

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: P544959

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-81-84-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: P544959
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-81-84-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

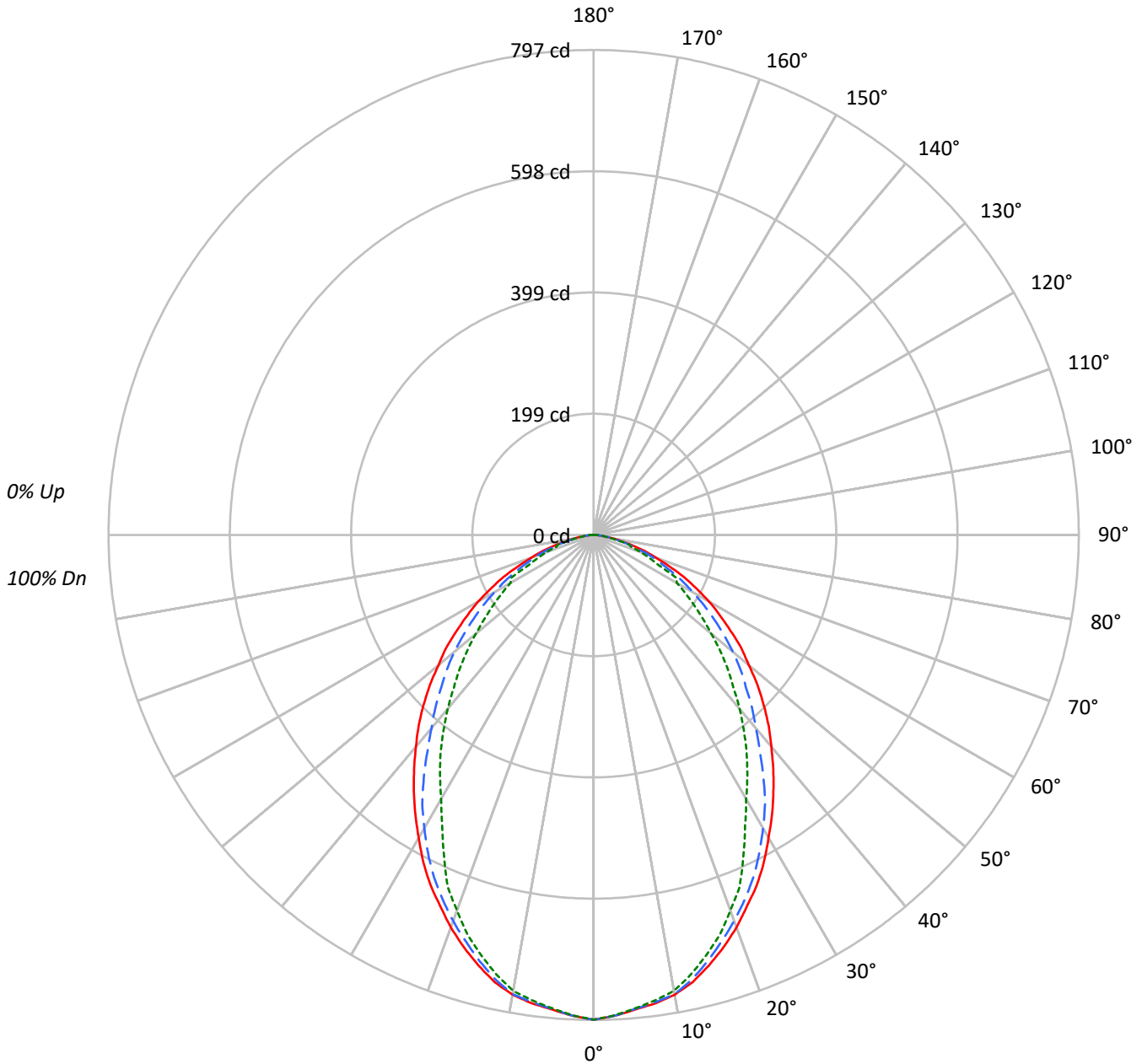
Lumens per Lamp: N/A
Luminaire Lumens: 1564.0 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P544959

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544959

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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°	8576	8576	8576
5°	8459	8448	8439
10°	8385	8376	8316
15°	8159	8077	7964
20°	7860	7733	7522
25°	7537	7373	6913
30°	7143	6914	6227
35°	6765	6390	5761
40°	6381	5824	5241
45°	6014	5384	4739
50°	5568	4997	4227
55°	5151	4528	3785
60°	4719	4045	3391
65°	4152	3543	3003
70°	3421	3100	2549
75°	2720	2375	2491
80°	1829	1711	1599
85°	1136	1371	1593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	4.7
10°-20°	203.5	13.0
20°-30°	281.8	18.0
30°-40°	300.5	19.2
40°-50°	274.1	17.5
50°-60°	214.7	13.7
60°-70°	139.9	8.9
70°-80°	62.0	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°	559.5	35.8
0°-40°	859.9	55.0
0°-60°	1348.7	86.2
0°-90°	1564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	797	797	797	797	797	
5°	783	782	782	781	781	74
15°	732	732	725	718	715	206
25°	635	631	621	599	582	291
35°	515	511	486	450	438	322
45°	395	387	354	324	311	304
55°	274	266	241	213	202	246
65°	163	154	139	142	118	161
75°	65	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°	796.7	796.7	796.7	796.7	796.7
2.5°	791.2	791.2	791.2	790.2	790.2
5°	782.9	781.9	781.9	781.0	781.0
7.5°	776.4	775.5	774.6	773.7	771.8
10°	767.2	767.2	766.3	761.7	760.8
12.5°	752.5	751.6	747.9	741.4	739.6
15°	732.2	732.2	724.8	717.5	714.7
17.5°	710.1	709.2	700.0	692.6	688.9
20°	686.2	684.3	675.1	663.1	656.7
22.5°	659.4	659.4	648.4	632.7	626.3
25°	634.6	630.9	620.8	598.7	582.1
27.5°	606.0	600.5	589.5	558.1	538.8
30°	574.7	572.0	556.3	515.8	501.0
32.5°	545.2	540.6	524.1	481.7	469.7
35°	514.8	511.2	486.3	449.5	438.4
37.5°	484.5	479.9	448.5	419.1	405.2
40°	454.1	448.5	414.5	387.7	373.0
42.5°	425.5	418.1	385.0	356.4	339.9
45°	395.1	386.8	353.7	324.2	311.3
47.5°	364.7	357.4	327.0	296.6	281.8
50°	332.5	326.0	298.4	268.0	252.4
52.5°	305.8	295.6	268.9	238.5	225.6
55°	274.5	266.2	241.3	212.8	201.7
57.5°	245.9	237.6	214.6	187.9	178.7
60°	219.2	207.2	187.9	164.9	157.5
62.5°	189.7	180.5	163.9	144.6	153.8
65°	163.0	153.8	139.1	141.8	117.9
67.5°	133.5	128.9	116.0	103.2	99.5
70°	108.7	103.2	98.5	84.7	81.0
72.5°	86.6	81.0	74.6	67.2	64.5
75°	65.4	60.8	57.1	54.3	59.9
77.5°	45.1	43.3	40.5	37.8	36.8
80°	29.5	28.6	27.6	26.7	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.1	11.1	12.0	12.9
87.5°	5.5	5.5	6.4	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)