

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: P412190

Luminaire Tested: **MRI-4ASR-4-500-L840-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412190
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-4-500-L840-HEO
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (336) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

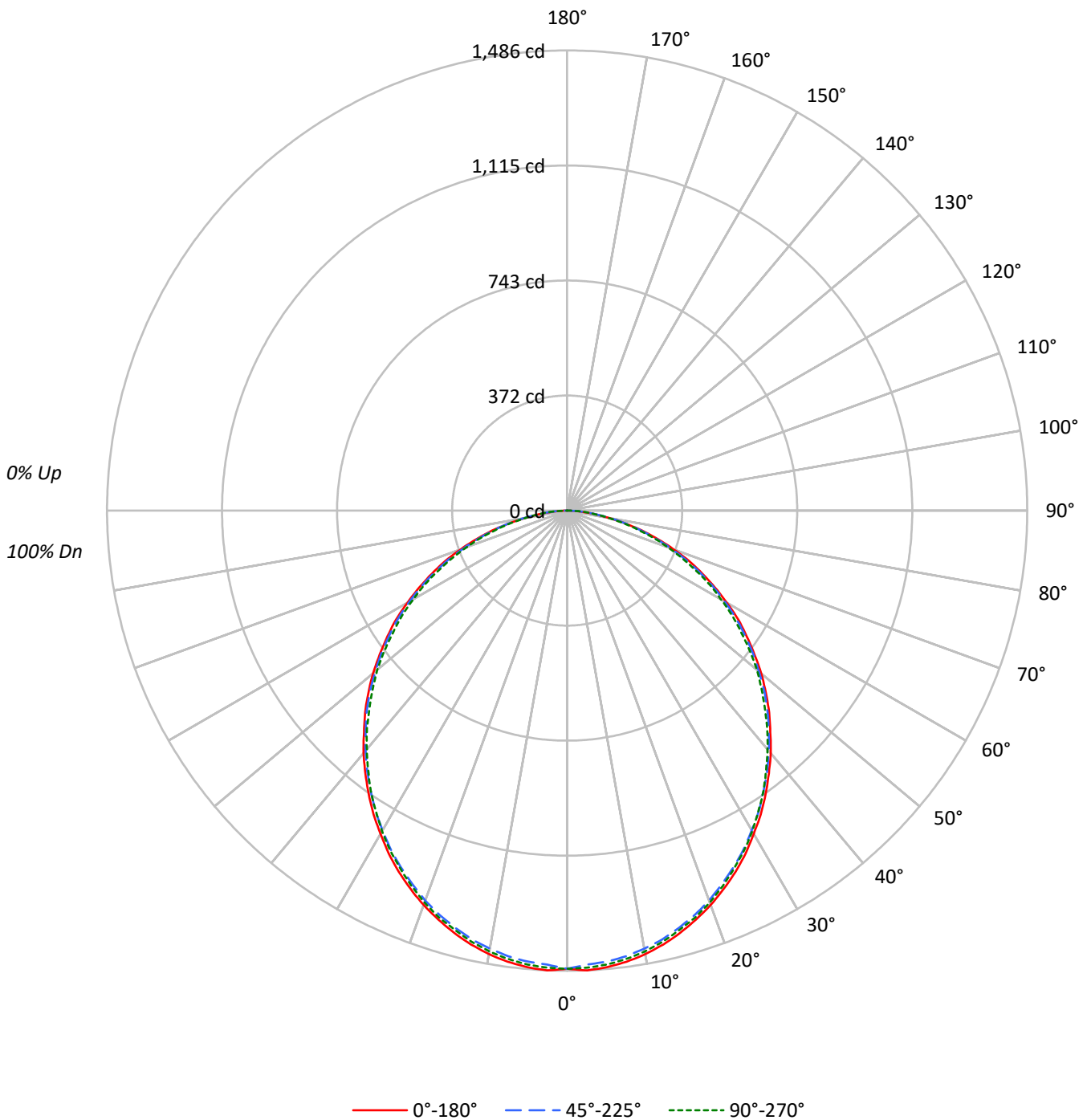
Lumens per Lamp: N/A
Luminaire Lumens: 3944.0 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 30.8
Input Voltage (V): NR
Input Current (A_{in}): 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: P412190
CATALOG NUMBER: MRI-4ASR-4-500-L840-HEO

Luminous Intensity Polar Plot





TEST NUMBER: P412190

CATALOG NUMBER: MRI-4ASR-4-500-L840-HEO

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	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°	11944	11944	11944
5°	11994	11848	11925
10°	11923	11776	11849
15°	11798	11656	11714
20°	11646	11514	11569
25°	11466	11319	11359
30°	11231	11111	11143
35°	11013	10895	10895
40°	10782	10677	10608
45°	10534	10449	10307
50°	10272	10153	10052
55°	9965	9852	9664
60°	9618	9489	9263
65°	9213	9041	8766
70°	8627	8391	8167
75°	7851	7664	7367
80°	6430	6546	6267
85°	4622	5224	5595



TEST NUMBER: P412190

CATALOG NUMBER: MRI-4ASR-4-500-L840-HEO

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	3.5
10°-20°	395.8	10.0
20°-30°	588.6	14.9
30°-40°	694.1	17.6
40°-50°	705.2	17.9
50°-60°	625.7	15.9
60°-70°	468.2	11.9
70°-80°	259.3	6.6
80°-90°	67.4	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°	1124.1	28.5
0°-40°	1818.1	46.1
0°-60°	3149.0	79.8
0°-90°	3944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3944.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1480	1476	1462	1473	1472	140
15°	1412	1409	1395	1405	1402	398
25°	1287	1282	1271	1277	1275	593
35°	1118	1116	1106	1107	1106	699
45°	923	923	915	908	903	711
55°	708	711	700	691	687	633
65°	482	485	473	465	459	477
75°	252	249	246	239	236	264
85°	50	57	56	58	60	63
90°	0	0	0	0	0	



TEST NUMBER: P412190

CATALOG NUMBER: MRI-4ASR-4-500-L840-HEO

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1479.5	1479.5	1479.5	1479.5	1479.5
2.5°	1486.4	1482.0	1467.5	1479.5	1477.5
5°	1480.0	1476.0	1462.0	1473.0	1471.5
7.5°	1469.5	1465.0	1452.0	1463.0	1460.5
10°	1454.5	1450.0	1436.5	1448.0	1445.5
12.5°	1435.0	1431.0	1418.5	1428.0	1426.0
15°	1411.6	1409.1	1394.6	1405.1	1401.6
17.5°	1384.6	1382.1	1369.1	1379.1	1377.1
20°	1355.6	1351.1	1340.2	1347.1	1346.6
22.5°	1322.2	1318.2	1305.7	1314.2	1312.7
25°	1287.2	1282.2	1270.7	1277.2	1275.2
27.5°	1248.3	1243.3	1233.8	1238.8	1237.8
30°	1204.8	1203.3	1191.9	1196.3	1195.4
32.5°	1163.9	1159.9	1151.9	1151.4	1149.9
35°	1117.5	1115.5	1105.5	1107.0	1105.5
37.5°	1070.0	1069.0	1060.5	1058.5	1055.5
40°	1023.1	1020.1	1013.1	1009.1	1006.6
42.5°	971.2	972.7	963.2	958.7	956.7
45°	922.7	922.7	915.2	907.7	902.8
47.5°	870.8	871.3	863.3	853.8	850.8
50°	817.9	818.9	808.4	800.4	800.4
52.5°	762.4	765.4	755.5	747.0	743.5
55°	708.0	711.0	700.0	691.0	686.6
57.5°	655.6	655.1	646.1	634.1	633.1
60°	595.7	599.2	587.7	578.7	573.7
62.5°	538.8	543.3	530.8	522.3	519.3
65°	482.3	485.3	473.3	465.4	458.9
67.5°	426.9	425.9	414.9	405.9	402.4
70°	365.5	367.5	355.5	349.0	346.0
72.5°	308.1	310.1	299.6	295.1	290.1
75°	251.7	249.2	245.7	238.7	236.2
77.5°	191.7	194.2	193.2	185.7	184.7
80°	138.3	143.8	140.8	135.3	134.8
82.5°	91.9	97.4	95.9	94.4	92.9
85°	49.9	56.9	56.4	58.4	60.4
87.5°	19.0	24.5	29.0	28.5	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)