

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: P412041

Luminaire Tested: **MRI-24ATR-20-L935-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2008-915-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MRI-24ATR-20-L935-OPL
Description: 2X4 TROFFER, 2000LM, OPAL LENS
Light Source: (1008) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1764.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

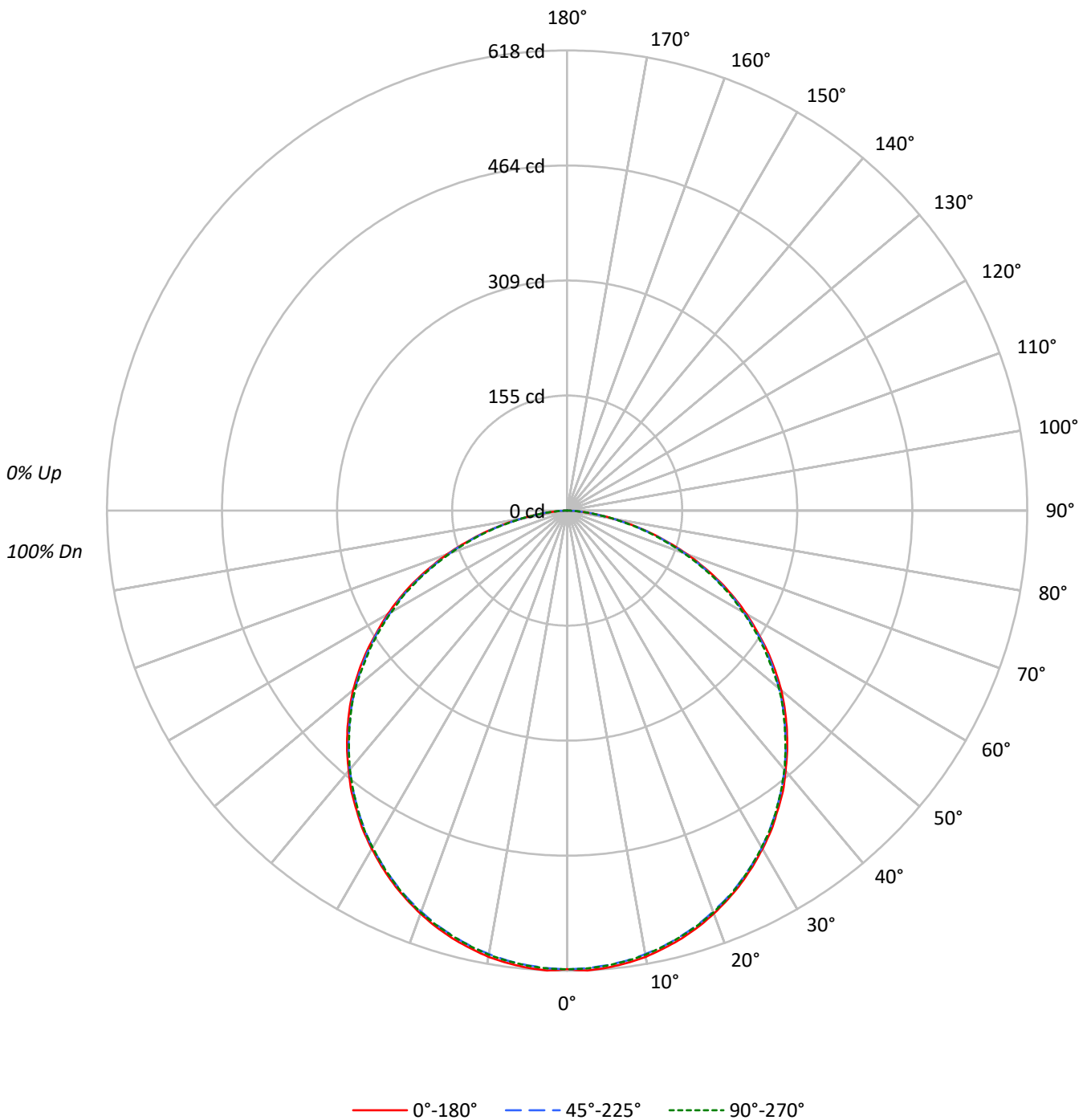
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	40		52	45	40		50	44	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	28	27
10	53	40	32	26	51	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	829	829	829
5°	832	828	829
10°	831	826	828
15°	829	824	825
20°	825	821	822
25°	820	817	817
30°	815	812	812
35°	809	805	805
40°	802	798	798
45°	794	788	787
50°	786	778	777
55°	769	763	757
60°	749	738	733
65°	721	708	705
70°	675	662	653
75°	604	595	585
80°	486	483	482
85°	318	318	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.3	3.3
10°-20°	167.2	9.5
20°-30°	253.8	14.4
30°-40°	306.9	17.4
40°-50°	319.9	18.1
50°-60°	290.3	16.5
60°-70°	220.3	12.5
70°-80°	120.6	6.8
80°-90°	26.7	1.5
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°	479.3	27.2
0°-40°	786.2	44.6
0°-60°	1396.5	79.2
0°-90°	1764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1764.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	616	614	613	612	614	59
15°	595	593	592	591	592	168
25°	553	551	550	549	551	255
35°	492	491	490	489	490	308
45°	417	416	414	414	413	322
55°	328	326	325	324	323	293
65°	227	225	222	222	221	223
75°	116	114	114	112	112	123
85°	21	20	21	21	20	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	616.0	616.0	616.0	616.0	616.0
2.5°	618.3	616.0	615.0	614.2	615.5
5°	616.3	614.0	613.0	612.2	613.5
7.5°	613.0	611.0	609.7	609.0	610.2
10°	608.5	606.2	604.9	604.4	605.7
12.5°	601.9	600.2	599.1	598.6	599.4
15°	594.9	593.1	591.6	590.8	592.1
17.5°	586.1	584.3	583.3	582.5	583.8
20°	576.0	574.5	573.2	572.7	574.2
22.5°	564.9	563.6	562.6	561.9	563.4
25°	552.6	551.1	550.1	549.3	550.6
27.5°	539.0	537.7	536.7	536.0	537.0
30°	524.6	523.6	522.9	521.6	522.4
32.5°	509.8	507.8	507.0	506.8	507.5
35°	492.4	491.1	490.1	489.1	490.1
37.5°	476.0	473.5	472.5	472.0	472.3
40°	456.4	455.1	454.4	452.6	454.1
42.5°	437.3	436.3	434.5	433.8	433.8
45°	417.4	415.6	413.9	413.9	413.4
47.5°	396.7	395.5	393.5	392.7	393.0
50°	375.3	373.1	371.6	369.8	371.3
52.5°	352.2	350.4	348.9	347.4	346.4
55°	328.0	326.3	325.3	323.7	322.7
57.5°	302.6	302.3	300.6	298.8	298.1
60°	278.2	276.4	274.4	274.4	272.4
62.5°	252.5	251.0	250.0	247.7	248.2
65°	226.6	224.8	222.5	221.8	221.3
67.5°	198.4	197.4	195.4	193.6	193.8
70°	171.7	169.7	168.2	166.7	166.1
72.5°	143.2	142.0	141.0	139.5	138.2
75°	116.1	114.5	114.5	112.3	112.5
77.5°	89.4	88.6	87.4	86.6	85.8
80°	62.7	62.9	62.4	60.9	62.2
82.5°	40.5	39.8	39.3	39.3	39.0
85°	20.6	20.1	20.6	20.6	19.6
87.5°	6.3	7.0	7.3	7.3	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)