

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: P412173

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

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412173  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-8)  
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-OPL  
Description: 4 FT, 4 INCH CHANNEL, OPAL LENS  
Light Source: (336) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

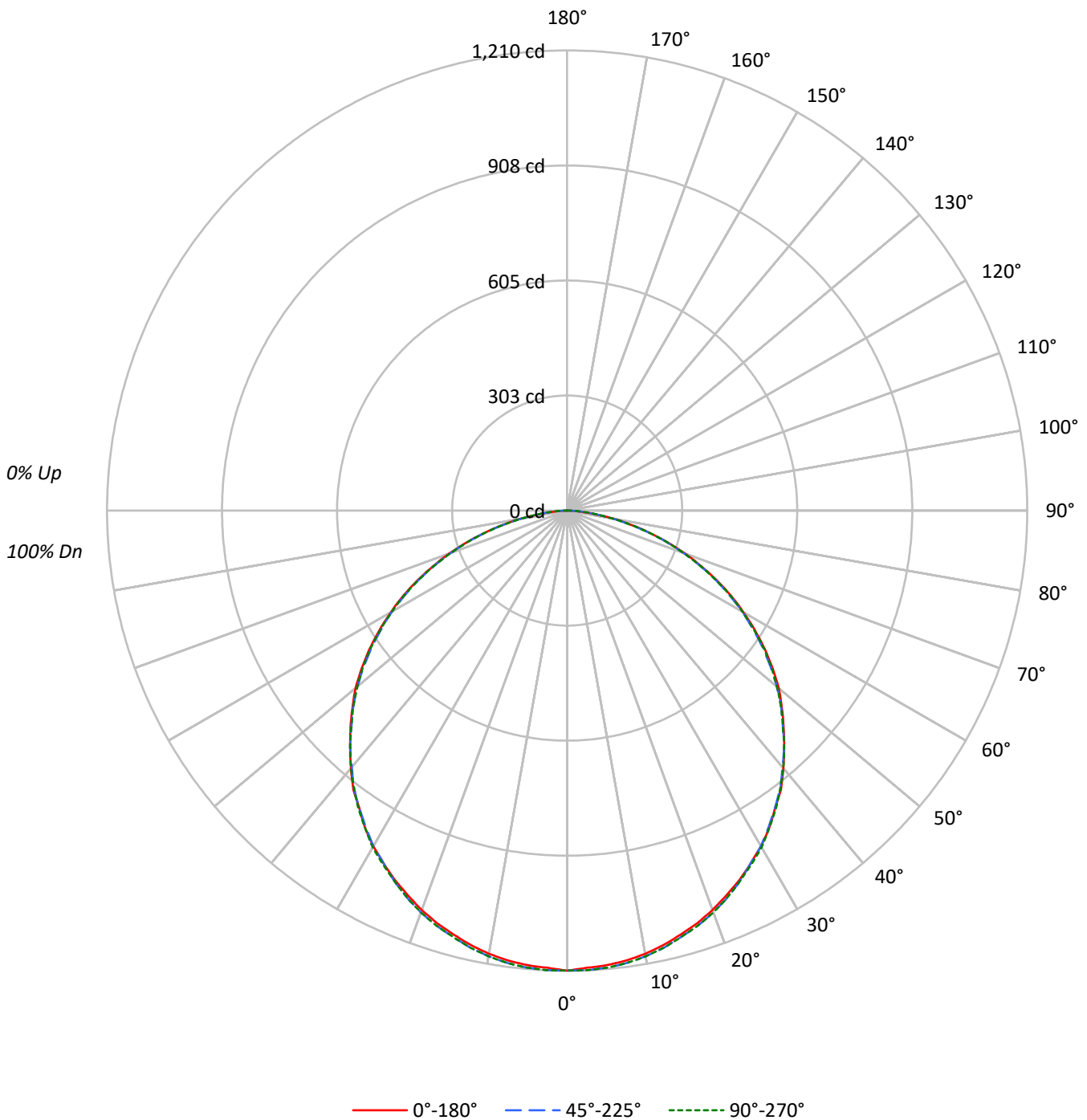
Lumens per Lamp: N/A  
Luminaire Lumens: 3431.9 lumens  
Efficiency: N/A  
Efficacy: 51.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P412173  
CATALOG NUMBER: MRI-4ASR-4-1000-L940-OPL

### Luminous Intensity Polar Plot





TEST NUMBER: P412173

CATALOG NUMBER: MRI-4ASR-4-1000-L940-OPL

**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	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	9766	9766	9766
5°	9724	9777	9777
10°	9701	9755	9755
15°	9644	9698	9698
20°	9602	9659	9659
25°	9546	9576	9576
30°	9500	9500	9531
35°	9395	9395	9428
40°	9319	9284	9319
45°	9195	9157	9157
50°	9124	9041	9041
55°	8930	8838	8884
60°	8651	8598	8598
65°	8288	8225	8225
70°	7759	7681	7681
75°	6971	6871	6871
80°	5807	5653	5653
85°	3649	3955	4261



TEST NUMBER: P412173

CATALOG NUMBER: MRI-4ASR-4-1000-L940-OPL

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.6	3.3
10°-20°	327.4	9.5
20°-30°	495.1	14.4
30°-40°	597.3	17.4
40°-50°	620.4	18.1
50°-60°	561.9	16.4
60°-70°	425.8	12.4
70°-80°	234.6	6.8
80°-90°	54.8	1.6
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°	937.1	27.3
0°-40°	1534.4	44.7
0°-60°	2716.7	79.2
0°-90°	3431.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3431.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1210	1210	1210	1210	1210	
5°	1200	1203	1206	1210	1206	114
15°	1154	1157	1160	1164	1160	326
25°	1072	1072	1075	1075	1075	494
35°	953	953	953	953	957	598
45°	805	802	802	805	802	622
55°	634	628	628	628	631	566
65°	434	431	431	431	431	429
75°	224	224	220	220	220	237
85°	39	43	43	46	46	52
90°	0	0	0	0	0	



TEST NUMBER: P412173

CATALOG NUMBER: MRI-4ASR-4-1000-L940-OPL

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1209.7	1209.7	1209.7	1209.7	1209.7
2.5°	1203.2	1206.5	1209.7	1213.0	1209.7
5°	1199.9	1203.2	1206.5	1209.7	1206.5
7.5°	1193.3	1196.6	1199.9	1203.2	1199.9
10°	1183.4	1186.7	1190.0	1193.3	1190.0
12.5°	1170.3	1173.6	1176.9	1176.9	1176.9
15°	1153.9	1157.1	1160.4	1163.7	1160.4
17.5°	1137.4	1140.7	1144.0	1144.0	1144.0
20°	1117.7	1121.0	1124.3	1124.3	1124.3
22.5°	1094.7	1098.0	1101.3	1101.3	1101.3
25°	1071.7	1071.7	1075.0	1075.0	1075.0
27.5°	1045.4	1045.4	1045.4	1048.7	1048.7
30°	1019.1	1019.1	1019.1	1019.1	1022.4
32.5°	989.5	989.5	986.2	989.5	989.5
35°	953.3	953.3	953.3	953.3	956.6
37.5°	923.7	917.2	920.5	920.5	920.5
40°	884.3	884.3	881.0	884.3	884.3
42.5°	844.8	844.8	844.8	844.8	844.8
45°	805.4	802.1	802.1	805.4	802.1
47.5°	766.0	762.7	762.7	762.7	762.7
50°	726.5	719.9	719.9	719.9	719.9
52.5°	680.5	673.9	673.9	673.9	677.2
55°	634.5	627.9	627.9	627.9	631.2
57.5°	585.1	581.9	578.6	581.9	581.9
60°	535.8	532.5	532.5	532.5	532.5
62.5°	486.5	483.2	480.0	480.0	483.2
65°	433.9	430.6	430.6	430.6	430.6
67.5°	381.3	378.0	378.0	378.0	378.0
70°	328.7	325.4	325.4	328.7	325.4
72.5°	276.1	272.8	272.8	272.8	272.8
75°	223.5	223.5	220.3	220.3	220.3
77.5°	170.9	170.9	170.9	170.9	170.9
80°	124.9	121.6	121.6	121.6	121.6
82.5°	75.6	75.6	78.9	78.9	78.9
85°	39.4	42.7	42.7	46.0	46.0
87.5°	13.1	16.4	19.7	23.0	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)