

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: P412007

Luminaire Tested: **MRI-14ATR-20-L950-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412007
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-1)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-14ATR-20-L950-OPL
Description: 1X4 TROFFER, 2000LM, OPAL LENS
Light Source: (376) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1805.0 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

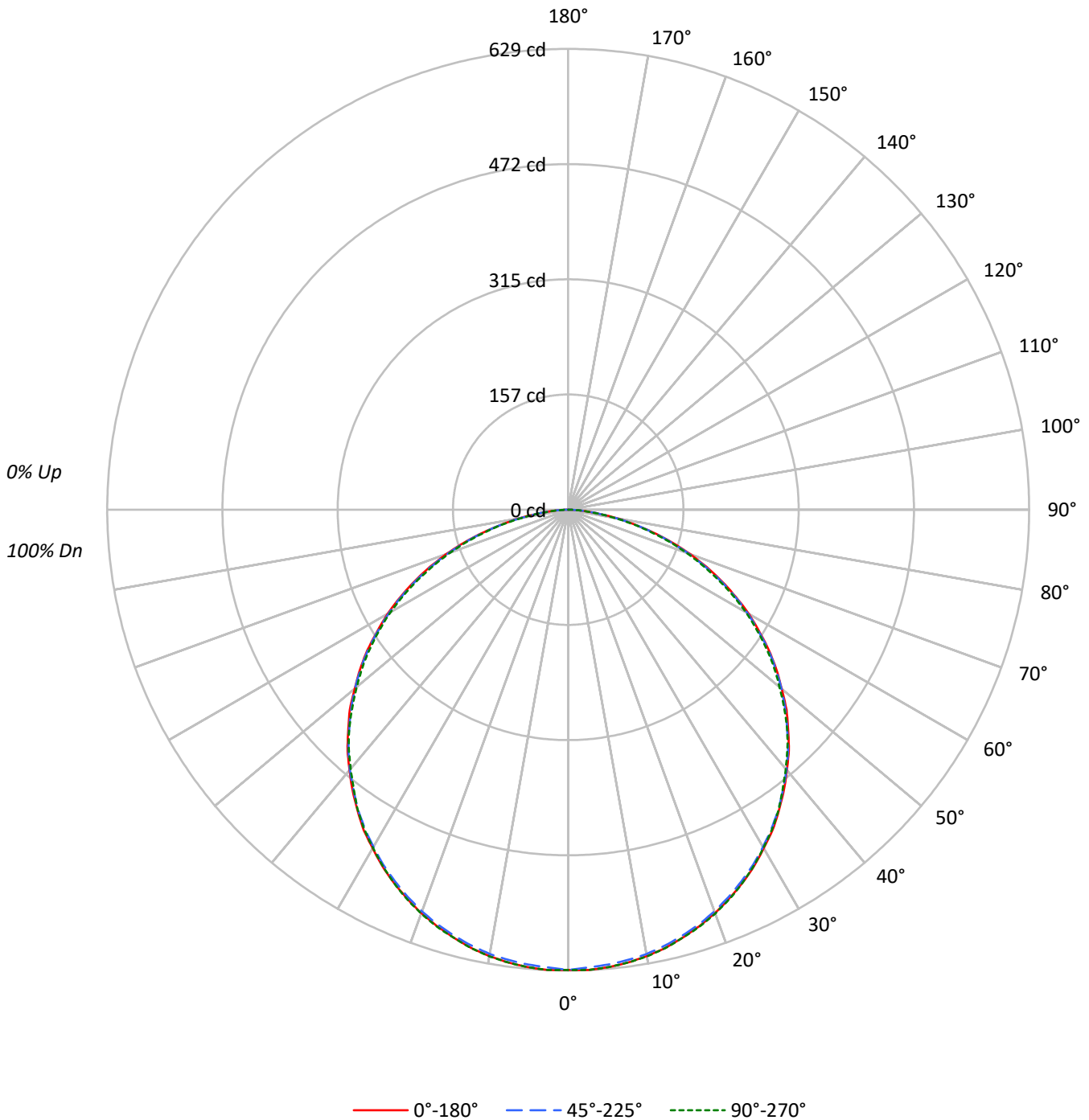
Input Watts (W): 28.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	34	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1690	1690	1690
5°	1693	1683	1693
10°	1690	1683	1691
15°	1685	1677	1685
20°	1678	1671	1680
25°	1670	1662	1670
30°	1658	1652	1656
35°	1646	1642	1644
40°	1631	1628	1622
45°	1615	1608	1608
50°	1592	1590	1576
55°	1569	1564	1549
60°	1533	1520	1507
65°	1475	1459	1438
70°	1391	1369	1349
75°	1242	1239	1199
80°	1041	1020	992
85°	682	692	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	3.3
10°-20°	170.5	9.4
20°-30°	258.7	14.3
30°-40°	312.9	17.3
40°-50°	326.3	18.1
50°-60°	296.9	16.5
60°-70°	226.1	12.5
70°-80°	125.3	6.9
80°-90°	28.8	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°	488.7	27.1
0°-40°	801.6	44.4
0°-60°	1424.8	78.9
0°-90°	1805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1805.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	627	626	623	626	627	60
15°	605	604	602	604	605	171
25°	562	562	560	562	562	259
35°	501	501	500	500	500	314
45°	424	424	423	423	423	328
55°	334	335	333	330	330	298
65°	232	230	229	227	226	229
75°	120	120	119	116	115	127
85°	22	22	22	22	22	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	628.2	628.2	628.2	628.2	628.2
2.5°	628.9	628.6	625.4	628.2	628.9
5°	626.8	626.4	623.2	626.4	626.8
7.5°	623.6	623.2	620.0	623.2	623.6
10°	618.6	618.3	615.8	618.3	619.0
12.5°	612.6	612.2	609.4	612.2	612.9
15°	604.7	604.0	601.9	604.4	604.7
17.5°	595.9	595.9	593.4	595.9	596.6
20°	585.9	585.5	583.4	585.9	586.6
22.5°	574.5	573.8	572.0	574.5	575.2
25°	562.4	561.7	559.6	562.1	562.4
27.5°	548.9	547.8	546.4	548.2	548.2
30°	533.6	533.2	531.5	532.9	532.9
32.5°	519.0	518.0	516.2	517.6	517.6
35°	501.2	500.9	499.8	499.5	500.5
37.5°	483.4	482.7	481.3	482.4	480.6
40°	464.2	464.2	463.5	462.8	461.7
42.5°	445.7	444.0	444.0	442.5	442.9
45°	424.4	424.4	422.6	422.6	422.6
47.5°	404.1	402.7	401.3	400.6	399.5
50°	380.3	381.0	379.9	377.4	376.4
52.5°	357.9	357.9	356.8	356.1	354.0
55°	334.4	335.1	333.3	330.1	330.1
57.5°	308.8	309.8	307.7	305.2	305.2
60°	284.9	284.2	282.5	280.3	280.0
62.5°	257.9	257.6	256.1	253.3	253.3
65°	231.6	230.5	229.1	226.6	225.9
67.5°	204.2	203.1	201.7	199.9	197.8
70°	176.8	175.7	174.0	171.5	171.5
72.5°	149.1	148.0	146.2	143.7	143.7
75°	119.5	120.2	119.2	115.6	115.3
77.5°	92.5	92.8	91.8	90.0	89.3
80°	67.2	66.2	65.8	64.4	64.0
82.5°	42.3	43.0	42.7	41.6	40.9
85°	22.1	22.4	22.4	22.1	21.7
87.5°	8.2	8.9	8.9	8.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)