7	350.3	349.7
72.5°	290.3	291.5	292.1	293.3	292.7
75°	233.9	235.1	234.5	237.0	237.6
77.5°	180.0	181.2	182.4	182.4	181.2
80°	129.1	129.1	129.1	129.7	131.5
82.5°	80.6	82.4	84.8	81.8	83.0
85°	42.4	43.6	44.8	43.6	41.8
87.5°	17.6	18.2	17.6	18.2	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)