

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: P545113

Luminaire Tested: **FMR-12-1-LD4-2LO-50-UNV-80-86-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: P545113
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-50-UNV-80-86-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

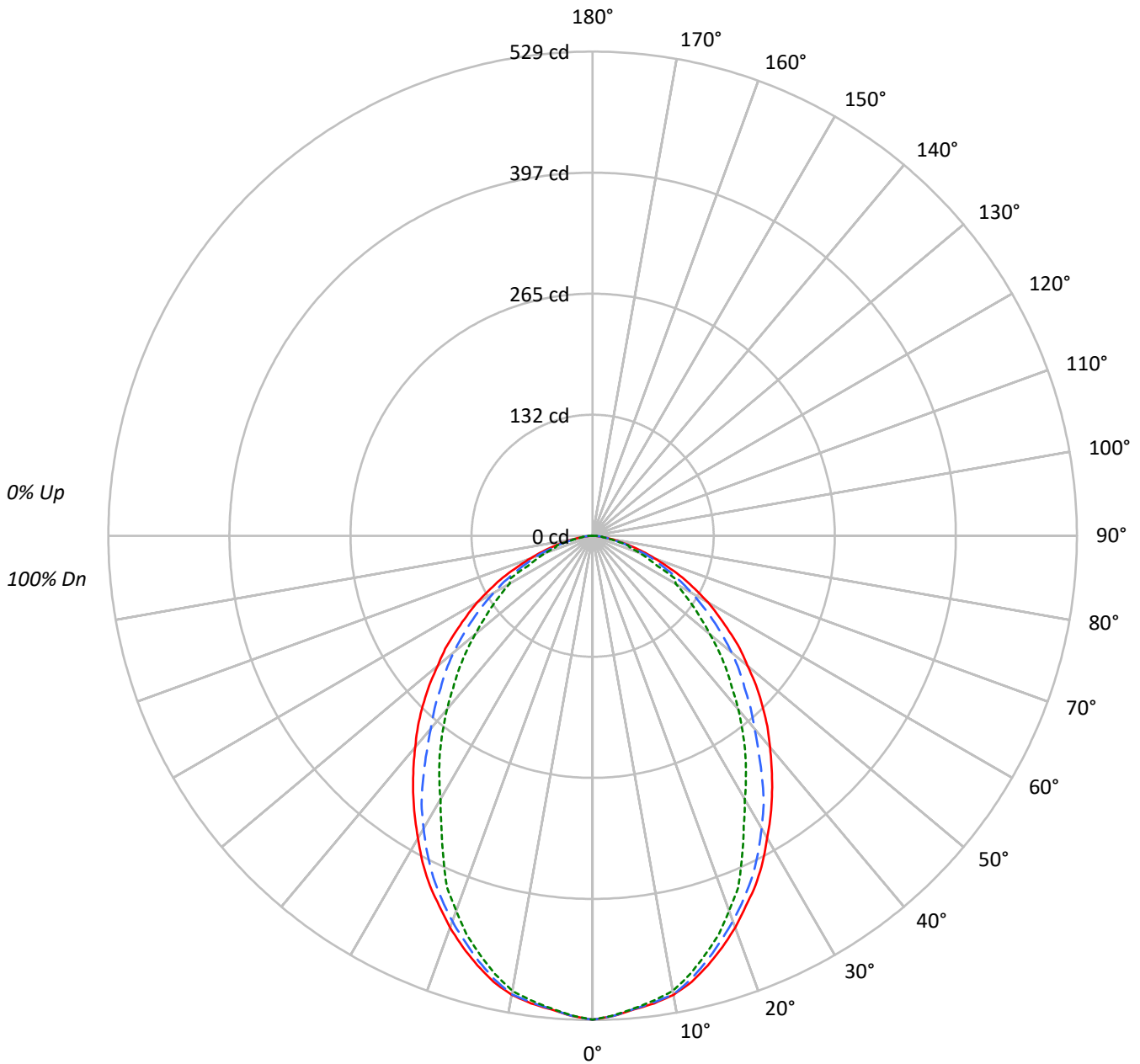
Lumens per Lamp: N/A
Luminaire Lumens: 1038.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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									
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°	5691	5691	5691
5°	5614	5608	5601
10°	5566	5559	5519
15°	5416	5361	5285
20°	5216	5133	4992
25°	5002	4893	4588
30°	4740	4589	4133
35°	4490	4240	3824
40°	4235	3866	3479
45°	3991	3573	3145
50°	3696	3316	2805
55°	3419	3006	2513
60°	3132	2685	2250
65°	2756	2351	1992
70°	2269	2058	1693
75°	1805	1576	1651
80°	1215	1134	1060
85°	753	902	1062



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	4.7
10°-20°	135.1	13.0
20°-30°	187.0	18.0
30°-40°	199.4	19.2
40°-50°	181.9	17.5
50°-60°	142.5	13.7
60°-70°	92.9	8.9
70°-80°	41.2	4.0
80°-90°	8.8	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°	371.3	35.8
0°-40°	570.7	55.0
0°-60°	895.1	86.2
0°-90°	1038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	520	519	519	518	518	49
15°	486	486	481	476	474	137
25°	421	419	412	397	386	193
35°	342	339	323	298	291	214
45°	262	257	235	215	207	202
55°	182	177	160	141	134	163
65°	108	102	92	94	78	107
75°	43	40	38	36	40	47
85°	6	7	7	8	9	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	528.7	528.7	528.7	528.7	528.7
2.5°	525.1	525.1	525.1	524.5	524.5
5°	519.6	519.0	519.0	518.4	518.4
7.5°	515.3	514.7	514.1	513.5	512.2
10°	509.2	509.2	508.6	505.5	504.9
12.5°	499.4	498.8	496.3	492.1	490.8
15°	486.0	486.0	481.1	476.2	474.3
17.5°	471.3	470.7	464.6	459.7	457.2
20°	455.4	454.2	448.1	440.1	435.8
22.5°	437.7	437.7	430.3	419.9	415.7
25°	421.2	418.7	412.0	397.3	386.3
27.5°	402.2	398.5	391.2	370.4	357.6
30°	381.4	379.6	369.2	342.3	332.5
32.5°	361.9	358.8	347.8	319.7	311.7
35°	341.7	339.3	322.7	298.3	291.0
37.5°	321.5	318.5	297.7	278.1	269.0
40°	301.4	297.7	275.1	257.3	247.6
42.5°	282.4	277.5	255.5	236.6	225.6
45°	262.2	256.7	234.7	215.2	206.6
47.5°	242.1	237.2	217.0	196.8	187.0
50°	220.7	216.4	198.0	177.9	167.5
52.5°	202.9	196.2	178.5	158.3	149.8
55°	182.2	176.7	160.2	141.2	133.9
57.5°	163.2	157.7	142.4	124.7	118.6
60°	145.5	137.5	124.7	109.4	104.5
62.5°	125.9	119.8	108.8	96.0	102.1
65°	108.2	102.1	92.3	94.1	78.2
67.5°	88.6	85.6	77.0	68.5	66.0
70°	72.1	68.5	65.4	56.2	53.8
72.5°	57.5	53.8	49.5	44.6	42.8
75°	43.4	40.3	37.9	36.1	39.7
77.5°	30.0	28.7	26.9	25.1	24.5
80°	19.6	18.9	18.3	17.7	17.1
82.5°	11.6	11.6	11.6	11.6	11.6
85°	6.1	6.7	7.3	7.9	8.6
87.5°	3.7	3.7	4.3	4.9	5.5
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)