

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: P412172

Luminaire Tested: **MRI-4ASR-4-1000-L940-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412172  
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-L940-HEO  
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS  
Light Source: (336) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

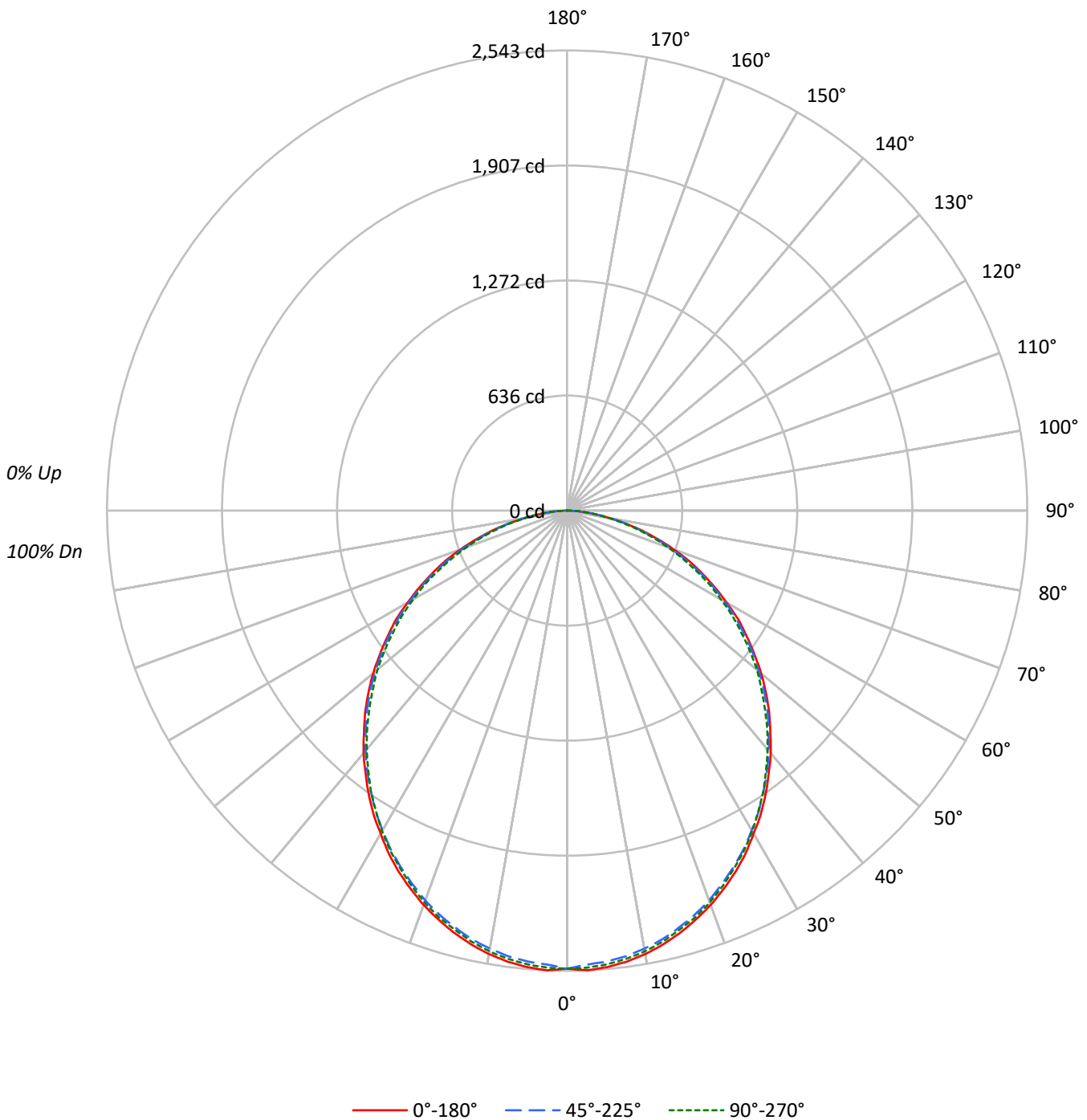
Lumens per Lamp: N/A  
Luminaire Lumens: 6748.0 lumens  
Efficiency: N/A  
Efficacy: 101.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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°	20435	20435	20435
5°	20520	20271	20402
10°	20400	20148	20274
15°	20185	19942	20042
20°	19926	19698	19794
25°	19618	19367	19435
30°	19216	19009	19065
35°	18842	18640	18640
40°	18448	18267	18150
45°	18024	17878	17634
50°	17574	17371	17199
55°	17050	16857	16534
60°	16456	16235	15849
65°	15765	15471	14997
70°	14759	14358	13973
75°	13431	13110	12604
80°	11000	11199	10725
85°	7910	8938	9578



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	239.0	3.5
10°-20°	677.2	10.0
20°-30°	1007.1	14.9
30°-40°	1187.5	17.6
40°-50°	1206.5	17.9
50°-60°	1070.6	15.9
60°-70°	801.1	11.9
70°-80°	443.7	6.6
80°-90°	115.4	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°	1923.3	28.5
0°-40°	3110.8	46.1
0°-60°	5387.9	79.8
0°-90°	6748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6748.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2531	2531	2531	2531	2531	
5°	2532	2525	2501	2520	2518	240
15°	2415	2411	2386	2404	2398	681
25°	2202	2194	2174	2185	2182	1014
35°	1912	1908	1891	1894	1891	1196
45°	1579	1579	1566	1553	1545	1217
55°	1211	1216	1198	1182	1175	1084
65°	825	830	810	796	785	816
75°	431	426	420	408	404	453
85°	85	97	96	100	103	107
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2531.3	2531.3	2531.3	2531.3	2531.3
2.5°	2543.2	2535.6	2510.8	2531.3	2527.9
5°	2532.1	2525.3	2501.4	2520.2	2517.6
7.5°	2514.2	2506.5	2484.3	2503.1	2498.8
10°	2488.6	2480.9	2457.8	2477.5	2473.2
12.5°	2455.3	2448.4	2427.1	2443.3	2439.9
15°	2415.1	2410.8	2386.1	2404.0	2398.0
17.5°	2369.0	2364.7	2342.5	2359.6	2356.2
20°	2319.4	2311.7	2292.9	2304.9	2304.0
22.5°	2262.2	2255.3	2234.0	2248.5	2246.0
25°	2202.4	2193.8	2174.2	2185.3	2181.9
27.5°	2135.7	2127.2	2111.0	2119.5	2117.8
30°	2061.4	2058.9	2039.2	2046.9	2045.2
32.5°	1991.4	1984.5	1970.9	1970.0	1967.4
35°	1911.9	1908.5	1891.4	1894.0	1891.4
37.5°	1830.8	1829.1	1814.5	1811.1	1806.0
40°	1750.5	1745.3	1733.4	1726.5	1722.3
42.5°	1661.6	1664.2	1647.9	1640.3	1636.8
45°	1578.7	1578.7	1565.9	1553.1	1544.6
47.5°	1489.9	1490.8	1477.1	1460.8	1455.7
50°	1399.3	1401.0	1383.1	1369.4	1369.4
52.5°	1304.5	1309.6	1292.6	1278.0	1272.1
55°	1211.4	1216.5	1197.7	1182.3	1174.7
57.5°	1121.7	1120.8	1105.5	1085.0	1083.3
60°	1019.2	1025.2	1005.5	990.1	981.6
62.5°	921.8	929.5	908.1	893.6	888.5
65°	825.3	830.4	809.9	796.2	785.1
67.5°	730.4	728.7	709.9	694.5	688.6
70°	625.3	628.8	608.3	597.2	592.0
72.5°	527.1	530.5	512.6	504.9	496.3
75°	430.6	426.3	420.3	408.4	404.1
77.5°	328.1	332.3	330.6	317.8	316.1
80°	236.6	246.0	240.9	231.5	230.7
82.5°	157.2	166.6	164.0	161.5	158.9
85°	85.4	97.4	96.5	100.0	103.4
87.5°	32.5	41.9	49.5	48.7	51.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)