

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: P545017

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-80-86-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: P545017
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-80-86-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

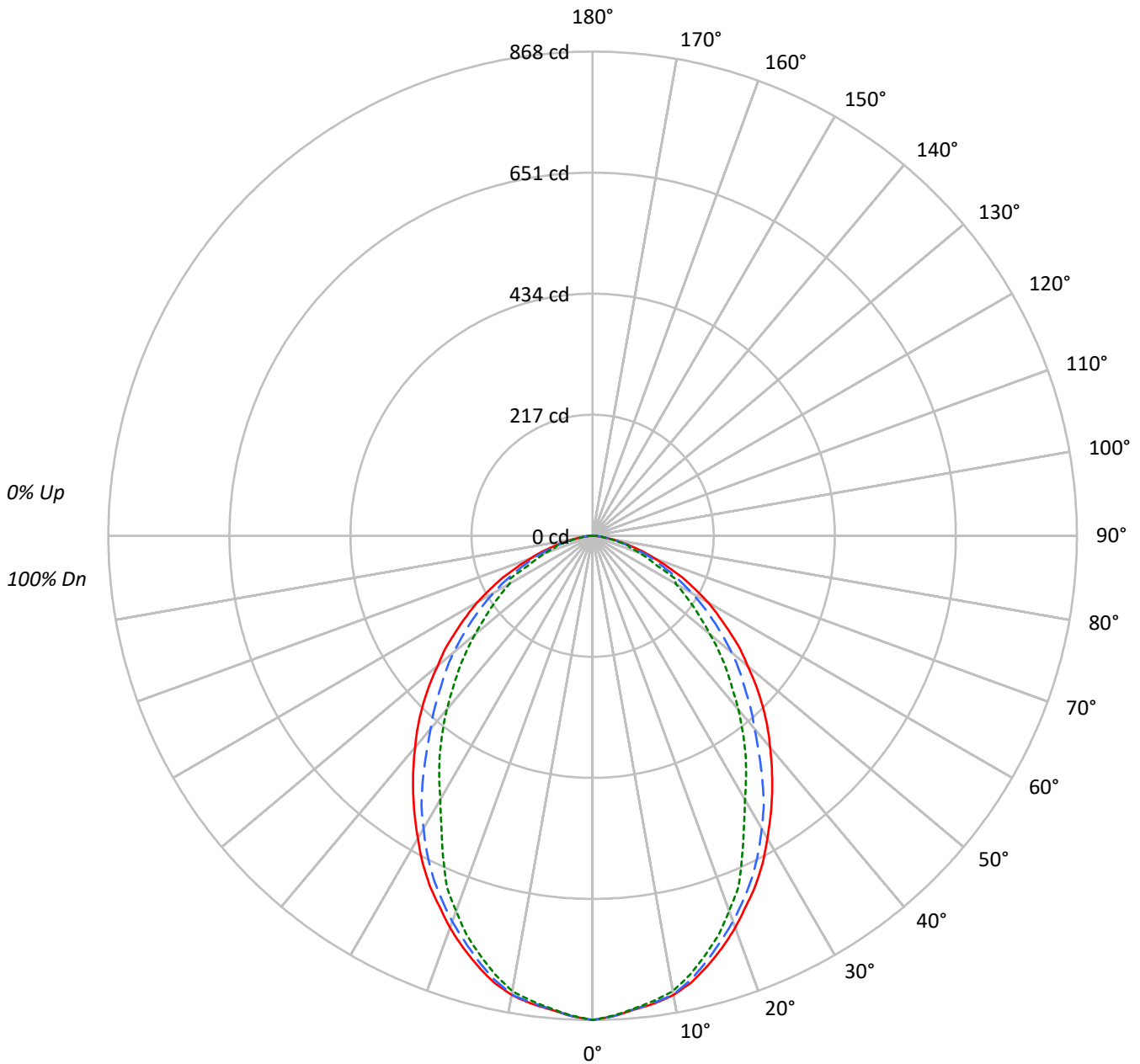
Lumens per Lamp: N/A
Luminaire Lumens: 1704.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	9343	9343	9343
5°	9216	9205	9194
10°	9136	9125	9060
15°	8890	8800	8678
20°	8564	8425	8196
25°	8212	8032	7532
30°	7783	7533	6785
35°	7370	6962	6276
40°	6951	6346	5710
45°	6553	5865	5163
50°	6065	5444	4603
55°	5611	4934	4125
60°	5141	4407	3694
65°	4523	3859	3270
70°	3726	3380	2779
75°	2961	2587	2712
80°	1990	1866	1742
85°	1235	1482	1729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.8	4.7
10°-20°	221.7	13.0
20°-30°	307.0	18.0
30°-40°	327.3	19.2
40°-50°	298.6	17.5
50°-60°	233.9	13.7
60°-70°	152.5	8.9
70°-80°	67.6	4.0
80°-90°	14.5	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°	609.5	35.8
0°-40°	936.9	55.0
0°-60°	1469.5	86.2
0°-90°	1704.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1704.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	853	852	852	851	851	81
15°	798	798	790	782	779	224
25°	691	687	676	652	634	317
35°	561	557	530	490	478	351
45°	430	422	385	353	339	332
55°	299	290	263	232	220	268
65°	178	168	152	154	128	175
75°	71	66	62	59	65	76
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	868.0	868.0	868.0	868.0	868.0
2.5°	862.0	862.0	862.0	861.0	861.0
5°	852.9	851.9	851.9	850.9	850.9
7.5°	845.9	844.9	843.9	842.9	840.9
10°	835.9	835.9	834.9	829.9	828.9
12.5°	819.8	818.8	814.8	807.8	805.8
15°	797.8	797.8	789.7	781.7	778.7
17.5°	773.7	772.7	762.6	754.6	750.6
20°	747.6	745.6	735.5	722.5	715.5
22.5°	718.5	718.5	706.4	689.4	682.4
25°	691.4	687.4	676.3	652.3	634.2
27.5°	660.3	654.3	642.2	608.1	587.0
30°	626.2	623.2	606.1	561.9	545.9
32.5°	594.0	589.0	571.0	524.8	511.8
35°	560.9	556.9	529.8	489.7	477.6
37.5°	527.8	522.8	488.7	456.6	441.5
40°	494.7	488.7	451.6	422.5	406.4
42.5°	463.6	455.6	419.4	388.3	370.3
45°	430.5	421.5	385.3	353.2	339.2
47.5°	397.4	389.3	356.2	323.1	307.1
50°	362.2	355.2	325.1	292.0	274.9
52.5°	333.1	322.1	293.0	259.9	245.8
55°	299.0	290.0	262.9	231.8	219.8
57.5°	267.9	258.9	233.8	204.7	194.7
60°	238.8	225.8	204.7	179.6	171.6
62.5°	206.7	196.7	178.6	157.5	167.6
65°	177.6	167.6	151.5	154.5	128.4
67.5°	145.5	140.5	126.4	112.4	108.4
70°	118.4	112.4	107.4	92.3	88.3
72.5°	94.3	88.3	81.3	73.3	70.2
75°	71.2	66.2	62.2	59.2	65.2
77.5°	49.2	47.2	44.2	41.1	40.1
80°	32.1	31.1	30.1	29.1	28.1
82.5°	19.1	19.1	19.1	19.1	19.1
85°	10.0	11.0	12.0	13.0	14.0
87.5°	6.0	6.0	7.0	8.0	9.0
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)