

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: P545144

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-80-85-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: P545144
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-80-85-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

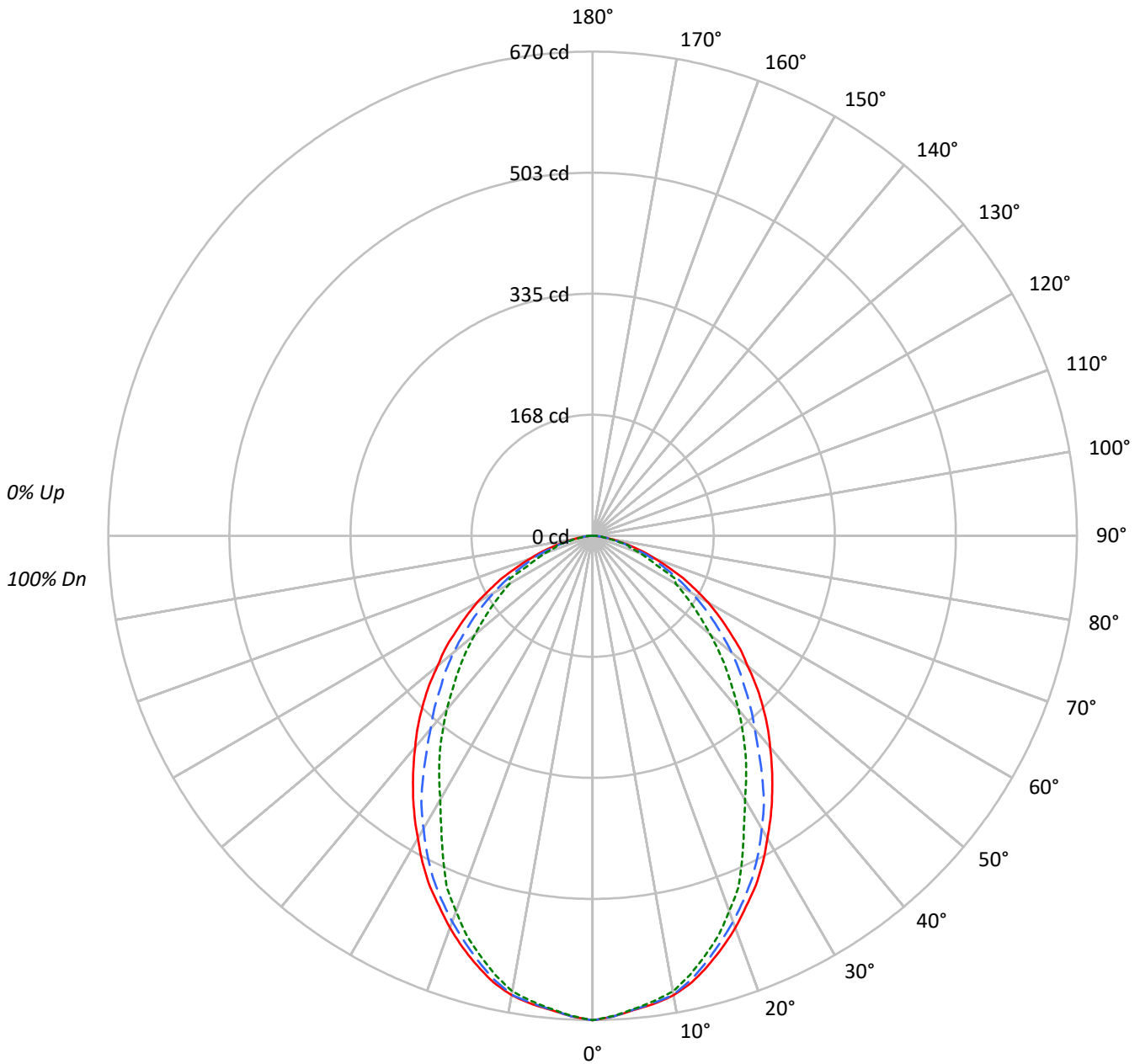
Lumens per Lamp: N/A
Luminaire Lumens: 1316.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	7216	7216	7216
5°	7117	7110	7101
10°	7056	7048	6996
15°	6866	6796	6702
20°	6614	6507	6330
25°	6342	6203	5817
30°	6011	5818	5240
35°	5692	5377	4847
40°	5369	4900	4411
45°	5061	4530	3987
50°	4685	4205	3555
55°	4333	3810	3185
60°	3970	3404	2852
65°	3494	2980	2527
70°	2877	2609	2146
75°	2287	1996	2096
80°	1537	1438	1345
85°	951	1149	1334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	4.7
10°-20°	171.3	13.0
20°-30°	237.1	18.0
30°-40°	252.8	19.2
40°-50°	230.6	17.5
50°-60°	180.7	13.7
60°-70°	117.7	8.9
70°-80°	52.2	4.0
80°-90°	11.2	0.8
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°	470.8	35.8
0°-40°	723.6	55.0
0°-60°	1134.9	86.2
0°-90°	1316.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1316.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	670	670	670	670	670	
5°	659	658	658	657	657	63
15°	616	616	610	604	601	173
25°	534	531	522	504	490	245
35°	433	430	409	378	369	271
45°	332	326	298	273	262	256
55°	231	224	203	179	170	207
65°	137	129	117	119	99	135
75°	55	51	48	46	50	59
85°	8	8	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	670.4	670.4	670.4	670.4	670.4
2.5°	665.7	665.7	665.7	664.9	664.9
5°	658.7	658.0	658.0	657.2	657.2
7.5°	653.3	652.5	651.8	651.0	649.4
10°	645.6	645.6	644.8	640.9	640.1
12.5°	633.2	632.4	629.3	623.9	622.3
15°	616.1	616.1	609.9	603.7	601.4
17.5°	597.5	596.7	589.0	582.8	579.7
20°	577.4	575.8	568.1	558.0	552.6
22.5°	554.9	554.9	545.6	532.4	527.0
25°	534.0	530.9	522.3	503.7	489.8
27.5°	509.9	505.3	496.0	469.6	453.4
30°	483.6	481.3	468.1	434.0	421.6
32.5°	458.8	454.9	441.0	405.3	395.2
35°	433.2	430.1	409.2	378.2	368.9
37.5°	407.6	403.8	377.4	352.6	341.0
40°	382.1	377.4	348.7	326.3	313.9
42.5°	358.0	351.8	323.9	299.9	286.0
45°	332.5	325.5	297.6	272.8	261.9
47.5°	306.9	300.7	275.1	249.5	237.1
50°	279.8	274.3	251.1	225.5	212.3
52.5°	257.3	248.8	226.3	200.7	189.9
55°	230.9	224.0	203.0	179.0	169.7
57.5°	206.9	199.9	180.6	158.1	150.3
60°	184.4	174.4	158.1	138.7	132.5
62.5°	159.6	151.9	137.9	121.7	129.4
65°	137.2	129.4	117.0	119.3	99.2
67.5°	112.4	108.5	97.6	86.8	83.7
70°	91.4	86.8	82.9	71.3	68.2
72.5°	72.8	68.2	62.8	56.6	54.2
75°	55.0	51.1	48.0	45.7	50.4
77.5°	38.0	36.4	34.1	31.8	31.0
80°	24.8	24.0	23.2	22.5	21.7
82.5°	14.7	14.7	14.7	14.7	14.7
85°	7.7	8.5	9.3	10.1	10.8
87.5°	4.6	4.6	5.4	6.2	7.0
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)