

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: P412107

Luminaire Tested: **MRI-4ASR-2-250-L840-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412107
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-2-250-L840-OPL
Description: 2 FT, 4 INCH CHANNEL, OPAL LENS
Light Source: (196) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 502.0 lumens
Efficiency: N/A
Efficacy: 52.8 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

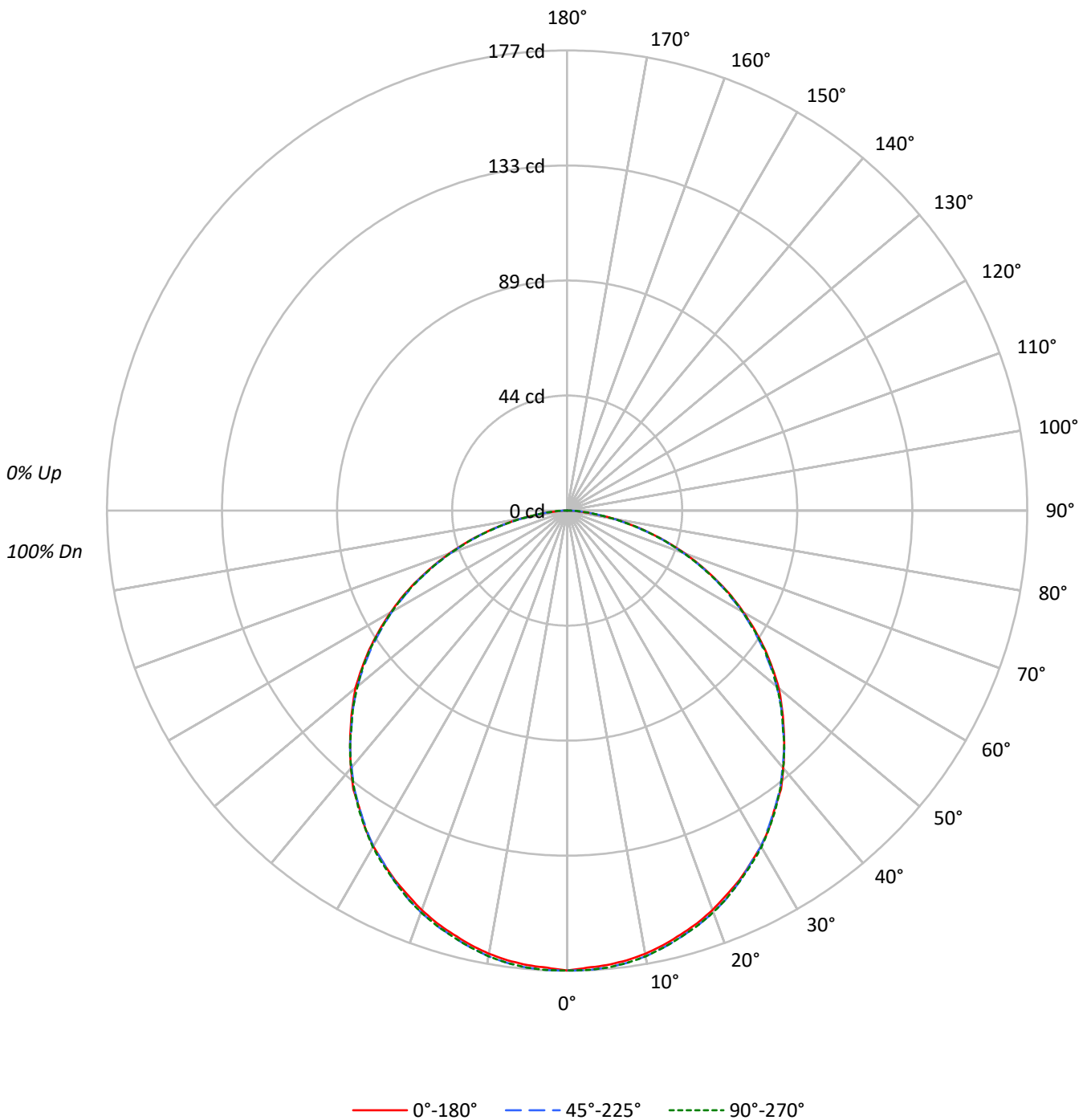
Input Watts (W): 9.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2856	2856	2856
5°	2844	2861	2861
10°	2838	2854	2854
15°	2822	2837	2837
20°	2809	2825	2825
25°	2793	2801	2801
30°	2780	2780	2787
35°	2748	2748	2757
40°	2725	2717	2725
45°	2690	2678	2678
50°	2670	2645	2645
55°	2612	2584	2598
60°	2532	2516	2516
65°	2426	2407	2407
70°	2271	2247	2247
75°	2040	2009	2009
80°	1702	1655	1655
85°	1074	1167	1241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.8	3.3
10°-20°	47.9	9.5
20°-30°	72.4	14.4
30°-40°	87.4	17.4
40°-50°	90.8	18.1
50°-60°	82.2	16.4
60°-70°	62.3	12.4
70°-80°	34.3	6.8
80°-90°	8.0	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°	137.1	27.3
0°-40°	224.4	44.7
0°-60°	397.4	79.2
0°-90°	502.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	502.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	177	177	177	177	177	
5°	176	176	176	177	176	17
15°	169	169	170	170	170	48
25°	157	157	157	157	157	72
35°	139	139	139	139	140	87
45°	118	117	117	118	117	91
55°	93	92	92	92	92	83
65°	64	63	63	63	63	63
75°	33	33	32	32	32	35
85°	6	6	6	7	7	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	176.9	176.9	176.9	176.9	176.9
2.5°	176.0	176.5	176.9	177.4	176.9
5°	175.5	176.0	176.5	176.9	176.5
7.5°	174.5	175.0	175.5	176.0	175.5
10°	173.1	173.6	174.1	174.5	174.1
12.5°	171.2	171.7	172.1	172.1	172.1
15°	168.8	169.3	169.7	170.2	169.7
17.5°	166.4	166.9	167.3	167.3	167.3
20°	163.5	164.0	164.4	164.4	164.4
22.5°	160.1	160.6	161.1	161.1	161.1
25°	156.8	156.8	157.2	157.2	157.2
27.5°	152.9	152.9	152.9	153.4	153.4
30°	149.1	149.1	149.1	149.1	149.5
32.5°	144.7	144.7	144.3	144.7	144.7
35°	139.4	139.4	139.4	139.4	139.9
37.5°	135.1	134.2	134.6	134.6	134.6
40°	129.3	129.3	128.9	129.3	129.3
42.5°	123.6	123.6	123.6	123.6	123.6
45°	117.8	117.3	117.3	117.8	117.3
47.5°	112.0	111.6	111.6	111.6	111.6
50°	106.3	105.3	105.3	105.3	105.3
52.5°	99.5	98.6	98.6	98.6	99.1
55°	92.8	91.8	91.8	91.8	92.3
57.5°	85.6	85.1	84.6	85.1	85.1
60°	78.4	77.9	77.9	77.9	77.9
62.5°	71.2	70.7	70.2	70.2	70.7
65°	63.5	63.0	63.0	63.0	63.0
67.5°	55.8	55.3	55.3	55.3	55.3
70°	48.1	47.6	47.6	48.1	47.6
72.5°	40.4	39.9	39.9	39.9	39.9
75°	32.7	32.7	32.2	32.2	32.2
77.5°	25.0	25.0	25.0	25.0	25.0
80°	18.3	17.8	17.8	17.8	17.8
82.5°	11.1	11.1	11.5	11.5	11.5
85°	5.8	6.3	6.3	6.7	6.7
87.5°	1.9	2.4	2.9	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)