

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: P412012

Luminaire Tested: **MRI-14ATR-40-L940-OPL**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412012  
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-L940-OPL  
Description: 1X4 TROFFER, 4000LM, OPAL LENS  
Light Source: (376) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3356.0 lumens  
Efficiency: N/A  
Efficacy: 54.0 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

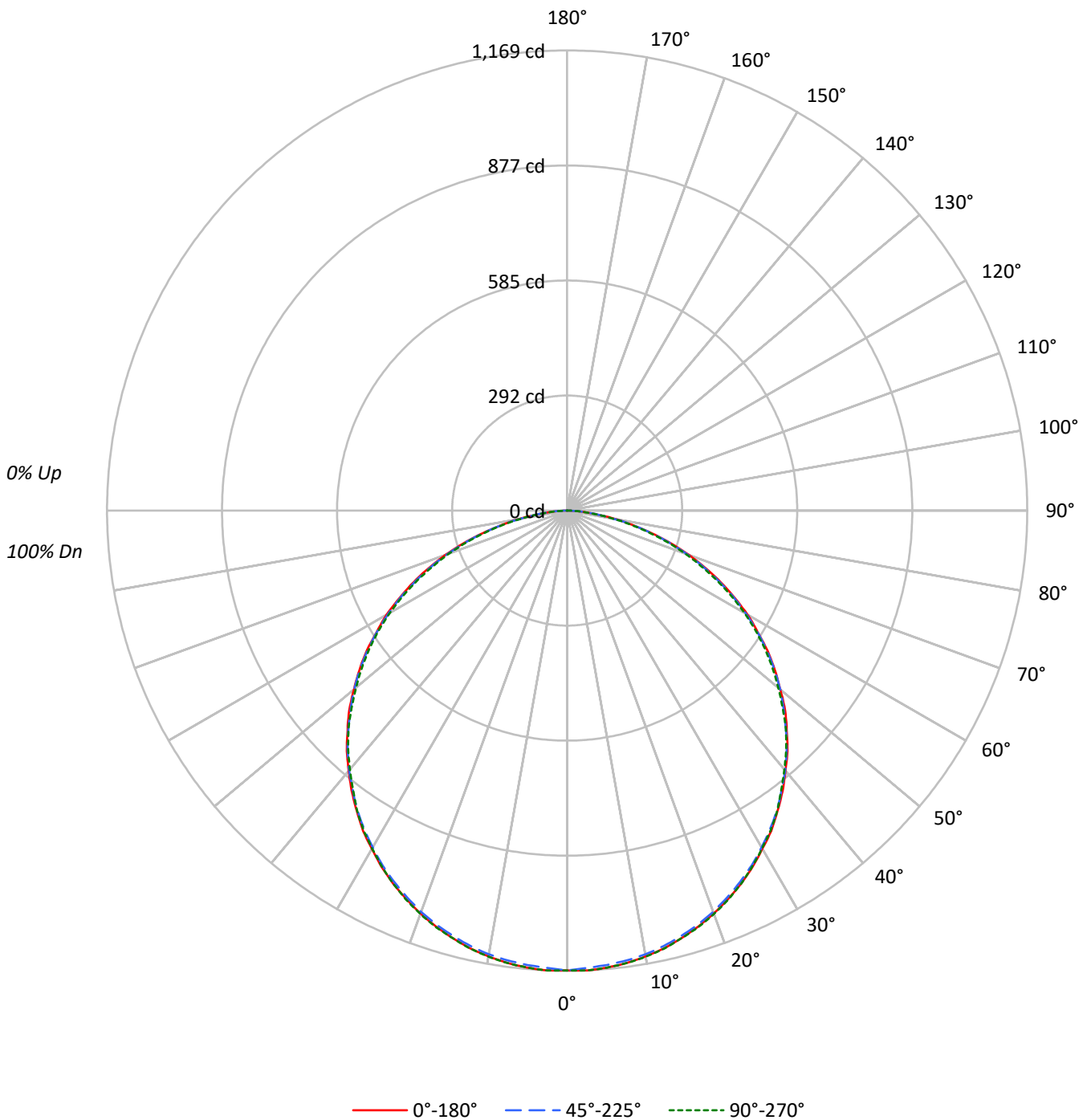
Input Watts (W): 62.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3143	3143	3143
5°	3148	3130	3148
10°	3143	3128	3145
15°	3132	3118	3132
20°	3119	3106	3123
25°	3105	3089	3105
30°	3083	3070	3079
35°	3061	3053	3057
40°	3032	3027	3016
45°	3003	2990	2990
50°	2960	2957	2930
55°	2917	2907	2880
60°	2851	2827	2801
65°	2742	2712	2674
70°	2586	2544	2508
75°	2310	2304	2228
80°	1937	1897	1846
85°	1266	1288	1244



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.6	3.3
10°-20°	317.0	9.4
20°-30°	481.0	14.3
30°-40°	581.8	17.3
40°-50°	606.7	18.1
50°-60°	552.1	16.5
60°-70°	420.4	12.5
70°-80°	232.9	6.9
80°-90°	53.6	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°	908.6	27.1
0°-40°	1490.4	44.4
0°-60°	2649.1	78.9
0°-90°	3356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3356.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1168	1168	1168	1168	1168	
5°	1165	1165	1159	1165	1165	111
15°	1124	1123	1119	1124	1124	317
25°	1046	1044	1040	1045	1046	482
35°	932	931	929	929	931	583
45°	789	789	786	786	786	609
55°	622	623	620	614	614	555
65°	431	429	426	421	420	425
75°	222	224	222	215	214	237
85°	41	42	42	41	40	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1168.1	1168.1	1168.1	1168.1	1168.1
2.5°	1169.4	1168.7	1162.8	1168.1	1169.4
5°	1165.4	1164.7	1158.8	1164.7	1165.4
7.5°	1159.5	1158.8	1152.8	1158.8	1159.5
10°	1150.2	1149.5	1144.9	1149.5	1150.9
12.5°	1138.9	1138.3	1133.0	1138.3	1139.6
15°	1124.4	1123.1	1119.1	1123.7	1124.4
17.5°	1107.9	1107.9	1103.2	1107.9	1109.2
20°	1089.3	1088.7	1084.7	1089.3	1090.7
22.5°	1068.2	1066.9	1063.5	1068.2	1069.5
25°	1045.7	1044.4	1040.4	1045.0	1045.7
27.5°	1020.6	1018.6	1015.9	1019.2	1019.2
30°	992.1	991.5	988.1	990.8	990.8
32.5°	965.0	963.0	959.7	962.4	962.4
35°	931.9	931.3	929.3	928.6	930.6
37.5°	898.9	897.5	894.9	896.9	893.6
40°	863.1	863.1	861.8	860.5	858.5
42.5°	828.7	825.4	825.4	822.8	823.5
45°	789.1	789.1	785.8	785.8	785.8
47.5°	751.4	748.7	746.1	744.7	742.8
50°	707.0	708.4	706.4	701.8	699.8
52.5°	665.4	665.4	663.4	662.1	658.1
55°	621.7	623.0	619.7	613.8	613.8
57.5°	574.1	576.1	572.1	567.5	567.5
60°	529.8	528.5	525.2	521.2	520.5
62.5°	479.5	478.9	476.2	470.9	470.9
65°	430.6	428.6	425.9	421.3	420.0
67.5°	379.6	377.7	375.0	371.7	367.7
70°	328.7	326.7	323.4	318.8	318.8
72.5°	277.1	275.1	271.8	267.2	267.2
75°	222.2	223.6	221.6	215.0	214.3
77.5°	172.0	172.6	170.6	167.3	166.0
80°	125.0	123.0	122.4	119.7	119.1
82.5°	78.7	80.0	79.4	77.4	76.1
85°	41.0	41.7	41.7	41.0	40.3
87.5°	15.2	16.5	16.5	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)