

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: P412196

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

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412196
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-L940-HEO
Description: 4 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (336) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3369.0 lumens
Efficiency: N/A
Efficacy: 109.4 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

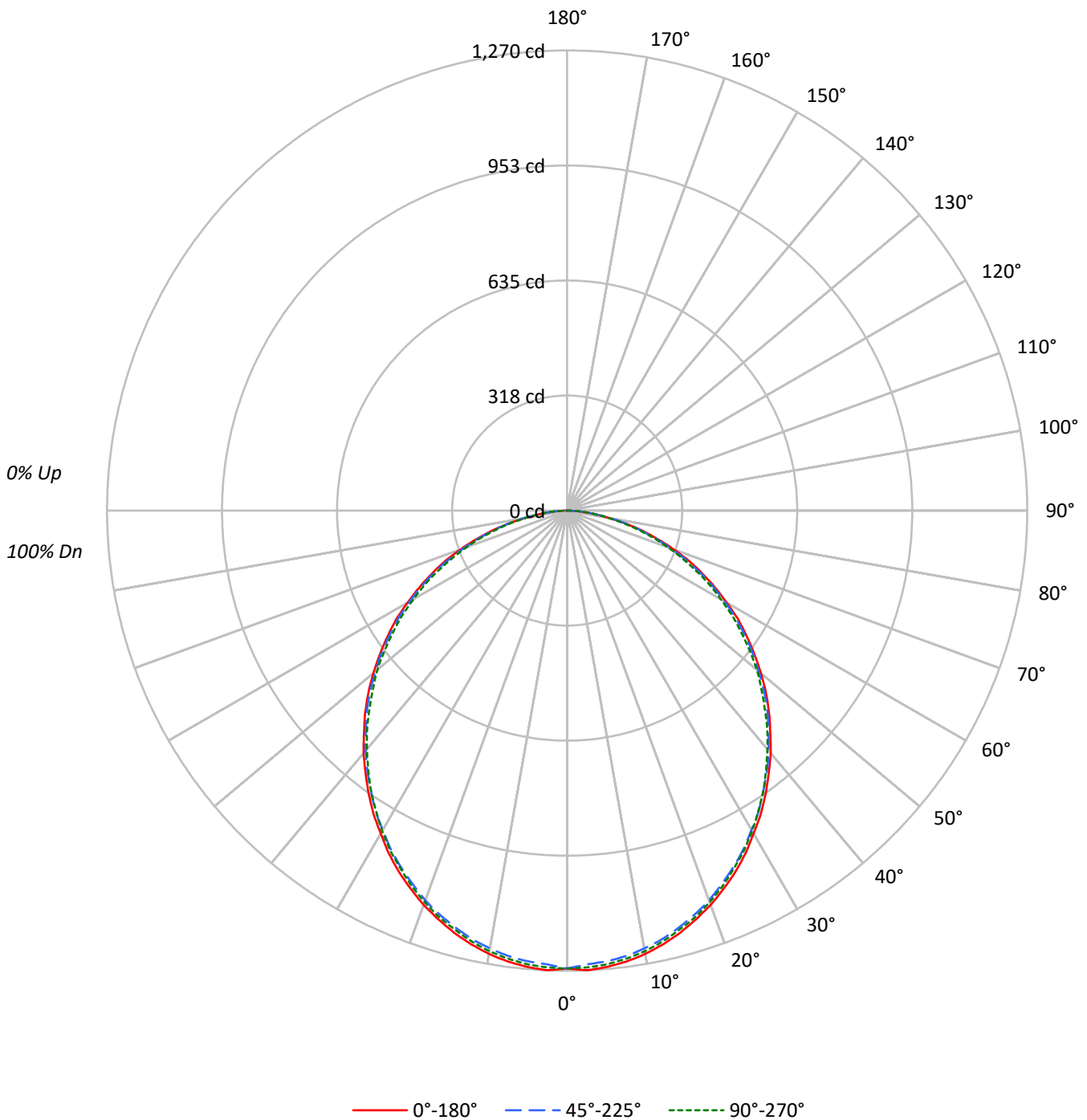
Input Watts (W): 30.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10203	10203	10203
5°	10245	10120	10186
10°	10185	10059	10122
15°	10078	9957	10006
20°	9948	9835	9882
25°	9795	9669	9703
30°	9594	9491	9519
35°	9407	9306	9306
40°	9210	9120	9062
45°	8999	8926	8804
50°	8774	8672	8587
55°	8512	8417	8255
60°	8215	8105	7913
65°	7870	7723	7488
70°	7369	7168	6977
75°	6706	6544	6291
80°	5490	5593	5356
85°	3955	4465	4780



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.3	3.5
10°-20°	338.1	10.0
20°-30°	502.8	14.9
30°-40°	592.9	17.6
40°-50°	602.3	17.9
50°-60°	534.5	15.9
60°-70°	399.9	11.9
70°-80°	221.5	6.6
80°-90°	57.6	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°	960.2	28.5
0°-40°	1553.1	46.1
0°-60°	2689.9	79.8
0°-90°	3369.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3369.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1264	1264	1264	1264	1264	
5°	1264	1261	1249	1258	1257	120
15°	1206	1204	1191	1200	1197	340
25°	1100	1095	1086	1091	1089	506
35°	954	953	944	946	944	597
45°	788	788	782	775	771	608
55°	605	607	598	590	586	541
65°	412	415	404	398	392	408
75°	215	213	210	204	202	226
85°	43	49	48	50	52	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1263.8	1263.8	1263.8	1263.8	1263.8
2.5°	1269.7	1265.9	1253.5	1263.8	1262.1
5°	1264.2	1260.8	1248.8	1258.2	1256.9
7.5°	1255.2	1251.4	1240.3	1249.7	1247.6
10°	1242.4	1238.6	1227.1	1236.9	1234.8
12.5°	1225.8	1222.4	1211.7	1219.8	1218.1
15°	1205.8	1203.6	1191.3	1200.2	1197.2
17.5°	1182.7	1180.6	1169.5	1178.0	1176.3
20°	1158.0	1154.2	1144.8	1150.7	1150.3
22.5°	1129.4	1126.0	1115.3	1122.6	1121.3
25°	1099.6	1095.3	1085.5	1091.0	1089.3
27.5°	1066.3	1062.0	1053.9	1058.2	1057.3
30°	1029.2	1027.9	1018.1	1021.9	1021.1
32.5°	994.2	990.8	984.0	983.5	982.3
35°	954.5	952.8	944.3	945.6	944.3
37.5°	914.0	913.2	905.9	904.2	901.7
40°	873.9	871.4	865.4	862.0	859.9
42.5°	829.6	830.9	822.7	818.9	817.2
45°	788.2	788.2	781.8	775.4	771.1
47.5°	743.8	744.3	737.4	729.3	726.8
50°	698.6	699.5	690.5	683.7	683.7
52.5°	651.3	653.8	645.3	638.1	635.1
55°	604.8	607.4	598.0	590.3	586.5
57.5°	560.0	559.6	551.9	541.7	540.8
60°	508.8	511.8	502.0	494.3	490.1
62.5°	460.2	464.0	453.4	446.1	443.6
65°	412.0	414.6	404.3	397.5	392.0
67.5°	364.7	363.8	354.4	346.8	343.8
70°	312.2	313.9	303.7	298.1	295.6
72.5°	263.2	264.9	255.9	252.1	247.8
75°	215.0	212.8	209.8	203.9	201.7
77.5°	163.8	165.9	165.1	158.7	157.8
80°	118.1	122.8	120.3	115.6	115.2
82.5°	78.5	83.2	81.9	80.6	79.3
85°	42.7	48.6	48.2	49.9	51.6
87.5°	16.2	20.9	24.7	24.3	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)