

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: P544972

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-82-94-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: P544972
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-12-1-LD4-2HI-35-UNV-82-94-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

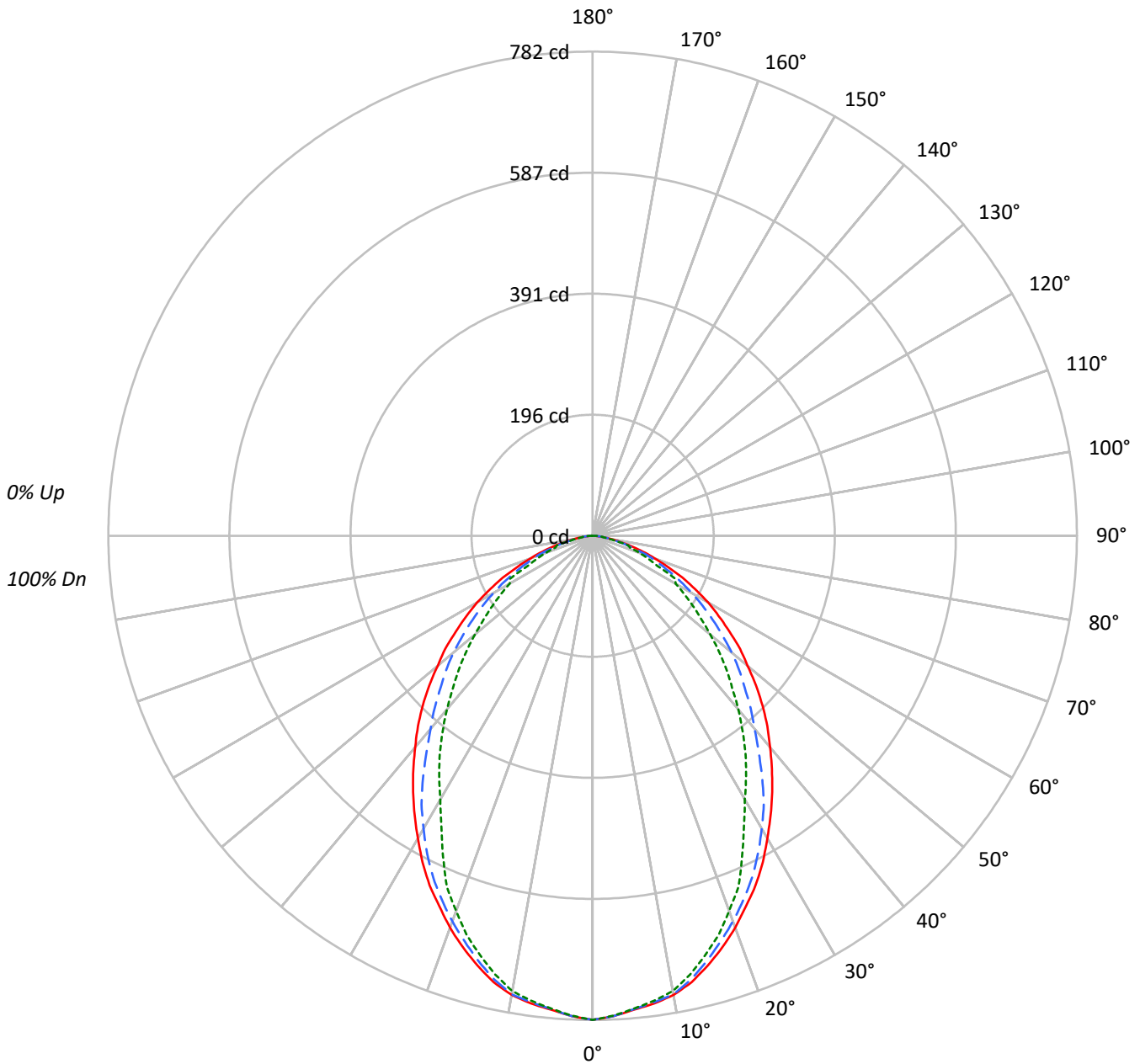
Lumens per Lamp: N/A
Luminaire Lumens: 1535.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P544972

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-82-94-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°	8416	8416	8416
5°	8302	8292	8282
10°	8230	8220	8161
15°	8008	7928	7817
20°	7714	7590	7383
25°	7397	7236	6785
30°	7011	6786	6111
35°	6640	6272	5654
40°	6261	5716	5144
45°	5903	5284	4650
50°	5464	4905	4148
55°	5056	4444	3716
60°	4631	3970	3328
65°	4075	3477	2947
70°	3358	3043	2502
75°	2670	2329	2445
80°	1791	1680	1568
85°	1112	1334	1568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	4.7
10°-20°	199.8	13.0
20°-30°	276.5	18.0
30°-40°	294.9	19.2
40°-50°	269.0	17.5
50°-60°	210.8	13.7
60°-70°	137.4	8.9
70°-80°	60.9	4.0
80°-90°	13.1	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°	549.1	35.8
0°-40°	844.0	55.0
0°-60°	1323.7	86.2
0°-90°	1535.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1535.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	768	767	767	766	766	73
15°	719	719	711	704	702	202
25°	623	619	609	588	571	286
35°	505	502	477	441	430	316
45°	388	380	347	318	306	299
55°	269	261	237	209	198	242
65°	160	151	136	139	116	158
75°	64	60	56	53	59	69
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	781.9	781.9	781.9	781.9	781.9
2.5°	776.5	776.5	776.5	775.6	775.6
5°	768.3	767.4	767.4	766.5	766.5
7.5°	762.0	761.1	760.2	759.3	757.5
10°	753.0	753.0	752.1	747.6	746.7
12.5°	738.5	737.6	734.0	727.7	725.9
15°	718.6	718.6	711.4	704.2	701.5
17.5°	696.9	696.0	687.0	679.8	676.1
20°	673.4	671.6	662.6	650.8	644.5
22.5°	647.2	647.2	636.4	621.0	614.7
25°	622.8	619.2	609.3	587.6	571.3
27.5°	594.8	589.4	578.5	547.8	528.8
30°	564.1	561.3	546.0	506.2	491.7
32.5°	535.1	530.6	514.3	472.8	461.0
35°	505.3	501.7	477.3	441.1	430.3
37.5°	475.5	471.0	440.2	411.3	397.7
40°	445.6	440.2	406.8	380.6	366.1
42.5°	417.6	410.4	377.8	349.8	333.6
45°	387.8	379.7	347.1	318.2	305.5
47.5°	358.0	350.7	320.9	291.1	276.6
50°	326.3	320.0	292.9	263.0	247.7
52.5°	300.1	290.2	264.0	234.1	221.5
55°	269.4	261.2	236.8	208.8	198.0
57.5°	241.4	233.2	210.6	184.4	175.4
60°	215.1	203.4	184.4	161.8	154.6
62.5°	186.2	177.2	160.9	141.9	151.0
65°	160.0	151.0	136.5	139.2	115.7
67.5°	131.1	126.6	113.9	101.2	97.6
70°	106.7	101.2	96.7	83.2	79.5
72.5°	85.0	79.5	73.2	66.0	63.3
75°	64.2	59.7	56.0	53.3	58.8
77.5°	44.3	42.5	39.8	37.1	36.2
80°	28.9	28.0	27.1	26.2	25.3
82.5°	17.2	17.2	17.2	17.2	17.2
85°	9.0	9.9	10.8	11.8	12.7
87.5°	5.4	5.4	6.3	7.2	8.1
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)