

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: P412124

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

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412124
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-2-500-L940-HEO
Description: 2 FT, 4 INCH CHANNEL, HIGH EFFICIENCY LENS
Light Source: (196) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1648.0 lumens
Efficiency: N/A
Efficacy: 91.0 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

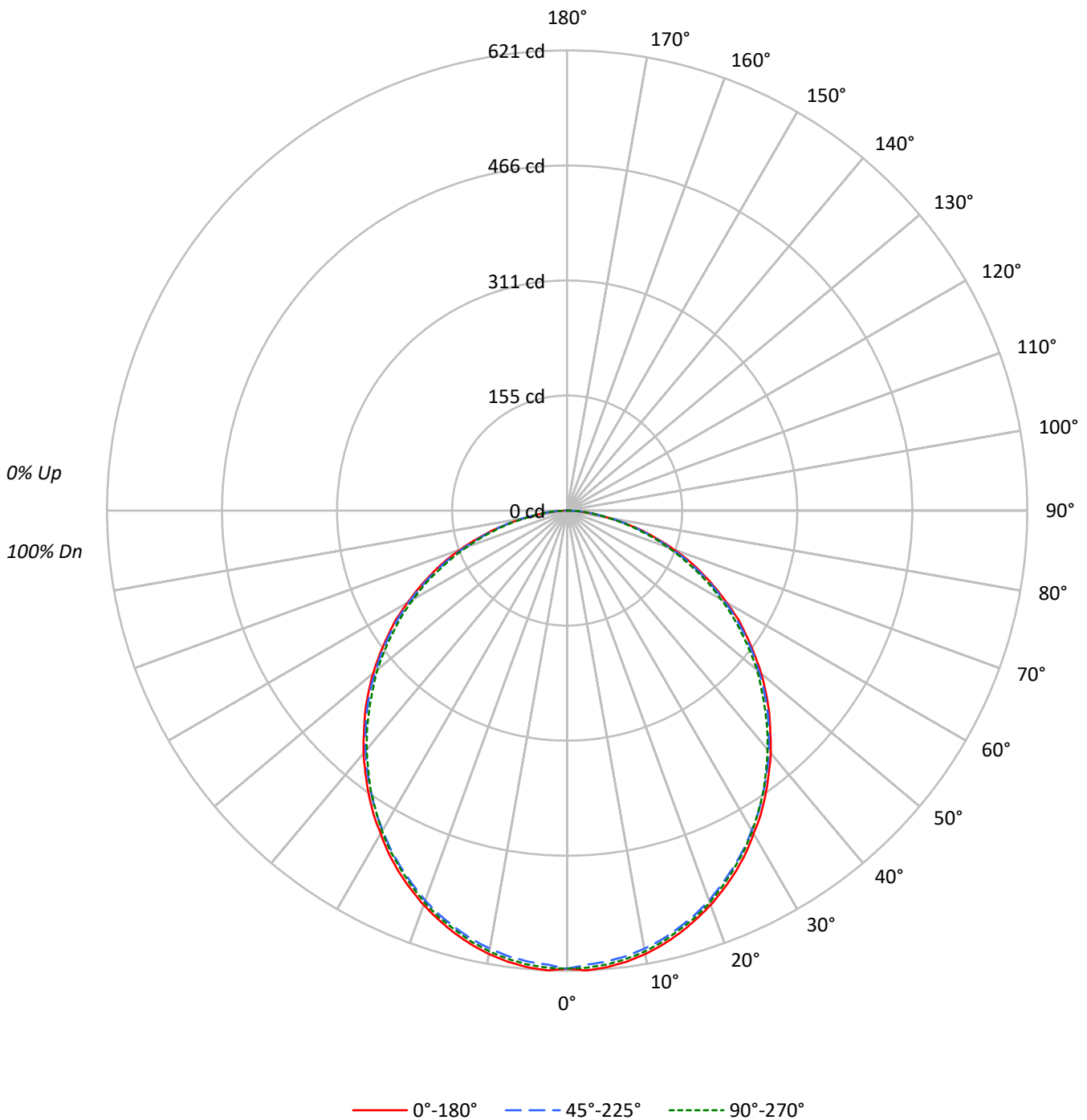
Input Watts (W): 18.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9981	9981	9981
5°	10023	9901	9966
10°	9965	9840	9903
15°	9859	9740	9789
20°	9732	9622	9668
25°	9583	9460	9494
30°	9385	9285	9313
35°	9203	9104	9104
40°	9010	8922	8865
45°	8805	8732	8613
50°	8583	8485	8400
55°	8327	8234	8076
60°	8037	7931	7740
65°	7698	7557	7324
70°	7209	7010	6826
75°	6563	6400	6157
80°	5374	5467	5235
85°	3872	4372	4668



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	3.5
10°-20°	165.4	10.0
20°-30°	246.0	14.9
30°-40°	290.0	17.6
40°-50°	294.6	17.9
50°-60°	261.5	15.9
60°-70°	195.6	11.9
70°-80°	108.3	6.6
80°-90°	28.2	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°	469.7	28.5
0°-40°	759.7	46.1
0°-60°	1315.8	79.8
0°-90°	1648.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	618	618	618	618	618	
5°	618	617	611	616	615	59
15°	590	589	583	587	586	166
25°	538	536	531	534	533	248
35°	467	466	462	462	462	292
45°	386	386	382	379	377	297
55°	296	297	292	289	287	265
65°	202	203	198	194	192	199
75°	105	104	103	100	99	111
85°	21	24	24	24	25	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	618.2	618.2	618.2	618.2	618.2
2.5°	621.1	619.2	613.2	618.2	617.4
5°	618.4	616.7	610.9	615.5	614.9
7.5°	614.0	612.1	606.7	611.3	610.3
10°	607.8	605.9	600.2	605.0	604.0
12.5°	599.6	598.0	592.7	596.7	595.9
15°	589.8	588.8	582.7	587.1	585.6
17.5°	578.6	577.5	572.1	576.3	575.4
20°	566.4	564.6	560.0	562.9	562.7
22.5°	552.5	550.8	545.6	549.1	548.5
25°	537.9	535.8	531.0	533.7	532.9
27.5°	521.6	519.5	515.5	517.6	517.2
30°	503.4	502.8	498.0	499.9	499.5
32.5°	486.3	484.7	481.3	481.1	480.5
35°	466.9	466.1	461.9	462.5	461.9
37.5°	447.1	446.7	443.1	442.3	441.1
40°	427.5	426.2	423.3	421.7	420.6
42.5°	405.8	406.4	402.5	400.6	399.7
45°	385.6	385.6	382.4	379.3	377.2
47.5°	363.9	364.1	360.7	356.8	355.5
50°	341.7	342.2	337.8	334.4	334.4
52.5°	318.6	319.8	315.7	312.1	310.7
55°	295.8	297.1	292.5	288.8	286.9
57.5°	273.9	273.7	270.0	265.0	264.6
60°	248.9	250.4	245.6	241.8	239.7
62.5°	225.1	227.0	221.8	218.2	217.0
65°	201.5	202.8	197.8	194.4	191.7
67.5°	178.4	178.0	173.4	169.6	168.2
70°	152.7	153.6	148.5	145.8	144.6
72.5°	128.7	129.6	125.2	123.3	121.2
75°	105.2	104.1	102.6	99.7	98.7
77.5°	80.1	81.2	80.7	77.6	77.2
80°	57.8	60.1	58.8	56.5	56.3
82.5°	38.4	40.7	40.1	39.4	38.8
85°	20.9	23.8	23.6	24.4	25.2
87.5°	7.9	10.2	12.1	11.9	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)