

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: P545194

Luminaire Tested: **FMR-12-1-LD4-2STD-40-UNV-82-87-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: P545194
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-LD4-2STD-40-UNV-82-87-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

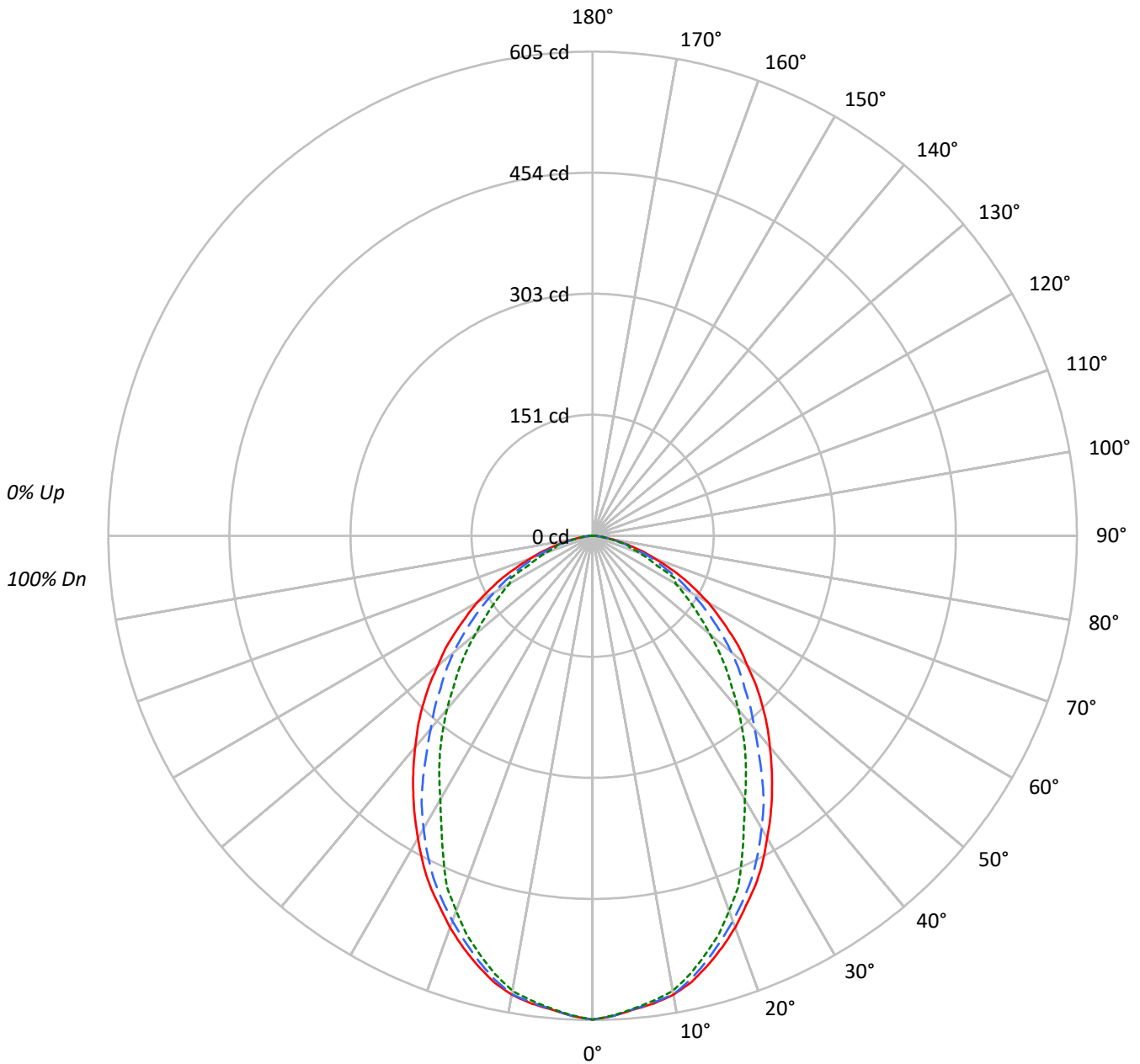
Lumens per Lamp: N/A
Luminaire Lumens: 1187.0 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	6508	6508	6508
5°	6420	6413	6405
10°	6365	6357	6311
15°	6193	6130	6044
20°	5966	5869	5709
25°	5720	5595	5247
30°	5422	5248	4727
35°	5134	4850	4372
40°	4842	4421	3978
45°	4565	4086	3597
50°	4225	3793	3207
55°	3909	3436	2873
60°	3582	3070	2573
65°	3151	2690	2280
70°	2596	2354	1936
75°	2063	1801	1888
80°	1389	1302	1215
85°	865	1037	1210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	4.7
10°-20°	154.5	13.0
20°-30°	213.9	18.0
30°-40°	228.0	19.2
40°-50°	208.0	17.5
50°-60°	163.0	13.7
60°-70°	106.2	8.9
70°-80°	47.1	4.0
80°-90°	10.1	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°	424.6	35.8
0°-40°	652.6	55.0
0°-60°	1023.6	86.2
0°-90°	1187.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1187.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	605	605	605	605	605	
5°	594	594	594	593	593	56
15°	556	556	550	544	542	156
25°	482	479	471	454	442	221
35°	391	388	369	341	333	244
45°	300	294	268	246	236	231
55°	208	202	183	162	153	187
65°	124	117	106	108	90	122
75°	50	46	43	41	45	53
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	604.6	604.6	604.6	604.6	604.6
2.5°	600.4	600.4	600.4	599.7	599.7
5°	594.2	593.5	593.5	592.8	592.8
7.5°	589.3	588.6	587.9	587.2	585.8
10°	582.3	582.3	581.6	578.1	577.4
12.5°	571.1	570.4	567.6	562.7	561.3
15°	555.7	555.7	550.1	544.5	542.4
17.5°	538.9	538.2	531.2	525.7	522.9
20°	520.8	519.4	512.4	503.3	498.4
22.5°	500.5	500.5	492.1	480.2	475.3
25°	481.6	478.8	471.1	454.4	441.8
27.5°	459.9	455.8	447.4	423.6	408.9
30°	436.2	434.1	422.2	391.4	380.3
32.5°	413.8	410.3	397.7	365.6	356.5
35°	390.7	387.9	369.1	341.1	332.7
37.5°	367.7	364.2	340.4	318.0	307.6
40°	344.6	340.4	314.6	294.3	283.1
42.5°	322.9	317.3	292.2	270.5	257.9
45°	299.9	293.6	268.4	246.1	236.3
47.5°	276.8	271.2	248.1	225.1	213.9
50°	252.3	247.4	226.5	203.4	191.5
52.5°	232.1	224.4	204.1	181.0	171.3
55°	208.3	202.0	183.1	161.5	153.1
57.5°	186.6	180.3	162.9	142.6	135.6
60°	166.4	157.3	142.6	125.1	119.5
62.5°	144.0	137.0	124.4	109.7	116.7
65°	123.7	116.7	105.6	107.6	89.5
67.5°	101.4	97.9	88.1	78.3	75.5
70°	82.5	78.3	74.8	64.3	61.5
72.5°	65.7	61.5	56.6	51.0	48.9
75°	49.6	46.1	43.3	41.2	45.4
77.5°	34.3	32.9	30.8	28.7	28.0
80°	22.4	21.7	21.0	20.3	19.6
82.5°	13.3	13.3	13.3	13.3	13.3
85°	7.0	7.7	8.4	9.1	9.8
87.5°	4.2	4.2	4.9	5.6	6.3
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)