

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: P412028

Luminaire Tested: **MRI-22ATR-40-L850-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412028
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-L850-OPL
Description: 2X2 TROFFER, 4000LM, OPAL LENS
Light Source: (588) 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4340.0 lumens
Efficiency: N/A
Efficacy: 72.7 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

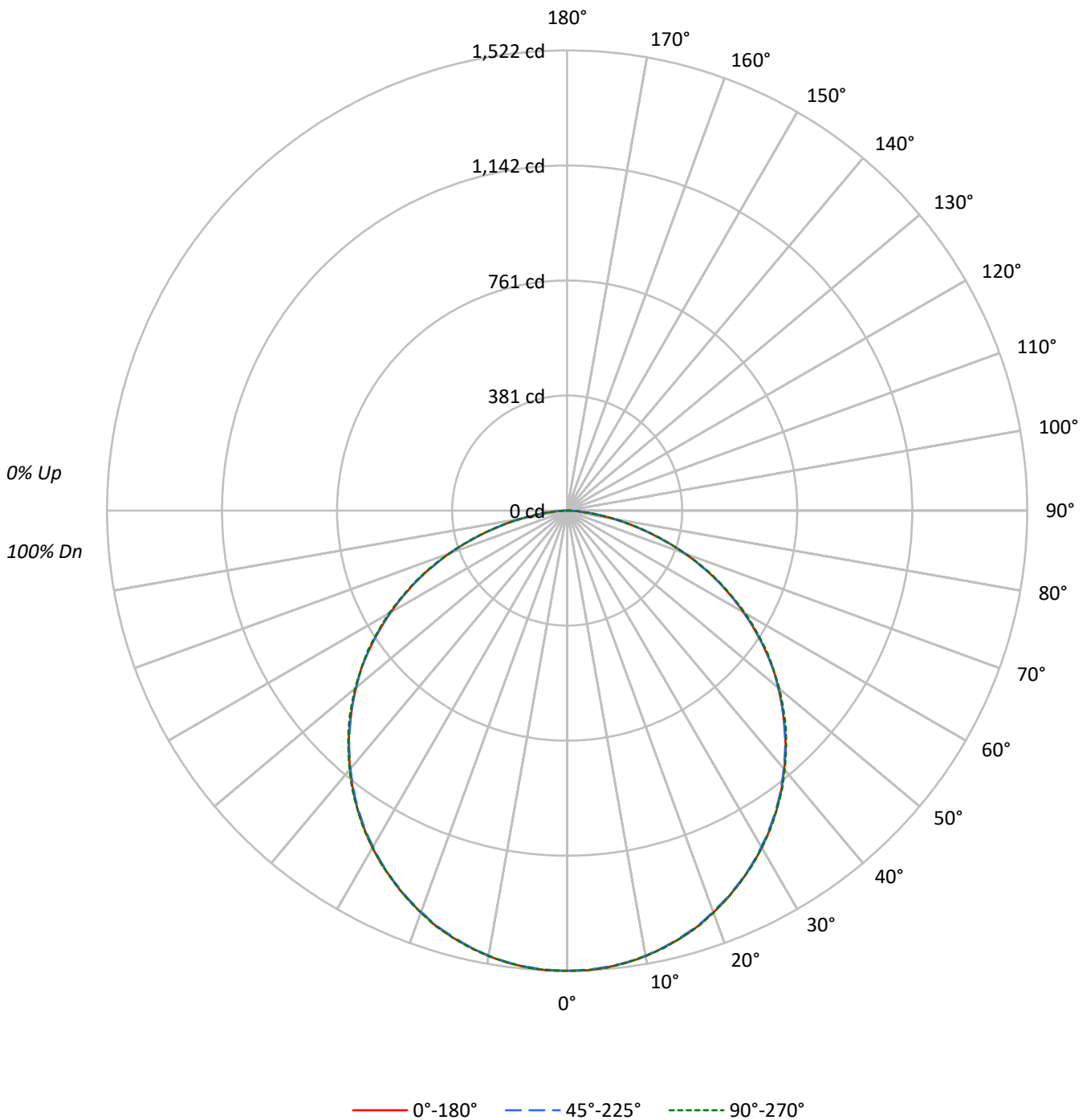
Input Watts (W): 59.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P412028

CATALOG NUMBER: MRI-22ATR-40-L850-OPL

Luminous Intensity Polar Plot





TEST NUMBER: P412028

CATALOG NUMBER: MRI-22ATR-40-L850-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°	4096	4096	4096
5°	4096	4092	4098
10°	4089	4085	4089
15°	4074	4066	4072
20°	4050	4044	4052
25°	4026	4020	4026
30°	4002	3990	4002
35°	3971	3959	3968
40°	3923	3915	3933
45°	3875	3867	3894
50°	3817	3817	3835
55°	3741	3748	3768
60°	3626	3638	3661
65°	3493	3480	3512
70°	3259	3264	3264
75°	2885	2894	2931
80°	2374	2374	2417
85°	1553	1643	1531



TEST NUMBER: P412028

CATALOG NUMBER: MRI-22ATR-40-L850-OPL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	3.3
10°-20°	412.3	9.5
20°-30°	624.6	14.4
30°-40°	754.7	17.4
40°-50°	785.9	18.1
50°-60°	713.4	16.4
60°-70°	541.0	12.5
70°-80°	296.7	6.8
80°-90°	67.4	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°	1181.0	27.2
0°-40°	1935.6	44.6
0°-60°	3434.9	79.1
0°-90°	4340.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4340.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1516	1516	1515	1516	1517	144
15°	1462	1461	1460	1460	1462	413
25°	1356	1354	1354	1357	1356	625
35°	1209	1206	1205	1206	1208	755
45°	1018	1017	1016	1021	1023	785
55°	797	797	799	802	803	712
65°	549	545	546	548	552	540
75°	278	279	278	281	282	295
85°	50	52	53	52	50	66
90°	0	0	0	0	0	



TEST NUMBER: P412028

CATALOG NUMBER: MRI-22ATR-40-L850-OPL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1522.2	1522.2	1522.2	1522.2	1522.2
2.5°	1522.2	1520.8	1520.0	1520.8	1521.5
5°	1516.4	1515.7	1515.0	1515.7	1517.2
7.5°	1508.5	1507.8	1507.1	1507.1	1507.8
10°	1496.3	1495.6	1494.9	1495.6	1496.3
12.5°	1479.8	1479.8	1479.1	1479.1	1481.2
15°	1462.5	1461.1	1459.6	1460.4	1461.8
17.5°	1440.9	1438.8	1438.8	1439.5	1441.7
20°	1414.3	1414.3	1412.2	1413.6	1415.1
22.5°	1387.0	1385.6	1384.9	1386.3	1387.0
25°	1356.1	1353.9	1353.9	1356.8	1356.1
27.5°	1323.0	1320.9	1320.9	1321.6	1323.7
30°	1287.8	1286.4	1284.2	1286.4	1287.8
32.5°	1248.2	1246.1	1246.1	1248.2	1250.4
35°	1208.7	1205.8	1205.1	1206.5	1208.0
37.5°	1163.4	1161.2	1161.2	1164.8	1166.3
40°	1116.7	1116.7	1114.5	1118.1	1119.5
42.5°	1069.9	1068.5	1067.0	1071.4	1071.4
45°	1018.2	1017.4	1016.0	1021.0	1023.2
47.5°	964.9	967.1	965.7	969.3	970.0
50°	911.7	911.0	911.7	913.9	916.0
52.5°	858.5	854.9	856.4	857.1	858.5
55°	797.4	796.7	798.8	802.4	803.2
57.5°	736.3	736.3	737.7	742.0	741.3
60°	673.7	674.5	675.9	678.8	680.2
62.5°	610.5	611.2	611.9	616.2	614.8
65°	548.6	545.0	546.5	547.9	551.5
67.5°	481.0	478.9	478.9	482.5	485.3
70°	414.2	412.7	414.9	415.6	414.9
72.5°	344.4	345.9	346.6	348.0	347.3
75°	277.5	279.0	278.3	281.1	281.9
77.5°	213.6	215.0	216.4	216.4	215.0
80°	153.2	153.2	153.2	153.9	156.0
82.5°	95.6	97.8	100.7	97.1	98.5
85°	50.3	51.8	53.2	51.8	49.6
87.5°	20.9	21.6	20.9	21.6	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)