

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: P412198

Luminaire Tested: **MRI-4ASR-4-500-L950-HEO**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412198
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-L950-HEO
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (336) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3576.0 lumens
Efficiency: N/A
Efficacy: 116.1 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

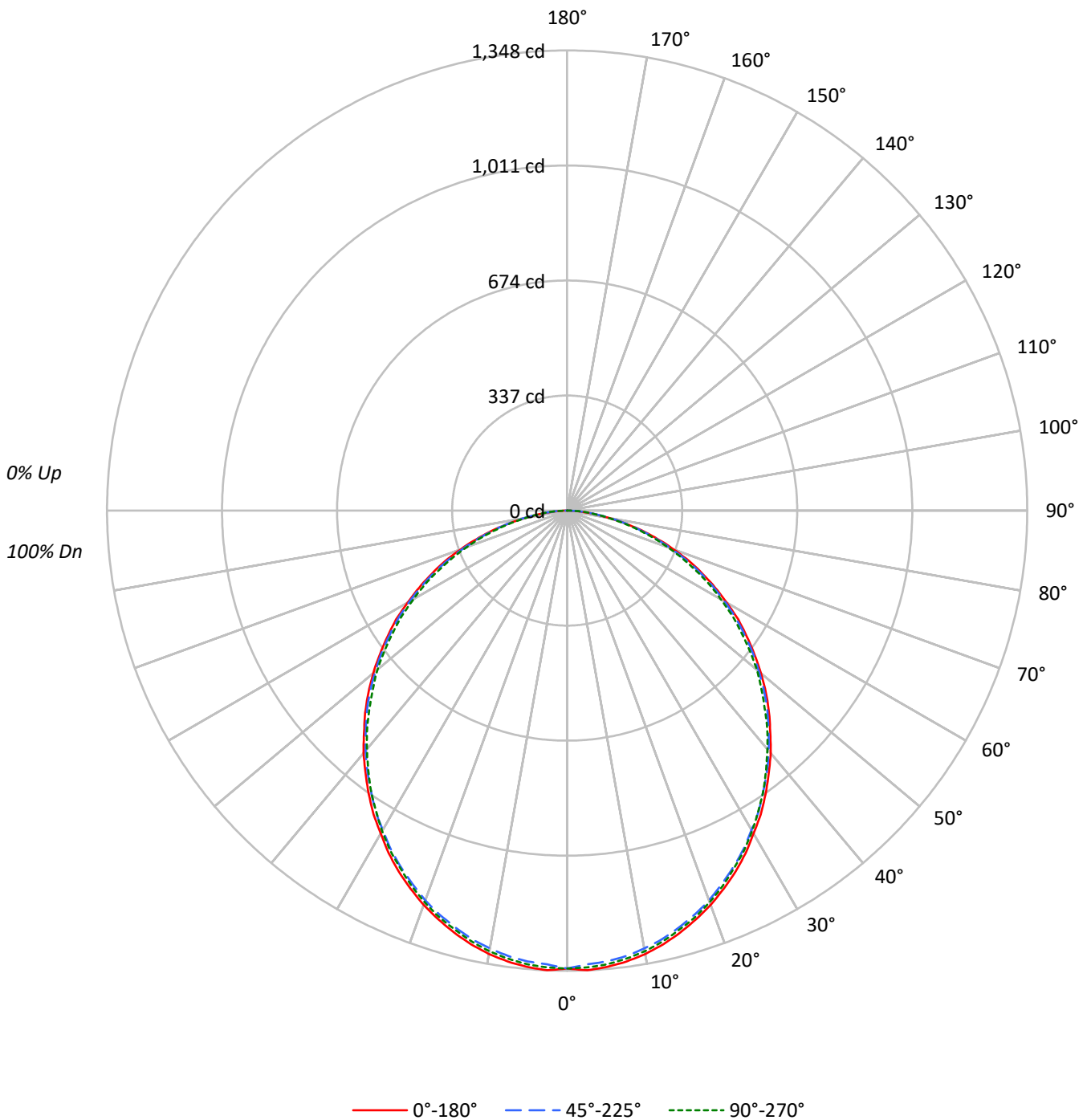
Input Watts (W): 30.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10829	10829	10829
5°	10874	10742	10812
10°	10811	10677	10744
15°	10696	10568	10621
20°	10559	10439	10490
25°	10396	10263	10300
30°	10183	10073	10103
35°	9985	9878	9878
40°	9775	9681	9618
45°	9551	9474	9345
50°	9314	9206	9114
55°	9036	8933	8762
60°	8720	8604	8399
65°	8353	8199	7948
70°	7822	7607	7404
75°	7118	6946	6678
80°	5830	5937	5681
85°	4196	4742	5076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.6	3.5
10°-20°	358.9	10.0
20°-30°	533.7	14.9
30°-40°	629.3	17.6
40°-50°	639.4	17.9
50°-60°	567.4	15.9
60°-70°	424.5	11.9
70°-80°	235.1	6.6
80°-90°	61.2	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°	1019.2	28.5
0°-40°	1648.5	46.1
0°-60°	2855.2	79.8
0°-90°	3576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1341	1341	1341	1341	1341	
5°	1342	1338	1326	1336	1334	127
15°	1280	1278	1264	1274	1271	361
25°	1167	1163	1152	1158	1156	537
35°	1013	1011	1002	1004	1002	634
45°	837	837	830	823	818	645
55°	642	645	635	627	622	574
65°	437	440	429	422	416	433
75°	228	226	223	216	214	240
85°	45	52	51	53	55	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1341.4	1341.4	1341.4	1341.4	1341.4
2.5°	1347.8	1343.7	1330.6	1341.4	1339.6
5°	1341.9	1338.2	1325.6	1335.5	1334.2
7.5°	1332.4	1328.3	1316.5	1326.5	1324.2
10°	1318.8	1314.7	1302.5	1312.9	1310.6
12.5°	1301.1	1297.5	1286.2	1294.8	1293.0
15°	1279.8	1277.6	1264.5	1274.0	1270.8
17.5°	1255.4	1253.1	1241.4	1250.4	1248.6
20°	1229.1	1225.1	1215.1	1221.4	1221.0
22.5°	1198.8	1195.2	1183.9	1191.6	1190.2
25°	1167.1	1162.6	1152.2	1158.1	1156.3
27.5°	1131.8	1127.3	1118.7	1123.2	1122.3
30°	1092.4	1091.1	1080.6	1084.7	1083.8
32.5°	1055.3	1051.7	1044.4	1044.0	1042.6
35°	1013.2	1011.4	1002.3	1003.7	1002.3
37.5°	970.2	969.3	961.6	959.8	957.1
40°	927.6	924.9	918.6	915.0	912.7
42.5°	880.5	881.9	873.3	869.2	867.4
45°	836.6	836.6	829.8	823.0	818.5
47.5°	789.5	790.0	782.8	774.2	771.4
50°	741.6	742.5	733.0	725.7	725.7
52.5°	691.3	694.0	685.0	677.3	674.1
55°	642.0	644.7	634.7	626.6	622.5
57.5°	594.4	594.0	585.8	575.0	574.1
60°	540.1	543.3	532.9	524.7	520.2
62.5°	488.5	492.6	481.2	473.5	470.8
65°	437.3	440.0	429.2	421.9	416.1
67.5°	387.1	386.2	376.2	368.1	364.9
70°	331.4	333.2	322.3	316.5	313.7
72.5°	279.3	281.1	271.6	267.6	263.0
75°	228.2	225.9	222.7	216.4	214.1
77.5°	173.8	176.1	175.2	168.4	167.5
80°	125.4	130.4	127.7	122.7	122.2
82.5°	83.3	88.3	86.9	85.6	84.2
85°	45.3	51.6	51.2	53.0	54.8
87.5°	17.2	22.2	26.3	25.8	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)