

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: P547388

Luminaire Tested: **FMR-24-4-LD4-4LO-40-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: P547388
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-LD4-4LO-40-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 4000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

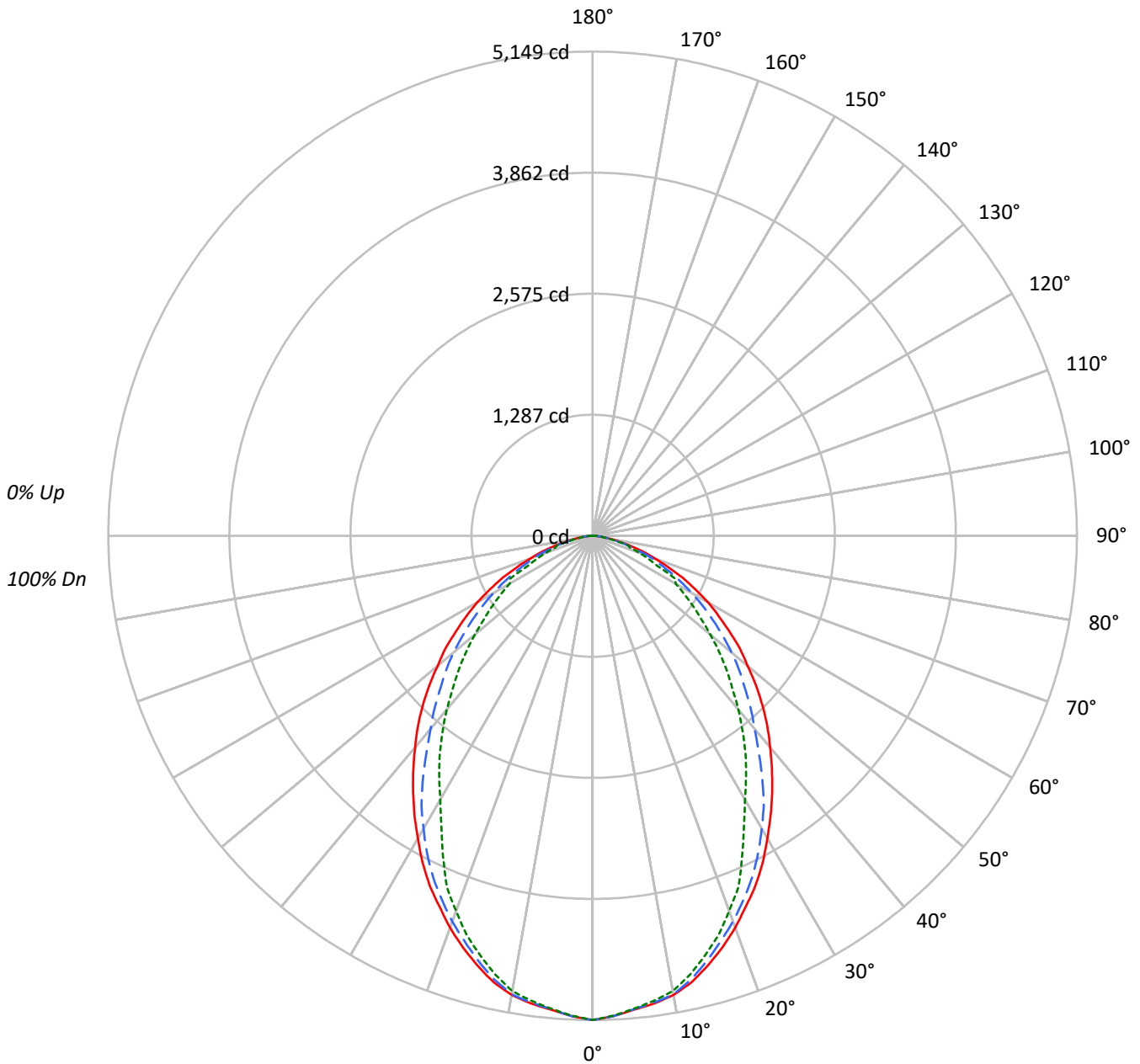
Lumens per Lamp: N/A
Luminaire Lumens: 10108.0 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	6928	6928	6928
5°	6834	6826	6818
10°	6774	6766	6717
15°	6592	6525	6434
20°	6350	6247	6077
25°	6089	5956	5585
30°	5771	5586	5031
35°	5465	5162	4654
40°	5154	4705	4234
45°	4859	4349	3828
50°	4498	4037	3414
55°	4161	3658	3058
60°	3812	3268	2739
65°	3354	2862	2426
70°	2763	2506	2061
75°	2197	1919	2011
80°	1476	1384	1292
85°	919	1102	1286



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	479.3	4.7
10°-20°	1315.4	13.0
20°-30°	1821.1	18.0
30°-40°	1941.8	19.2
40°-50°	1771.5	17.5
50°-60°	1387.8	13.7
60°-70°	904.5	8.9
70°-80°	400.7	4.0
80°-90°	86.0	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°	3615.7	35.8
0°-40°	5557.5	55.0
0°-60°	8716.7	86.2
0°-90°	10108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5149	5149	5149	5149	5149	
5°	5060	5054	5054	5048	5048	480
15°	4732	4732	4685	4637	4619	1330
25°	4101	4077	4012	3869	3762	1883
35°	3327	3304	3143	2905	2833	2080
45°	2554	2500	2286	2095	2012	1967
55°	1774	1720	1560	1375	1304	1591
65°	1054	994	899	917	762	1038
75°	423	393	369	351	387	453
85°	60	66	71	77	83	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5148.9	5148.9	5148.9	5148.9	5148.9
2.5°	5113.2	5113.2	5113.2	5107.2	5107.2
5°	5059.6	5053.6	5053.6	5047.7	5047.7
7.5°	5017.9	5012.0	5006.0	5000.1	4988.2
10°	4958.4	4958.4	4952.4	4922.7	4916.7
12.5°	4863.2	4857.2	4833.4	4791.7	4779.8
15°	4732.2	4732.2	4684.6	4637.0	4619.1
17.5°	4589.3	4583.4	4523.9	4476.3	4452.4
20°	4434.6	4422.7	4363.2	4285.8	4244.1
22.5°	4262.0	4262.0	4190.5	4089.3	4047.7
25°	4101.2	4077.4	4012.0	3869.1	3762.0
27.5°	3916.7	3881.0	3809.6	3607.2	3482.2
30°	3714.3	3696.5	3595.3	3333.4	3238.1
32.5°	3523.9	3494.1	3387.0	3113.1	3035.8
35°	3327.4	3303.6	3142.9	2904.8	2833.4
37.5°	3131.0	3101.2	2898.8	2708.4	2619.1
40°	2934.6	2898.8	2678.6	2506.0	2410.7
42.5°	2750.0	2702.4	2488.1	2303.6	2196.5
45°	2553.6	2500.0	2285.7	2095.3	2011.9
47.5°	2357.2	2309.6	2113.1	1916.7	1821.5
50°	2148.8	2107.2	1928.6	1732.2	1631.0
52.5°	1976.2	1910.7	1738.1	1541.7	1458.4
55°	1773.8	1720.3	1559.5	1375.0	1303.6
57.5°	1589.3	1535.7	1386.9	1214.3	1154.8
60°	1416.7	1339.3	1214.3	1065.5	1017.9
62.5°	1226.2	1166.7	1059.5	934.5	994.1
65°	1053.6	994.1	898.8	916.7	761.9
67.5°	863.1	833.3	750.0	666.7	642.9
70°	702.4	666.7	636.9	547.6	523.8
72.5°	559.5	523.8	482.1	434.5	416.7
75°	422.6	392.9	369.1	351.2	386.9
77.5°	291.7	279.8	261.9	244.1	238.1
80°	190.5	184.5	178.6	172.6	166.7
82.5°	113.1	113.1	113.1	113.1	113.1
85°	59.5	65.5	71.4	77.4	83.3
87.5°	35.7	35.7	41.7	47.6	53.6
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)