

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: P545256

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-82-85-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: P545256
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-82-85-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

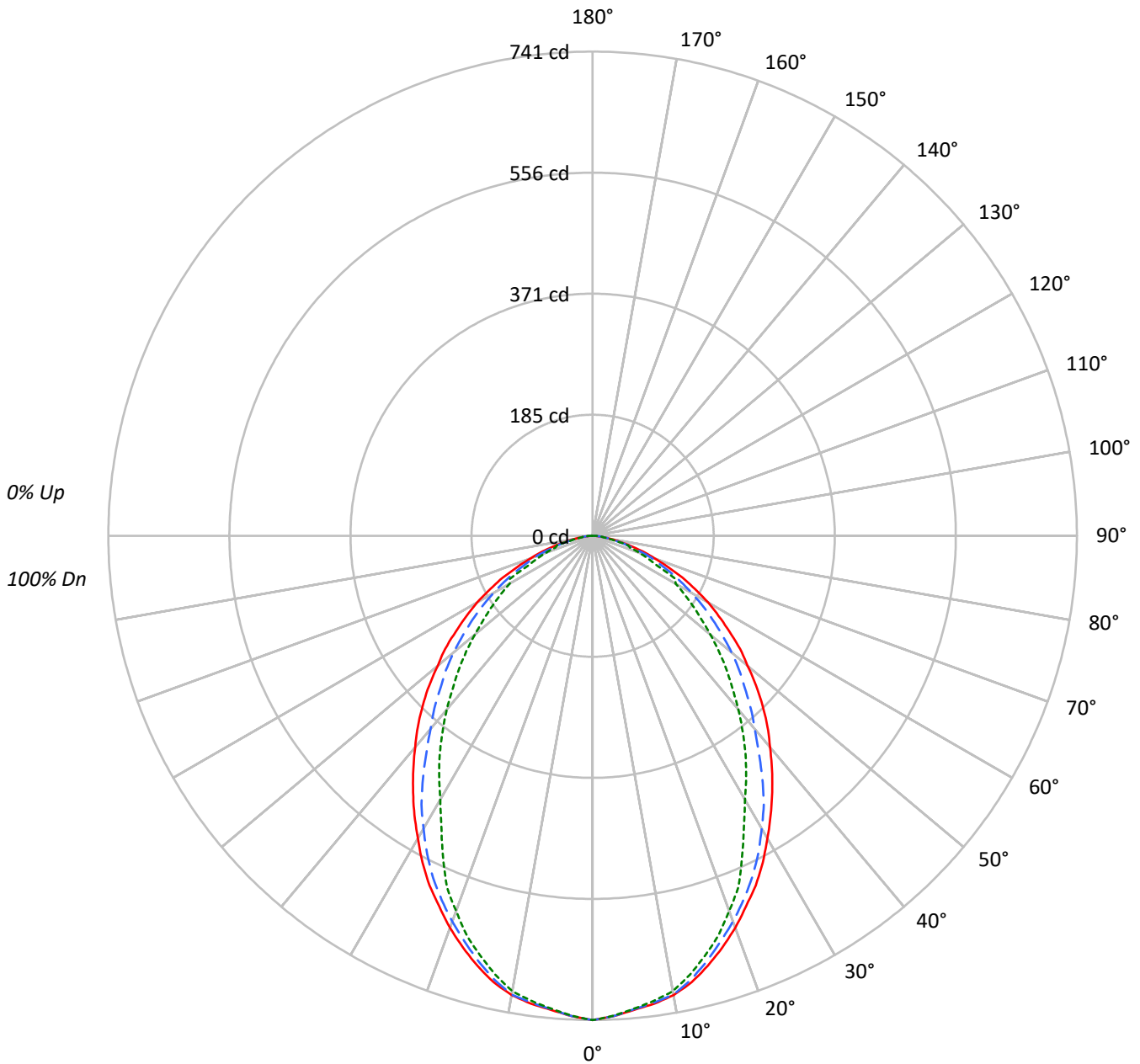
Lumens per Lamp: N/A
Luminaire Lumens: 1455.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (A_{in}): 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								
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°	3989	3989	3989
5°	3935	3930	3925
10°	3900	3896	3868
15°	3796	3757	3705
20°	3656	3597	3499
25°	3506	3429	3216
30°	3323	3216	2897
35°	3147	2972	2680
40°	2968	2709	2438
45°	2798	2504	2204
50°	2590	2324	1966
55°	2396	2107	1760
60°	2195	1882	1577
65°	1932	1648	1397
70°	1591	1443	1186
75°	1264	1104	1158
80°	849	797	744
85°	531	636	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	4.7
10°-20°	189.3	13.0
20°-30°	262.1	18.0
30°-40°	279.5	19.2
40°-50°	255.0	17.5
50°-60°	199.8	13.7
60°-70°	130.2	8.9
70°-80°	57.7	4.0
80°-90°	12.4	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°	520.5	35.8
0°-40°	800.0	55.0
0°-60°	1254.7	86.2
0°-90°	1455.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1455.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	728	727	727	727	727	69
15°	681	681	674	668	665	191
25°	590	587	578	557	542	271
35°	479	476	452	418	408	299
45°	368	360	329	302	290	283
55°	255	248	224	198	188	229
65°	152	143	129	132	110	149
75°	61	57	53	51	56	65
85°	9	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°	741.2	741.2	741.2	741.2	741.2
2.5°	736.0	736.0	736.0	735.2	735.2
5°	728.3	727.4	727.4	726.6	726.6
7.5°	722.3	721.5	720.6	719.7	718.0
10°	713.7	713.7	712.9	708.6	707.7
12.5°	700.0	699.2	695.7	689.7	688.0
15°	681.2	681.2	674.3	667.5	664.9
17.5°	660.6	659.8	651.2	644.3	640.9
20°	638.3	636.6	628.1	616.9	610.9
22.5°	613.5	613.5	603.2	588.6	582.6
25°	590.4	586.9	577.5	556.9	541.5
27.5°	563.8	558.7	548.4	519.2	501.2
30°	534.7	532.1	517.5	479.8	466.1
32.5°	507.2	503.0	487.5	448.1	437.0
35°	479.0	475.5	452.4	418.1	407.9
37.5°	450.7	446.4	417.3	389.9	377.0
40°	422.4	417.3	385.6	360.7	347.0
42.5°	395.9	389.0	358.2	331.6	316.2
45°	367.6	359.9	329.0	301.6	289.6
47.5°	339.3	332.4	304.2	275.9	262.2
50°	309.3	303.3	277.6	249.3	234.8
52.5°	284.5	275.0	250.2	221.9	209.9
55°	255.3	247.6	224.5	197.9	187.6
57.5°	228.8	221.1	199.6	174.8	166.2
60°	203.9	192.8	174.8	153.4	146.5
62.5°	176.5	167.9	152.5	134.5	143.1
65°	151.7	143.1	129.4	132.0	109.7
67.5°	124.2	120.0	108.0	96.0	92.5
70°	101.1	96.0	91.7	78.8	75.4
72.5°	80.5	75.4	69.4	62.5	60.0
75°	60.8	56.6	53.1	50.6	55.7
77.5°	42.0	40.3	37.7	35.1	34.3
80°	27.4	26.6	25.7	24.8	24.0
82.5°	16.3	16.3	16.3	16.3	16.3
85°	8.6	9.4	10.3	11.1	12.0
87.5°	5.1	5.1	6.0	6.9	7.7
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)