

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: P545076

Luminaire Tested: **FMR-12-1-LD4-2LO-35-UNV-93-94-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: P545076
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-35-UNV-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

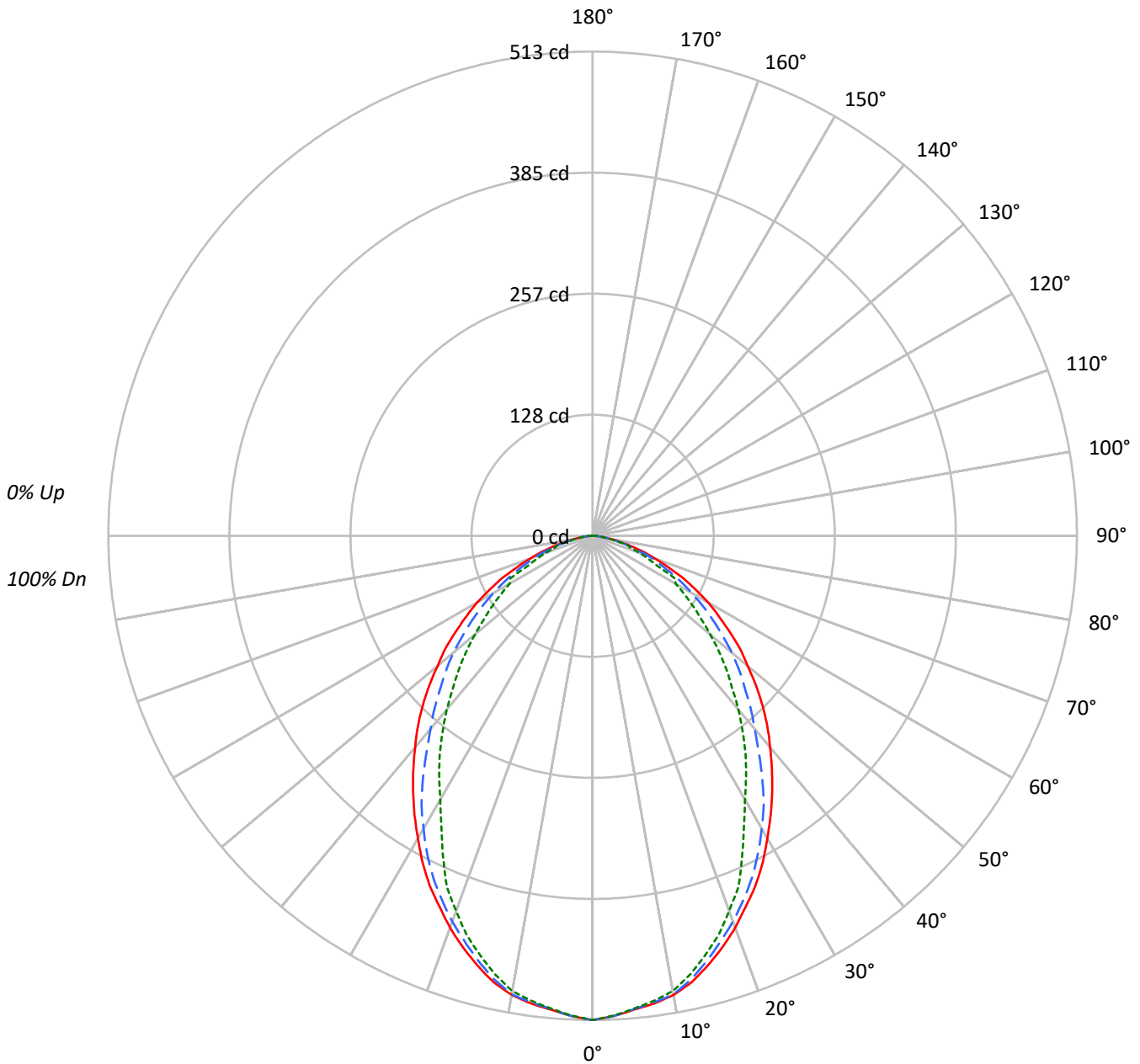
Lumens per Lamp: N/A
Luminaire Lumens: 1007.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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					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								
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°	5522	5522	5522
5°	5447	5440	5434
10°	5399	5393	5353
15°	5253	5201	5128
20°	5061	4979	4843
25°	4853	4747	4451
30°	4599	4452	4010
35°	4356	4114	3710
40°	4109	3750	3375
45°	3873	3466	3051
50°	3585	3217	2721
55°	3316	2916	2438
60°	3038	2605	2183
65°	2674	2280	1933
70°	2203	1998	1643
75°	1751	1530	1601
80°	1178	1103	1029
85°	729	877	1025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	4.7
10°-20°	131.0	13.0
20°-30°	181.4	18.0
30°-40°	193.4	19.2
40°-50°	176.5	17.5
50°-60°	138.3	13.7
60°-70°	90.1	8.9
70°-80°	39.9	4.0
80°-90°	8.6	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°	360.2	35.8
0°-40°	553.7	55.0
0°-60°	868.4	86.2
0°-90°	1007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	504	504	504	503	503	48
15°	471	471	467	462	460	133
25°	409	406	400	386	375	188
35°	332	329	313	289	282	207
45°	254	249	228	209	200	196
55°	177	171	155	137	130	158
65°	105	99	90	91	76	103
75°	42	39	37	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°	513.0	513.0	513.0	513.0	513.0
2.5°	509.4	509.4	509.4	508.8	508.8
5°	504.1	503.5	503.5	502.9	502.9
7.5°	499.9	499.3	498.7	498.1	496.9
10°	494.0	494.0	493.4	490.4	489.8
12.5°	484.5	483.9	481.5	477.4	476.2
15°	471.4	471.4	466.7	462.0	460.2
17.5°	457.2	456.6	450.7	445.9	443.6
20°	441.8	440.6	434.7	427.0	422.8
22.5°	424.6	424.6	417.5	407.4	403.2
25°	408.6	406.2	399.7	385.5	374.8
27.5°	390.2	386.6	379.5	359.4	346.9
30°	370.0	368.3	358.2	332.1	322.6
32.5°	351.1	348.1	337.4	310.1	302.4
35°	331.5	329.1	313.1	289.4	282.3
37.5°	311.9	309.0	288.8	269.8	260.9
40°	292.4	288.8	266.9	249.7	240.2
42.5°	274.0	269.2	247.9	229.5	218.8
45°	254.4	249.1	227.7	208.7	200.4
47.5°	234.8	230.1	210.5	190.9	181.5
50°	214.1	209.9	192.1	172.6	162.5
52.5°	196.9	190.4	173.2	153.6	145.3
55°	176.7	171.4	155.4	137.0	129.9
57.5°	158.3	153.0	138.2	121.0	115.0
60°	141.1	133.4	121.0	106.1	101.4
62.5°	122.2	116.2	105.6	93.1	99.0
65°	105.0	99.0	89.5	91.3	75.9
67.5°	86.0	83.0	74.7	66.4	64.0
70°	70.0	66.4	63.5	54.6	52.2
72.5°	55.7	52.2	48.0	43.3	41.5
75°	42.1	39.1	36.8	35.0	38.5
77.5°	29.1	27.9	26.1	24.3	23.7
80°	19.0	18.4	17.8	17.2	16.6
82.5°	11.3	11.3	11.3	11.3	11.3
85°	5.9	6.5	7.1	7.7	8.3
87.5°	3.6	3.6	4.2	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)