

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: P545304

Luminaire Tested: **FMR-12-2-LD4-1HI-50-UNV-80-85-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: P545304
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-12-2-LD4-1HI-50-UNV-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

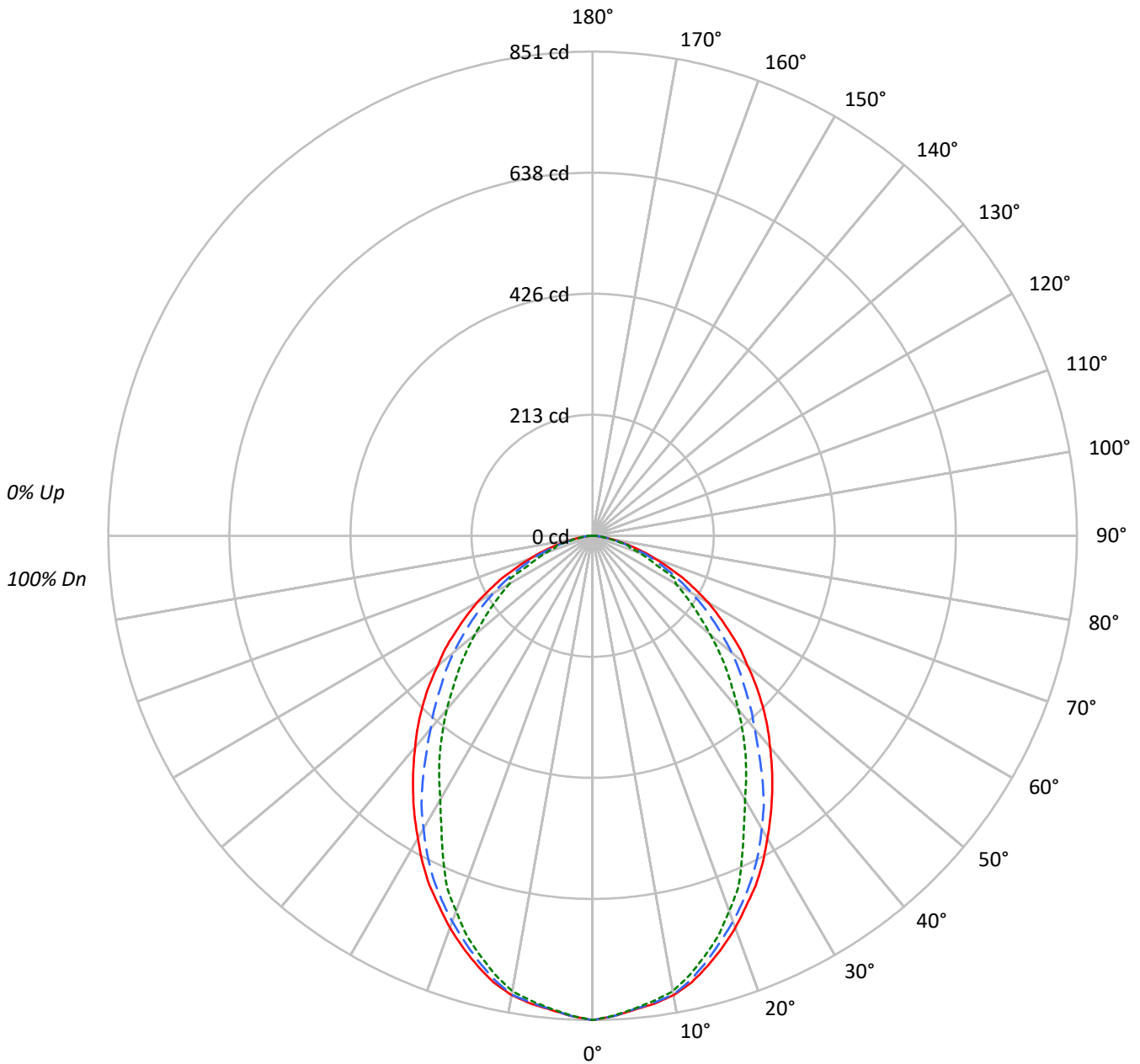
Lumens per Lamp: N/A
Luminaire Lumens: 1671.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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

TEST NUMBER: P545304

CATALOG NUMBER: FMR-12-2-LD4-1HI-50-UNV-80-85-EDD

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				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°	4581	4581	4581
5°	4519	4513	4508
10°	4480	4474	4442
15°	4359	4315	4255
20°	4199	4131	4018
25°	4026	3938	3693
30°	3816	3694	3327
35°	3614	3414	3077
40°	3408	3111	2800
45°	3213	2876	2531
50°	2974	2669	2257
55°	2751	2419	2022
60°	2521	2160	1812
65°	2218	1892	1605
70°	1827	1657	1363
75°	1454	1268	1331
80°	976	914	855
85°	605	729	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	4.7
10°-20°	217.5	13.0
20°-30°	301.0	18.0
30°-40°	321.0	19.2
40°-50°	292.8	17.5
50°-60°	229.4	13.7
60°-70°	149.5	8.9
70°-80°	66.2	4.0
80°-90°	14.2	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°	597.7	35.8
0°-40°	918.7	55.0
0°-60°	1441.0	86.2
0°-90°	1671.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1671.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	851	851	851	851	851	
5°	836	835	835	834	834	79
15°	782	782	774	767	764	220
25°	678	674	663	640	622	311
35°	550	546	520	480	468	344
45°	422	413	378	346	333	325
55°	293	284	258	227	216	263
65°	174	164	149	152	126	172
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	851.2	851.2	851.2	851.2	851.2
2.5°	845.3	845.3	845.3	844.3	844.3
5°	836.4	835.4	835.4	834.5	834.5
7.5°	829.5	828.6	827.6	826.6	824.6
10°	819.7	819.7	818.7	813.8	812.8
12.5°	804.0	803.0	799.0	792.1	790.2
15°	782.3	782.3	774.4	766.6	763.6
17.5°	758.7	757.7	747.9	740.0	736.1
20°	733.1	731.1	721.3	708.5	701.6
22.5°	704.6	704.6	692.8	676.0	669.1
25°	678.0	674.1	663.2	639.6	621.9
27.5°	647.5	641.6	629.8	596.3	575.7
30°	614.0	611.1	594.4	551.1	535.3
32.5°	582.5	577.6	559.9	514.6	501.9
35°	550.1	546.1	519.6	480.2	468.4
37.5°	517.6	512.7	479.2	447.7	433.0
40°	485.1	479.2	442.8	414.3	398.5
42.5°	454.6	446.7	411.3	380.8	363.1
45°	422.1	413.3	377.9	346.4	332.6
47.5°	389.7	381.8	349.3	316.9	301.1
50°	355.2	348.3	318.8	286.4	269.6
52.5°	326.7	315.9	287.3	254.9	241.1
55°	293.2	284.4	257.8	227.3	215.5
57.5°	262.7	253.9	229.3	200.7	190.9
60°	234.2	221.4	200.7	176.1	168.3
62.5°	202.7	192.9	175.2	154.5	164.3
65°	174.2	164.3	148.6	151.5	126.0
67.5°	142.7	137.8	124.0	110.2	106.3
70°	116.1	110.2	105.3	90.5	86.6
72.5°	92.5	86.6	79.7	71.8	68.9
75°	69.9	64.9	61.0	58.1	64.0
77.5°	48.2	46.2	43.3	40.3	39.4
80°	31.5	30.5	29.5	28.5	27.6
82.5°	18.7	18.7	18.7	18.7	18.7
85°	9.8	10.8	11.8	12.8	13.8
87.5°	5.9	5.9	6.9	7.9	8.9
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)