

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: P412023

Luminaire Tested: **MRI-22ATR-20-L935-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412023  
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-20-L935-OPL  
Description: 2X2 TROFFER, 2000LM, OPAL LENS  
Light Source: (588) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1704.0 lumens  
Efficiency: N/A  
Efficacy: 59.0 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

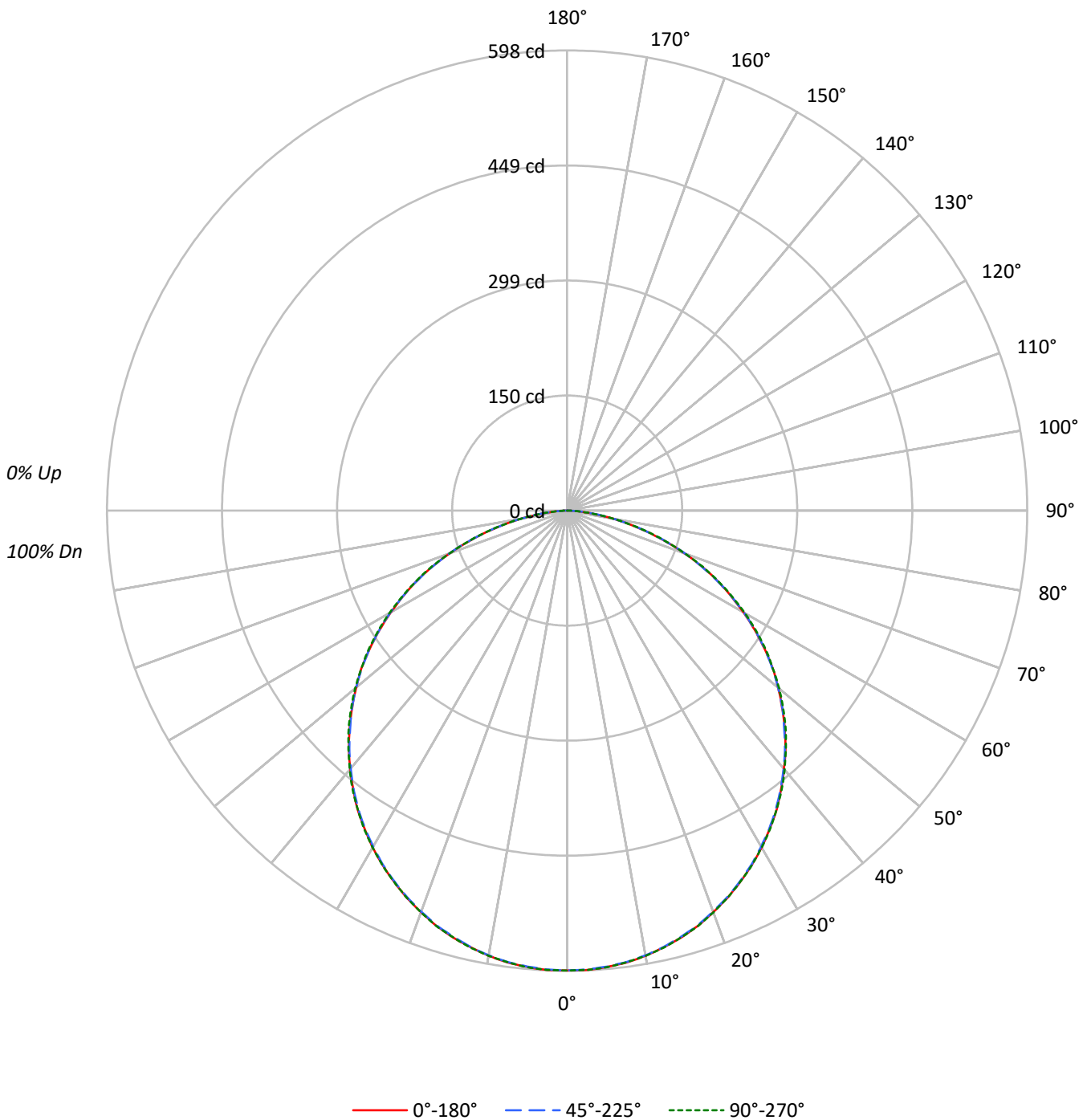
Input Watts (W): 28.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1608	1608	1608
5°	1608	1607	1609
10°	1605	1604	1605
15°	1600	1597	1599
20°	1590	1588	1591
25°	1581	1578	1581
30°	1571	1567	1571
35°	1559	1554	1558
40°	1540	1537	1544
45°	1521	1518	1529
50°	1499	1499	1506
55°	1469	1471	1479
60°	1424	1428	1438
65°	1372	1366	1379
70°	1279	1282	1282
75°	1133	1136	1151
80°	931	931	950
85°	611	645	602



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.6	3.3
10°-20°	161.9	9.5
20°-30°	245.2	14.4
30°-40°	296.3	17.4
40°-50°	308.6	18.1
50°-60°	280.1	16.4
60°-70°	212.4	12.5
70°-80°	116.5	6.8
80°-90°	26.5	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°	463.7	27.2
0°-40°	760.0	44.6
0°-60°	1348.6	79.1
0°-90°	1704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1704.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	595	595	595	595	596	57
15°	574	574	573	573	574	162
25°	532	532	532	533	532	245
35°	475	473	473	474	474	297
45°	400	400	399	401	402	308
55°	313	313	314	315	315	280
65°	215	214	215	215	216	212
75°	109	110	109	110	111	116
85°	20	20	21	20	20	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	597.7	597.7	597.7	597.7	597.7
2.5°	597.7	597.1	596.8	597.1	597.4
5°	595.4	595.1	594.8	595.1	595.7
7.5°	592.3	592.0	591.7	591.7	592.0
10°	587.5	587.2	586.9	587.2	587.5
12.5°	581.0	581.0	580.7	580.7	581.6
15°	574.2	573.7	573.1	573.4	573.9
17.5°	565.8	564.9	564.9	565.2	566.0
20°	555.3	555.3	554.5	555.0	555.6
22.5°	544.6	544.0	543.7	544.3	544.6
25°	532.4	531.6	531.6	532.7	532.4
27.5°	519.5	518.6	518.6	518.9	519.7
30°	505.6	505.1	504.2	505.1	505.6
32.5°	490.1	489.2	489.2	490.1	490.9
35°	474.6	473.4	473.2	473.7	474.3
37.5°	456.8	455.9	455.9	457.3	457.9
40°	438.4	438.4	437.6	439.0	439.6
42.5°	420.1	419.5	419.0	420.6	420.6
45°	399.8	399.5	398.9	400.9	401.7
47.5°	378.9	379.7	379.1	380.6	380.8
50°	358.0	357.7	358.0	358.8	359.7
52.5°	337.1	335.7	336.2	336.5	337.1
55°	313.1	312.8	313.6	315.1	315.3
57.5°	289.1	289.1	289.7	291.3	291.1
60°	264.5	264.8	265.4	266.5	267.1
62.5°	239.7	240.0	240.2	241.9	241.4
65°	215.4	214.0	214.6	215.1	216.5
67.5°	188.9	188.0	188.0	189.4	190.6
70°	162.6	162.0	162.9	163.2	162.9
72.5°	135.2	135.8	136.1	136.6	136.4
75°	109.0	109.5	109.3	110.4	110.7
77.5°	83.8	84.4	85.0	85.0	84.4
80°	60.1	60.1	60.1	60.4	61.3
82.5°	37.5	38.4	39.5	38.1	38.7
85°	19.8	20.3	20.9	20.3	19.5
87.5°	8.2	8.5	8.2	8.5	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)