

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: P412051

Luminaire Tested: **MRI-24ATR-70-L840-OPL**

Issue Date: 10/5/2020

Test Information

Test Method: LM-79-08
Report Number: P412051
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-70-L840-OPL
Description: 2X4 TROFFER, 7000LM, OPAL LENS
Light Source: (1008) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7007.1 lumens
Efficiency: N/A
Efficacy: 76.9 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

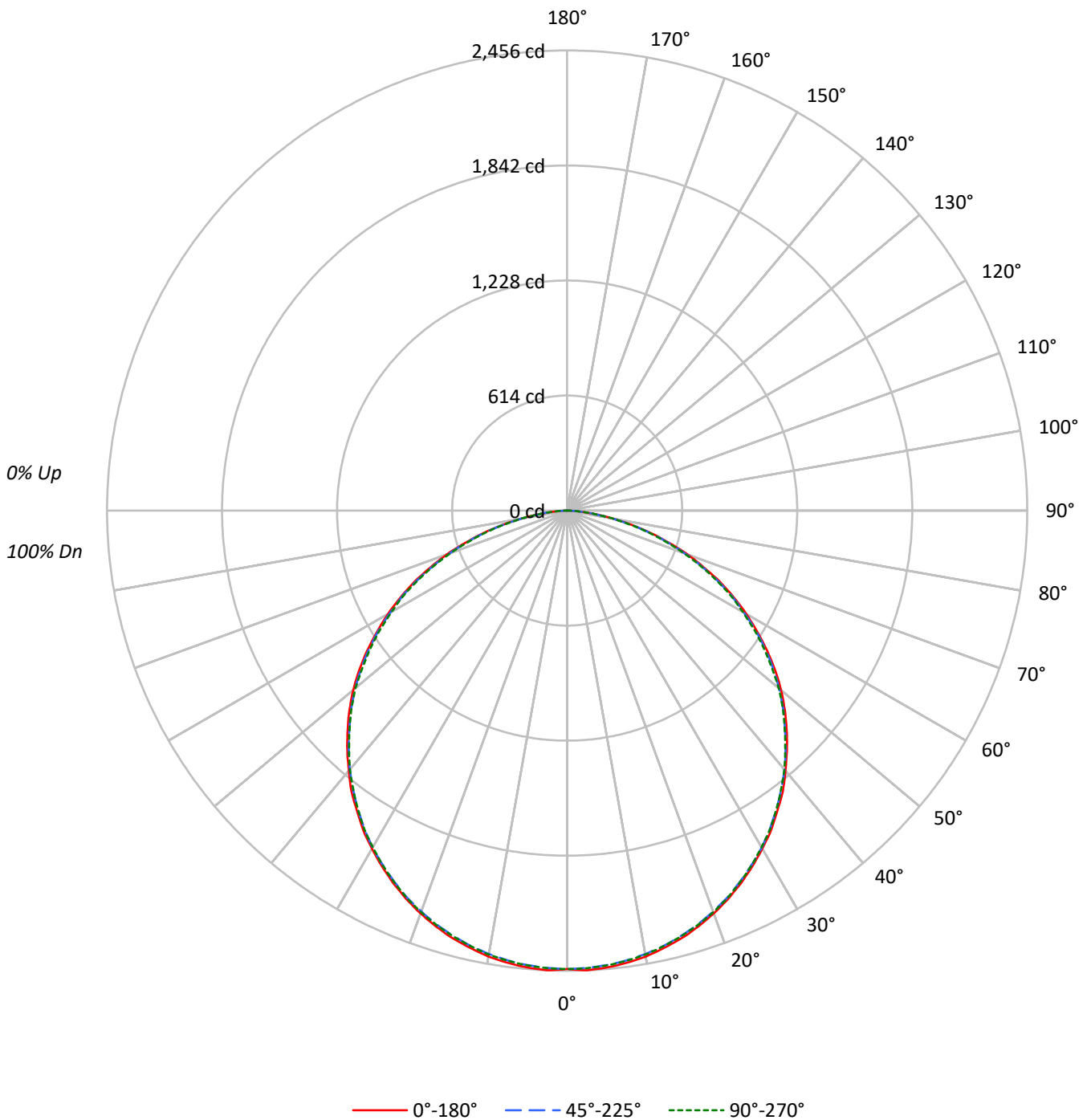
Input Watts (W): 91.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3292	3292	3292
5°	3306	3289	3291
10°	3302	3283	3287
15°	3291	3273	3276
20°	3276	3260	3266
25°	3259	3244	3247
30°	3238	3227	3224
35°	3213	3198	3198
40°	3184	3170	3169
45°	3155	3128	3124
50°	3121	3090	3087
55°	3057	3031	3007
60°	2974	2933	2912
65°	2865	2814	2798
70°	2683	2628	2596
75°	2397	2365	2324
80°	1929	1922	1914
85°	1266	1266	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.6	3.3
10°-20°	664.0	9.5
20°-30°	1008.0	14.4
30°-40°	1219.2	17.4
40°-50°	1270.9	18.1
50°-60°	1153.4	16.5
60°-70°	875.0	12.5
70°-80°	479.0	6.8
80°-90°	105.9	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°	1903.7	27.2
0°-40°	3122.8	44.6
0°-60°	5547.1	79.2
0°-90°	7007.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7007.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2447	2447	2447	2447	2447	
5°	2448	2439	2435	2432	2437	233
15°	2363	2356	2350	2347	2352	667
25°	2195	2189	2185	2182	2187	1012
35°	1956	1951	1947	1943	1947	1225
45°	1658	1651	1644	1644	1642	1279
55°	1303	1296	1292	1286	1282	1163
65°	900	893	884	881	879	887
75°	461	455	455	446	447	488
85°	82	80	82	82	78	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2446.9	2446.9	2446.9	2446.9	2446.9
2.5°	2455.9	2446.9	2442.9	2439.9	2444.9
5°	2447.9	2438.9	2434.9	2431.9	2436.9
7.5°	2434.9	2426.9	2421.9	2418.9	2423.9
10°	2416.9	2407.9	2402.9	2400.9	2405.9
12.5°	2390.9	2383.9	2379.9	2377.9	2380.9
15°	2362.9	2355.9	2349.9	2346.9	2351.9
17.5°	2327.9	2320.9	2316.9	2313.9	2318.9
20°	2287.9	2281.9	2276.9	2274.9	2280.9
22.5°	2243.9	2238.9	2234.9	2231.9	2237.9
25°	2194.9	2188.9	2184.9	2181.9	2186.9
27.5°	2140.9	2135.9	2131.9	2128.9	2132.9
30°	2083.9	2079.9	2076.9	2071.9	2074.9
32.5°	2024.9	2016.9	2013.9	2012.9	2015.9
35°	1955.9	1950.9	1946.9	1942.9	1946.9
37.5°	1891.0	1881.0	1877.0	1875.0	1876.0
40°	1813.0	1808.0	1805.0	1798.0	1804.0
42.5°	1737.0	1733.0	1726.0	1723.0	1723.0
45°	1658.0	1651.0	1644.0	1644.0	1642.0
47.5°	1576.0	1571.0	1563.0	1560.0	1561.0
50°	1491.0	1482.0	1476.0	1469.0	1475.0
52.5°	1399.0	1392.0	1386.0	1380.0	1376.0
55°	1303.0	1296.0	1292.0	1286.0	1282.0
57.5°	1202.0	1201.0	1194.0	1187.0	1184.0
60°	1105.0	1098.0	1090.0	1090.0	1082.0
62.5°	1003.0	997.0	993.0	984.0	986.0
65°	900.0	893.0	884.0	881.0	879.0
67.5°	788.0	784.0	776.0	769.0	770.0
70°	682.0	674.0	668.0	662.0	660.0
72.5°	569.0	564.0	560.0	554.0	549.0
75°	461.0	455.0	455.0	446.0	447.0
77.5°	355.0	352.0	347.0	344.0	341.0
80°	249.0	250.0	248.0	242.0	247.0
82.5°	161.0	158.0	156.0	156.0	155.0
85°	82.0	80.0	82.0	82.0	78.0
87.5°	25.0	28.0	29.0	29.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)