

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: P545026

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-81-87-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: P545026
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-81-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

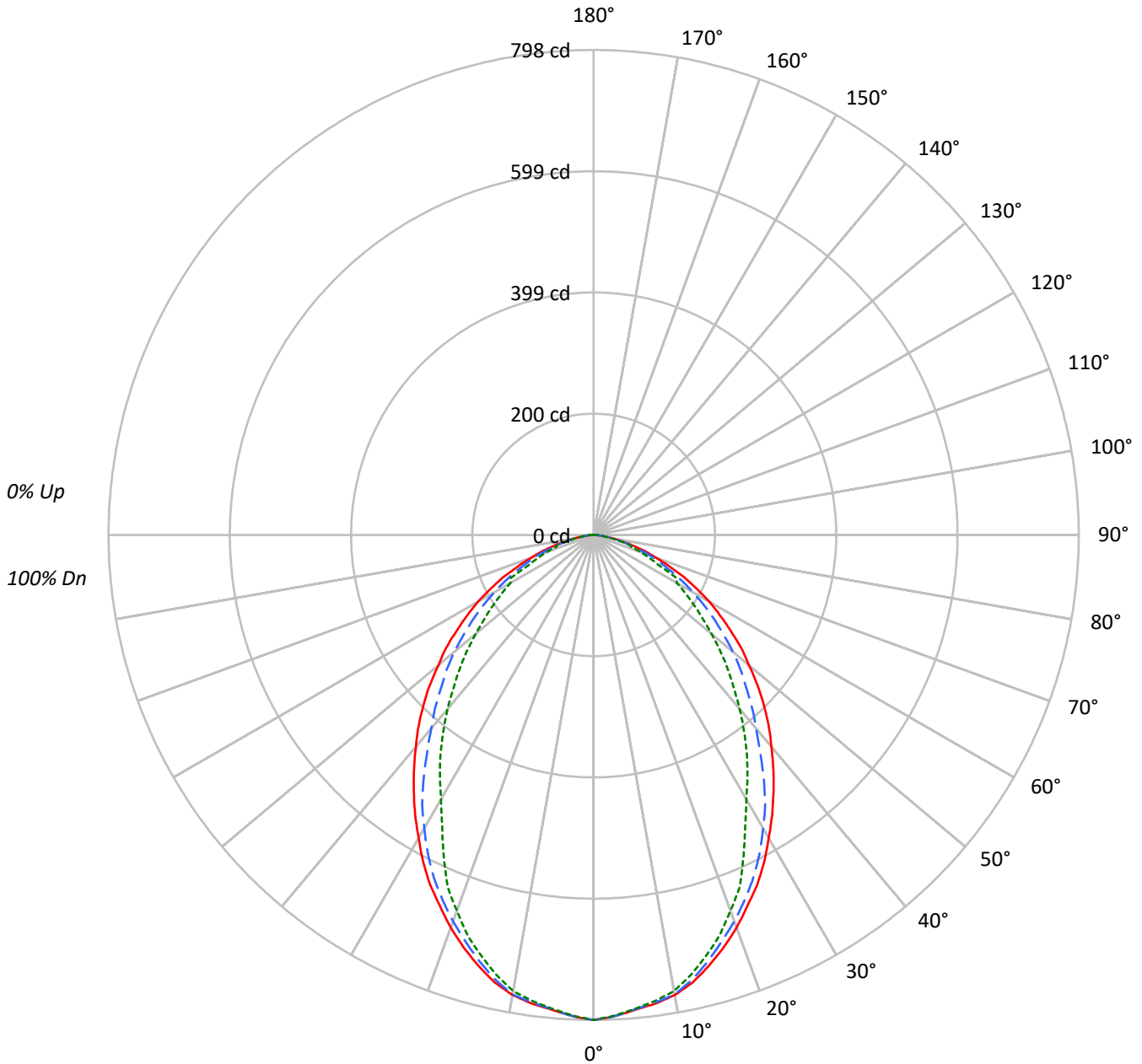
Lumens per Lamp: N/A
Luminaire Lumens: 1567.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P545026

CATALOG NUMBER: FMR-12-1-LD4-2HI-50-UNV-81-87-EDD

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8592	8592	8592
5°	8475	8465	8455
10°	8402	8392	8331
15°	8175	8093	7980
20°	7875	7748	7536
25°	7551	7387	6926
30°	7157	6928	6239
35°	6778	6402	5771
40°	6392	5836	5251
45°	6027	5393	4748
50°	5578	5007	4233
55°	5161	4538	3793
60°	4728	4052	3397
65°	4159	3548	3008
70°	3427	3106	2555
75°	2724	2379	2495
80°	1829	1717	1599
85°	1136	1371	1593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	4.7
10°-20°	203.9	13.0
20°-30°	282.3	18.0
30°-40°	301.0	19.2
40°-50°	274.6	17.5
50°-60°	215.1	13.7
60°-70°	140.2	8.9
70°-80°	62.1	4.0
80°-90°	13.3	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°	560.5	35.8
0°-40°	861.5	55.0
0°-60°	1351.3	86.2
0°-90°	1567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	798	798	798	798	798	
5°	784	783	783	782	782	74
15°	734	734	726	719	716	206
25°	636	632	622	600	583	292
35°	516	512	487	450	439	322
45°	396	388	354	325	312	305
55°	275	267	242	213	202	247
65°	163	154	139	142	118	161
75°	66	61	57	54	60	70
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°	798.2	798.2	798.2	798.2	798.2
2.5°	792.7	792.7	792.7	791.7	791.7
5°	784.4	783.4	783.4	782.5	782.5
7.5°	777.9	777.0	776.1	775.1	773.3
10°	768.7	768.7	767.8	763.1	762.2
12.5°	753.9	753.0	749.3	742.8	741.0
15°	733.6	733.6	726.2	718.8	716.1
17.5°	711.5	710.5	701.3	693.9	690.2
20°	687.5	685.6	676.4	664.4	657.9
22.5°	660.7	660.7	649.6	634.0	627.5
25°	635.8	632.1	622.0	599.8	583.2
27.5°	607.2	601.7	590.6	559.2	539.8
30°	575.8	573.0	557.4	516.8	502.0
32.5°	546.3	541.7	525.1	482.6	470.6
35°	515.8	512.1	487.2	450.3	439.2
37.5°	485.4	480.8	449.4	419.9	406.0
40°	454.9	449.4	415.3	388.5	373.7
42.5°	426.3	418.9	385.7	357.1	340.5
45°	395.9	387.6	354.3	324.8	311.9
47.5°	365.4	358.0	327.6	297.1	282.4
50°	333.1	326.7	299.0	268.5	252.8
52.5°	306.4	296.2	269.5	239.0	226.1
55°	275.0	266.7	241.8	213.2	202.1
57.5°	246.4	238.1	215.0	188.2	179.0
60°	219.6	207.6	188.2	165.2	157.8
62.5°	190.1	180.9	164.3	144.9	154.1
65°	163.3	154.1	139.3	142.1	118.1
67.5°	133.8	129.2	116.3	103.4	99.7
70°	108.9	103.4	98.7	84.9	81.2
72.5°	86.7	81.2	74.7	67.4	64.6
75°	65.5	60.9	57.2	54.4	60.0
77.5°	45.2	43.4	40.6	37.8	36.9
80°	29.5	28.6	27.7	26.8	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.2	11.1	12.0	12.9
87.5°	5.5	5.5	6.5	7.4	8.3
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)