

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: P547132

Luminaire Tested: **FMR-24-4-LD4-3LO-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: P547132
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-LD4-3LO-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

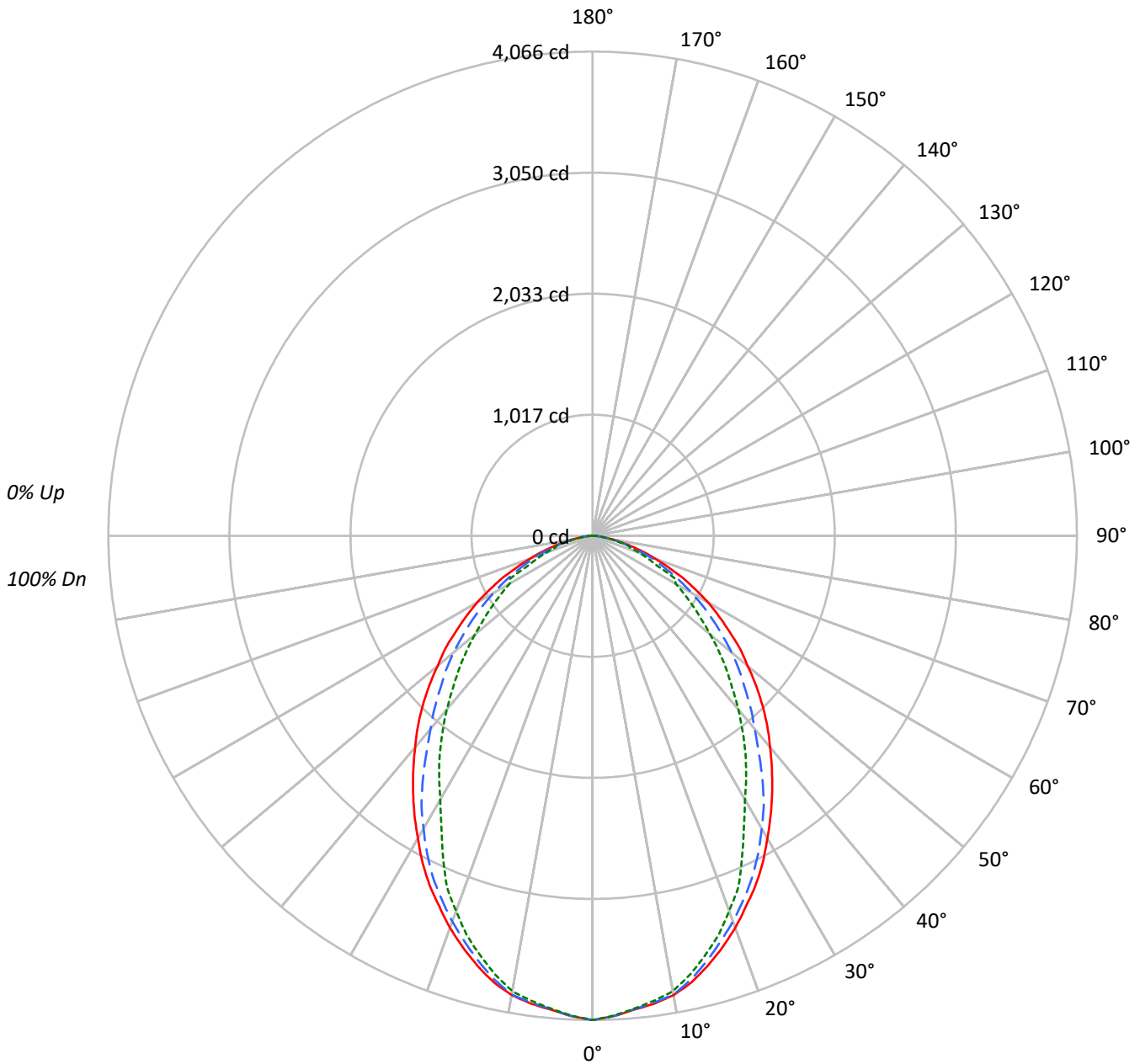
Lumens per Lamp: N/A
Luminaire Lumens: 7983.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	5471	5471	5471
5°	5397	5391	5384
10°	5350	5344	5305
15°	5206	5154	5081
20°	5015	4934	4799
25°	4809	4704	4411
30°	4558	4412	3973
35°	4316	4077	3676
40°	4071	3716	3344
45°	3838	3435	3024
50°	3552	3188	2696
55°	3286	2889	2415
60°	3011	2581	2163
65°	2649	2260	1916
70°	2182	1979	1627
75°	1735	1515	1589
80°	1165	1093	1020
85°	726	871	1016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	378.5	4.7
10°-20°	1038.8	13.0
20°-30°	1438.2	18.0
30°-40°	1533.6	19.2
40°-50°	1399.0	17.5
50°-60°	1096.0	13.7
60°-70°	714.3	8.9
70°-80°	316.5	4.0
80°-90°	67.9	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°	2855.6	35.8
0°-40°	4389.1	55.0
0°-60°	6884.2	86.2
0°-90°	7983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4066	4066	4066	4066	4066	
5°	3996	3991	3991	3986	3986	379
15°	3737	3737	3700	3662	3648	1051
25°	3239	3220	3168	3056	2971	1487
35°	2628	2609	2482	2294	2238	1643
45°	2017	1974	1805	1655	1589	1553
55°	1401	1359	1232	1086	1030	1257
65°	832	785	710	724	602	820
75°	334	310	292	277	306	358
85°	47	52	56	61	66	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4066.4	4066.4	4066.4	4066.4	4066.4
2.5°	4038.2	4038.2	4038.2	4033.5	4033.5
5°	3995.9	3991.2	3991.2	3986.5	3986.5
7.5°	3963.0	3958.3	3953.6	3948.9	3939.5
10°	3916.0	3916.0	3911.3	3887.8	3883.1
12.5°	3840.8	3836.1	3817.3	3784.4	3775.0
15°	3737.4	3737.4	3699.7	3662.1	3648.0
17.5°	3624.5	3619.8	3572.8	3535.2	3516.4
20°	3502.3	3492.9	3445.9	3384.8	3351.9
22.5°	3366.0	3366.0	3309.6	3229.6	3196.7
25°	3239.0	3220.2	3168.5	3055.7	2971.1
27.5°	3093.3	3065.1	3008.7	2848.9	2750.1
30°	2933.5	2919.4	2839.5	2632.6	2557.4
32.5°	2783.0	2759.5	2674.9	2458.7	2397.6
35°	2627.9	2609.1	2482.2	2294.1	2237.7
37.5°	2472.8	2449.3	2289.4	2139.0	2068.5
40°	2317.6	2289.4	2115.5	1979.2	1903.9
42.5°	2171.9	2134.3	1965.1	1819.3	1734.7
45°	2016.8	1974.5	1805.2	1654.8	1589.0
47.5°	1861.6	1824.0	1668.9	1513.7	1438.5
50°	1697.1	1664.2	1523.1	1368.0	1288.1
52.5°	1560.8	1509.0	1372.7	1217.6	1151.8
55°	1400.9	1358.6	1231.7	1085.9	1029.5
57.5°	1255.2	1212.9	1095.4	959.0	912.0
60°	1118.9	1057.7	959.0	841.5	803.9
62.5°	968.4	921.4	836.8	738.1	785.1
65°	832.1	785.1	709.9	724.0	601.7
67.5°	681.7	658.2	592.3	526.5	507.7
70°	554.7	526.5	503.0	432.5	413.7
72.5°	441.9	413.7	380.8	343.2	329.1
75°	333.8	310.3	291.5	277.4	305.6
77.5°	230.4	221.0	206.8	192.7	188.0
80°	150.4	145.7	141.0	136.3	131.6
82.5°	89.3	89.3	89.3	89.3	89.3
85°	47.0	51.7	56.4	61.1	65.8
87.5°	28.2	28.2	32.9	37.6	42.3
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)