

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: P545035

Luminaire Tested: **FMR-12-1-LD4-2HI-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: P545035
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-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

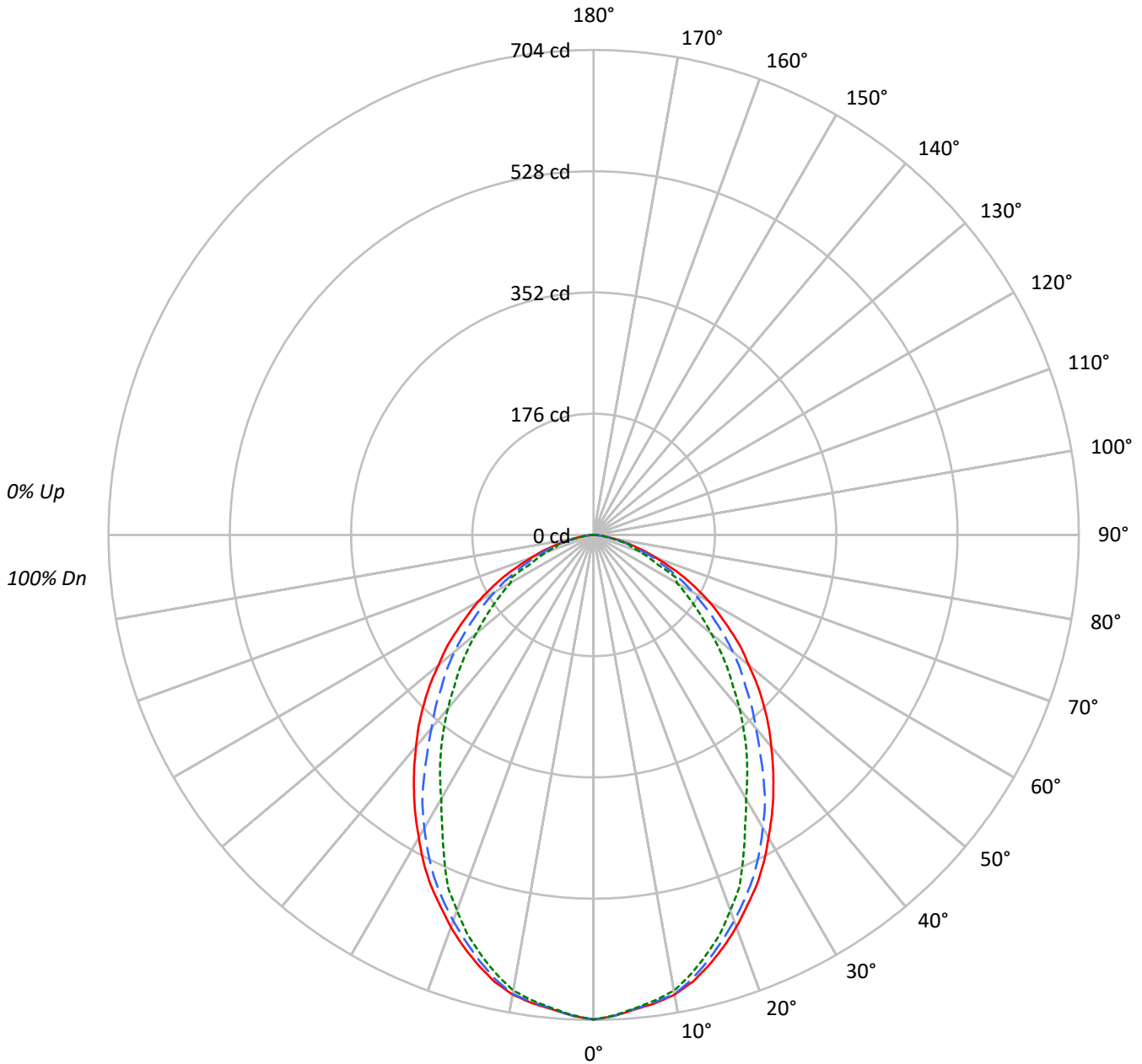
Lumens per Lamp: N/A
Luminaire Lumens: 1381.0 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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									
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°	7572	7572	7572
5°	7470	7461	7451
10°	7404	7395	7342
15°	7204	7132	7033
20°	6940	6828	6641
25°	6654	6510	6105
30°	6308	6105	5499
35°	5974	5642	5087
40°	5633	5143	4628
45°	5311	4754	4185
50°	4917	4412	3731
55°	4547	3999	3342
60°	4168	3571	2995
65°	3665	3128	2651
70°	3021	2738	2253
75°	2400	2096	2200
80°	1612	1512	1413
85°	1000	1210	1408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	4.7
10°-20°	179.7	13.0
20°-30°	248.8	18.0
30°-40°	265.3	19.2
40°-50°	242.0	17.5
50°-60°	189.6	13.7
60°-70°	123.6	8.9
70°-80°	54.7	4.0
80°-90°	11.8	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°	494.0	35.8
0°-40°	759.3	55.0
0°-60°	1190.9	86.2
0°-90°	1381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	691	690	690	690	690	66
15°	646	646	640	634	631	182
25°	560	557	548	529	514	257
35°	455	451	429	397	387	284
45°	349	342	312	286	275	269
55°	242	235	213	188	178	217
65°	144	136	123	125	104	142
75°	58	54	50	48	53	62
85°	8	9	10	11	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.5	703.5	703.5	703.5	703.5
2.5°	698.6	698.6	698.6	697.8	697.8
5°	691.3	690.5	690.5	689.6	689.6
7.5°	685.6	684.8	683.9	683.1	681.5
10°	677.4	677.4	676.6	672.6	671.7
12.5°	664.4	663.6	660.4	654.7	653.0
15°	646.5	646.5	640.0	633.5	631.1
17.5°	627.0	626.2	618.1	611.6	608.3
20°	605.9	604.2	596.1	585.5	579.8
22.5°	582.3	582.3	572.5	558.7	553.0
25°	560.3	557.1	548.1	528.6	514.0
27.5°	535.1	530.2	520.5	492.8	475.8
30°	507.5	505.0	491.2	455.4	442.4
32.5°	481.4	477.4	462.7	425.3	414.8
35°	454.6	451.4	429.4	396.9	387.1
37.5°	427.8	423.7	396.1	370.0	357.8
40°	400.9	396.1	366.0	342.4	329.4
42.5°	375.7	369.2	339.9	314.7	300.1
45°	348.9	341.6	312.3	286.3	274.9
47.5°	322.0	315.5	288.7	261.9	248.9
50°	293.6	287.9	263.5	236.7	222.8
52.5°	270.0	261.1	237.5	210.6	199.2
55°	242.3	235.0	213.1	187.9	178.1
57.5°	217.1	209.8	189.5	165.9	157.8
60°	193.6	183.0	165.9	145.6	139.1
62.5°	167.5	159.4	144.8	127.7	135.8
65°	143.9	135.8	122.8	125.2	104.1
67.5°	117.9	113.9	102.5	91.1	87.8
70°	96.0	91.1	87.0	74.8	71.6
72.5°	76.4	71.6	65.9	59.4	56.9
75°	57.7	53.7	50.4	48.0	52.9
77.5°	39.8	38.2	35.8	33.3	32.5
80°	26.0	25.2	24.4	23.6	22.8
82.5°	15.5	15.5	15.5	15.5	15.5
85°	8.1	8.9	9.8	10.6	11.4
87.5°	4.9	4.9	5.7	6.5	7.3
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)