

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: P412022

Luminaire Tested: **MRI-22ATR-20-L850-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412022  
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-L850-OPL  
Description: 2X2 TROFFER, 2000LM, OPAL LENS  
Light Source: (588) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2169.0 lumens  
Efficiency: N/A  
Efficacy: 75.1 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

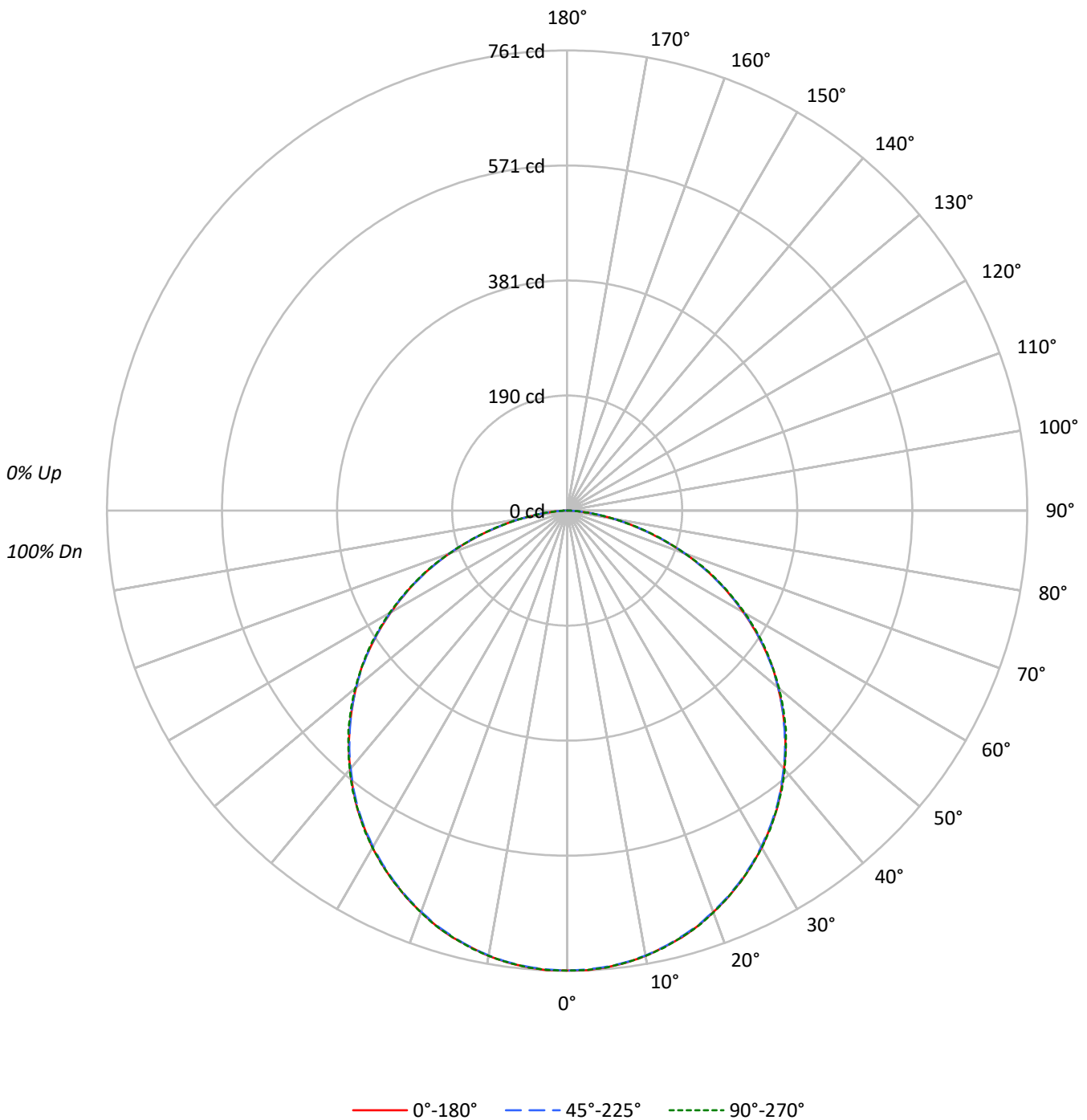
Input Watts (W): 28.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2047	2047	2047
5°	2047	2045	2048
10°	2043	2041	2043
15°	2036	2032	2035
20°	2024	2021	2025
25°	2012	2009	2012
30°	2000	1994	2000
35°	1985	1979	1983
40°	1961	1957	1965
45°	1936	1932	1946
50°	1908	1908	1917
55°	1870	1873	1883
60°	1812	1818	1829
65°	1746	1739	1755
70°	1629	1631	1631
75°	1442	1446	1465
80°	1185	1185	1209
85°	778	821	766



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	3.3
10°-20°	206.1	9.5
20°-30°	312.2	14.4
30°-40°	377.2	17.4
40°-50°	392.8	18.1
50°-60°	356.5	16.4
60°-70°	270.4	12.5
70°-80°	148.3	6.8
80°-90°	33.7	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°	590.2	27.2
0°-40°	967.4	44.6
0°-60°	1716.7	79.1
0°-90°	2169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2169.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	758	758	757	758	758	72
15°	731	730	730	730	731	206
25°	678	677	677	678	678	312
35°	604	603	602	603	604	377
45°	509	508	508	510	511	392
55°	398	398	399	401	401	356
65°	274	272	273	274	276	270
75°	139	139	139	140	141	147
85°	25	26	27	26	25	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	760.7	760.7	760.7	760.7	760.7
2.5°	760.7	760.0	759.7	760.0	760.4
5°	757.9	757.5	757.2	757.5	758.2
7.5°	753.9	753.6	753.2	753.2	753.6
10°	747.8	747.5	747.1	747.5	747.8
12.5°	739.5	739.5	739.2	739.2	740.3
15°	730.9	730.2	729.5	729.8	730.6
17.5°	720.1	719.1	719.1	719.4	720.5
20°	706.8	706.8	705.8	706.5	707.2
22.5°	693.2	692.5	692.1	692.8	693.2
25°	677.7	676.7	676.7	678.1	677.7
27.5°	661.2	660.1	660.1	660.5	661.6
30°	643.6	642.9	641.8	642.9	643.6
32.5°	623.8	622.8	622.8	623.8	624.9
35°	604.1	602.6	602.3	603.0	603.7
37.5°	581.4	580.4	580.4	582.1	582.9
40°	558.1	558.1	557.0	558.8	559.5
42.5°	534.7	534.0	533.3	535.4	535.4
45°	508.8	508.5	507.8	510.3	511.4
47.5°	482.2	483.3	482.6	484.4	484.8
50°	455.7	455.3	455.7	456.7	457.8
52.5°	429.1	427.3	428.0	428.3	429.1
55°	398.5	398.2	399.2	401.0	401.4
57.5°	368.0	368.0	368.7	370.9	370.5
60°	336.7	337.1	337.8	339.2	339.9
62.5°	305.1	305.4	305.8	308.0	307.2
65°	274.2	272.4	273.1	273.8	275.6
67.5°	240.4	239.3	239.3	241.1	242.6
70°	207.0	206.3	207.3	207.7	207.3
72.5°	172.1	172.8	173.2	173.9	173.6
75°	138.7	139.4	139.1	140.5	140.9
77.5°	106.7	107.4	108.2	108.2	107.4
80°	76.5	76.5	76.5	76.9	78.0
82.5°	47.8	48.9	50.3	48.5	49.2
85°	25.2	25.9	26.6	25.9	24.8
87.5°	10.4	10.8	10.4	10.8	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)