

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: P547260

Luminaire Tested: **FMR-24-4-LD4-4HI-35-UNV-80-94-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P547260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-4-LD4-4HI-35-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

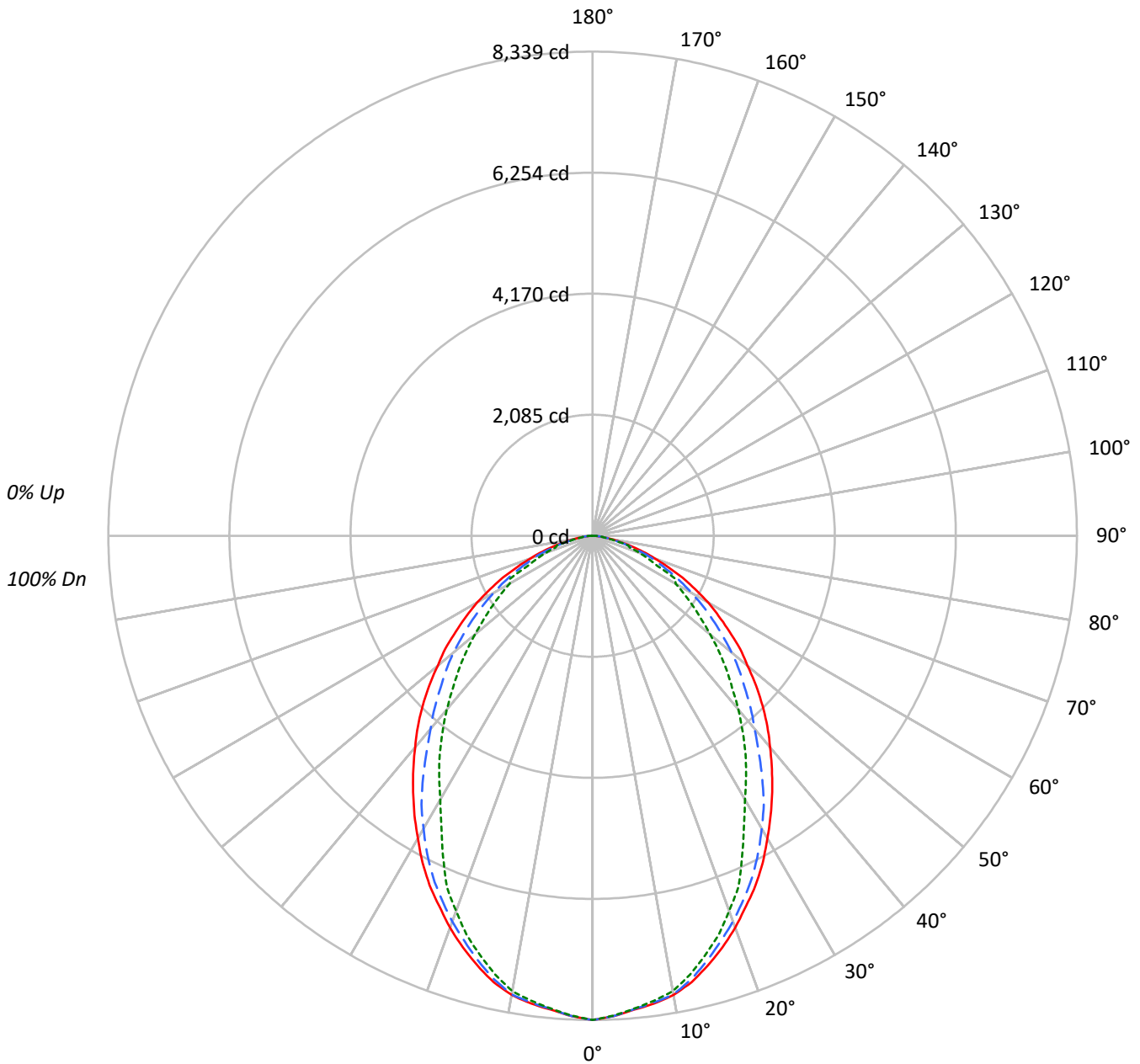
Lumens per Lamp: N/A
Luminaire Lumens: 16371.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 172.8
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	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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87								
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75								
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65								
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56								
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50								
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44								
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40								
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36								
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33								
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11220	11220	11220
5°	11068	11055	11042
10°	10972	10959	10880
15°	10676	10569	10421
20°	10284	10118	9842
25°	9861	9647	9045
30°	9346	9047	8148
35°	8852	8361	7538
40°	8348	7620	6858
45°	7870	7044	6200
50°	7285	6538	5529
55°	6739	5925	4953
60°	6174	5292	4436
65°	5433	4635	3929
70°	4475	4058	3338
75°	3558	3107	3257
80°	2390	2241	2091
85°	1488	1786	2084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	776.3	4.7
10°-20°	2130.4	13.0
20°-30°	2949.4	18.0
30°-40°	3144.9	19.2
40°-50°	2869.1	17.5
50°-60°	2247.7	13.7
60°-70°	1464.9	8.9
70°-80°	649.0	4.0
80°-90°	139.3	0.9
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°	5856.0	35.8
0°-40°	9000.9	55.0
0°-60°	14117.7	86.2
0°-90°	16371.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16371.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8339	8339	8339	8339	8339	
5°	8195	8185	8185	8175	8175	778
15°	7664	7664	7587	7510	7481	2155
25°	6642	6604	6498	6266	6093	3050
35°	5389	5351	5090	4705	4589	3369
45°	4136	4049	3702	3394	3258	3186
55°	2873	2786	2526	2227	2111	2577
65°	1706	1610	1456	1485	1234	1682
75°	684	636	598	569	627	734
85°	96	106	116	125	135	134
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8339.2	8339.2	8339.2	8339.2	8339.2
2.5°	8281.3	8281.3	8281.3	8271.7	8271.7
5°	8194.6	8184.9	8184.9	8175.3	8175.3
7.5°	8127.1	8117.4	8107.8	8098.2	8078.9
10°	8030.7	8030.7	8021.0	7972.8	7963.2
12.5°	7876.4	7866.8	7828.2	7760.7	7741.4
15°	7664.3	7664.3	7587.2	7510.1	7481.2
17.5°	7432.9	7423.3	7326.9	7249.8	7211.2
20°	7182.3	7163.0	7066.6	6941.3	6873.8
22.5°	6902.7	6902.7	6787.0	6623.1	6555.6
25°	6642.4	6603.9	6497.8	6266.4	6092.9
27.5°	6343.6	6285.7	6170.0	5842.2	5639.8
30°	6015.8	5986.8	5823.0	5398.8	5244.5
32.5°	5707.3	5659.1	5485.5	5042.1	4916.7
35°	5389.1	5350.6	5090.3	4704.6	4589.0
37.5°	5071.0	5022.8	4695.0	4386.5	4241.9
40°	4752.8	4695.0	4338.3	4058.7	3904.5
42.5°	4454.0	4376.9	4029.8	3730.9	3557.4
45°	4135.8	4049.1	3702.0	3393.5	3258.5
47.5°	3817.7	3740.6	3422.4	3104.3	2950.0
50°	3480.3	3412.8	3123.6	2805.4	2641.5
52.5°	3200.7	3094.7	2815.1	2496.9	2362.0
55°	2872.9	2786.1	2525.9	2227.0	2111.3
57.5°	2574.1	2487.3	2246.3	1966.7	1870.3
60°	2294.5	2169.1	1966.7	1725.7	1648.6
62.5°	1986.0	1889.6	1716.0	1513.6	1610.0
65°	1706.4	1610.0	1455.7	1484.7	1234.0
67.5°	1397.9	1349.7	1214.7	1079.8	1041.2
70°	1137.6	1079.8	1031.6	886.9	848.4
72.5°	906.2	848.4	780.9	703.8	674.8
75°	684.5	636.3	597.7	568.8	626.6
77.5°	472.4	453.1	424.2	395.3	385.6
80°	308.5	298.9	289.2	279.6	269.9
82.5°	183.2	183.2	183.2	183.2	183.2
85°	96.4	106.0	115.7	125.3	135.0
87.5°	57.8	57.8	67.5	77.1	86.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)