

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: P412024

Luminaire Tested: **MRI-22ATR-20-L940-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412024
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-L940-OPL
Description: 2X2 TROFFER, 2000LM, OPAL LENS
Light Source: (588) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1722.0 lumens
Efficiency: N/A
Efficacy: 59.6 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

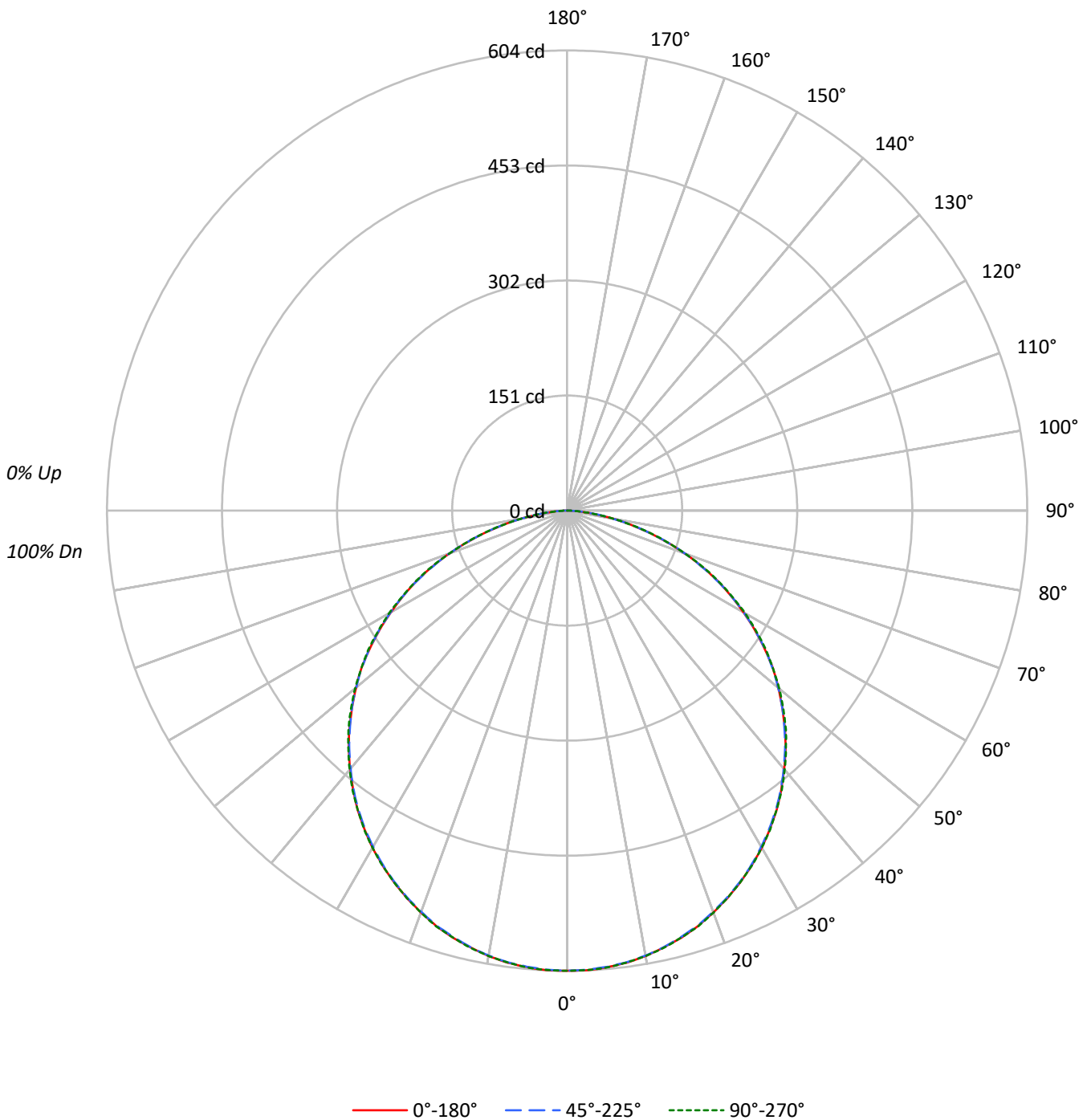
Input Watts (W): 28.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1625	1625	1625
5°	1625	1624	1626
10°	1622	1621	1622
15°	1617	1613	1616
20°	1607	1605	1608
25°	1598	1595	1598
30°	1588	1583	1588
35°	1576	1571	1575
40°	1557	1553	1560
45°	1537	1534	1545
50°	1515	1515	1522
55°	1484	1487	1495
60°	1439	1443	1453
65°	1386	1380	1393
70°	1293	1295	1295
75°	1145	1148	1162
80°	942	942	959
85°	618	651	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.2	3.3
10°-20°	163.6	9.5
20°-30°	247.8	14.4
30°-40°	299.4	17.4
40°-50°	311.8	18.1
50°-60°	283.0	16.4
60°-70°	214.6	12.5
70°-80°	117.7	6.8
80°-90°	26.7	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°	468.6	27.2
0°-40°	768.0	44.6
0°-60°	1362.9	79.1
0°-90°	1722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1722.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	604	604	604	604	604	
5°	602	601	601	601	602	57
15°	580	580	579	579	580	164
25°	538	537	537	538	538	248
35°	480	478	478	479	479	300
45°	404	404	403	405	406	312
55°	316	316	317	318	319	283
65°	218	216	217	217	219	214
75°	110	111	110	112	112	117
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°	604.0	604.0	604.0	604.0	604.0
2.5°	604.0	603.4	603.1	603.4	603.7
5°	601.7	601.4	601.1	601.4	602.0
7.5°	598.5	598.3	598.0	598.0	598.3
10°	593.7	593.4	593.1	593.4	593.7
12.5°	587.1	587.1	586.9	586.9	587.7
15°	580.3	579.7	579.1	579.4	580.0
17.5°	571.7	570.9	570.9	571.2	572.0
20°	561.2	561.2	560.3	560.9	561.5
22.5°	550.3	549.8	549.5	550.0	550.3
25°	538.1	537.2	537.2	538.4	538.1
27.5°	524.9	524.1	524.1	524.4	525.2
30°	511.0	510.4	509.5	510.4	511.0
32.5°	495.3	494.4	494.4	495.3	496.1
35°	479.6	478.4	478.2	478.7	479.3
37.5°	461.6	460.8	460.8	462.2	462.7
40°	443.1	443.1	442.2	443.6	444.2
42.5°	424.5	423.9	423.4	425.1	425.1
45°	404.0	403.7	403.1	405.1	406.0
47.5°	382.9	383.7	383.2	384.6	384.9
50°	361.8	361.5	361.8	362.6	363.5
52.5°	340.6	339.2	339.8	340.1	340.6
55°	316.4	316.1	317.0	318.4	318.7
57.5°	292.1	292.1	292.7	294.4	294.1
60°	267.3	267.6	268.2	269.3	269.9
62.5°	242.2	242.5	242.8	244.5	243.9
65°	217.7	216.3	216.8	217.4	218.8
67.5°	190.9	190.0	190.0	191.4	192.6
70°	164.3	163.8	164.6	164.9	164.6
72.5°	136.7	137.2	137.5	138.1	137.8
75°	110.1	110.7	110.4	111.6	111.8
77.5°	84.7	85.3	85.9	85.9	85.3
80°	60.8	60.8	60.8	61.1	61.9
82.5°	37.9	38.8	39.9	38.5	39.1
85°	20.0	20.5	21.1	20.5	19.7
87.5°	8.3	8.6	8.3	8.6	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)