

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: P545242

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-80-87-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: P545242
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-35-UNV-80-87-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

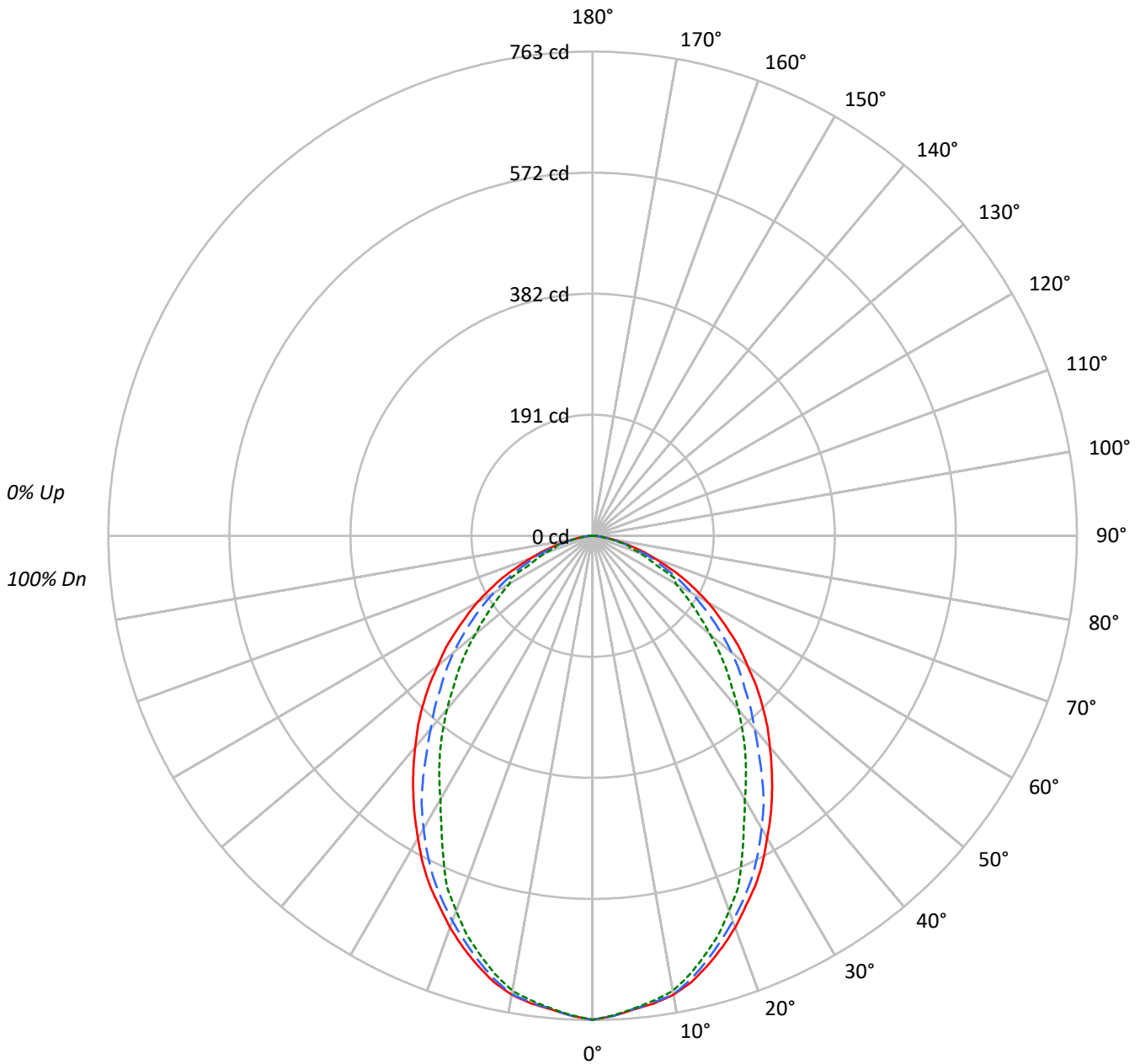
Lumens per Lamp: N/A
Luminaire Lumens: 1497.0 lumens
Efficiency: N/A
Efficacy: 69.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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: P545242

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-80-87-EDD

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°	4104	4104	4104
5°	4048	4043	4039
10°	4013	4009	3980
15°	3905	3866	3812
20°	3762	3701	3600
25°	3607	3529	3308
30°	3419	3309	2980
35°	3238	3058	2757
40°	3053	2787	2508
45°	2879	2576	2268
50°	2664	2391	2022
55°	2465	2168	1812
60°	2258	1935	1622
65°	1987	1695	1436
70°	1637	1484	1221
75°	1302	1137	1192
80°	874	818	766
85°	543	655	760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.0	4.7
10°-20°	194.8	13.0
20°-30°	269.7	18.0
30°-40°	287.6	19.2
40°-50°	262.4	17.5
50°-60°	205.5	13.7
60°-70°	133.9	8.9
70°-80°	59.4	4.0
80°-90°	12.7	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°	535.5	35.8
0°-40°	823.1	55.0
0°-60°	1291.0	86.2
0°-90°	1497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	763	763	763	763	763	
5°	749	748	748	748	748	71
15°	701	701	694	687	684	197
25°	607	604	594	573	557	279
35°	493	489	466	430	420	308
45°	378	370	338	310	298	291
55°	263	255	231	204	193	236
65°	156	147	133	136	113	154
75°	63	58	55	52	57	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	762.6	762.6	762.6	762.6	762.6
2.5°	757.3	757.3	757.3	756.4	756.4
5°	749.3	748.4	748.4	747.6	747.6
7.5°	743.2	742.3	741.4	740.5	738.7
10°	734.3	734.3	733.5	729.1	728.2
12.5°	720.2	719.4	715.8	709.7	707.9
15°	700.8	700.8	693.8	686.7	684.1
17.5°	679.7	678.8	670.0	662.9	659.4
20°	656.8	655.0	646.2	634.7	628.6
22.5°	631.2	631.2	620.6	605.6	599.5
25°	607.4	603.9	594.2	573.0	557.1
27.5°	580.1	574.8	564.2	534.2	515.7
30°	550.1	547.5	532.5	493.7	479.6
32.5°	521.9	517.5	501.6	461.1	449.6
35°	492.8	489.3	465.5	430.2	419.6
37.5°	463.7	459.3	429.3	401.1	387.9
40°	434.6	429.3	396.7	371.1	357.0
42.5°	407.3	400.2	368.5	341.2	325.3
45°	378.2	370.3	338.5	310.3	298.0
47.5°	349.1	342.0	313.0	283.9	269.8
50°	318.2	312.1	285.6	256.5	241.5
52.5°	292.7	283.0	257.4	228.3	216.0
55°	262.7	254.8	231.0	203.6	193.1
57.5°	235.4	227.4	205.4	179.8	171.0
60°	209.8	198.4	179.8	157.8	150.7
62.5°	181.6	172.8	156.9	138.4	147.2
65°	156.0	147.2	133.1	135.8	112.8
67.5°	127.8	123.4	111.1	98.7	95.2
70°	104.0	98.7	94.3	81.1	77.6
72.5°	82.9	77.6	71.4	64.4	61.7
75°	62.6	58.2	54.7	52.0	57.3
77.5°	43.2	41.4	38.8	36.1	35.3
80°	28.2	27.3	26.4	25.6	24.7
82.5°	16.7	16.7	16.7	16.7	16.7
85°	8.8	9.7	10.6	11.5	12.3
87.5°	5.3	5.3	6.2	7.1	7.9
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)