

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: P412043

Luminaire Tested: **MRI-24ATR-20-L950-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412043
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-L950-OPL
Description: 2X4 TROFFER, 2000LM, OPAL LENS
Light Source: (1008) 5000K CCT, 90 CRI LED'S
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1891.0 lumens
Efficiency: N/A
Efficacy: 73.3 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

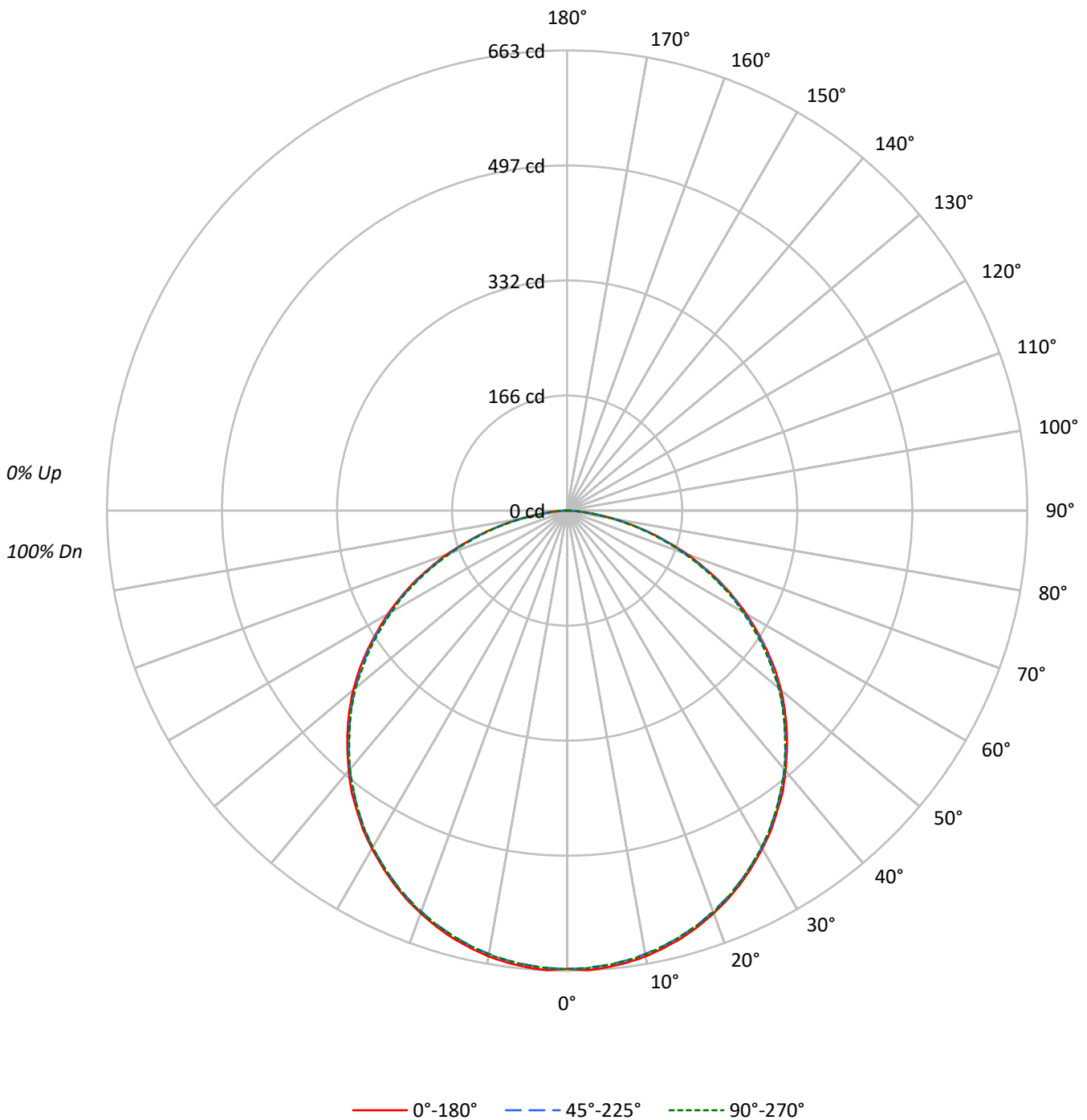
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	889	889	889
5°	892	887	888
10°	891	886	887
15°	888	883	884
20°	884	880	881
25°	879	875	876
30°	874	871	870
35°	867	863	863
40°	859	856	855
45°	851	844	843
50°	842	834	833
55°	825	818	812
60°	802	792	786
65°	773	760	755
70°	724	709	701
75°	647	638	627
80°	521	518	517
85°	341	341	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	3.3
10°-20°	179.2	9.5
20°-30°	272.0	14.4
30°-40°	329.0	17.4
40°-50°	343.0	18.1
50°-60°	311.2	16.5
60°-70°	236.1	12.5
70°-80°	129.3	6.8
80°-90°	28.6	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°	513.8	27.2
0°-40°	842.8	44.6
0°-60°	1497.0	79.2
0°-90°	1891.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1891.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	661	658	657	656	658	63
15°	638	636	634	633	635	180
25°	592	591	590	589	590	273
35°	528	526	525	524	525	331
45°	447	446	444	444	443	345
55°	352	350	349	347	346	314
65°	243	241	239	238	237	239
75°	124	123	123	120	121	132
85°	22	22	22	22	21	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	660.4	660.4	660.4	660.4	660.4
2.5°	662.8	660.4	659.3	658.5	659.8
5°	660.6	658.2	657.1	656.3	657.7
7.5°	657.1	655.0	653.6	652.8	654.2
10°	652.3	649.8	648.5	647.9	649.3
12.5°	645.2	643.4	642.3	641.7	642.6
15°	637.7	635.8	634.2	633.4	634.7
17.5°	628.2	626.4	625.3	624.5	625.8
20°	617.5	615.8	614.5	613.9	615.6
22.5°	605.6	604.2	603.2	602.3	604.0
25°	592.4	590.7	589.7	588.8	590.2
27.5°	577.8	576.4	575.4	574.5	575.6
30°	562.4	561.3	560.5	559.2	560.0
32.5°	546.5	544.3	543.5	543.2	544.0
35°	527.9	526.5	525.4	524.3	525.4
37.5°	510.3	507.6	506.5	506.0	506.3
40°	489.3	487.9	487.1	485.2	486.8
42.5°	468.8	467.7	465.8	465.0	465.0
45°	447.4	445.5	443.7	443.7	443.1
47.5°	425.3	424.0	421.8	421.0	421.3
50°	402.4	399.9	398.3	396.4	398.1
52.5°	377.5	375.7	374.0	372.4	371.3
55°	351.6	349.7	348.7	347.0	346.0
57.5°	324.4	324.1	322.2	320.3	319.5
60°	298.2	296.3	294.2	294.2	292.0
62.5°	270.7	269.1	268.0	265.5	266.1
65°	242.9	241.0	238.6	237.8	237.2
67.5°	212.7	211.6	209.4	207.5	207.8
70°	184.0	181.9	180.3	178.7	178.1
72.5°	153.6	152.2	151.1	149.5	148.2
75°	124.4	122.8	122.8	120.4	120.6
77.5°	95.8	95.0	93.6	92.8	92.0
80°	67.2	67.5	66.9	65.3	66.7
82.5°	43.4	42.6	42.1	42.1	41.8
85°	22.1	21.6	22.1	22.1	21.0
87.5°	6.7	7.6	7.8	7.8	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)