

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: P544747

Luminaire Tested: **FMR-12-1-LD4-1HI-50-UNV-82-88-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: P544747
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-LD4-1HI-50-UNV-82-88-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

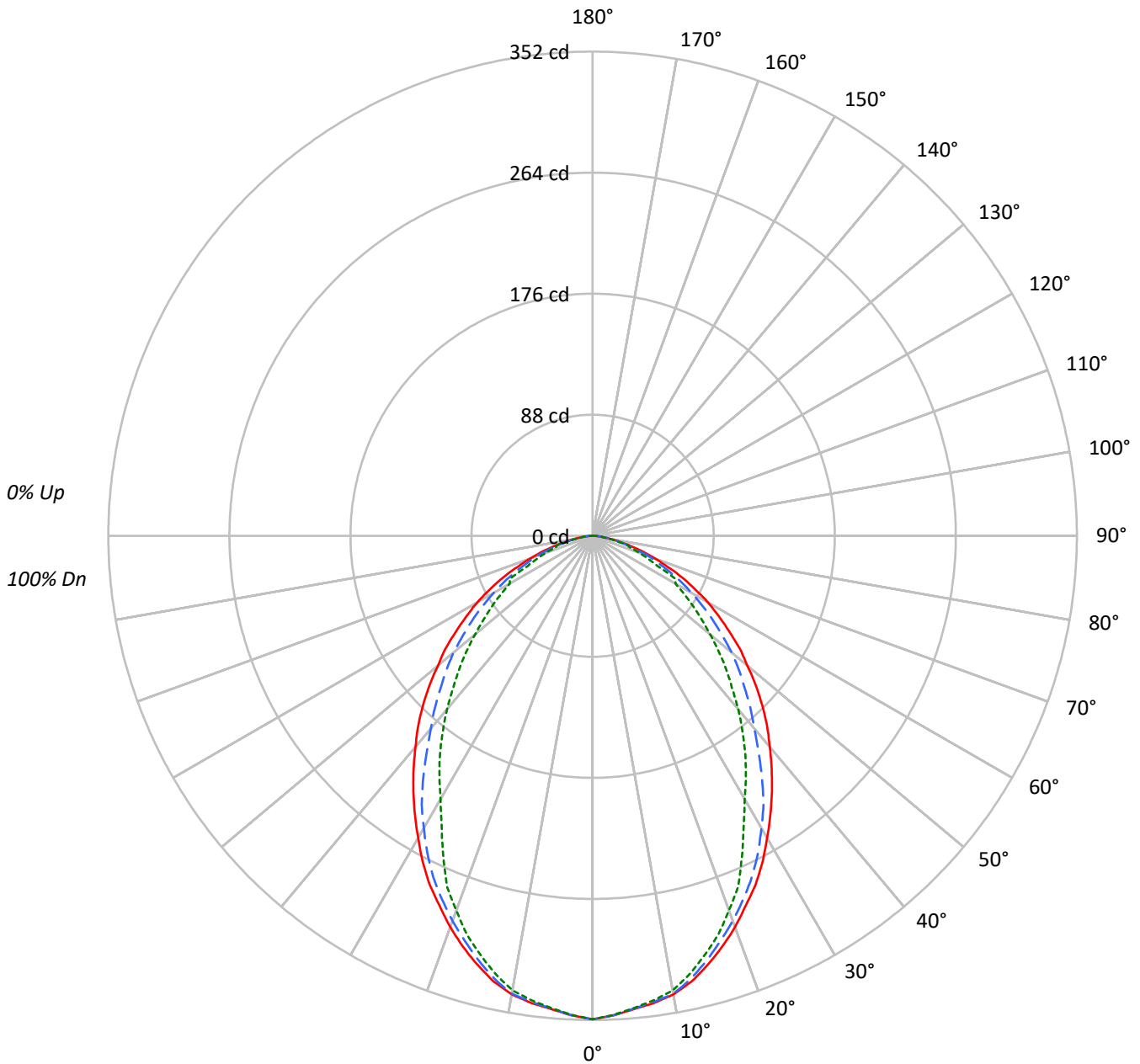
Lumens per Lamp: N/A
Luminaire Lumens: 690.0 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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									
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°	3784	3784	3784
5°	3732	3728	3723
10°	3700	3695	3668
15°	3599	3564	3514
20°	3467	3411	3318
25°	3325	3253	3050
30°	3152	3050	2747
35°	2984	2819	2541
40°	2814	2569	2313
45°	2653	2375	2090
50°	2457	2205	1864
55°	2273	1999	1670
60°	2082	1785	1496
65°	1831	1564	1324
70°	1507	1369	1127
75°	1198	1048	1098
80°	806	756	707
85°	506	605	704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.7	4.7
10°-20°	89.8	13.0
20°-30°	124.3	18.0
30°-40°	132.5	19.2
40°-50°	120.9	17.5
50°-60°	94.7	13.7
60°-70°	61.7	8.9
70°-80°	27.4	4.0
80°-90°	5.9	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°	246.8	35.8
0°-40°	379.4	55.0
0°-60°	595.0	86.2
0°-90°	690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	690.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	352	352	352	352	352	
5°	345	345	345	345	345	33
15°	323	323	320	316	315	91
25°	280	278	274	264	257	129
35°	227	226	214	198	193	142
45°	174	171	156	143	137	134
55°	121	117	106	94	89	109
65°	72	68	61	63	52	71
75°	29	27	25	24	26	31
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	351.5	351.5	351.5	351.5	351.5
2.5°	349.0	349.0	349.0	348.6	348.6
5°	345.4	345.0	345.0	344.6	344.6
7.5°	342.5	342.1	341.7	341.3	340.5
10°	338.5	338.5	338.1	336.0	335.6
12.5°	332.0	331.6	329.9	327.1	326.3
15°	323.0	323.0	319.8	316.5	315.3
17.5°	313.3	312.9	308.8	305.6	303.9
20°	302.7	301.9	297.8	292.6	289.7
22.5°	290.9	290.9	286.1	279.1	276.3
25°	280.0	278.3	273.9	264.1	256.8
27.5°	267.4	264.9	260.1	246.2	237.7
30°	253.6	252.3	245.4	227.5	221.0
32.5°	240.5	238.5	231.2	212.5	207.2
35°	227.1	225.5	214.5	198.3	193.4
37.5°	213.7	211.7	197.9	184.9	178.8
40°	200.3	197.9	182.8	171.1	164.6
42.5°	187.7	184.5	169.8	157.3	149.9
45°	174.3	170.7	156.0	143.0	137.3
47.5°	160.9	157.7	144.2	130.8	124.3
50°	146.7	143.8	131.7	118.2	111.3
52.5°	134.9	130.4	118.6	105.2	99.6
55°	121.1	117.4	106.5	93.9	89.0
57.5°	108.5	104.8	94.7	82.9	78.8
60°	96.7	91.4	82.9	72.7	69.5
62.5°	83.7	79.6	72.3	63.8	67.9
65°	71.9	67.9	61.4	62.6	52.0
67.5°	58.9	56.9	51.2	45.5	43.9
70°	47.9	45.5	43.5	37.4	35.8
72.5°	38.2	35.8	32.9	29.7	28.4
75°	28.8	26.8	25.2	24.0	26.4
77.5°	19.9	19.1	17.9	16.7	16.3
80°	13.0	12.6	12.2	11.8	11.4
82.5°	7.7	7.7	7.7	7.7	7.7
85°	4.1	4.5	4.9	5.3	5.7
87.5°	2.4	2.4	2.8	3.3	3.7
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)