

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: P545147

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-80-88-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: P545147
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-35-UNV-80-88-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

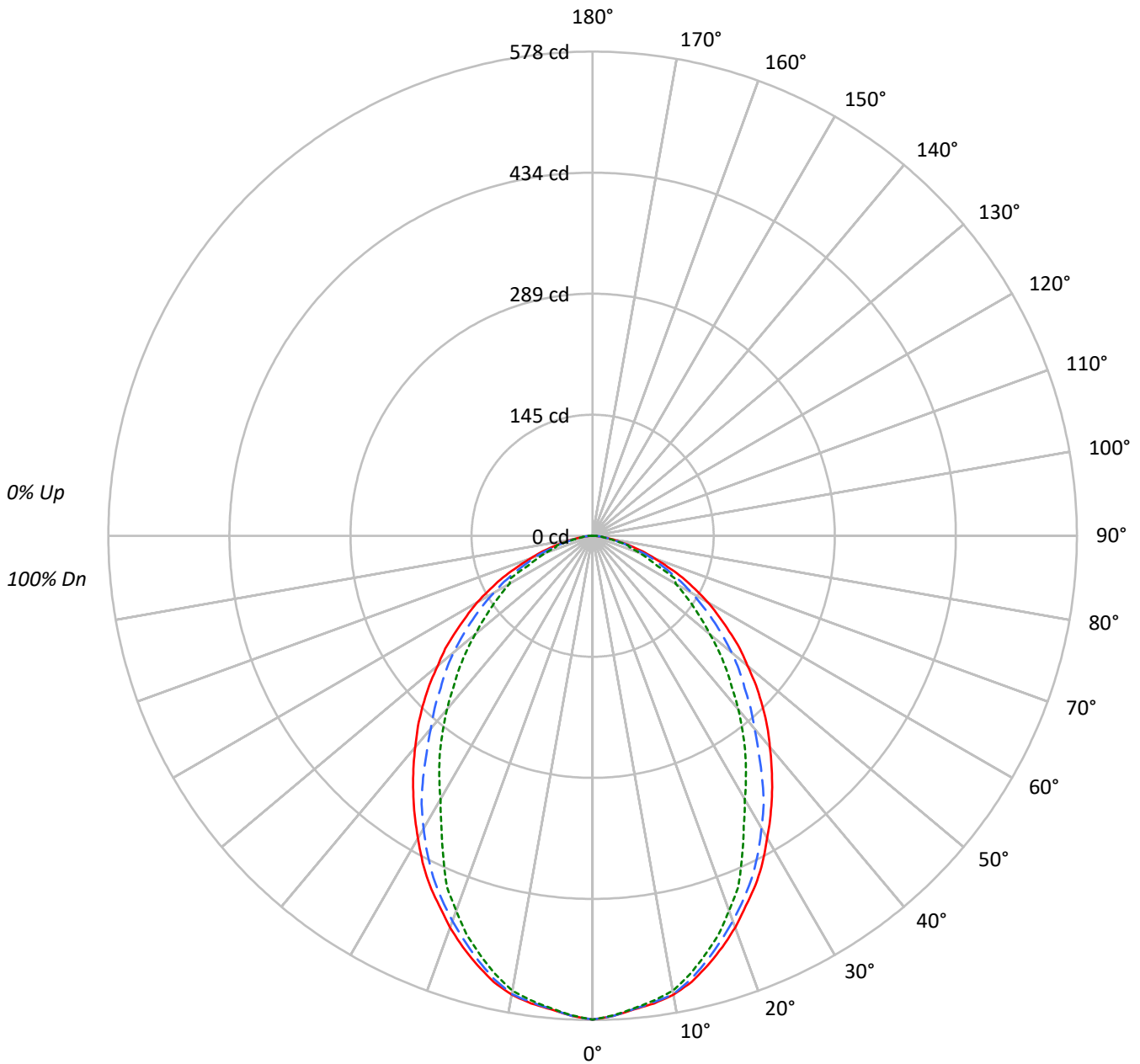
Lumens per Lamp: N/A
Luminaire Lumens: 1134.0 lumens
Efficiency: N/A
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6217	6217	6217
5°	6133	6126	6119
10°	6080	6073	6029
15°	5916	5857	5775
20°	5699	5607	5454
25°	5464	5346	5012
30°	5179	5013	4515
35°	4905	4633	4177
40°	4626	4222	3801
45°	4361	3903	3436
50°	4037	3624	3064
55°	3734	3284	2744
60°	3421	2932	2458
65°	3011	2567	2178
70°	2480	2250	1851
75°	1971	1722	1805
80°	1327	1240	1159
85°	827	988	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	4.7
10°-20°	147.6	13.0
20°-30°	204.3	18.0
30°-40°	217.8	19.2
40°-50°	198.7	17.5
50°-60°	155.7	13.7
60°-70°	101.5	8.9
70°-80°	45.0	4.0
80°-90°	9.7	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°	405.6	35.8
0°-40°	623.5	55.0
0°-60°	977.9	86.2
0°-90°	1134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1134.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	568	567	567	566	566	54
15°	531	531	526	520	518	149
25°	460	457	450	434	422	211
35°	373	371	353	326	318	233
45°	286	280	256	235	226	221
55°	199	193	175	154	146	178
65°	118	112	101	103	86	116
75°	47	44	41	39	43	51
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	577.6	577.6	577.6	577.6	577.6
2.5°	573.6	573.6	573.6	573.0	573.0
5°	567.6	567.0	567.0	566.3	566.3
7.5°	563.0	562.3	561.6	560.9	559.6
10°	556.3	556.3	555.6	552.3	551.6
12.5°	545.6	544.9	542.3	537.6	536.2
15°	530.9	530.9	525.6	520.2	518.2
17.5°	514.9	514.2	507.5	502.2	499.5
20°	497.5	496.2	489.5	480.8	476.1
22.5°	478.1	478.1	470.1	458.8	454.1
25°	460.1	457.4	450.1	434.1	422.0
27.5°	439.4	435.4	427.4	404.7	390.7
30°	416.7	414.7	403.3	374.0	363.3
32.5°	395.3	392.0	380.0	349.3	340.6
35°	373.3	370.6	352.6	325.9	317.9
37.5°	351.3	347.9	325.2	303.8	293.8
40°	329.2	325.2	300.5	281.1	270.5
42.5°	308.5	303.2	279.1	258.4	246.4
45°	286.5	280.5	256.4	235.1	225.7
47.5°	264.4	259.1	237.1	215.0	204.3
50°	241.1	236.4	216.4	194.3	183.0
52.5°	221.7	214.4	195.0	173.0	163.6
55°	199.0	193.0	175.0	154.3	146.2
57.5°	178.3	172.3	155.6	136.2	129.6
60°	158.9	150.3	136.2	119.5	114.2
62.5°	137.6	130.9	118.9	104.8	111.5
65°	118.2	111.5	100.8	102.8	85.5
67.5°	96.8	93.5	84.1	74.8	72.1
70°	78.8	74.8	71.5	61.4	58.8
72.5°	62.8	58.8	54.1	48.7	46.7
75°	47.4	44.1	41.4	39.4	43.4
77.5°	32.7	31.4	29.4	27.4	26.7
80°	21.4	20.7	20.0	19.4	18.7
82.5°	12.7	12.7	12.7	12.7	12.7
85°	6.7	7.3	8.0	8.7	9.3
87.5°	4.0	4.0	4.7	5.3	6.0
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)