

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: P544978

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-93-87-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: P544978
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-LD4-2HI-35-UNV-93-87-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS 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

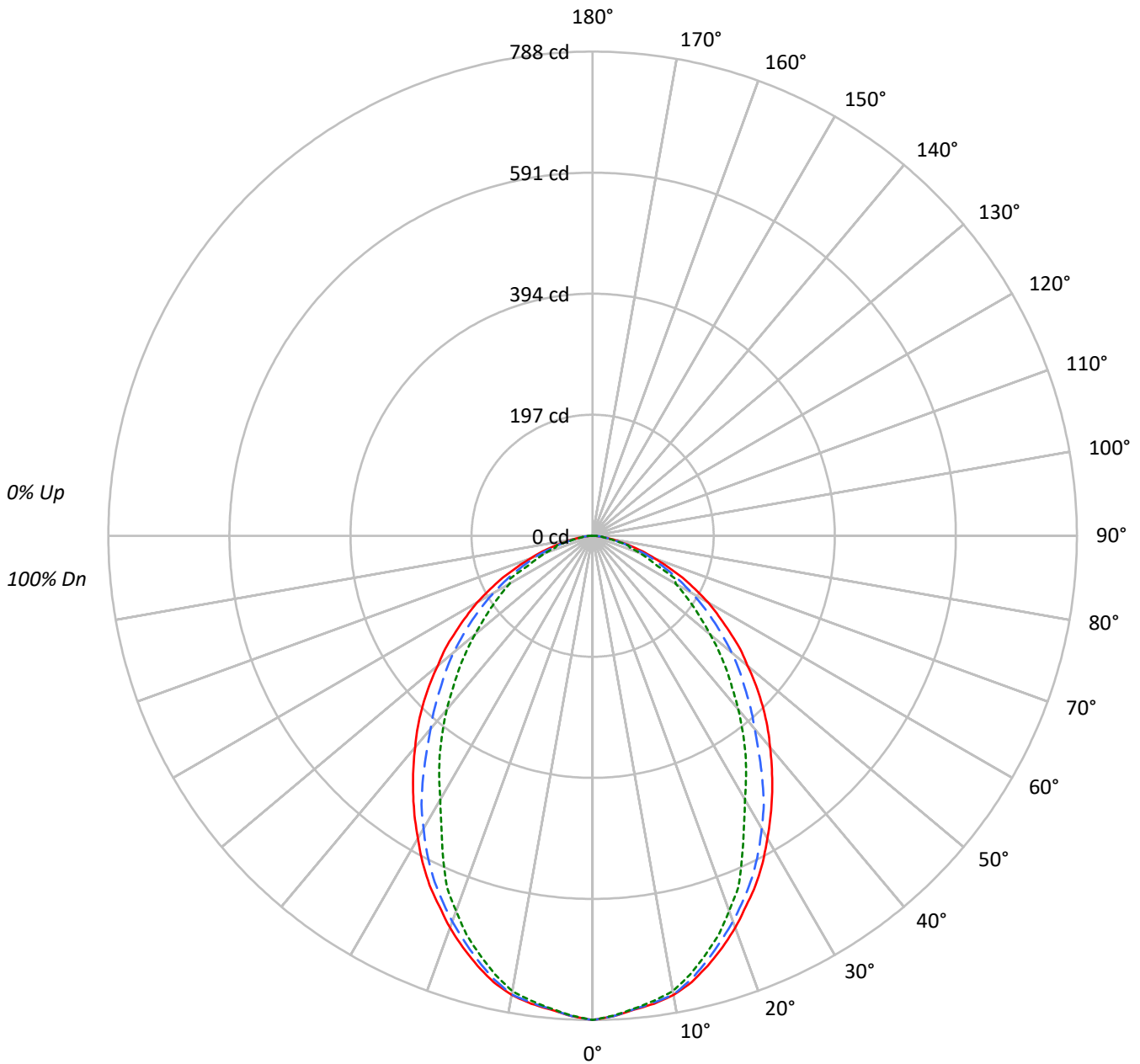
Lumens per Lamp: N/A
Luminaire Lumens: 1547.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	8482	8482	8482
5°	8367	8357	8347
10°	8295	8285	8225
15°	8071	7990	7877
20°	7774	7649	7440
25°	7455	7292	6839
30°	7066	6838	6160
35°	6692	6320	5698
40°	6310	5761	5185
45°	5949	5325	4687
50°	5508	4943	4180
55°	5095	4480	3744
60°	4667	4000	3354
65°	4106	3505	2970
70°	3383	3068	2524
75°	2691	2350	2462
80°	1810	1692	1581
85°	1124	1346	1581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	4.7
10°-20°	201.3	13.0
20°-30°	278.7	18.0
30°-40°	297.2	19.2
40°-50°	271.1	17.5
50°-60°	212.4	13.7
60°-70°	138.4	8.9
70°-80°	61.3	4.0
80°-90°	13.2	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°	553.4	35.8
0°-40°	850.6	55.0
0°-60°	1334.1	86.2
0°-90°	1547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1547.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	774	773	773	772	772	74
15°	724	724	717	710	707	204
25°	628	624	614	592	576	288
35°	509	506	481	445	434	318
45°	391	383	350	321	308	301
55°	272	263	239	210	200	244
65°	161	152	138	140	117	159
75°	65	60	56	54	59	69
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	788.0	788.0	788.0	788.0	788.0
2.5°	782.6	782.6	782.6	781.6	781.6
5°	774.4	773.4	773.4	772.5	772.5
7.5°	768.0	767.1	766.2	765.2	763.4
10°	758.9	758.9	758.0	753.4	752.5
12.5°	744.3	743.4	739.7	733.4	731.5
15°	724.3	724.3	717.0	709.7	706.9
17.5°	702.4	701.5	692.4	685.1	681.4
20°	678.7	676.9	667.8	655.9	649.5
22.5°	652.3	652.3	641.3	625.9	619.5
25°	627.7	624.0	614.0	592.2	575.8
27.5°	599.4	594.0	583.0	552.1	532.9
30°	568.5	565.7	550.2	510.2	495.6
32.5°	539.3	534.8	518.4	476.5	464.6
35°	509.3	505.6	481.0	444.6	433.6
37.5°	479.2	474.6	443.7	414.5	400.8
40°	449.1	443.7	410.0	383.5	369.0
42.5°	420.9	413.6	380.8	352.6	336.2
45°	390.8	382.6	349.8	320.7	307.9
47.5°	360.8	353.5	323.4	293.3	278.8
50°	328.9	322.5	295.2	265.1	249.6
52.5°	302.5	292.4	266.0	236.0	223.2
55°	271.5	263.3	238.7	210.4	199.5
57.5°	243.2	235.0	212.3	185.8	176.7
60°	216.8	205.0	185.8	163.1	155.8
62.5°	187.7	178.6	162.2	143.0	152.1
65°	161.2	152.1	137.6	140.3	116.6
67.5°	132.1	127.5	114.8	102.0	98.4
70°	107.5	102.0	97.5	83.8	80.2
72.5°	85.6	80.2	73.8	66.5	63.8
75°	64.7	60.1	56.5	53.7	59.2
77.5°	44.6	42.8	40.1	37.4	36.4
80°	29.2	28.2	27.3	26.4	25.5
82.5°	17.3	17.3	17.3	17.3	17.3
85°	9.1	10.0	10.9	11.8	12.8
87.5°	5.5	5.5	6.4	7.3	8.2
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)