

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: P412099

Luminaire Tested: **MRI-4ASR-2-1000-L935-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412099
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2006-829-8)
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-L935-OPL
Description: 2 FT, 4 INCH CHANNEL, OPAL LENS
Light Source: (196) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1688.0 lumens
Efficiency: N/A
Efficacy: 48.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.33' x L: 2' x H: 0')
CIE Type: Direct

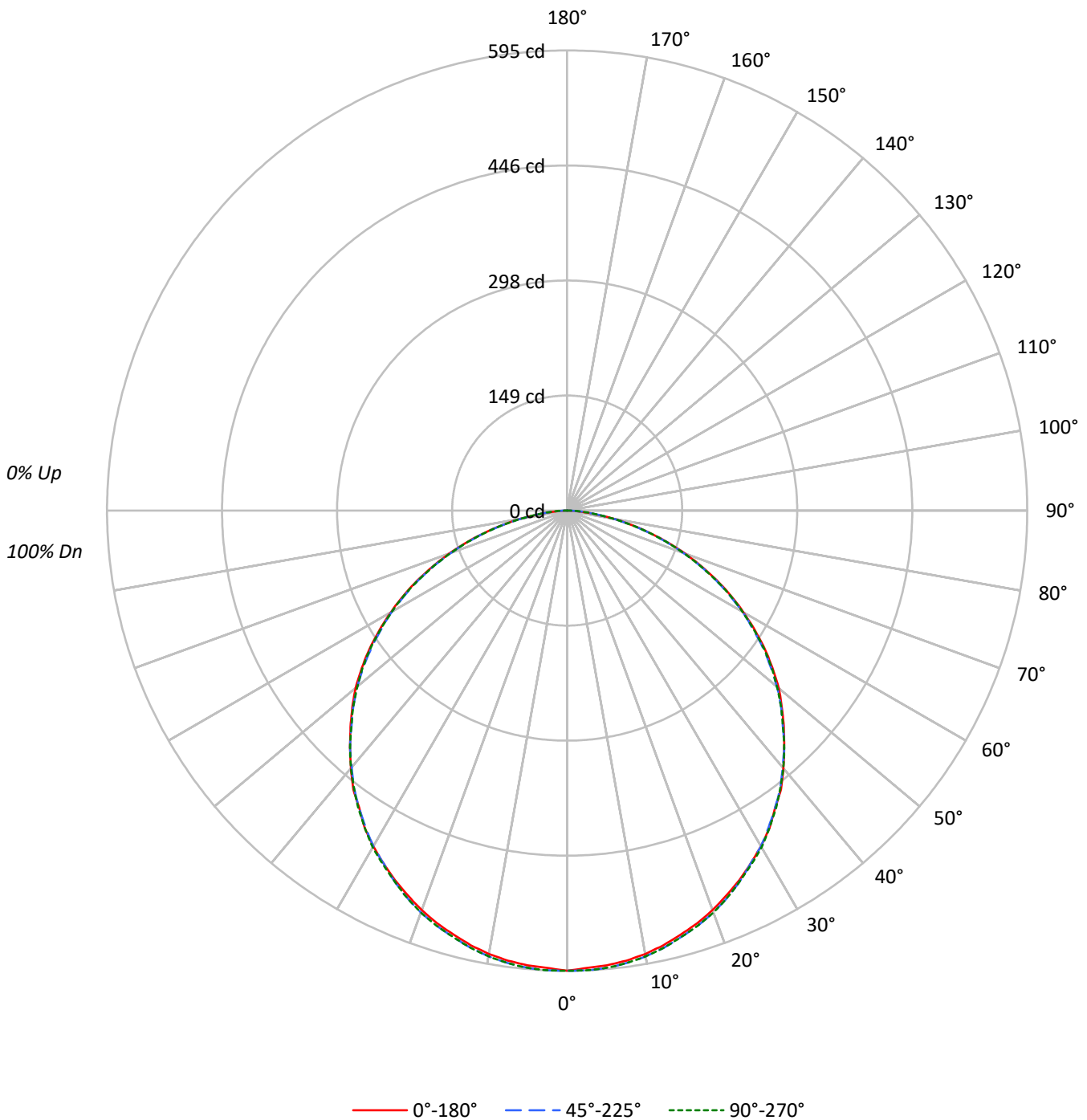
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9607	9607	9607
5°	9566	9618	9618
10°	9544	9596	9596
15°	9486	9540	9540
20°	9445	9502	9502
25°	9390	9419	9419
30°	9344	9344	9374
35°	9242	9242	9274
40°	9166	9133	9166
45°	9044	9008	9008
50°	8975	8894	8894
55°	8785	8693	8738
60°	8509	8457	8457
65°	8153	8092	8092
70°	7633	7558	7558
75°	6856	6756	6756
80°	5709	5560	5560
85°	3594	3890	4187



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	3.3
10°-20°	161.0	9.5
20°-30°	243.5	14.4
30°-40°	293.8	17.4
40°-50°	305.1	18.1
50°-60°	276.4	16.4
60°-70°	209.4	12.4
70°-80°	115.4	6.8
80°-90°	27.0	1.6
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°	460.9	27.3
0°-40°	754.7	44.7
0°-60°	1336.2	79.2
0°-90°	1688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1688.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	590	592	593	595	593	56
15°	568	569	571	572	571	160
25°	527	527	529	529	529	243
35°	469	469	469	469	470	294
45°	396	394	394	396	394	306
55°	312	309	309	309	310	278
65°	213	212	212	212	212	211
75°	110	110	108	108	108	116
85°	19	21	21	23	23	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	595.0	595.0	595.0	595.0	595.0
2.5°	591.8	593.4	595.0	596.6	595.0
5°	590.2	591.8	593.4	595.0	593.4
7.5°	586.9	588.5	590.2	591.8	590.2
10°	582.1	583.7	585.3	586.9	585.3
12.5°	575.6	577.2	578.8	578.8	578.8
15°	567.5	569.1	570.7	572.4	570.7
17.5°	559.4	561.0	562.7	562.7	562.7
20°	549.7	551.3	553.0	553.0	553.0
22.5°	538.4	540.0	541.6	541.6	541.6
25°	527.1	527.1	528.7	528.7	528.7
27.5°	514.2	514.2	514.2	515.8	515.8
30°	501.2	501.2	501.2	501.2	502.8
32.5°	486.7	486.7	485.1	486.7	486.7
35°	468.9	468.9	468.9	468.9	470.5
37.5°	454.3	451.1	452.7	452.7	452.7
40°	434.9	434.9	433.3	434.9	434.9
42.5°	415.5	415.5	415.5	415.5	415.5
45°	396.1	394.5	394.5	396.1	394.5
47.5°	376.7	375.1	375.1	375.1	375.1
50°	357.3	354.1	354.1	354.1	354.1
52.5°	334.7	331.5	331.5	331.5	333.1
55°	312.1	308.8	308.8	308.8	310.4
57.5°	287.8	286.2	284.6	286.2	286.2
60°	263.5	261.9	261.9	261.9	261.9
62.5°	239.3	237.7	236.1	236.1	237.7
65°	213.4	211.8	211.8	211.8	211.8
67.5°	187.6	185.9	185.9	185.9	185.9
70°	161.7	160.1	160.1	161.7	160.1
72.5°	135.8	134.2	134.2	134.2	134.2
75°	109.9	109.9	108.3	108.3	108.3
77.5°	84.1	84.1	84.1	84.1	84.1
80°	61.4	59.8	59.8	59.8	59.8
82.5°	37.2	37.2	38.8	38.8	38.8
85°	19.4	21.0	21.0	22.6	22.6
87.5°	6.5	8.1	9.7	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)