

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: P547131

Luminaire Tested: **FMR-24-4-LD4-3LO-50-UNV-80-88-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: P547131
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-80-88-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

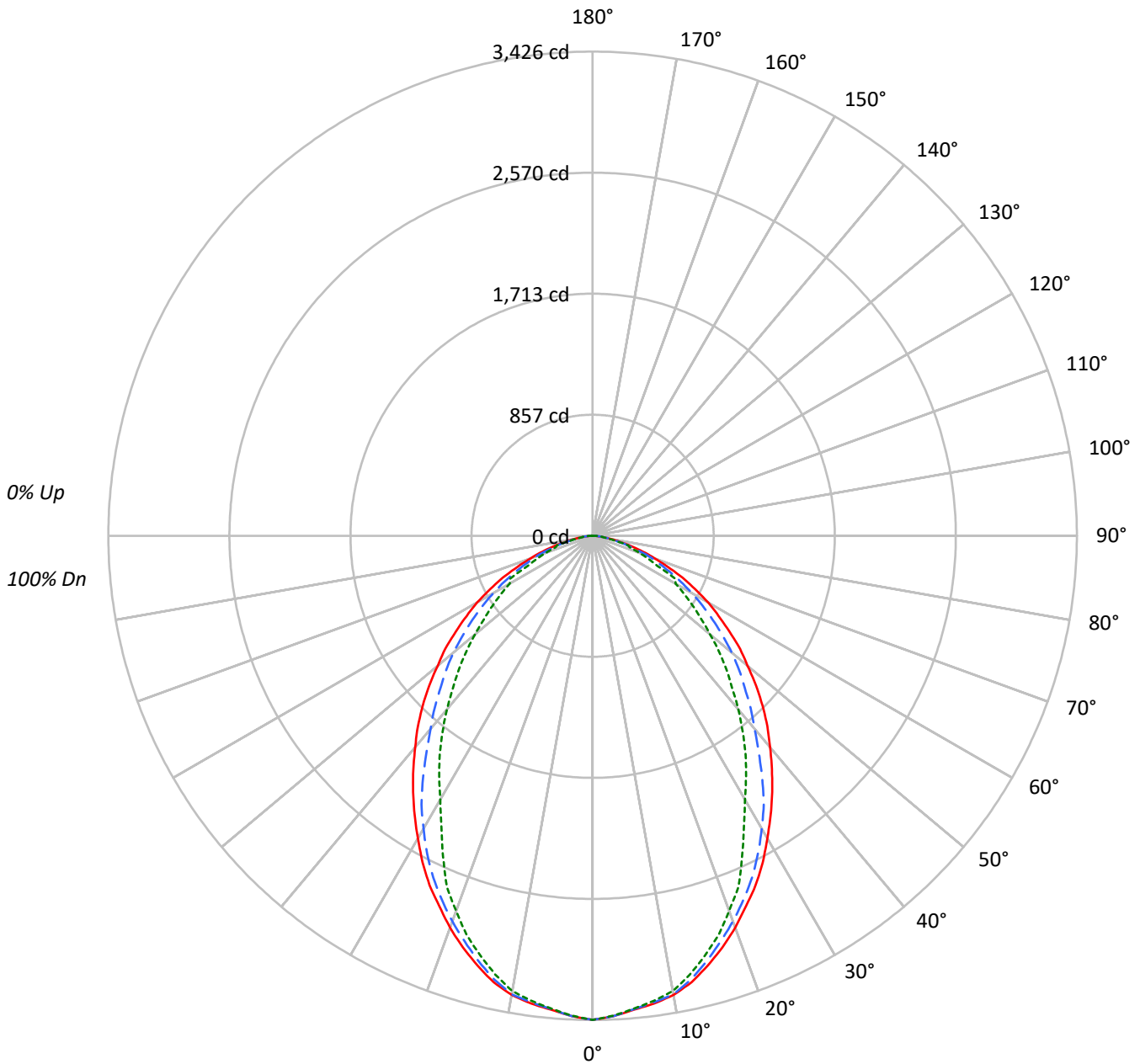
Lumens per Lamp: N/A
Luminaire Lumens: 6725.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
Input Voltage (V): NR
Input Current (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				100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4609	4609	4609
5°	4546	4541	4536
10°	4507	4502	4469
15°	4386	4341	4281
20°	4225	4156	4043
25°	4051	3963	3716
30°	3839	3716	3347
35°	3636	3435	3096
40°	3429	3130	2817
45°	3233	2894	2547
50°	2993	2686	2271
55°	2769	2434	2035
60°	2536	2174	1822
65°	2232	1904	1614
70°	1838	1667	1371
75°	1462	1276	1338
80°	982	921	859
85°	611	733	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.9	4.7
10°-20°	875.1	13.0
20°-30°	1211.6	18.0
30°-40°	1291.9	19.2
40°-50°	1178.6	17.5
50°-60°	923.3	13.7
60°-70°	601.8	8.9
70°-80°	266.6	4.0
80°-90°	57.2	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°	2405.6	35.8
0°-40°	3697.5	55.0
0°-60°	5799.4	86.2
0°-90°	6725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6725.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3426	3426	3426	3426	3426	
5°	3366	3362	3362	3358	3358	320
15°	3148	3148	3117	3085	3073	885
25°	2729	2713	2669	2574	2503	1253
35°	2214	2198	2091	1933	1885	1384
45°	1699	1663	1521	1394	1339	1309
55°	1180	1144	1038	915	867	1059
65°	701	661	598	610	507	691
75°	281	261	246	234	257	301
85°	40	44	48	52	55	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3425.6	3425.6	3425.6	3425.6	3425.6
2.5°	3401.9	3401.9	3401.9	3397.9	3397.9
5°	3366.2	3362.3	3362.3	3358.3	3358.3
7.5°	3338.5	3334.5	3330.6	3326.6	3318.7
10°	3298.9	3298.9	3294.9	3275.1	3271.2
12.5°	3235.5	3231.6	3215.7	3188.0	3180.1
15°	3148.4	3148.4	3116.7	3085.0	3073.2
17.5°	3053.4	3049.4	3009.8	2978.1	2962.3
20°	2950.4	2942.5	2902.9	2851.4	2823.7
22.5°	2835.5	2835.5	2788.0	2720.7	2693.0
25°	2728.6	2712.8	2669.2	2574.2	2502.9
27.5°	2605.9	2582.1	2534.6	2399.9	2316.8
30°	2471.2	2459.3	2392.0	2217.7	2154.4
32.5°	2344.5	2324.7	2253.4	2071.2	2019.7
35°	2213.8	2197.9	2091.0	1932.6	1885.1
37.5°	2083.1	2063.3	1928.6	1801.9	1742.5
40°	1952.4	1928.6	1782.1	1667.3	1603.9
42.5°	1829.6	1798.0	1655.4	1532.6	1461.3
45°	1699.0	1663.3	1520.7	1394.0	1338.6
47.5°	1568.3	1536.6	1405.9	1275.2	1211.8
50°	1429.7	1401.9	1283.1	1152.4	1085.1
52.5°	1314.8	1271.2	1156.4	1025.7	970.3
55°	1180.2	1144.5	1037.6	914.8	867.3
57.5°	1057.4	1021.7	922.7	807.9	768.3
60°	942.5	891.1	807.9	708.9	677.2
62.5°	815.8	776.2	704.9	621.8	661.4
65°	701.0	661.4	598.0	609.9	506.9
67.5°	574.2	554.4	499.0	443.5	427.7
70°	467.3	443.5	423.7	364.3	348.5
72.5°	372.3	348.5	320.8	289.1	277.2
75°	281.2	261.4	245.5	233.7	257.4
77.5°	194.1	186.1	174.3	162.4	158.4
80°	126.7	122.8	118.8	114.8	110.9
82.5°	75.2	75.2	75.2	75.2	75.2
85°	39.6	43.6	47.5	51.5	55.4
87.5°	23.8	23.8	27.7	31.7	35.6
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)