

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: P547449

Luminaire Tested: **FMR-24-4-LD4-4STD-35-UNV-80-86-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: P547449
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-LD4-4STD-35-UNV-80-86-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

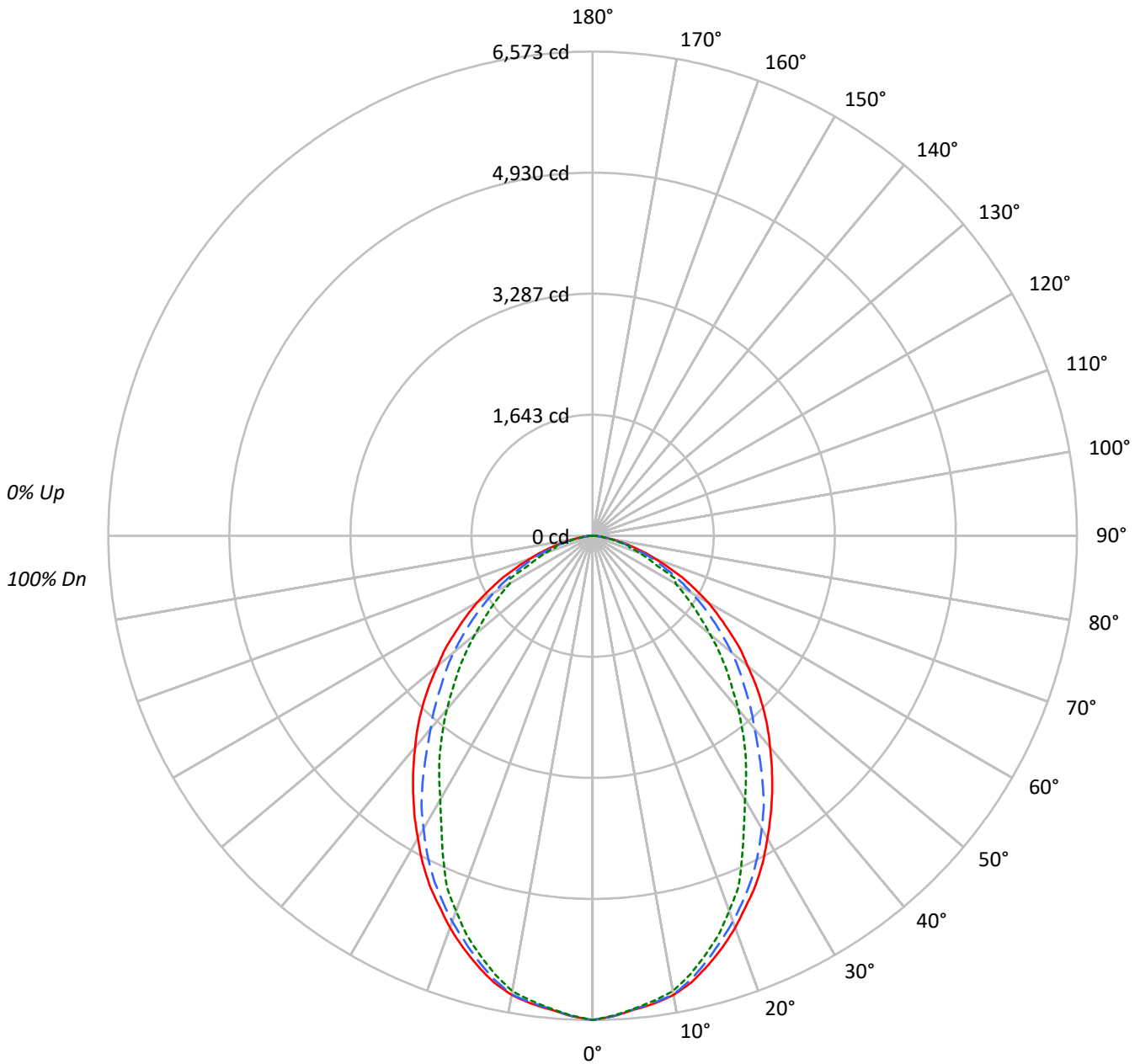
Lumens per Lamp: N/A
Luminaire Lumens: 12904.0 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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°	8844	8844	8844
5°	8724	8714	8703
10°	8648	8638	8576
15°	8415	8330	8214
20°	8106	7975	7758
25°	7773	7604	7130
30°	7367	7131	6422
35°	6977	6590	5941
40°	6580	6006	5406
45°	6203	5552	4887
50°	5742	5154	4358
55°	5312	4670	3904
60°	4867	4172	3497
65°	4282	3653	3097
70°	3528	3199	2631
75°	2805	2449	2568
80°	1884	1767	1649
85°	1173	1408	1643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	611.9	4.7
10°-20°	1679.2	13.0
20°-30°	2324.8	18.0
30°-40°	2478.9	19.2
40°-50°	2261.5	17.5
50°-60°	1771.7	13.7
60°-70°	1154.7	8.9
70°-80°	511.6	4.0
80°-90°	109.9	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°	4615.9	35.8
0°-40°	7094.7	55.0
0°-60°	11127.9	86.2
0°-90°	12904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12904.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6573	6573	6573	6573	6573	
5°	6459	6452	6452	6444	6444	613
15°	6041	6041	5980	5920	5897	1698
25°	5236	5205	5122	4939	4803	2404
35°	4248	4217	4012	3708	3617	2656
45°	3260	3192	2918	2675	2568	2511
55°	2264	2196	1991	1755	1664	2031
65°	1345	1269	1147	1170	973	1326
75°	540	502	471	448	494	578
85°	76	84	91	99	106	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6573.1	6573.1	6573.1	6573.1	6573.1
2.5°	6527.5	6527.5	6527.5	6519.9	6519.9
5°	6459.1	6451.5	6451.5	6443.9	6443.9
7.5°	6405.9	6398.3	6390.7	6383.2	6368.0
10°	6330.0	6330.0	6322.4	6284.4	6276.8
12.5°	6208.4	6200.8	6170.4	6117.2	6102.0
15°	6041.2	6041.2	5980.4	5919.6	5896.8
17.5°	5858.8	5851.2	5775.2	5714.4	5684.0
20°	5661.2	5646.0	5570.1	5471.3	5418.1
22.5°	5440.9	5440.9	5349.7	5220.5	5167.3
25°	5235.7	5205.3	5121.7	4939.3	4802.6
27.5°	5000.1	4954.5	4863.4	4605.0	4445.4
30°	4741.8	4719.0	4589.8	4255.4	4133.8
32.5°	4498.6	4460.6	4323.8	3974.3	3875.5
35°	4247.8	4217.4	4012.3	3708.3	3617.1
37.5°	3997.1	3959.1	3700.7	3457.5	3343.6
40°	3746.3	3700.7	3419.5	3199.2	3077.6
42.5°	3510.7	3449.9	3176.4	2940.8	2804.0
45°	3260.0	3191.6	2918.0	2674.8	2568.5
47.5°	3009.2	2948.4	2697.6	2446.9	2325.3
50°	2743.2	2690.0	2462.1	2211.3	2082.1
52.5°	2522.9	2439.3	2218.9	1968.1	1861.8
55°	2264.5	2196.1	1990.9	1755.4	1664.2
57.5°	2028.9	1960.5	1770.6	1550.2	1474.2
60°	1808.6	1709.8	1550.2	1360.2	1299.4
62.5°	1565.4	1489.4	1352.6	1193.0	1269.0
65°	1345.0	1269.0	1147.4	1170.2	972.7
67.5°	1101.9	1063.9	957.5	851.1	820.7
70°	896.7	851.1	813.1	699.1	668.7
72.5°	714.3	668.7	615.5	554.7	531.9
75°	539.5	501.5	471.1	448.3	493.9
77.5°	372.4	357.2	334.4	311.6	304.0
80°	243.2	235.6	228.0	220.4	212.8
82.5°	144.4	144.4	144.4	144.4	144.4
85°	76.0	83.6	91.2	98.8	106.4
87.5°	45.6	45.6	53.2	60.8	68.4
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)