

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: P412174

Luminaire Tested: **MRI-4ASR-4-1000-L950-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412174  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-4ASR-4-1000-L950-HEO  
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS  
Light Source: (336) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

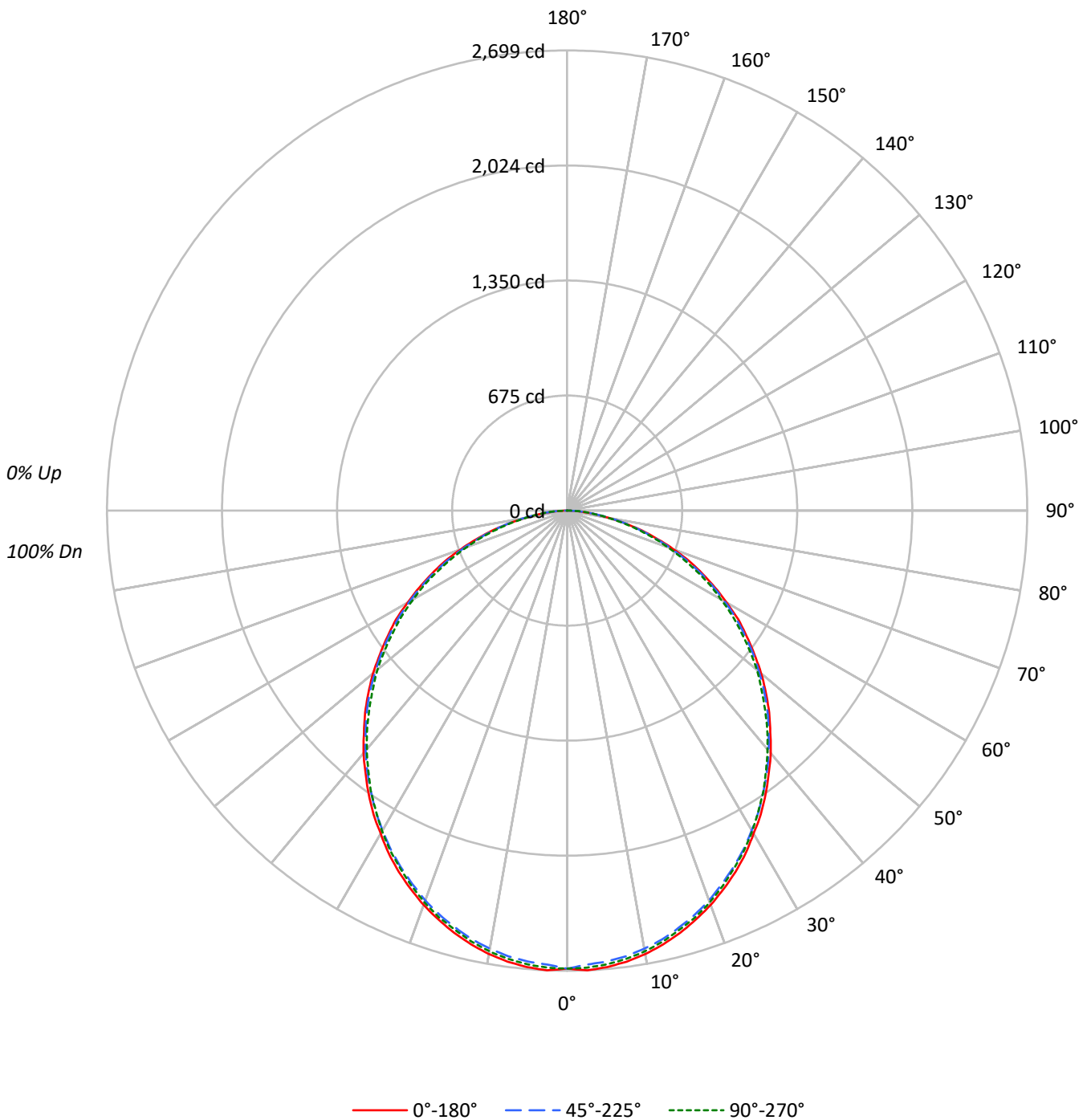
Lumens per Lamp: N/A  
Luminaire Lumens: 7162.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 66.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	63	70	65	62	59
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	21689	21689	21689
5°	21779	21514	21654
10°	21651	21384	21518
15°	21423	21165	21271
20°	21149	20907	21009
25°	20821	20555	20627
30°	20395	20175	20235
35°	19998	19784	19784
40°	19579	19388	19263
45°	19130	18975	18716
50°	18653	18437	18255
55°	18096	17892	17547
60°	17465	17231	16821
65°	16732	16420	15918
70°	15666	15239	14833
75°	14254	13915	13378
80°	11678	11888	11381
85°	8401	9494	10161



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.6	3.5
10°-20°	718.8	10.0
20°-30°	1068.9	14.9
30°-40°	1260.4	17.6
40°-50°	1280.5	17.9
50°-60°	1136.3	15.9
60°-70°	850.2	11.9
70°-80°	470.9	6.6
80°-90°	122.5	1.7
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°	2041.3	28.5
0°-40°	3301.6	46.1
0°-60°	5718.5	79.8
0°-90°	7162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7162.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2687	2687	2687	2687	2687	
5°	2688	2680	2655	2675	2672	255
15°	2563	2559	2532	2552	2545	723
25°	2338	2328	2308	2319	2316	1076
35°	2029	2026	2008	2010	2008	1269
45°	1676	1676	1662	1648	1639	1292
55°	1286	1291	1271	1255	1247	1150
65°	876	881	860	845	833	866
75°	457	452	446	433	429	480
85°	91	103	102	106	110	114
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2686.6	2686.6	2686.6	2686.6	2686.6
2.5°	2699.3	2691.1	2664.8	2686.6	2683.0
5°	2687.5	2680.2	2654.8	2674.8	2672.1
7.5°	2668.4	2660.3	2636.7	2656.7	2652.1
10°	2641.2	2633.1	2608.6	2629.5	2624.9
12.5°	2605.9	2598.6	2576.0	2593.2	2589.6
15°	2563.3	2558.7	2532.4	2551.5	2545.1
17.5°	2514.3	2509.8	2486.2	2504.3	2500.7
20°	2461.7	2453.6	2433.6	2446.3	2445.4
22.5°	2401.0	2393.7	2371.0	2386.5	2383.7
25°	2337.5	2328.4	2307.6	2319.4	2315.7
27.5°	2266.8	2257.7	2240.5	2249.5	2247.7
30°	2187.9	2185.2	2164.3	2172.5	2170.7
32.5°	2113.5	2106.3	2091.8	2090.9	2088.2
35°	2029.2	2025.6	2007.5	2010.2	2007.5
37.5°	1943.1	1941.3	1925.9	1922.2	1916.8
40°	1857.9	1852.4	1839.7	1832.5	1827.9
42.5°	1763.6	1766.3	1749.0	1740.9	1737.3
45°	1675.6	1675.6	1662.0	1648.4	1639.3
47.5°	1581.3	1582.2	1567.7	1550.5	1545.0
50°	1485.2	1487.0	1468.0	1453.5	1453.5
52.5°	1384.5	1390.0	1371.9	1356.4	1350.1
55°	1285.7	1291.2	1271.2	1254.9	1246.7
57.5°	1190.5	1189.6	1173.3	1151.5	1149.7
60°	1081.7	1088.1	1067.2	1050.9	1041.8
62.5°	978.3	986.5	963.8	948.4	943.0
65°	875.9	881.3	859.6	845.1	833.3
67.5°	775.2	773.4	753.5	737.2	730.8
70°	663.7	667.3	645.6	633.8	628.4
72.5°	559.4	563.1	544.0	535.9	526.8
75°	457.0	452.4	446.1	433.4	428.9
77.5°	348.2	352.7	350.9	337.3	335.5
80°	251.2	261.1	255.7	245.7	244.8
82.5°	166.8	176.8	174.1	171.4	168.6
85°	90.7	103.4	102.5	106.1	109.7
87.5°	34.5	44.4	52.6	51.7	54.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)