

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: P544999

Luminaire Tested: **FMR-12-1-LD4-2HI-40-UNV-82-84-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: P544999
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-82-84-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

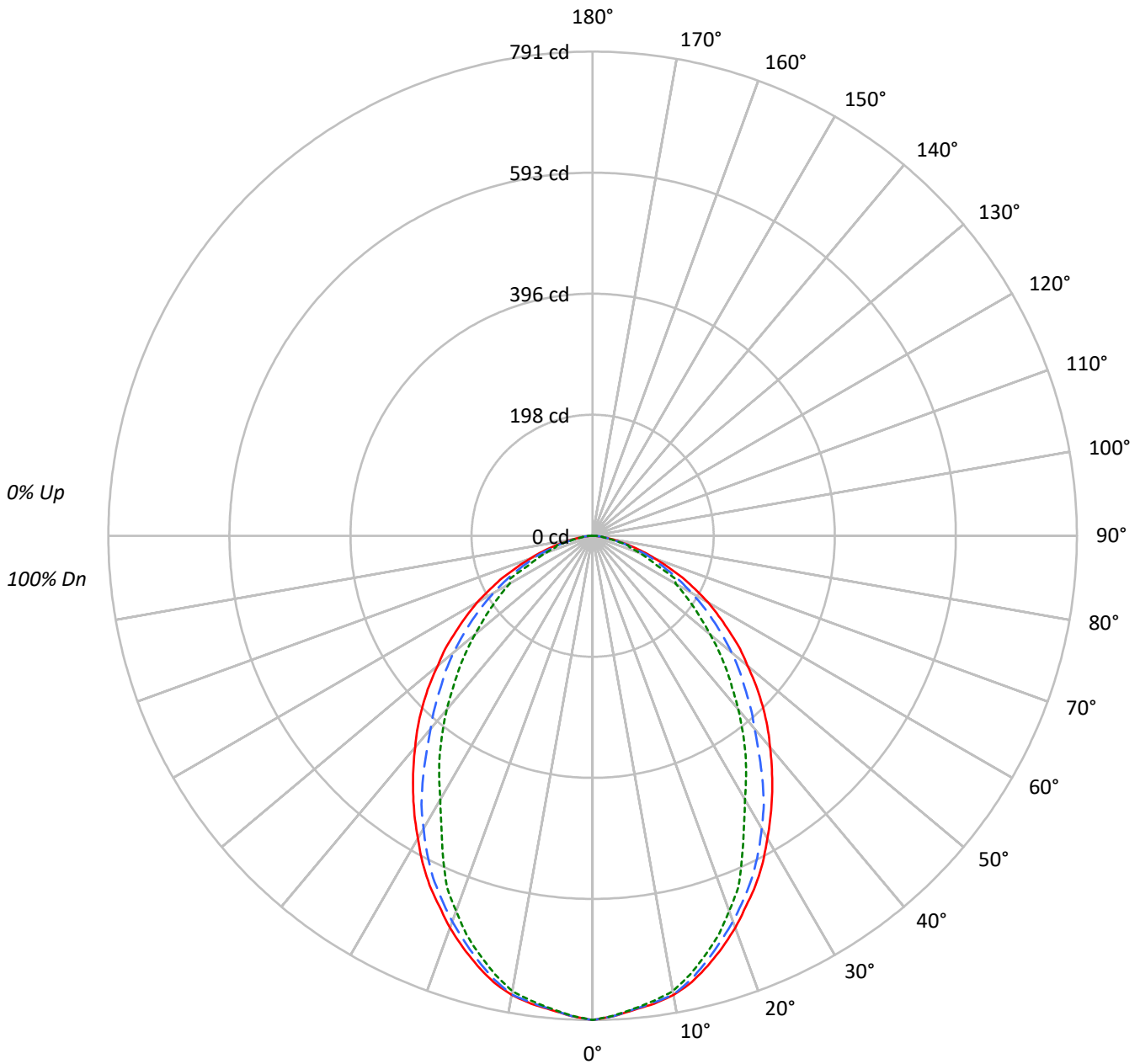
Lumens per Lamp: N/A
Luminaire Lumens: 1553.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P544999

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-82-84-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°	8515	8515	8515
5°	8400	8389	8379
10°	8326	8317	8256
15°	8103	8020	7909
20°	7804	7679	7470
25°	7483	7321	6865
30°	7093	6866	6183
35°	6717	6345	5720
40°	6336	5782	5205
45°	5972	5346	4705
50°	5528	4962	4196
55°	5114	4496	3759
60°	4687	4017	3367
65°	4124	3517	2982
70°	3396	3081	2533
75°	2699	2358	2470
80°	1816	1698	1587
85°	1124	1359	1581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	4.7
10°-20°	202.1	13.0
20°-30°	279.8	18.0
30°-40°	298.3	19.2
40°-50°	272.2	17.5
50°-60°	213.2	13.7
60°-70°	139.0	8.9
70°-80°	61.6	4.0
80°-90°	13.2	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°	555.5	35.8
0°-40°	853.9	55.0
0°-60°	1339.2	86.2
0°-90°	1553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	777	776	776	776	776	74
15°	727	727	720	712	710	204
25°	630	626	616	594	578	289
35°	511	508	483	446	435	320
45°	392	384	351	322	309	302
55°	272	264	240	211	200	244
65°	162	153	138	141	117	160
75°	65	60	57	54	59	70
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°	791.1	791.1	791.1	791.1	791.1
2.5°	785.6	785.6	785.6	784.7	784.7
5°	777.4	776.4	776.4	775.5	775.5
7.5°	771.0	770.0	769.1	768.2	766.4
10°	761.8	761.8	760.9	756.3	755.4
12.5°	747.2	746.3	742.6	736.2	734.4
15°	727.1	727.1	719.7	712.4	709.7
17.5°	705.1	704.2	695.1	687.7	684.1
20°	681.3	679.5	670.4	658.5	652.1
22.5°	654.8	654.8	643.8	628.3	621.9
25°	630.1	626.5	616.4	594.5	578.0
27.5°	601.8	596.3	585.3	554.2	535.0
30°	570.7	567.9	552.4	512.1	497.5
32.5°	541.4	536.8	520.4	478.3	466.4
35°	511.2	507.6	482.9	446.3	435.3
37.5°	481.0	476.5	445.4	416.1	402.4
40°	450.9	445.4	411.5	385.0	370.4
42.5°	422.5	415.2	382.3	353.9	337.5
45°	392.3	384.1	351.2	321.9	309.1
47.5°	362.2	354.8	324.7	294.5	279.8
50°	330.1	323.7	296.3	266.1	250.6
52.5°	303.6	293.6	267.0	236.9	224.1
55°	272.5	264.3	239.6	211.3	200.3
57.5°	244.2	236.0	213.1	186.6	177.4
60°	217.7	205.8	186.6	163.7	156.4
62.5°	188.4	179.2	162.8	143.6	152.7
65°	161.9	152.7	138.1	140.8	117.1
67.5°	132.6	128.0	115.2	102.4	98.8
70°	107.9	102.4	97.9	84.1	80.5
72.5°	86.0	80.5	74.1	66.8	64.0
75°	64.9	60.4	56.7	54.0	59.4
77.5°	44.8	43.0	40.2	37.5	36.6
80°	29.3	28.4	27.4	26.5	25.6
82.5°	17.4	17.4	17.4	17.4	17.4
85°	9.1	10.1	11.0	11.9	12.8
87.5°	5.5	5.5	6.4	7.3	8.2
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)