

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: P547326

Luminaire Tested: **FMR-24-4-LD4-4HI-50-UNV-80-97-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: P547326
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-50-UNV-80-97-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

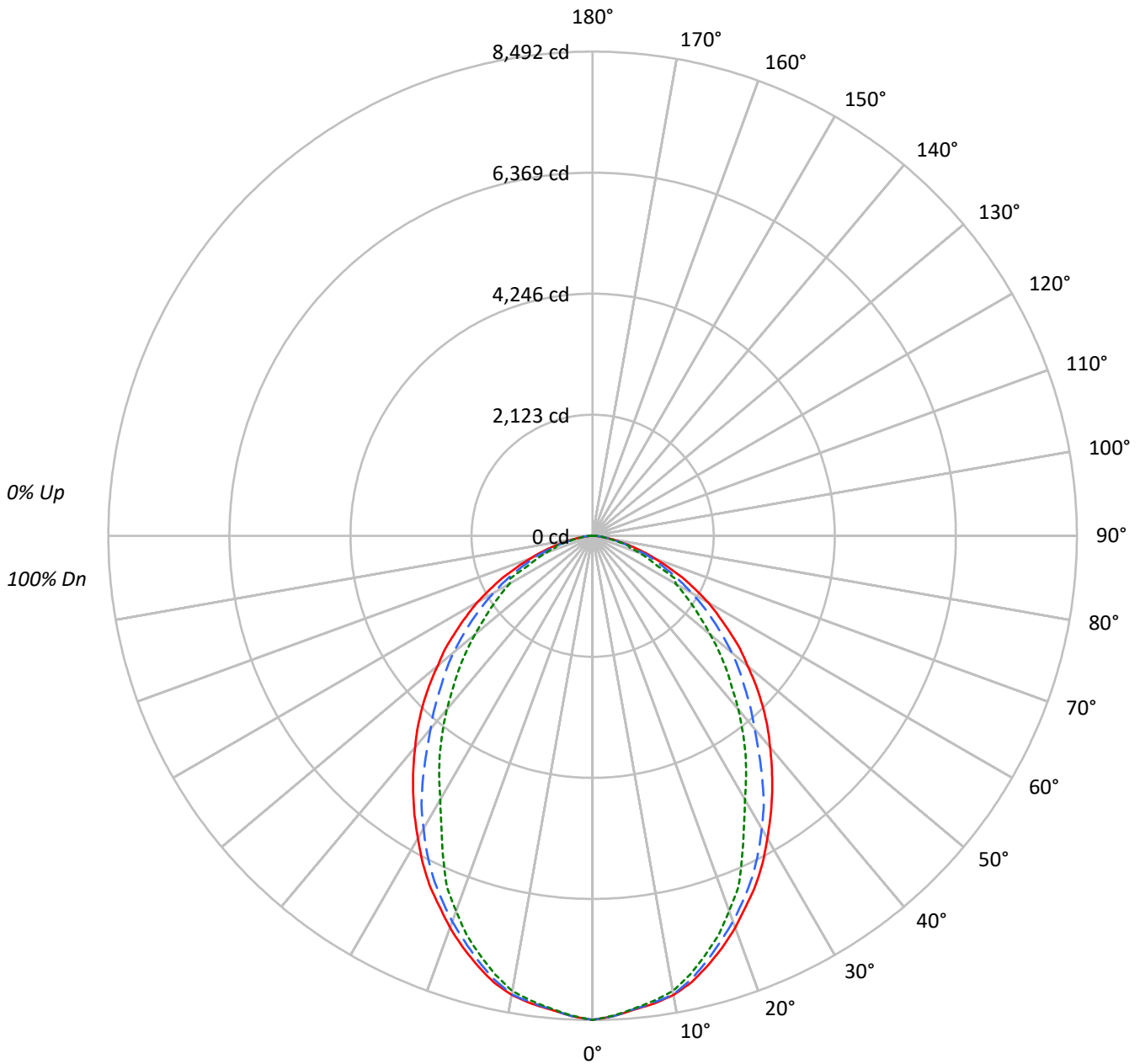
Lumens per Lamp: N/A
Luminaire Lumens: 16670.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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									
RC	80									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°	11425	11425	11425
5°	11270	11257	11243
10°	11172	11159	11078
15°	10871	10762	10611
20°	10472	10303	10022
25°	10041	9823	9211
30°	9517	9212	8297
35°	9014	8514	7675
40°	8501	7759	6983
45°	8013	7173	6314
50°	7418	6658	5630
55°	6862	6033	5043
60°	6287	5389	4517
65°	5532	4719	4000
70°	4557	4132	3399
75°	3623	3164	3317
80°	2434	2282	2130
85°	1516	1819	2121



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	790.4	4.7
10°-20°	2169.3	13.0
20°-30°	3003.3	18.0
30°-40°	3202.3	19.2
40°-50°	2921.5	17.5
50°-60°	2288.7	13.7
60°-70°	1491.7	8.9
70°-80°	660.9	4.0
80°-90°	141.9	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°	5963.0	35.8
0°-40°	9165.3	55.0
0°-60°	14375.5	86.2
0°-90°	16670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8492	8492	8492	8492	8492	
5°	8344	8334	8334	8325	8325	792
15°	7804	7804	7726	7647	7618	2194
25°	6764	6724	6616	6381	6204	3105
35°	5488	5448	5183	4791	4673	3431
45°	4211	4123	3770	3456	3318	3244
55°	2925	2837	2572	2268	2150	2624
65°	1738	1639	1482	1512	1256	1712
75°	697	648	609	579	638	747
85°	98	108	118	128	137	136
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8491.5	8491.5	8491.5	8491.5	8491.5
2.5°	8432.6	8432.6	8432.6	8422.8	8422.8
5°	8344.2	8334.4	8334.4	8324.6	8324.6
7.5°	8275.5	8265.7	8255.9	8246.1	8226.4
10°	8177.3	8177.3	8167.5	8118.4	8108.6
12.5°	8020.3	8010.5	7971.2	7902.5	7882.8
15°	7804.3	7804.3	7725.8	7647.2	7617.8
17.5°	7568.7	7558.9	7460.7	7382.2	7342.9
20°	7313.5	7293.8	7195.7	7068.0	6999.3
22.5°	7028.8	7028.8	6911.0	6744.1	6675.4
25°	6763.7	6724.5	6616.5	6380.9	6204.2
27.5°	6459.4	6400.5	6282.7	5948.9	5742.8
30°	6125.6	6096.2	5929.3	5497.4	5340.3
32.5°	5811.5	5762.4	5585.7	5134.2	5006.5
35°	5487.6	5448.3	5183.2	4790.6	4672.8
37.5°	5163.6	5114.5	4780.7	4466.6	4319.4
40°	4839.7	4780.7	4417.5	4132.8	3975.8
42.5°	4535.3	4456.8	4103.4	3799.1	3622.4
45°	4211.4	4123.0	3769.6	3455.5	3318.1
47.5°	3887.4	3808.9	3484.9	3161.0	3003.9
50°	3543.8	3475.1	3180.6	2856.7	2689.8
52.5°	3259.2	3151.2	2866.5	2542.5	2405.1
55°	2925.4	2837.0	2572.0	2267.7	2149.9
57.5°	2621.1	2532.7	2287.3	2002.6	1904.4
60°	2336.4	2208.8	2002.6	1757.2	1678.7
62.5°	2022.2	1924.1	1747.4	1541.2	1639.4
65°	1737.6	1639.4	1482.3	1511.8	1256.5
67.5°	1423.4	1374.3	1236.9	1099.5	1060.2
70°	1158.4	1099.5	1050.4	903.1	863.9
72.5°	922.8	863.9	795.2	716.6	687.2
75°	697.0	647.9	608.6	579.2	638.1
77.5°	481.0	461.4	431.9	402.5	392.7
80°	314.1	304.3	294.5	284.7	274.9
82.5°	186.5	186.5	186.5	186.5	186.5
85°	98.2	108.0	117.8	127.6	137.4
87.5°	58.9	58.9	68.7	78.5	88.4
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)