

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: P544685

Luminaire Tested: **FMR-12-1-LD4-1HI-35-UNV-82-96-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: P544685
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-LD4-1HI-35-UNV-82-96-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

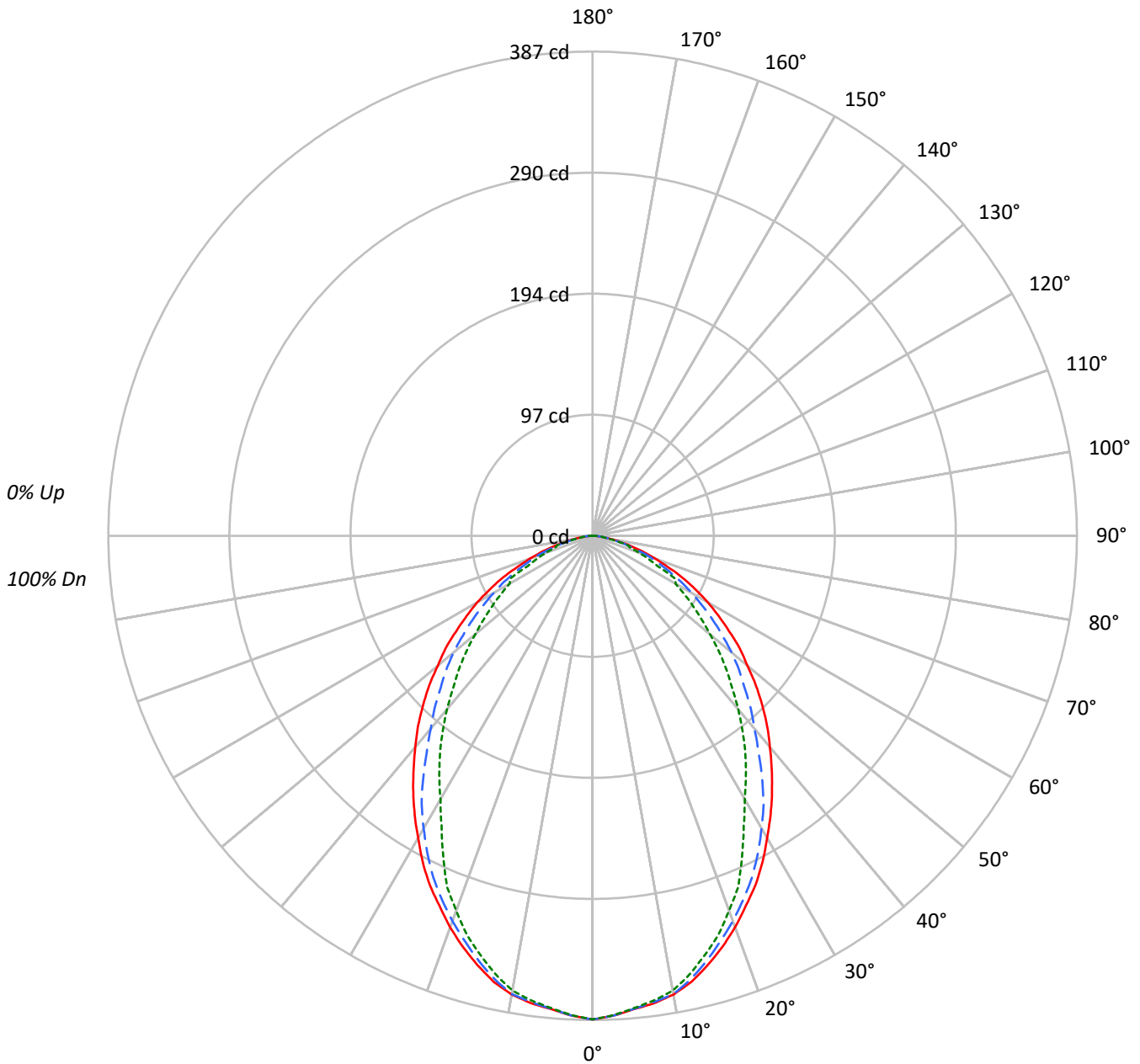
Lumens per Lamp: N/A
Luminaire Lumens: 759.0 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 10.8
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

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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	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°	4161	4161	4161
5°	4105	4101	4095
10°	4069	4065	4035
15°	3959	3920	3865
20°	3814	3753	3651
25°	3658	3578	3355
30°	3466	3356	3022
35°	3284	3101	2796
40°	3097	2826	2543
45°	2918	2612	2300
50°	2703	2425	2051
55°	2500	2198	1837
60°	2291	1963	1645
65°	2015	1719	1457
70°	1659	1504	1237
75°	1318	1152	1210
80°	886	831	775
85°	556	667	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.0	4.7
10°-20°	98.8	13.0
20°-30°	136.7	18.0
30°-40°	145.8	19.2
40°-50°	133.0	17.5
50°-60°	104.2	13.7
60°-70°	67.9	8.9
70°-80°	30.1	4.0
80°-90°	6.5	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°	271.5	35.8
0°-40°	417.3	55.0
0°-60°	654.5	86.2
0°-90°	759.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	759.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	387	387	387	387	387	
5°	380	380	380	379	379	36
15°	355	355	352	348	347	100
25°	308	306	301	290	282	141
35°	250	248	236	218	213	156
45°	192	188	172	157	151	148
55°	133	129	117	103	98	119
65°	79	75	68	69	57	78
75°	32	30	28	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	386.6	386.6	386.6	386.6	386.6
2.5°	383.9	383.9	383.9	383.5	383.5
5°	379.9	379.5	379.5	379.0	379.0
7.5°	376.8	376.3	375.9	375.5	374.6
10°	372.3	372.3	371.9	369.6	369.2
12.5°	365.2	364.7	362.9	359.8	358.9
15°	355.3	355.3	351.8	348.2	346.8
17.5°	344.6	344.2	339.7	336.1	334.3
20°	333.0	332.1	327.6	321.8	318.7
22.5°	320.0	320.0	314.7	307.1	303.9
25°	308.0	306.2	301.3	290.5	282.5
27.5°	294.1	291.4	286.1	270.9	261.5
30°	278.9	277.6	270.0	250.3	243.1
32.5°	264.6	262.4	254.3	233.8	228.0
35°	249.9	248.1	236.0	218.1	212.8
37.5°	235.1	232.9	217.7	203.4	196.7
40°	220.4	217.7	201.1	188.2	181.0
42.5°	206.5	202.9	186.8	173.0	164.9
45°	191.7	187.7	171.6	157.3	151.1
47.5°	177.0	173.4	158.7	143.9	136.8
50°	161.4	158.2	144.8	130.1	122.5
52.5°	148.4	143.5	130.5	115.8	109.5
55°	133.2	129.2	117.1	103.2	97.9
57.5°	119.3	115.3	104.1	91.2	86.7
60°	106.4	100.6	91.2	80.0	76.4
62.5°	92.1	87.6	79.6	70.2	74.6
65°	79.1	74.6	67.5	68.8	57.2
67.5°	64.8	62.6	56.3	50.1	48.3
70°	52.7	50.1	47.8	41.1	39.3
72.5°	42.0	39.3	36.2	32.6	31.3
75°	31.7	29.5	27.7	26.4	29.1
77.5°	21.9	21.0	19.7	18.3	17.9
80°	14.3	13.9	13.4	13.0	12.5
82.5°	8.5	8.5	8.5	8.5	8.5
85°	4.5	4.9	5.4	5.8	6.3
87.5°	2.7	2.7	3.1	3.6	4.0
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)