

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: P545266

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-93-87-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: P545266
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-93-87-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

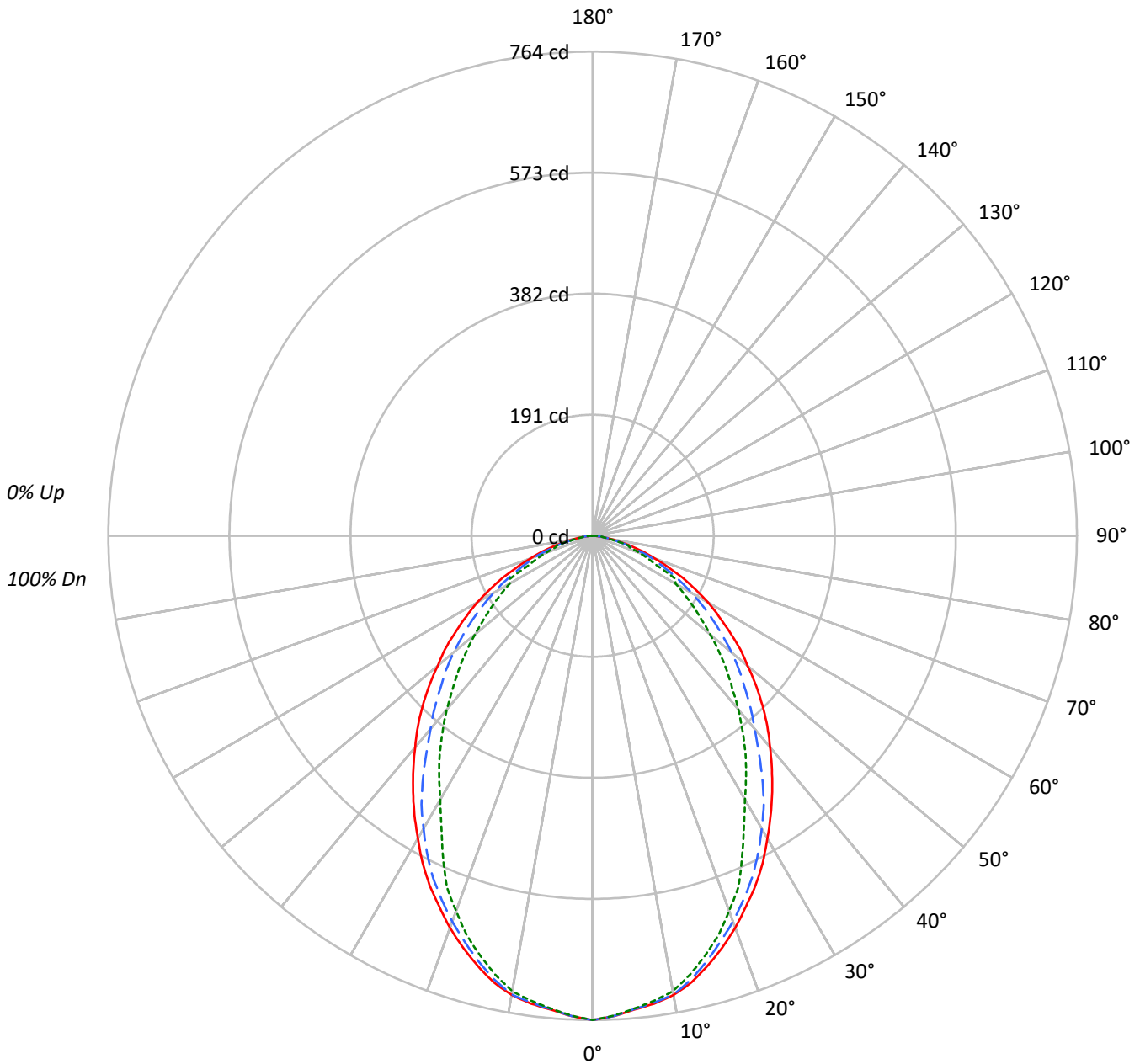
Lumens per Lamp: N/A
Luminaire Lumens: 1500.0 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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: P545266

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-93-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545266

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-93-87-EDD

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°	4112	4112	4112
5°	4056	4051	4047
10°	4021	4016	3987
15°	3913	3874	3819
20°	3769	3708	3607
25°	3614	3536	3315
30°	3425	3315	2986
35°	3244	3064	2763
40°	3060	2793	2513
45°	2884	2582	2273
50°	2670	2396	2026
55°	2470	2171	1815
60°	2263	1940	1625
65°	1990	1699	1440
70°	1640	1487	1223
75°	1304	1140	1194
80°	877	821	766
85°	543	655	766



TEST NUMBER: P545266

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-93-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.1	4.7
10°-20°	195.2	13.0
20°-30°	270.2	18.0
30°-40°	288.2	19.2
40°-50°	262.9	17.5
50°-60°	205.9	13.7
60°-70°	134.2	8.9
70°-80°	59.5	4.0
80°-90°	12.8	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°	536.6	35.8
0°-40°	824.7	55.0
0°-60°	1293.5	86.2
0°-90°	1500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	751	750	750	749	749	71
15°	702	702	695	688	686	197
25°	609	605	595	574	558	279
35°	494	490	466	431	420	309
45°	379	371	339	311	299	292
55°	263	255	231	204	193	236
65°	156	148	133	136	113	154
75°	63	58	55	52	57	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



TEST NUMBER: P545266

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-93-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	764.1	764.1	764.1	764.1	764.1
2.5°	758.8	758.8	758.8	757.9	757.9
5°	750.8	749.9	749.9	749.1	749.1
7.5°	744.6	743.8	742.9	742.0	740.2
10°	735.8	735.8	734.9	730.5	729.6
12.5°	721.7	720.8	717.3	711.1	709.3
15°	702.2	702.2	695.2	688.1	685.5
17.5°	681.0	680.2	671.3	664.3	660.7
20°	658.1	656.3	647.5	636.0	629.8
22.5°	632.5	632.5	621.9	606.8	600.7
25°	608.6	605.1	595.4	574.2	558.3
27.5°	581.2	575.9	565.3	535.3	516.7
30°	551.2	548.5	533.5	494.7	480.5
32.5°	522.9	518.5	502.6	462.0	450.5
35°	493.8	490.2	466.4	431.1	420.5
37.5°	464.6	460.2	430.2	401.9	388.7
40°	435.5	430.2	397.5	371.9	357.7
42.5°	408.1	401.0	369.2	341.8	325.9
45°	378.9	371.0	339.2	310.9	298.6
47.5°	349.8	342.7	313.6	284.4	270.3
50°	318.9	312.7	286.2	257.0	242.0
52.5°	293.3	283.5	257.9	228.8	216.4
55°	263.2	255.3	231.4	204.0	193.4
57.5°	235.8	227.9	205.8	180.2	171.4
60°	210.2	198.7	180.2	158.1	151.0
62.5°	182.0	173.1	157.2	138.7	147.5
65°	156.3	147.5	133.4	136.0	113.1
67.5°	128.1	123.7	111.3	98.9	95.4
70°	104.2	98.9	94.5	81.3	77.7
72.5°	83.0	77.7	71.5	64.5	61.8
75°	62.7	58.3	54.8	52.1	57.4
77.5°	43.3	41.5	38.9	36.2	35.3
80°	28.3	27.4	26.5	25.6	24.7
82.5°	16.8	16.8	16.8	16.8	16.8
85°	8.8	9.7	10.6	11.5	12.4
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)