

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: P545434

Luminaire Tested: **FMR-12-2-LD4-1STD-35-UNV-80-87-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: P545434
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-12-2-LD4-1STD-35-UNV-80-87-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

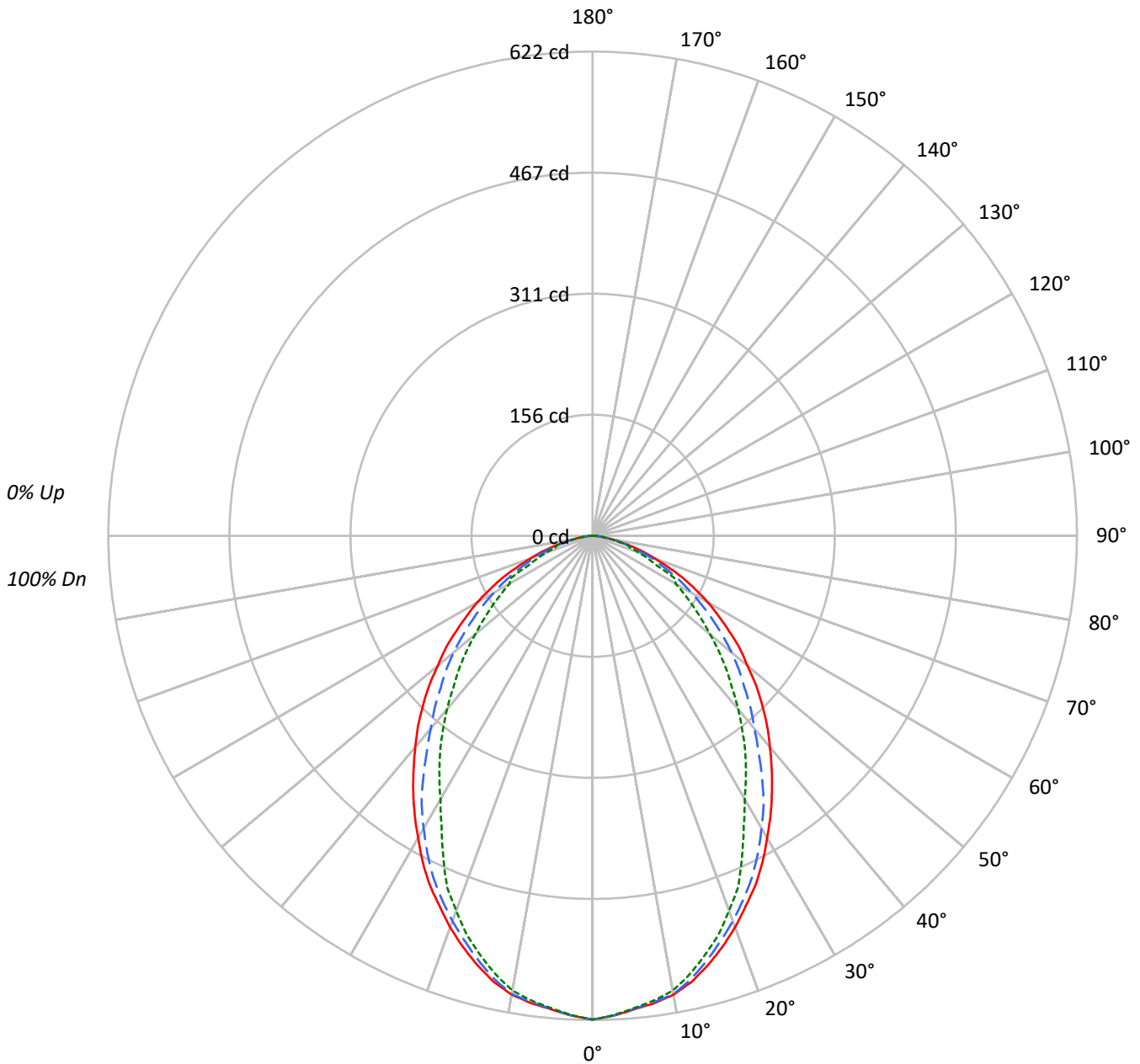
Lumens per Lamp: N/A
Luminaire Lumens: 1220.0 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	3345	3345	3345
5°	3299	3296	3291
10°	3271	3266	3243
15°	3183	3150	3106
20°	3065	3016	2934
25°	2939	2875	2697
30°	2786	2696	2429
35°	2639	2492	2247
40°	2488	2271	2044
45°	2346	2100	1848
50°	2172	1949	1649
55°	2009	1766	1476
60°	1841	1578	1323
65°	1620	1382	1172
70°	1334	1210	995
75°	1061	925	971
80°	713	669	623
85°	445	531	624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.8	4.7
10°-20°	158.8	13.0
20°-30°	219.8	18.0
30°-40°	234.4	19.2
40°-50°	213.8	17.5
50°-60°	167.5	13.7
60°-70°	109.2	8.9
70°-80°	48.4	4.0
80°-90°	10.4	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°	436.4	35.8
0°-40°	670.8	55.0
0°-60°	1052.1	86.2
0°-90°	1220.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1220.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	611	610	610	609	609	58
15°	571	571	565	560	558	161
25°	495	492	484	467	454	227
35°	402	399	379	351	342	251
45°	308	302	276	253	243	237
55°	214	208	188	166	157	192
65°	127	120	108	111	92	125
75°	51	47	44	42	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	621.5	621.5	621.5	621.5	621.5
2.5°	617.1	617.1	617.1	616.4	616.4
5°	610.7	610.0	610.0	609.2	609.2
7.5°	605.6	604.9	604.2	603.5	602.1
10°	598.5	598.5	597.7	594.2	593.4
12.5°	587.0	586.2	583.4	578.3	576.9
15°	571.2	571.2	565.4	559.7	557.5
17.5°	553.9	553.2	546.0	540.3	537.4
20°	535.2	533.8	526.6	517.3	512.2
22.5°	514.4	514.4	505.8	493.6	488.5
25°	495.0	492.1	484.2	467.0	454.1
27.5°	472.7	468.4	459.8	435.4	420.3
30°	448.3	446.2	433.9	402.3	390.8
32.5°	425.3	421.7	408.8	375.7	366.4
35°	401.6	398.7	379.3	350.6	342.0
37.5°	377.9	374.3	349.9	326.9	316.1
40°	354.2	349.9	323.3	302.5	291.0
42.5°	331.9	326.2	300.3	278.0	265.1
45°	308.2	301.7	275.9	252.9	242.8
47.5°	284.5	278.8	255.0	231.3	219.8
50°	259.4	254.3	232.8	209.1	196.9
52.5°	238.5	230.6	209.8	186.1	176.0
55°	214.1	207.6	188.2	166.0	157.3
57.5°	191.8	185.4	167.4	146.6	139.4
60°	171.0	161.6	146.6	128.6	122.9
62.5°	148.0	140.8	127.9	112.8	120.0
65°	127.2	120.0	108.5	110.6	92.0
67.5°	104.2	100.6	90.5	80.5	77.6
70°	84.8	80.5	76.9	66.1	63.2
72.5°	67.5	63.2	58.2	52.4	50.3
75°	51.0	47.4	44.5	42.4	46.7
77.5°	35.2	33.8	31.6	29.5	28.7
80°	23.0	22.3	21.6	20.8	20.1
82.5°	13.7	13.7	13.7	13.7	13.7
85°	7.2	7.9	8.6	9.3	10.1
87.5°	4.3	4.3	5.0	5.7	6.5
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)