

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: P545132

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-82-94-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: P545132
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-LD4-2LO-50-UNV-82-94-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

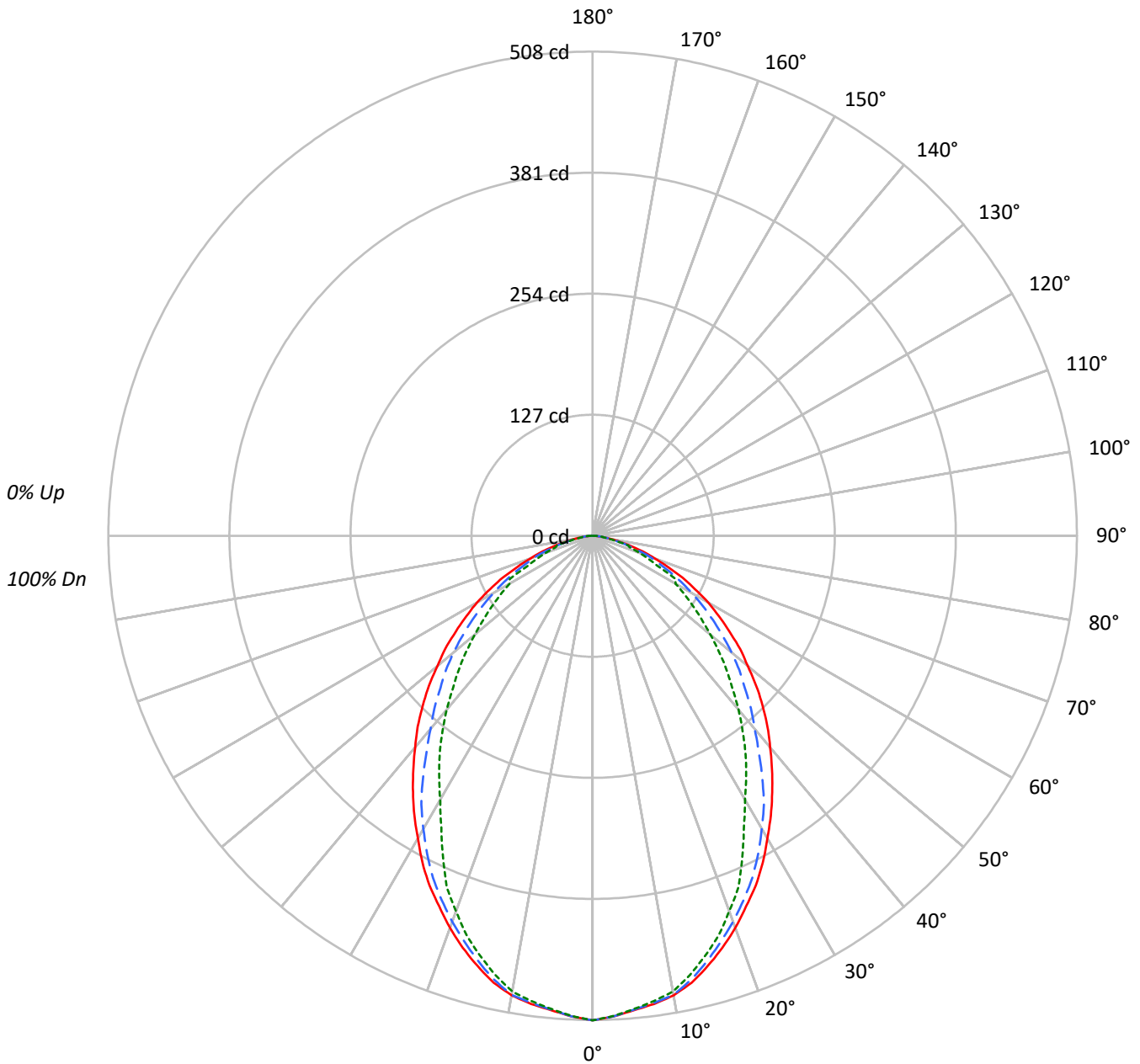
Lumens per Lamp: N/A
Luminaire Lumens: 998.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	5472	5472	5472
5°	5398	5392	5385
10°	5351	5345	5305
15°	5206	5154	5083
20°	5015	4935	4800
25°	4809	4704	4411
30°	4558	4412	3974
35°	4317	4077	3675
40°	4071	3717	3344
45°	3838	3436	3023
50°	3553	3188	2696
55°	3286	2890	2415
60°	3012	2581	2164
65°	2649	2259	1915
70°	2181	1980	1627
75°	1734	1514	1589
80°	1165	1091	1023
85°	729	877	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	4.7
10°-20°	129.9	13.0
20°-30°	179.8	18.0
30°-40°	191.7	19.2
40°-50°	174.9	17.5
50°-60°	137.0	13.7
60°-70°	89.3	8.9
70°-80°	39.6	4.0
80°-90°	8.5	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°	357.0	35.8
0°-40°	548.7	55.0
0°-60°	860.6	86.2
0°-90°	998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	500	499	499	498	498	47
15°	467	467	462	458	456	131
25°	405	403	396	382	371	186
35°	328	326	310	287	280	205
45°	252	247	226	207	199	194
55°	175	170	154	136	129	157
65°	104	98	89	90	75	103
75°	42	39	36	35	38	45
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	508.4	508.4	508.4	508.4	508.4
2.5°	504.8	504.8	504.8	504.3	504.3
5°	499.6	499.0	499.0	498.4	498.4
7.5°	495.4	494.9	494.3	493.7	492.5
10°	489.6	489.6	489.0	486.0	485.4
12.5°	480.2	479.6	477.2	473.1	471.9
15°	467.2	467.2	462.5	457.8	456.1
17.5°	453.1	452.5	446.7	442.0	439.6
20°	437.8	436.7	430.8	423.2	419.0
22.5°	420.8	420.8	413.7	403.8	399.6
25°	404.9	402.6	396.1	382.0	371.4
27.5°	386.7	383.2	376.1	356.2	343.8
30°	366.7	365.0	355.0	329.1	319.7
32.5°	347.9	345.0	334.4	307.4	299.7
35°	328.5	326.2	310.3	286.8	279.7
37.5°	309.1	306.2	286.2	267.4	258.6
40°	289.7	286.2	264.5	247.4	238.0
42.5°	271.5	266.8	245.7	227.4	216.9
45°	252.1	246.8	225.7	206.9	198.6
47.5°	232.7	228.0	208.6	189.2	179.8
50°	212.2	208.0	190.4	171.0	161.0
52.5°	195.1	188.7	171.6	152.2	144.0
55°	175.1	169.8	154.0	135.8	128.7
57.5°	156.9	151.6	136.9	119.9	114.0
60°	139.9	132.2	119.9	105.2	100.5
62.5°	121.1	115.2	104.6	92.3	98.1
65°	104.0	98.1	88.7	90.5	75.2
67.5°	85.2	82.3	74.1	65.8	63.5
70°	69.3	65.8	62.9	54.1	51.7
72.5°	55.2	51.7	47.6	42.9	41.1
75°	41.7	38.8	36.4	34.7	38.2
77.5°	28.8	27.6	25.9	24.1	23.5
80°	18.8	18.2	17.6	17.0	16.5
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.1	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
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)