

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: P544954

Luminaire Tested: **FMR-12-1-LD4-2HI-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: P544954
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-80-87-EDD
Description: 1X1 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

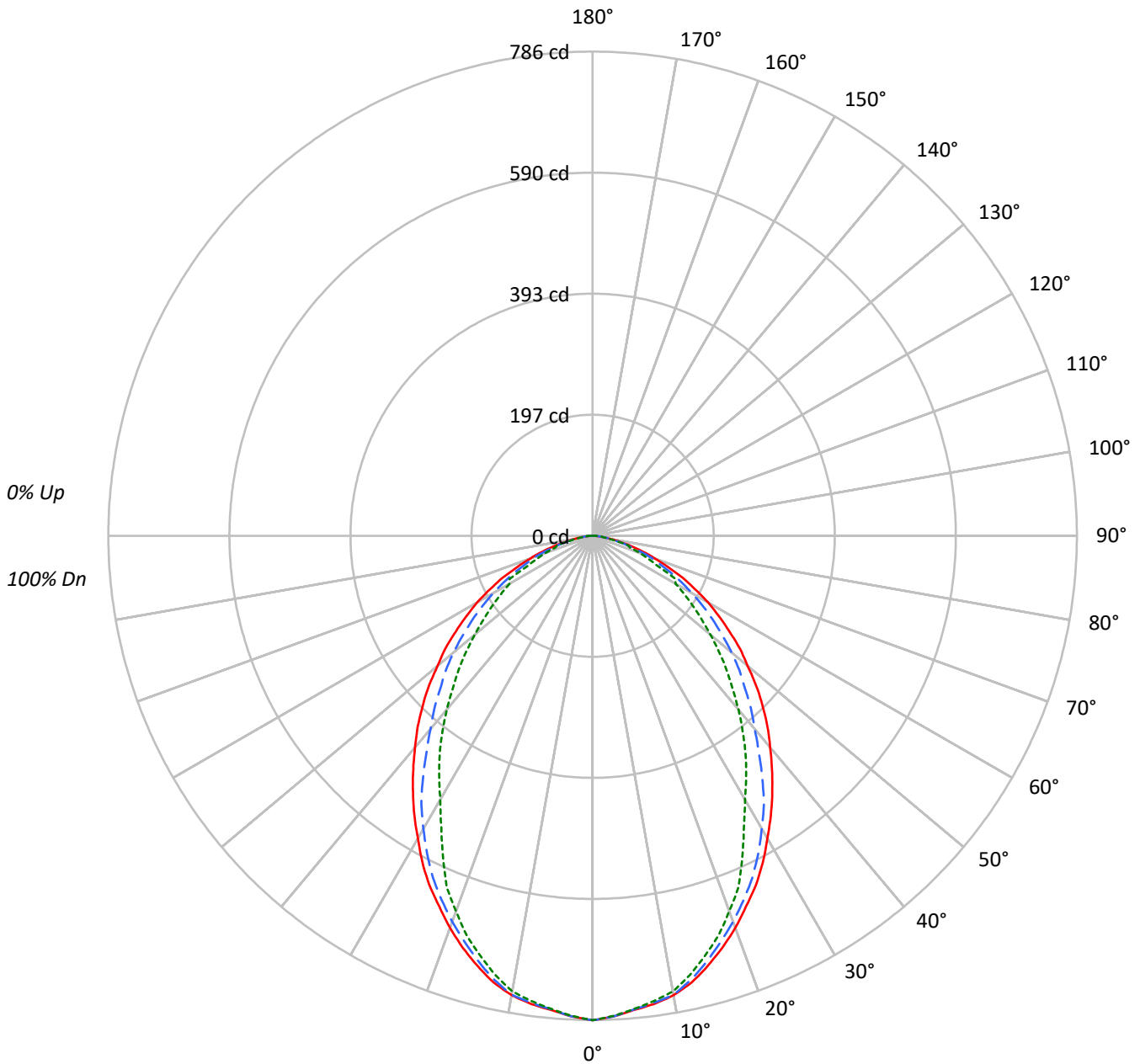
Lumens per Lamp: N/A
Luminaire Lumens: 1544.0 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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				100				
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8466	8466	8466
5°	8351	8340	8331
10°	8278	8269	8208
15°	8055	7974	7863
20°	7759	7635	7426
25°	7441	7278	6824
30°	7052	6826	6147
35°	6679	6309	5687
40°	6299	5750	5174
45°	5938	5314	4678
50°	5496	4933	4171
55°	5086	4470	3736
60°	4659	3993	3348
65°	4098	3497	2965
70°	3377	3062	2518
75°	2687	2346	2458
80°	1804	1692	1581
85°	1124	1346	1568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	4.7
10°-20°	200.9	13.0
20°-30°	278.2	18.0
30°-40°	296.6	19.2
40°-50°	270.6	17.5
50°-60°	212.0	13.7
60°-70°	138.2	8.9
70°-80°	61.2	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°	552.3	35.8
0°-40°	848.9	55.0
0°-60°	1331.5	86.2
0°-90°	1544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1544.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	773	772	772	771	771	73
15°	723	723	716	708	706	203
25°	626	623	613	591	575	288
35°	508	505	480	444	433	318
45°	390	382	349	320	307	300
55°	271	263	238	210	199	243
65°	161	152	137	140	116	159
75°	65	60	56	54	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°	786.5	786.5	786.5	786.5	786.5
2.5°	781.0	781.0	781.0	780.1	780.1
5°	772.9	771.9	771.9	771.0	771.0
7.5°	766.5	765.6	764.7	763.8	761.9
10°	757.4	757.4	756.5	751.9	751.0
12.5°	742.8	741.9	738.3	731.9	730.1
15°	722.8	722.8	715.6	708.3	705.6
17.5°	701.0	700.1	691.0	683.7	680.1
20°	677.4	675.6	666.5	654.7	648.3
22.5°	651.0	651.0	640.1	624.6	618.3
25°	626.5	622.8	612.8	591.0	574.6
27.5°	598.3	592.8	581.9	551.0	531.9
30°	567.4	564.6	549.2	509.2	494.6
32.5°	538.3	533.7	517.4	475.5	463.7
35°	508.3	504.6	480.1	443.7	432.8
37.5°	478.3	473.7	442.8	413.7	400.1
40°	448.3	442.8	409.2	382.8	368.2
42.5°	420.1	412.8	380.1	351.9	335.5
45°	390.1	381.9	349.1	320.1	307.3
47.5°	360.1	352.8	322.8	292.8	278.2
50°	328.2	321.9	294.6	264.6	249.1
52.5°	301.9	291.9	265.5	235.5	222.8
55°	271.0	262.8	238.2	210.0	199.1
57.5°	242.8	234.6	211.9	185.5	176.4
60°	216.4	204.6	185.5	162.8	155.5
62.5°	187.3	178.2	161.8	142.8	151.8
65°	160.9	151.8	137.3	140.0	116.4
67.5°	131.8	127.3	114.6	101.8	98.2
70°	107.3	101.8	97.3	83.7	80.0
72.5°	85.5	80.0	73.6	66.4	63.6
75°	64.6	60.0	56.4	53.6	59.1
77.5°	44.6	42.7	40.0	37.3	36.4
80°	29.1	28.2	27.3	26.4	25.5
82.5°	17.3	17.3	17.3	17.3	17.3
85°	9.1	10.0	10.9	11.8	12.7
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)