

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: P412184

Luminaire Tested: **MRI-4ASR-4-250-L940-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412184  
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-4-250-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: 1688.0 lumens  
Efficiency: N/A  
Efficacy: 104.8 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

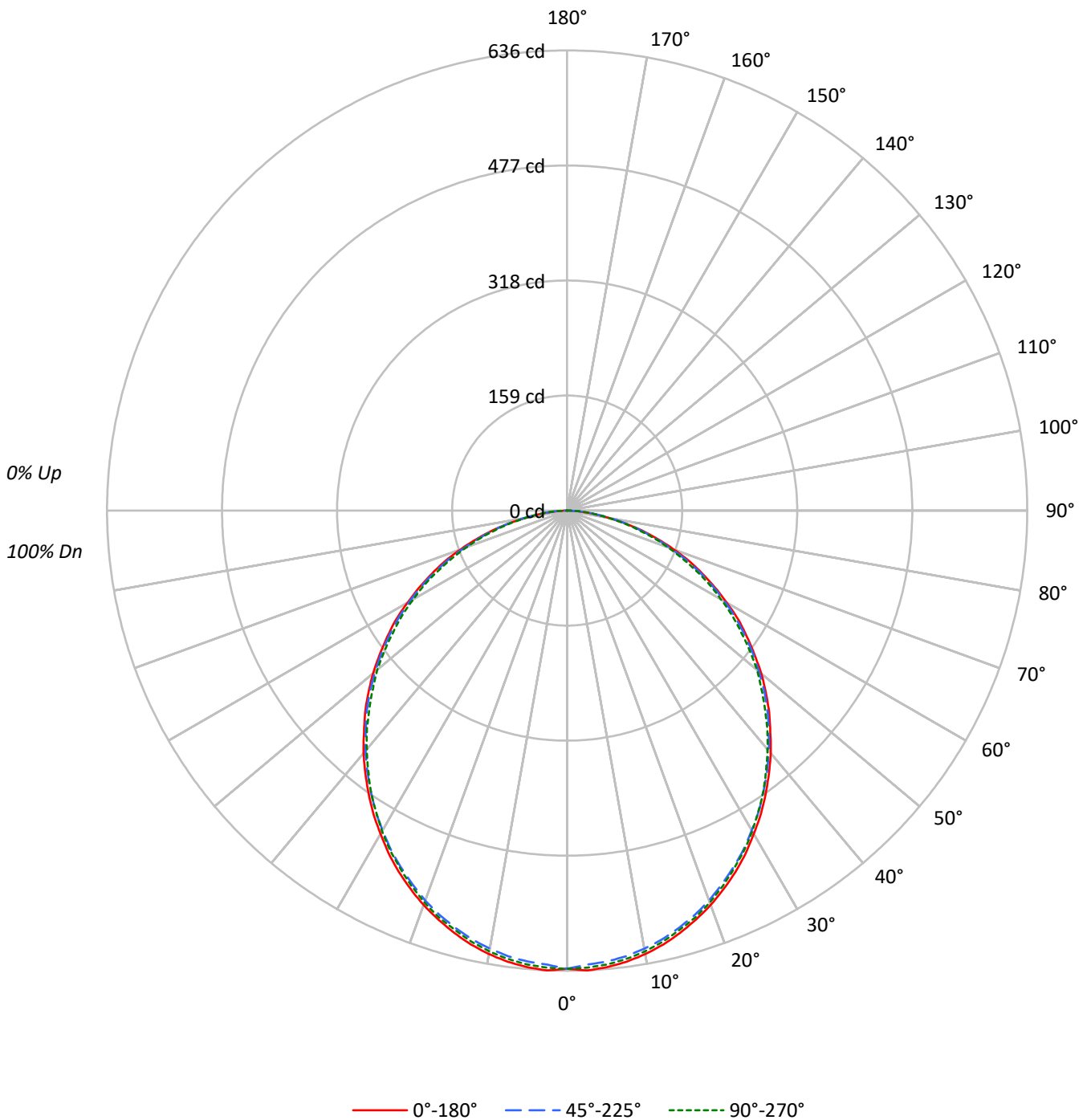
Input Watts (W): 16.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5112	5112	5112
5°	5133	5071	5104
10°	5103	5040	5072
15°	5049	4989	5014
20°	4985	4928	4952
25°	4907	4845	4862
30°	4807	4755	4769
35°	4714	4663	4663
40°	4615	4569	4540
45°	4509	4472	4411
50°	4396	4346	4303
55°	4265	4217	4135
60°	4116	4061	3964
65°	3943	3870	3752
70°	3692	3592	3496
75°	3359	3278	3153
80°	2752	2803	2682
85°	1982	2232	2399



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	3.5
10°-20°	169.4	10.0
20°-30°	251.9	14.9
30°-40°	297.0	17.6
40°-50°	301.8	17.9
50°-60°	267.8	15.9
60°-70°	200.4	11.9
70°-80°	111.0	6.6
80°-90°	28.9	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°	481.1	28.5
0°-40°	778.2	46.1
0°-60°	1347.8	79.8
0°-90°	1688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1688.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	633	632	626	630	630	60
15°	604	603	597	601	600	170
25°	551	549	544	547	546	254
35°	478	477	473	474	473	299
45°	395	395	392	388	386	304
55°	303	304	300	296	294	271
65°	206	208	203	199	196	204
75°	108	107	105	102	101	113
85°	21	24	24	25	26	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	633.2	633.2	633.2	633.2	633.2
2.5°	636.2	634.3	628.1	633.2	632.3
5°	633.4	631.7	625.7	630.4	629.8
7.5°	628.9	627.0	621.4	626.1	625.1
10°	622.5	620.6	614.8	619.7	618.7
12.5°	614.2	612.5	607.1	611.2	610.3
15°	604.1	603.1	596.9	601.4	599.9
17.5°	592.6	591.5	586.0	590.2	589.4
20°	580.2	578.3	573.6	576.6	576.4
22.5°	565.9	564.2	558.8	562.5	561.8
25°	550.9	548.8	543.9	546.6	545.8
27.5°	534.3	532.1	528.1	530.2	529.8
30°	515.7	515.0	510.1	512.0	511.6
32.5°	498.1	496.4	493.0	492.8	492.2
35°	478.3	477.4	473.1	473.8	473.1
37.5°	458.0	457.5	453.9	453.0	451.8
40°	437.9	436.6	433.6	431.9	430.8
42.5°	415.6	416.3	412.2	410.3	409.5
45°	394.9	394.9	391.7	388.5	386.4
47.5°	372.7	372.9	369.5	365.4	364.1
50°	350.0	350.5	346.0	342.6	342.6
52.5°	326.3	327.6	323.3	319.7	318.2
55°	303.0	304.3	299.6	295.8	293.8
57.5°	280.6	280.4	276.5	271.4	271.0
60°	254.9	256.4	251.5	247.7	245.5
62.5°	230.6	232.5	227.2	223.5	222.2
65°	206.4	207.7	202.6	199.2	196.4
67.5°	182.7	182.3	177.6	173.7	172.2
70°	156.4	157.3	152.2	149.4	148.1
72.5°	131.9	132.7	128.2	126.3	124.2
75°	107.7	106.6	105.1	102.1	101.1
77.5°	82.1	83.1	82.7	79.5	79.1
80°	59.2	61.5	60.3	57.9	57.7
82.5°	39.3	41.7	41.0	40.4	39.7
85°	21.4	24.4	24.1	25.0	25.9
87.5°	8.1	10.5	12.4	12.2	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)