

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: P412102

Luminaire Tested: **MRI-4ASR-2-1000-L950-HEO**

Issue Date: 10/5/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P412102  
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-2-1000-L950-HEO  
Description: 2 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS  
Light Source: (196) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

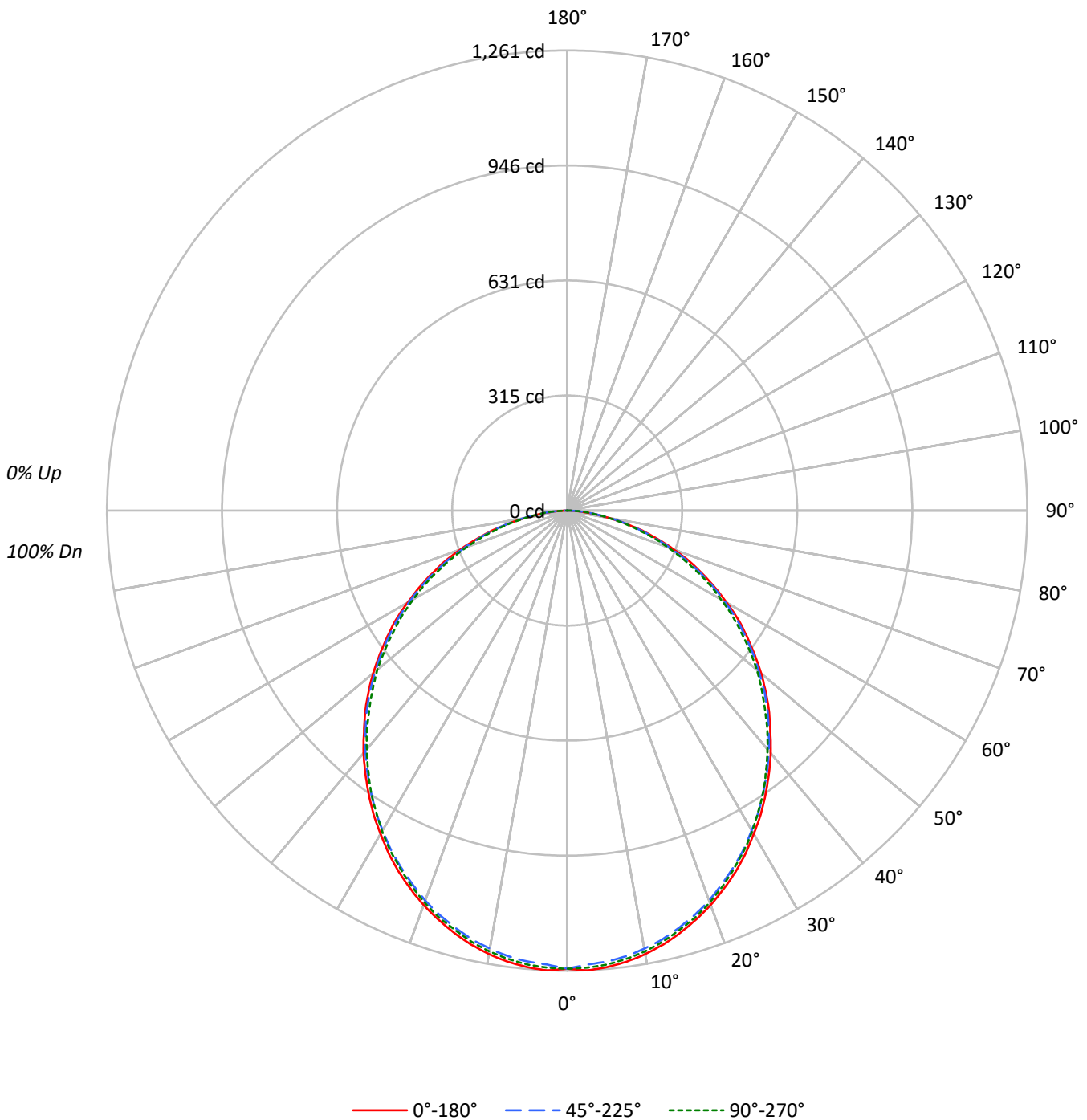
Lumens per Lamp: N/A  
Luminaire Lumens: 3347.0 lumens  
Efficiency: N/A  
Efficacy: 95.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32  
Luminous Opening: Rectangular (W 0.33' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 34.9  
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°	20271	20271	20271
5°	20355	20109	20238
10°	20236	19987	20112
15°	20023	19783	19881
20°	19766	19541	19636
25°	19461	19212	19279
30°	19063	18856	18912
35°	18691	18490	18490
40°	18299	18122	18004
45°	17881	17735	17493
50°	17435	17231	17061
55°	16915	16724	16400
60°	16323	16104	15723
65°	15637	15347	14877
70°	14644	14242	13860
75°	13325	13007	12502
80°	10916	11111	10637
85°	7855	8874	9503



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.5	3.5
10°-20°	335.9	10.0
20°-30°	499.5	14.9
30°-40°	589.0	17.6
40°-50°	598.4	17.9
50°-60°	531.0	15.9
60°-70°	397.3	11.9
70°-80°	220.1	6.6
80°-90°	57.2	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°	953.9	28.5
0°-40°	1542.9	46.1
0°-60°	2672.4	79.8
0°-90°	3347.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3347.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1256	1252	1241	1250	1249	119
15°	1198	1196	1184	1192	1189	338
25°	1092	1088	1078	1084	1082	503
35°	948	947	938	939	938	593
45°	783	783	777	770	766	604
55°	601	603	594	586	583	538
65°	409	412	402	395	389	405
75°	214	211	208	202	200	224
85°	42	48	48	50	51	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1255.5	1255.5	1255.5	1255.5	1255.5
2.5°	1261.4	1257.6	1245.3	1255.5	1253.8
5°	1255.9	1252.5	1240.7	1250.0	1248.7
7.5°	1247.0	1243.2	1232.2	1241.5	1239.4
10°	1234.3	1230.5	1219.1	1228.8	1226.7
12.5°	1217.8	1214.4	1203.8	1211.9	1210.2
15°	1197.9	1195.8	1183.5	1192.4	1189.4
17.5°	1175.0	1172.9	1161.9	1170.3	1168.6
20°	1150.4	1146.6	1137.3	1143.2	1142.8
22.5°	1122.0	1118.6	1108.1	1115.3	1114.0
25°	1092.4	1088.1	1078.4	1083.9	1082.2
27.5°	1059.3	1055.1	1047.0	1051.3	1050.4
30°	1022.5	1021.2	1011.4	1015.3	1014.4
32.5°	987.7	984.3	977.5	977.1	975.9
35°	948.3	946.6	938.1	939.4	938.1
37.5°	908.1	907.2	900.0	898.3	895.8
40°	868.2	865.7	859.8	856.4	854.2
42.5°	824.2	825.4	817.4	813.6	811.9
45°	783.1	783.1	776.7	770.3	766.1
47.5°	739.0	739.4	732.6	724.6	722.0
50°	694.1	694.9	686.0	679.2	679.2
52.5°	647.0	649.6	641.1	633.9	630.9
55°	600.9	603.4	594.1	586.4	582.6
57.5°	556.4	555.9	548.3	538.1	537.3
60°	505.5	508.5	498.7	491.1	486.9
62.5°	457.2	461.0	450.4	443.2	440.7
65°	409.3	411.9	401.7	394.9	389.4
67.5°	362.3	361.4	352.1	344.5	341.5
70°	310.2	311.9	301.7	296.2	293.6
72.5°	261.4	263.1	254.2	250.4	246.2
75°	213.6	211.4	208.5	202.5	200.4
77.5°	162.7	164.8	164.0	157.6	156.8
80°	117.4	122.0	119.5	114.8	114.4
82.5°	78.0	82.6	81.4	80.1	78.8
85°	42.4	48.3	47.9	49.6	51.3
87.5°	16.1	20.8	24.6	24.2	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)