

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: P412160

Luminaire Tested: **MRI-2ASR-4-500-L940-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412160  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MRI-2ASR-4-500-L940-HEO  
Description: 4 FT, 2 INCH CHANNEL, HIGH EFFICIENCY LENS  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

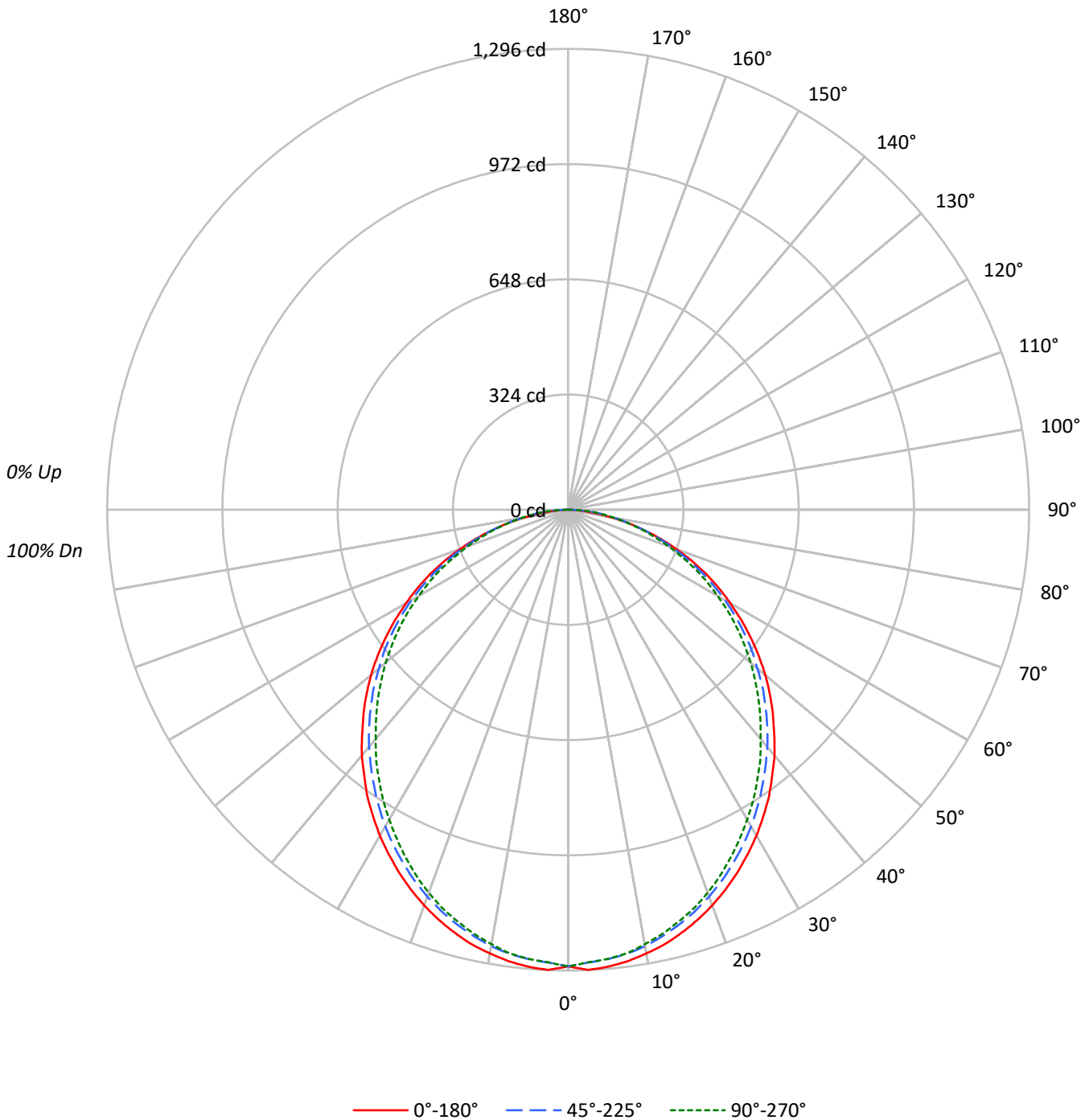
Lumens per Lamp: N/A  
Luminaire Lumens: 3417.0 lumens  
Efficiency: N/A  
Efficacy: 78.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.17 / 1.32  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.4  
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	94	98	94	91		94	91	89		90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76		82	78	74		79	75	72	70
3	90	80	72	65	88	78	71	65	75	69	63		72	67	62		70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54		65	58	53		62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47		58	52	46		56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41		53	46	41		51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37		48	41	36		47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33		44	37	32		43	37	32	30
9	57	43	35	30	55	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°	20733	20733	20733
5°	20911	20571	20556
10°	20774	20436	20349
15°	20592	20186	20043
20°	20345	19893	19699
25°	20049	19543	19240
30°	19736	19177	18761
35°	19397	18743	18272
40°	19026	18360	17745
45°	18577	17920	17292
50°	18168	17435	16834
55°	17624	16997	16301
60°	16973	16449	15652
65°	16321	15717	15022
70°	15257	14795	14148
75°	13643	13668	13188
80°	11223	12273	12162
85°	7577	11708	12078



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.2	3.5
10°-20°	342.3	10.0
20°-30°	507.4	14.9
30°-40°	596.8	17.5
40°-50°	606.2	17.7
50°-60°	539.3	15.8
60°-70°	406.6	11.9
70°-80°	231.1	6.8
80°-90°	66.2	1.9
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°	970.9	28.4
0°-40°	1567.7	45.9
0°-60°	2713.1	79.4
0°-90°	3417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3417.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1284	1284	1284	1284	1284	
5°	1290	1281	1269	1278	1268	122
15°	1232	1222	1208	1212	1199	347
25°	1125	1114	1097	1093	1080	518
35°	984	971	951	939	927	615
45°	814	803	785	769	757	628
55°	626	620	604	587	579	560
65°	427	424	411	398	393	422
75°	219	222	219	213	211	233
85°	41	56	63	63	65	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1284.1	1284.1	1284.1	1284.1	1284.1
2.5°	1295.5	1286.6	1274.8	1284.5	1274.0
5°	1290.2	1281.3	1269.2	1278.5	1268.3
7.5°	1280.9	1272.0	1259.8	1268.3	1258.6
10°	1267.1	1259.0	1246.5	1253.4	1241.2
12.5°	1252.1	1241.6	1228.3	1234.3	1222.2
15°	1231.9	1222.2	1207.6	1212.1	1199.1
17.5°	1209.6	1198.3	1184.1	1186.5	1175.6
20°	1184.1	1172.8	1157.8	1158.6	1146.5
22.5°	1155.8	1145.2	1129.0	1126.2	1114.9
25°	1125.4	1113.6	1097.0	1093.0	1080.0
27.5°	1092.6	1081.7	1063.8	1057.4	1043.6
30°	1058.6	1045.6	1028.6	1018.9	1006.3
32.5°	1021.3	1009.6	990.5	978.4	968.7
35°	984.1	970.7	950.9	938.7	927.0
37.5°	941.9	929.4	910.8	898.6	886.9
40°	902.7	888.9	871.1	856.1	841.9
42.5°	857.3	847.6	828.2	813.2	799.4
45°	813.6	803.4	784.8	769.0	757.3
47.5°	769.4	759.3	741.5	724.5	713.1
50°	723.3	712.3	694.1	679.1	670.2
52.5°	675.1	667.4	651.2	634.2	624.0
55°	626.1	619.6	603.8	586.8	579.1
57.5°	576.7	571.4	556.8	540.6	532.9
60°	525.6	523.2	509.4	494.1	484.7
62.5°	477.5	473.8	459.6	448.3	439.8
65°	427.2	424.4	411.4	398.5	393.2
67.5°	376.6	373.4	361.2	352.3	344.2
70°	323.2	323.2	313.4	304.9	299.7
72.5°	272.5	272.9	266.5	257.6	255.1
75°	218.7	221.9	219.1	213.0	211.4
77.5°	170.9	173.7	174.1	172.1	169.3
80°	120.7	128.8	132.0	131.6	130.8
82.5°	77.3	90.3	96.4	96.0	96.8
85°	40.9	56.3	63.2	63.2	65.2
87.5°	14.2	28.8	30.8	28.3	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)