

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: P544979

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-93-88-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: P544979
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-35-UNV-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

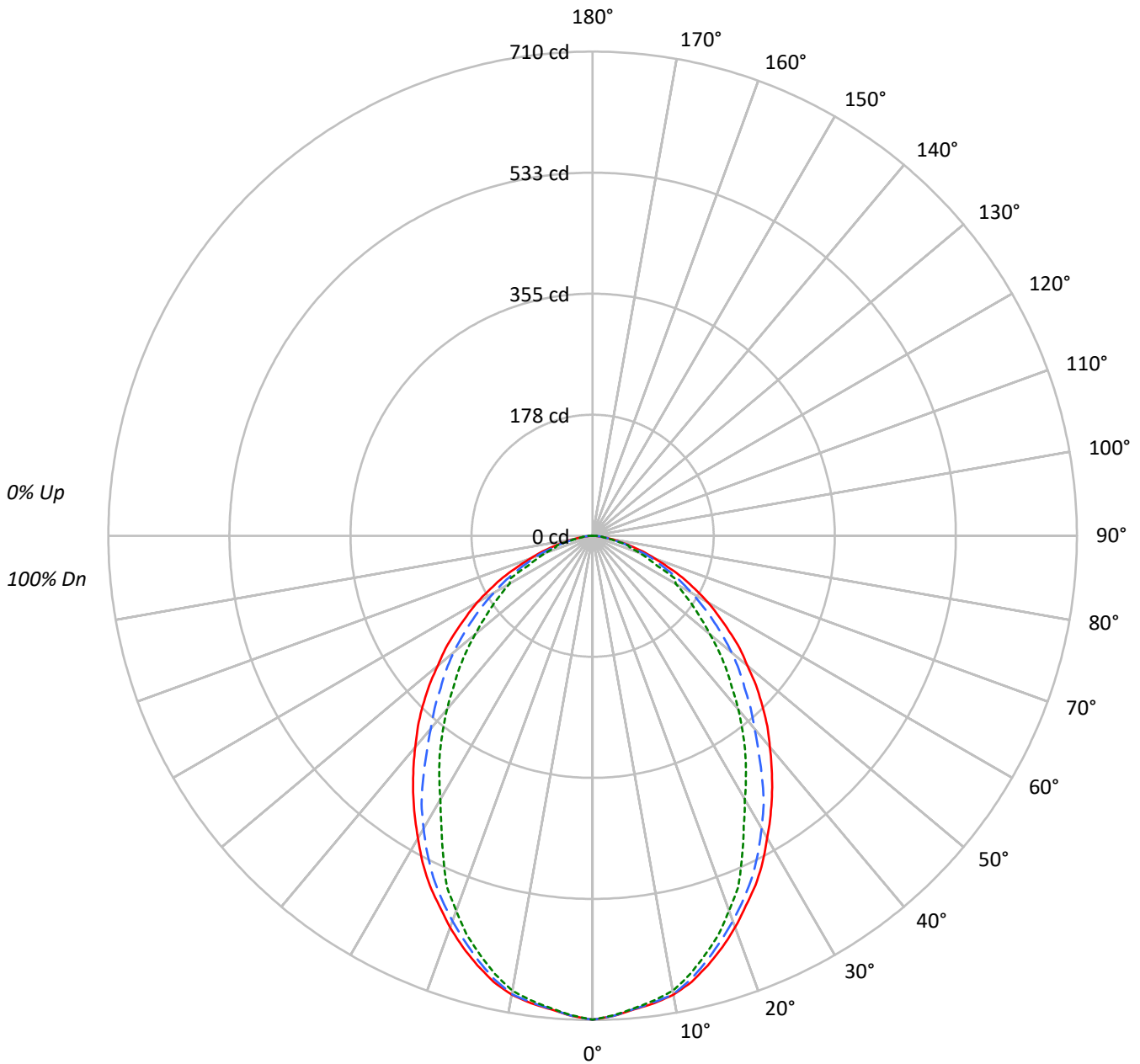
Lumens per Lamp: N/A
Luminaire Lumens: 1393.0 lumens
Efficiency: N/A
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (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°	7638	7638	7638
5°	7534	7526	7516
10°	7468	7460	7406
15°	7268	7194	7094
20°	7000	6888	6700
25°	6713	6567	6157
30°	6362	6159	5547
35°	6026	5691	5131
40°	5682	5186	4668
45°	5357	4795	4221
50°	4958	4451	3764
55°	4588	4033	3370
60°	4202	3602	3020
65°	3698	3156	2674
70°	3046	2763	2272
75°	2420	2117	2217
80°	1630	1525	1426
85°	1013	1210	1420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	4.7
10°-20°	181.3	13.0
20°-30°	251.0	18.0
30°-40°	267.6	19.2
40°-50°	244.1	17.5
50°-60°	191.2	13.7
60°-70°	124.7	8.9
70°-80°	55.2	4.0
80°-90°	11.9	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°	498.3	35.8
0°-40°	765.9	55.0
0°-60°	1201.3	86.2
0°-90°	1393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1393.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	697	696	696	696	696	66
15°	652	652	646	639	637	183
25°	565	562	553	533	518	259
35°	459	455	433	400	390	287
45°	352	344	315	289	277	271
55°	244	237	215	190	180	219
65°	145	137	124	126	105	143
75°	58	54	51	48	53	62
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	709.6	709.6	709.6	709.6	709.6
2.5°	704.7	704.7	704.7	703.8	703.8
5°	697.3	696.5	696.5	695.6	695.6
7.5°	691.5	690.7	689.9	689.1	687.4
10°	683.3	683.3	682.5	678.4	677.6
12.5°	670.2	669.4	666.1	660.4	658.7
15°	652.2	652.2	645.6	639.0	636.6
17.5°	632.5	631.6	623.4	616.9	613.6
20°	611.1	609.5	601.3	590.6	584.9
22.5°	587.3	587.3	577.5	563.6	557.8
25°	565.2	561.9	552.9	533.2	518.4
27.5°	539.8	534.8	525.0	497.1	479.9
30°	511.9	509.4	495.5	459.4	446.3
32.5°	485.6	481.5	466.8	429.0	418.4
35°	458.6	455.3	433.1	400.3	390.5
37.5°	431.5	427.4	399.5	373.2	360.9
40°	404.4	399.5	369.1	345.4	332.2
42.5°	379.0	372.4	342.9	317.5	302.7
45°	351.9	344.5	315.0	288.8	277.3
47.5°	324.8	318.3	291.2	264.1	251.0
50°	296.1	290.4	265.8	238.7	224.8
52.5°	272.3	263.3	239.5	212.5	201.0
55°	244.5	237.1	214.9	189.5	179.6
57.5°	219.0	211.6	191.1	167.3	159.1
60°	195.2	184.6	167.3	146.8	140.3
62.5°	169.0	160.8	146.0	128.8	137.0
65°	145.2	137.0	123.9	126.3	105.0
67.5°	118.9	114.8	103.4	91.9	88.6
70°	96.8	91.9	87.8	75.5	72.2
72.5°	77.1	72.2	66.4	59.9	57.4
75°	58.2	54.1	50.9	48.4	53.3
77.5°	40.2	38.6	36.1	33.6	32.8
80°	26.3	25.4	24.6	23.8	23.0
82.5°	15.6	15.6	15.6	15.6	15.6
85°	8.2	9.0	9.8	10.7	11.5
87.5°	4.9	4.9	5.7	6.6	7.4
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)