

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: P412170

Luminaire Tested: **MRI-4ASR-4-1000-L935-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412170  
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-L935-HEO  
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS  
Light Source: (336) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

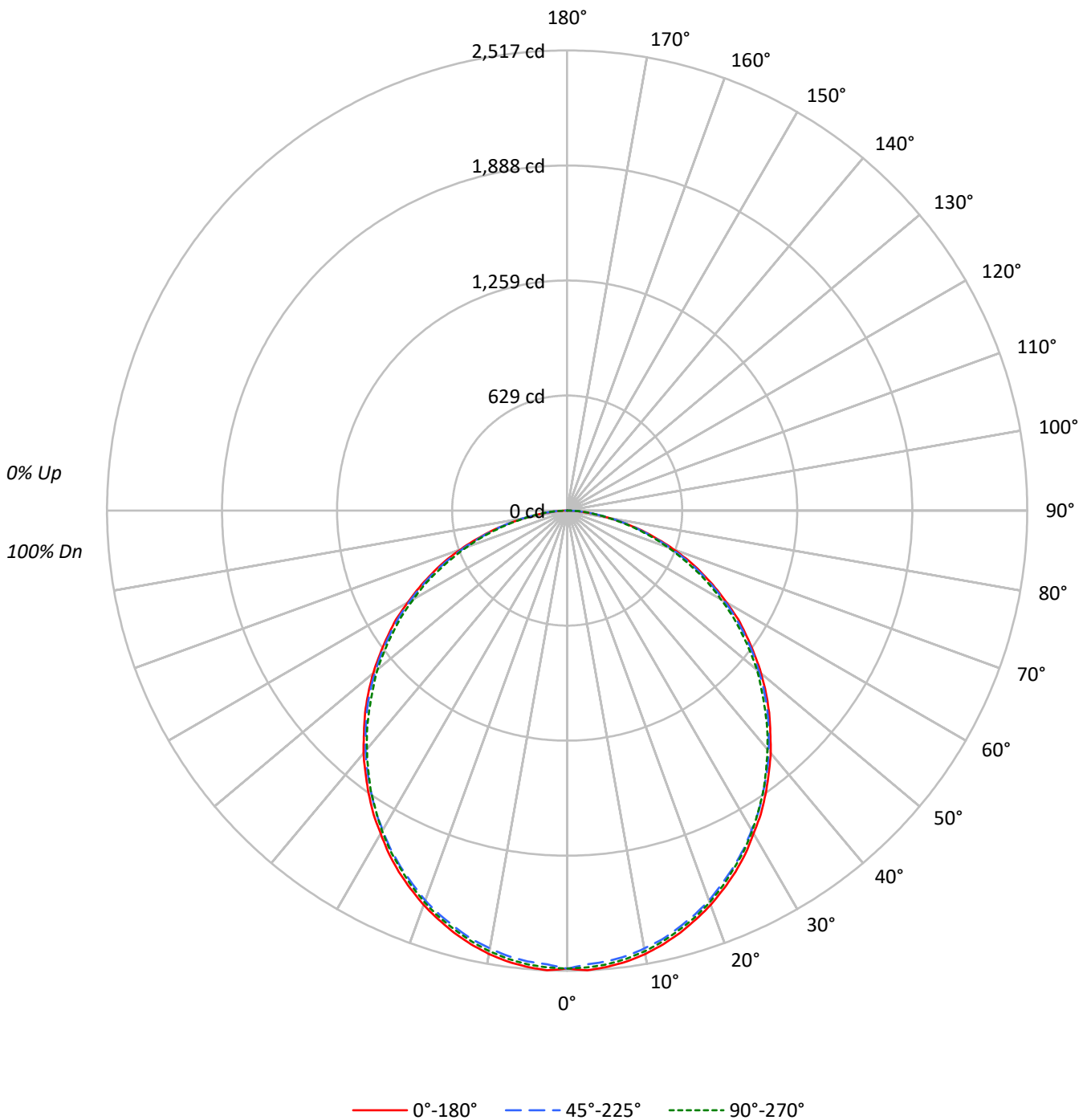
Lumens per Lamp: N/A  
Luminaire Lumens: 6678.0 lumens  
Efficiency: N/A  
Efficacy: 100.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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°	20223	20223	20223
5°	20307	20060	20191
10°	20189	19939	20063
15°	19975	19735	19834
20°	19720	19495	19588
25°	19414	19165	19233
30°	19017	18812	18867
35°	18647	18447	18447
40°	18256	18078	17962
45°	17838	17693	17451
50°	17392	17191	17020
55°	16873	16683	16362
60°	16285	16067	15684
65°	15601	15310	14842
70°	14608	14209	13829
75°	13291	12976	12473
80°	10888	11083	10614
85°	7827	8846	9476



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.5	3.5
10°-20°	670.2	10.0
20°-30°	996.6	14.9
30°-40°	1175.2	17.6
40°-50°	1194.0	17.9
50°-60°	1059.5	15.9
60°-70°	792.8	11.9
70°-80°	439.1	6.6
80°-90°	114.2	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°	1903.3	28.5
0°-40°	3078.5	46.1
0°-60°	5332.0	79.8
0°-90°	6678.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6678.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2505	2505	2505	2505	2505	
5°	2506	2499	2475	2494	2492	238
15°	2390	2386	2361	2379	2373	674
25°	2180	2171	2152	2163	2159	1003
35°	1892	1889	1872	1874	1872	1184
45°	1562	1562	1550	1537	1528	1204
55°	1199	1204	1185	1170	1162	1073
65°	817	822	802	788	777	808
75°	426	422	416	404	400	448
85°	84	96	96	99	102	106
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2505.0	2505.0	2505.0	2505.0	2505.0
2.5°	2516.9	2509.3	2484.7	2505.0	2501.6
5°	2505.9	2499.1	2475.4	2494.0	2491.5
7.5°	2488.1	2480.5	2458.5	2477.1	2472.9
10°	2462.8	2455.1	2432.3	2451.8	2447.5
12.5°	2429.8	2423.0	2401.9	2417.9	2414.6
15°	2390.0	2385.8	2361.3	2379.1	2373.1
17.5°	2344.4	2340.2	2318.2	2335.1	2331.7
20°	2295.4	2287.8	2269.2	2281.0	2280.1
22.5°	2238.7	2232.0	2210.8	2225.2	2222.7
25°	2179.5	2171.1	2151.6	2162.6	2159.2
27.5°	2113.6	2105.1	2089.1	2097.5	2095.8
30°	2040.0	2037.5	2018.1	2025.7	2024.0
32.5°	1970.7	1963.9	1950.4	1949.6	1947.0
35°	1892.1	1888.7	1871.8	1874.3	1871.8
37.5°	1811.8	1810.1	1795.7	1792.3	1787.3
40°	1732.3	1727.2	1715.4	1708.6	1704.4
42.5°	1644.4	1646.9	1630.8	1623.2	1619.9
45°	1562.4	1562.4	1549.7	1537.0	1528.5
47.5°	1474.4	1475.3	1461.8	1445.7	1440.6
50°	1384.8	1386.5	1368.8	1355.2	1355.2
52.5°	1291.0	1296.1	1279.1	1264.8	1258.9
55°	1198.8	1203.9	1185.3	1170.1	1162.5
57.5°	1110.1	1109.2	1094.0	1073.7	1072.0
60°	1008.6	1014.5	995.1	979.9	971.4
62.5°	912.2	919.8	898.7	884.3	879.3
65°	816.7	821.8	801.5	787.9	777.0
67.5°	722.8	721.2	702.6	687.3	681.4
70°	618.9	622.2	602.0	591.0	585.9
72.5°	521.6	525.0	507.3	499.7	491.2
75°	426.1	421.9	416.0	404.1	399.9
77.5°	324.6	328.9	327.2	314.5	312.8
80°	234.2	243.5	238.4	229.1	228.3
82.5°	155.6	164.9	162.3	159.8	157.3
85°	84.5	96.4	95.5	98.9	102.3
87.5°	32.1	41.4	49.0	48.2	50.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)