

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: P547324

Luminaire Tested: **FMR-24-4-LD4-4HI-50-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: P547324
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-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

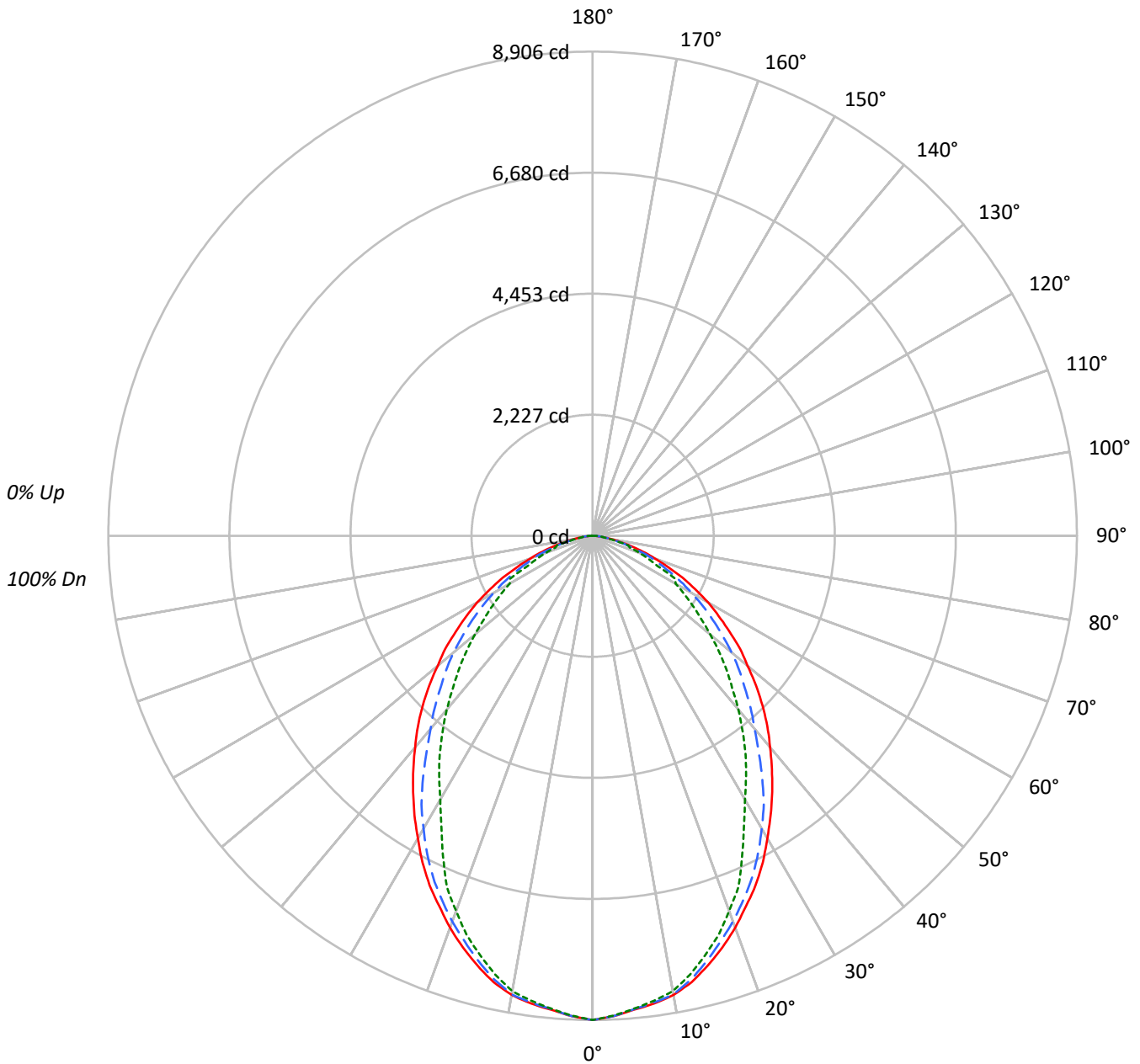
Lumens per Lamp: N/A
Luminaire Lumens: 17484.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	11983	11983	11983
5°	11820	11806	11792
10°	11718	11704	11619
15°	11402	11287	11129
20°	10983	10806	10511
25°	10532	10302	9660
30°	9982	9662	8702
35°	9454	8929	8050
40°	8916	8138	7324
45°	8405	7523	6622
50°	7780	6983	5905
55°	7197	6328	5289
60°	6594	5652	4738
65°	5802	4950	4196
70°	4779	4334	3565
75°	3800	3319	3479
80°	2553	2393	2234
85°	1590	1908	2225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	829.0	4.7
10°-20°	2275.2	13.0
20°-30°	3149.9	18.0
30°-40°	3358.7	19.2
40°-50°	3064.1	17.5
50°-60°	2400.5	13.7
60°-70°	1564.5	8.9
70°-80°	693.1	4.0
80°-90°	148.8	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°	6254.2	35.8
0°-40°	9612.9	55.0
0°-60°	15077.5	86.2
0°-90°	17484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17484.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8906	8906	8906	8906	8906	
5°	8752	8741	8741	8731	8731	831
15°	8185	8185	8103	8021	7990	2301
25°	7094	7053	6940	6692	6507	3257
35°	5756	5714	5436	5024	4901	3598
45°	4417	4324	3954	3624	3480	3402
55°	3068	2976	2698	2378	2255	2752
65°	1822	1719	1555	1586	1318	1796
75°	731	680	638	608	669	783
85°	103	113	124	134	144	143
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8906.1	8906.1	8906.1	8906.1	8906.1
2.5°	8844.3	8844.3	8844.3	8834.0	8834.0
5°	8751.7	8741.4	8741.4	8731.1	8731.1
7.5°	8679.6	8669.3	8659.0	8648.7	8628.1
10°	8576.6	8576.6	8566.3	8514.9	8504.6
12.5°	8411.9	8401.6	8360.4	8288.4	8267.8
15°	8185.4	8185.4	8103.0	8020.7	7989.8
17.5°	7938.3	7928.0	7825.0	7742.7	7701.5
20°	7670.6	7650.0	7547.0	7413.2	7341.1
22.5°	7372.0	7372.0	7248.4	7073.4	7001.3
25°	7094.0	7052.8	6939.6	6692.5	6507.1
27.5°	6774.8	6713.0	6589.5	6239.4	6023.2
30°	6424.8	6393.9	6218.8	5765.8	5601.1
32.5°	6095.3	6043.8	5858.5	5384.9	5251.0
35°	5755.5	5714.3	5436.3	5024.5	4900.9
37.5°	5415.7	5364.3	5014.2	4684.7	4530.3
40°	5076.0	5014.2	4633.2	4334.7	4169.9
42.5°	4756.8	4674.4	4303.8	3984.6	3799.3
45°	4417.0	4324.4	3953.7	3624.2	3480.1
47.5°	4077.3	3994.9	3655.1	3315.3	3150.6
50°	3716.9	3644.8	3335.9	2996.2	2821.1
52.5°	3418.3	3305.0	3006.5	2666.7	2522.5
55°	3068.2	2975.6	2697.6	2378.4	2254.8
57.5°	2749.1	2656.4	2399.0	2100.4	1997.4
60°	2450.5	2316.6	2100.4	1843.0	1760.6
62.5°	2121.0	2018.0	1832.7	1616.5	1719.4
65°	1822.4	1719.4	1554.7	1585.6	1317.9
67.5°	1492.9	1441.5	1297.3	1153.2	1112.0
70°	1214.9	1153.2	1101.7	947.2	906.1
72.5°	967.8	906.1	834.0	751.6	720.7
75°	731.0	679.5	638.4	607.5	669.2
77.5°	504.5	483.9	453.0	422.1	411.8
80°	329.5	319.2	308.9	298.6	288.3
82.5°	195.6	195.6	195.6	195.6	195.6
85°	103.0	113.3	123.6	133.8	144.1
87.5°	61.8	61.8	72.1	82.4	92.7
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)