

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: P544987

Luminaire Tested: **FMR-12-1-LD4-2HI-40-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: P544987
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-40-UNV-80-88-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

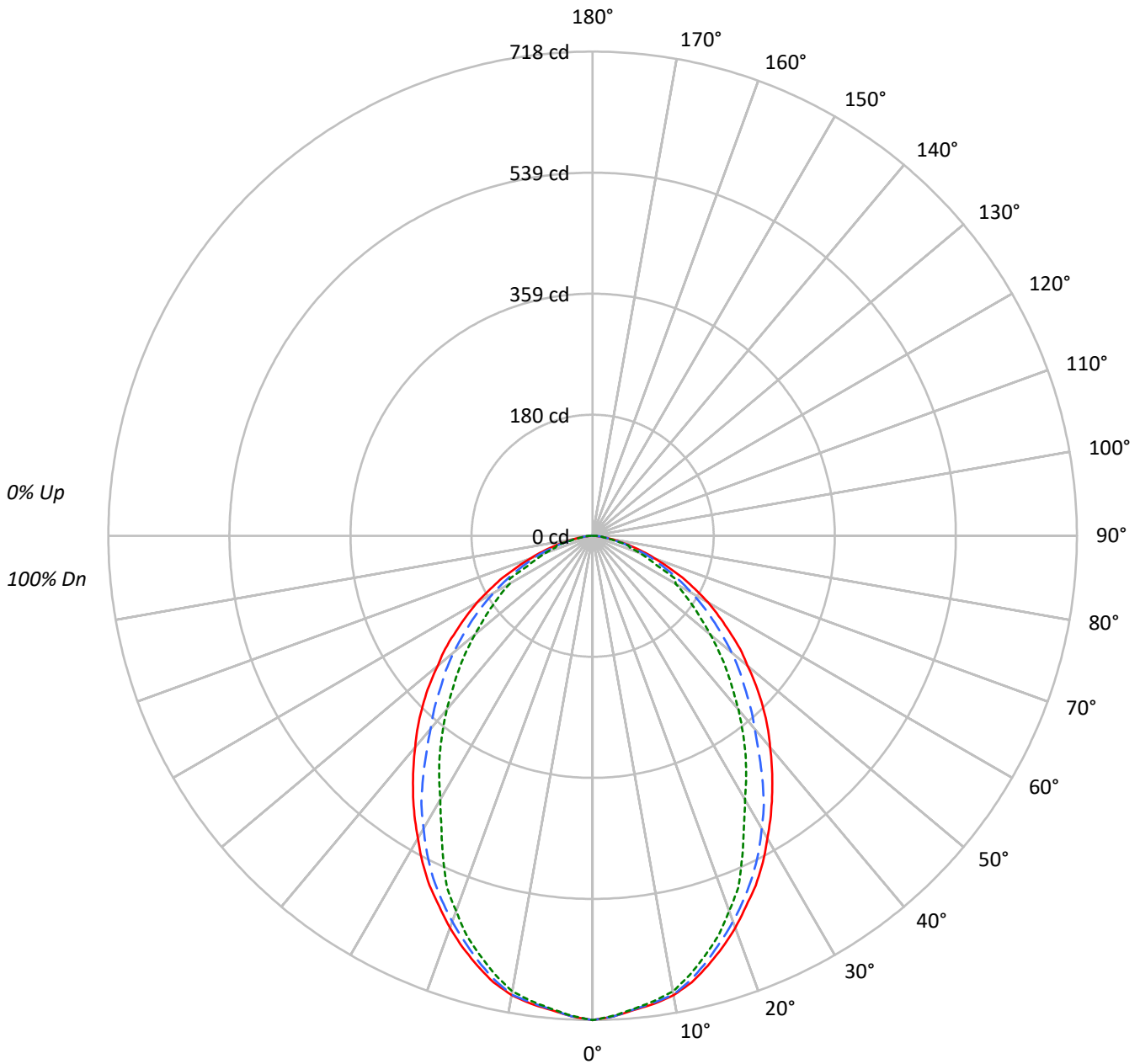
Lumens per Lamp: N/A
Luminaire Lumens: 1410.0 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P544987

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-80-88-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°	7731	7731	7731
5°	7626	7616	7608
10°	7560	7550	7497
15°	7356	7282	7180
20°	7086	6971	6781
25°	6795	6646	6233
30°	6440	6233	5614
35°	6100	5761	5193
40°	5753	5250	4725
45°	5422	4853	4273
50°	5019	4505	3810
55°	4643	4082	3412
60°	4254	3647	3057
65°	3744	3194	2707
70°	3084	2795	2301
75°	2454	2142	2246
80°	1649	1543	1438
85°	1025	1235	1433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.9	4.7
10°-20°	183.5	13.0
20°-30°	254.0	18.0
30°-40°	270.9	19.2
40°-50°	247.1	17.5
50°-60°	193.6	13.7
60°-70°	126.2	8.9
70°-80°	55.9	4.0
80°-90°	12.0	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°	504.4	35.8
0°-40°	775.2	55.0
0°-60°	1215.9	86.2
0°-90°	1410.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	706	705	705	704	704	67
15°	660	660	654	647	644	186
25°	572	569	560	540	525	263
35°	464	461	438	405	395	290
45°	356	349	319	292	281	274
55°	247	240	218	192	182	222
65°	147	139	125	128	106	145
75°	59	55	52	49	54	63
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	718.2	718.2	718.2	718.2	718.2
2.5°	713.3	713.3	713.3	712.4	712.4
5°	705.8	704.9	704.9	704.1	704.1
7.5°	700.0	699.1	698.3	697.5	695.8
10°	691.7	691.7	690.8	686.7	685.9
12.5°	678.4	677.5	674.2	668.4	666.8
15°	660.1	660.1	653.5	646.8	644.3
17.5°	640.2	639.4	631.1	624.4	621.1
20°	618.6	616.9	608.6	597.8	592.0
22.5°	594.5	594.5	584.6	570.4	564.6
25°	572.1	568.8	559.6	539.7	524.8
27.5°	546.4	541.4	531.4	503.2	485.7
30°	518.1	515.6	501.5	465.0	451.7
32.5°	491.6	487.4	472.5	434.3	423.5
35°	464.2	460.8	438.4	405.2	395.2
37.5°	436.8	432.6	404.4	377.8	365.3
40°	409.4	404.4	373.6	349.6	336.3
42.5°	383.6	377.0	347.1	321.3	306.4
45°	356.2	348.7	318.8	292.3	280.7
47.5°	328.8	322.2	294.8	267.4	254.1
50°	299.7	293.9	269.0	241.6	227.5
52.5°	275.7	266.5	242.5	215.1	203.4
55°	247.4	240.0	217.5	191.8	181.8
57.5°	221.7	214.2	193.5	169.4	161.1
60°	197.6	186.8	169.4	148.6	142.0
62.5°	171.0	162.7	147.8	130.4	138.7
65°	147.0	138.7	125.4	127.9	106.3
67.5°	120.4	116.2	104.6	93.0	89.7
70°	98.0	93.0	88.8	76.4	73.1
72.5°	78.1	73.1	67.3	60.6	58.1
75°	59.0	54.8	51.5	49.0	54.0
77.5°	40.7	39.0	36.5	34.0	33.2
80°	26.6	25.7	24.9	24.1	23.2
82.5°	15.8	15.8	15.8	15.8	15.8
85°	8.3	9.1	10.0	10.8	11.6
87.5°	5.0	5.0	5.8	6.6	7.5
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)