

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: P412178

Luminaire Tested: **MRI-4ASR-4-250-L840-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412178  
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-L840-HEO  
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS  
Light Source: (336) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

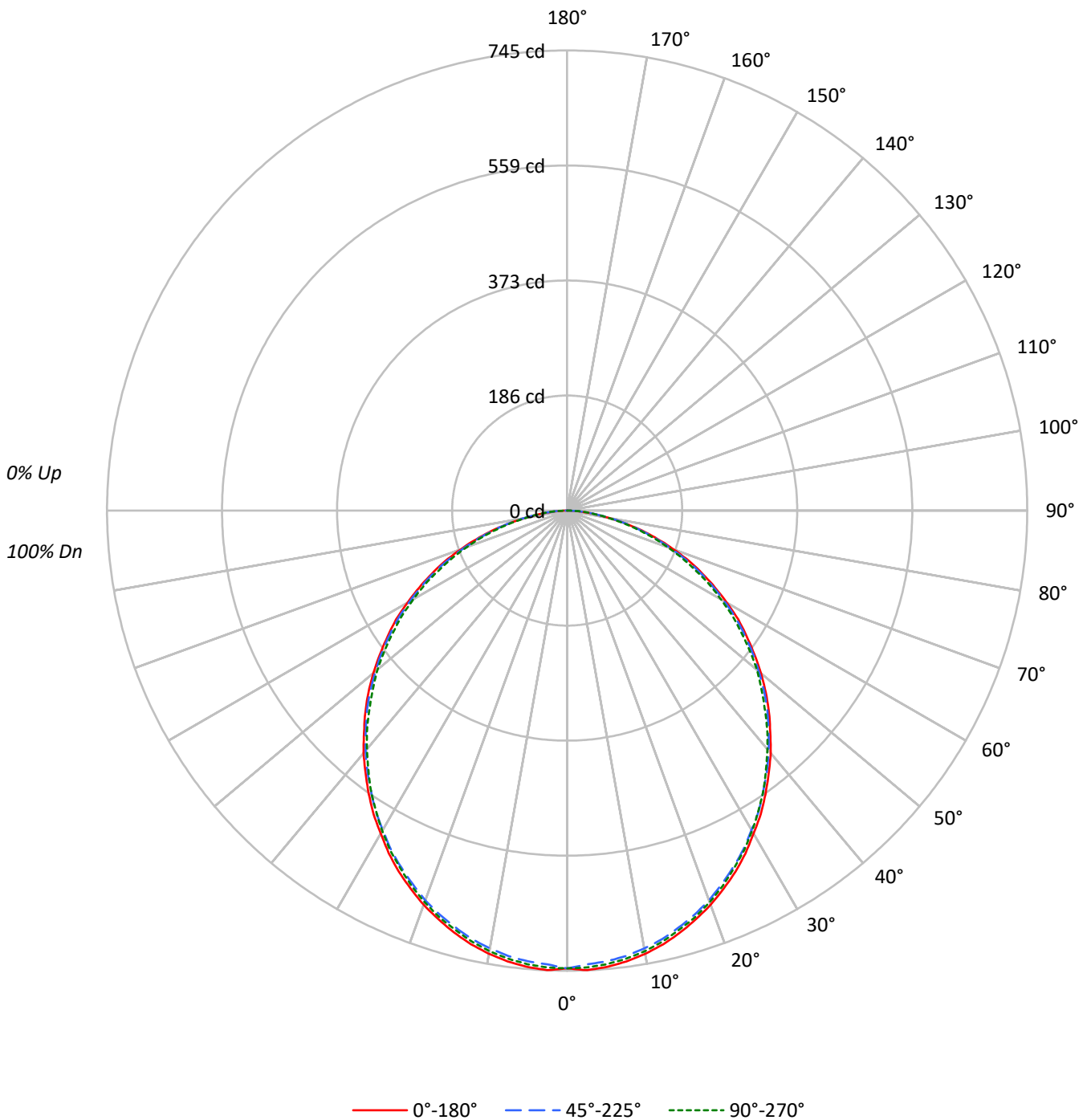
Lumens per Lamp: N/A  
Luminaire Lumens: 1976.0 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.1  
Input Voltage (V): NR  
Input Current (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	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°	5984	5984	5984
5°	6009	5936	5974
10°	5974	5900	5937
15°	5911	5840	5869
20°	5835	5768	5796
25°	5744	5671	5691
30°	5627	5566	5583
35°	5518	5459	5459
40°	5402	5349	5315
45°	5278	5235	5164
50°	5147	5087	5036
55°	4992	4936	4842
60°	4818	4753	4640
65°	4617	4531	4392
70°	4322	4204	4093
75°	3933	3840	3690
80°	3222	3278	3138
85°	2316	2621	2807



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.0	3.5
10°-20°	198.3	10.0
20°-30°	294.9	14.9
30°-40°	347.7	17.6
40°-50°	353.3	17.9
50°-60°	313.5	15.9
60°-70°	234.6	11.9
70°-80°	129.9	6.6
80°-90°	33.8	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°	563.2	28.5
0°-40°	910.9	46.1
0°-60°	1577.7	79.8
0°-90°	1976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1976.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	742	740	732	738	737	70
15°	707	706	699	704	702	199
25°	645	642	637	640	639	297
35°	560	559	554	555	554	350
45°	462	462	458	455	452	356
55°	355	356	351	346	344	317
65°	242	243	237	233	230	239
75°	126	125	123	120	118	133
85°	25	28	28	29	30	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	741.2	741.2	741.2	741.2	741.2
2.5°	744.7	742.5	735.2	741.2	740.2
5°	741.5	739.5	732.5	738.0	737.2
7.5°	736.2	734.0	727.5	733.0	731.7
10°	728.7	726.5	719.7	725.5	724.2
12.5°	719.0	717.0	710.7	715.5	714.5
15°	707.2	706.0	698.7	704.0	702.2
17.5°	693.7	692.4	685.9	690.9	689.9
20°	679.2	676.9	671.4	674.9	674.7
22.5°	662.4	660.4	654.2	658.4	657.7
25°	644.9	642.4	636.7	639.9	638.9
27.5°	625.4	622.9	618.2	620.7	620.2
30°	603.6	602.9	597.1	599.4	598.9
32.5°	583.1	581.1	577.1	576.9	576.1
35°	559.9	558.9	553.9	554.6	553.9
37.5°	536.1	535.6	531.3	530.3	528.8
40°	512.6	511.1	507.6	505.6	504.3
42.5°	486.6	487.3	482.6	480.3	479.3
45°	462.3	462.3	458.5	454.8	452.3
47.5°	436.3	436.5	432.5	427.8	426.3
50°	409.8	410.3	405.0	401.0	401.0
52.5°	382.0	383.5	378.5	374.2	372.5
55°	354.7	356.2	350.7	346.2	344.0
57.5°	328.5	328.2	323.7	317.7	317.2
60°	298.4	300.2	294.4	289.9	287.4
62.5°	269.9	272.2	265.9	261.7	260.2
65°	241.7	243.2	237.2	233.2	229.9
67.5°	213.9	213.4	207.9	203.4	201.6
70°	183.1	184.1	178.1	174.9	173.4
72.5°	154.3	155.4	150.1	147.8	145.3
75°	126.1	124.8	123.1	119.6	118.3
77.5°	96.1	97.3	96.8	93.1	92.6
80°	69.3	72.0	70.5	67.8	67.5
82.5°	46.0	48.8	48.0	47.3	46.5
85°	25.0	28.5	28.3	29.3	30.3
87.5°	9.5	12.3	14.5	14.3	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)