

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: P412010

Luminaire Tested: **MRI-14ATR-40-L850-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412010  
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-40-L850-OPL  
Description: 1X4 TROFFER, 4000LM, OPAL LENS  
Light Source: (376) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4227.0 lumens  
Efficiency: N/A  
Efficacy: 68.0 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

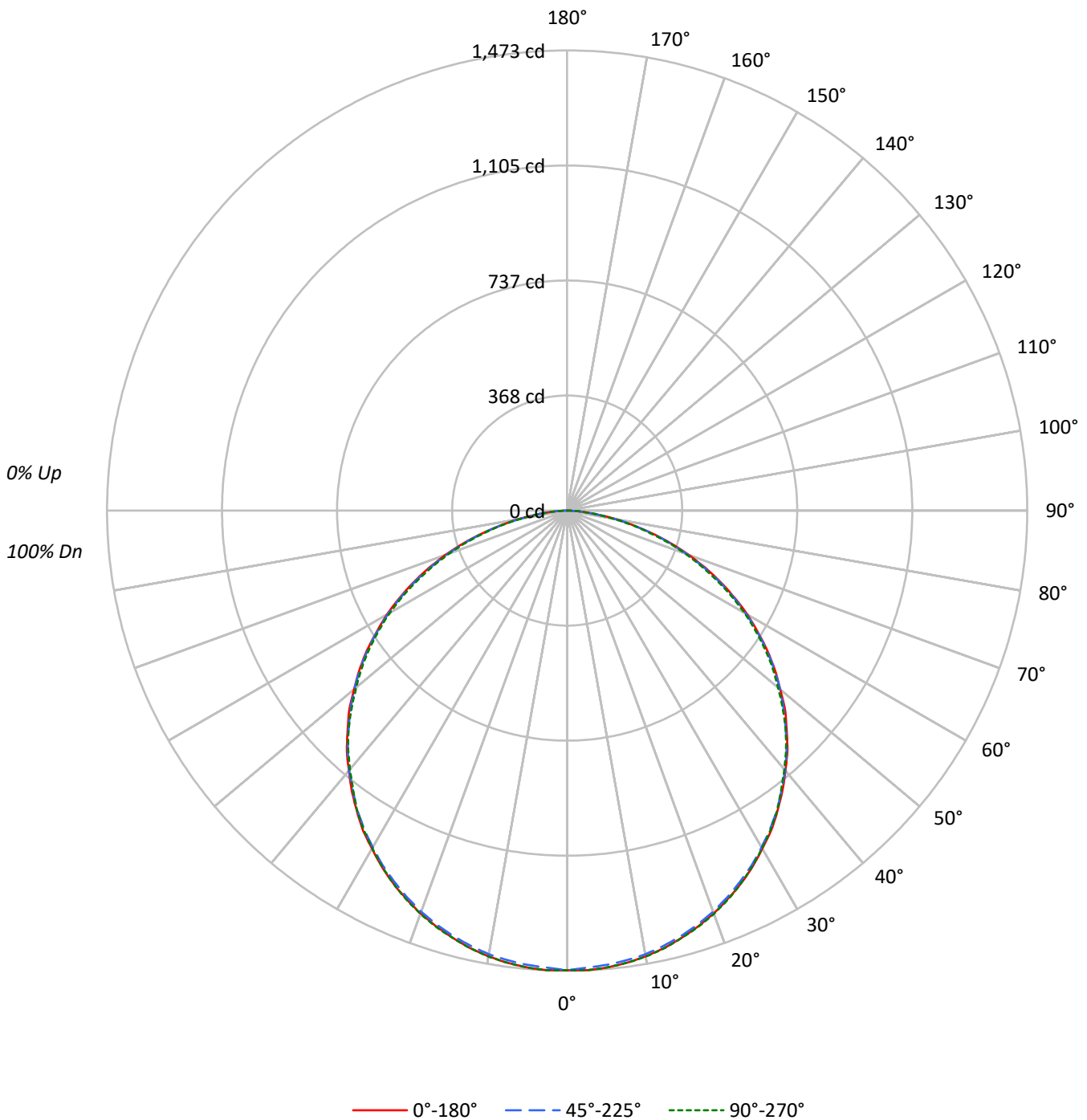
Input Watts (W): 62.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3959	3959	3959
5°	3965	3942	3965
10°	3959	3940	3961
15°	3945	3927	3945
20°	3929	3912	3934
25°	3911	3891	3911
30°	3883	3867	3878
35°	3856	3845	3850
40°	3819	3813	3798
45°	3782	3766	3766
50°	3728	3725	3690
55°	3674	3662	3627
60°	3591	3560	3528
65°	3453	3416	3368
70°	3257	3205	3159
75°	2910	2902	2806
80°	2441	2388	2325
85°	1596	1621	1568



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.3	3.3
10°-20°	399.2	9.4
20°-30°	605.9	14.3
30°-40°	732.8	17.3
40°-50°	764.1	18.1
50°-60°	695.4	16.5
60°-70°	529.5	12.5
70°-80°	293.4	6.9
80°-90°	67.5	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°	1144.4	27.1
0°-40°	1877.2	44.4
0°-60°	3336.7	78.9
0°-90°	4227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4227.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1468	1467	1460	1467	1468	140
15°	1416	1415	1410	1415	1416	400
25°	1317	1315	1310	1316	1317	607
35°	1174	1173	1170	1170	1172	735
45°	994	994	990	990	990	767
55°	783	785	781	773	773	699
65°	542	540	536	531	529	536
75°	280	282	279	271	270	298
85°	52	52	52	52	51	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1471.2	1471.2	1471.2	1471.2	1471.2
2.5°	1472.9	1472.0	1464.5	1471.2	1472.9
5°	1467.9	1467.0	1459.5	1467.0	1467.9
7.5°	1460.4	1459.5	1452.0	1459.5	1460.4
10°	1448.7	1447.9	1442.0	1447.9	1449.5
12.5°	1434.5	1433.7	1427.0	1433.7	1435.4
15°	1416.2	1414.6	1409.6	1415.4	1416.2
17.5°	1395.4	1395.4	1389.6	1395.4	1397.1
20°	1372.1	1371.2	1366.2	1372.1	1373.7
22.5°	1345.4	1343.7	1339.6	1345.4	1347.1
25°	1317.1	1315.4	1310.4	1316.3	1317.1
27.5°	1285.4	1282.9	1279.6	1283.8	1283.8
30°	1249.6	1248.8	1244.6	1247.9	1247.9
32.5°	1215.4	1213.0	1208.8	1212.1	1212.1
35°	1173.8	1173.0	1170.5	1169.6	1172.1
37.5°	1132.1	1130.5	1127.1	1129.6	1125.5
40°	1087.2	1087.2	1085.5	1083.8	1081.3
42.5°	1043.8	1039.7	1039.7	1036.3	1037.2
45°	993.9	993.9	989.7	989.7	989.7
47.5°	946.4	943.0	939.7	938.0	935.5
50°	890.6	892.2	889.7	883.9	881.4
52.5°	838.1	838.1	835.6	833.9	828.9
55°	783.1	784.8	780.6	773.1	773.1
57.5°	723.1	725.6	720.6	714.8	714.8
60°	667.3	665.6	661.5	656.5	655.6
62.5°	604.0	603.1	599.8	593.1	593.1
65°	542.3	539.8	536.5	530.7	529.0
67.5°	478.2	475.7	472.4	468.2	463.2
70°	414.0	411.5	407.4	401.5	401.5
72.5°	349.1	346.6	342.4	336.6	336.6
75°	279.9	281.6	279.1	270.7	269.9
77.5°	216.6	217.4	214.9	210.8	209.1
80°	157.5	155.0	154.1	150.8	150.0
82.5°	99.1	100.8	100.0	97.5	95.8
85°	51.7	52.5	52.5	51.7	50.8
87.5°	19.2	20.8	20.8	20.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)