

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: P545241

Luminaire Tested: **FMR-12-2-LD4-1HI-35-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: P545241
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-LD4-1HI-35-UNV-80-86-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

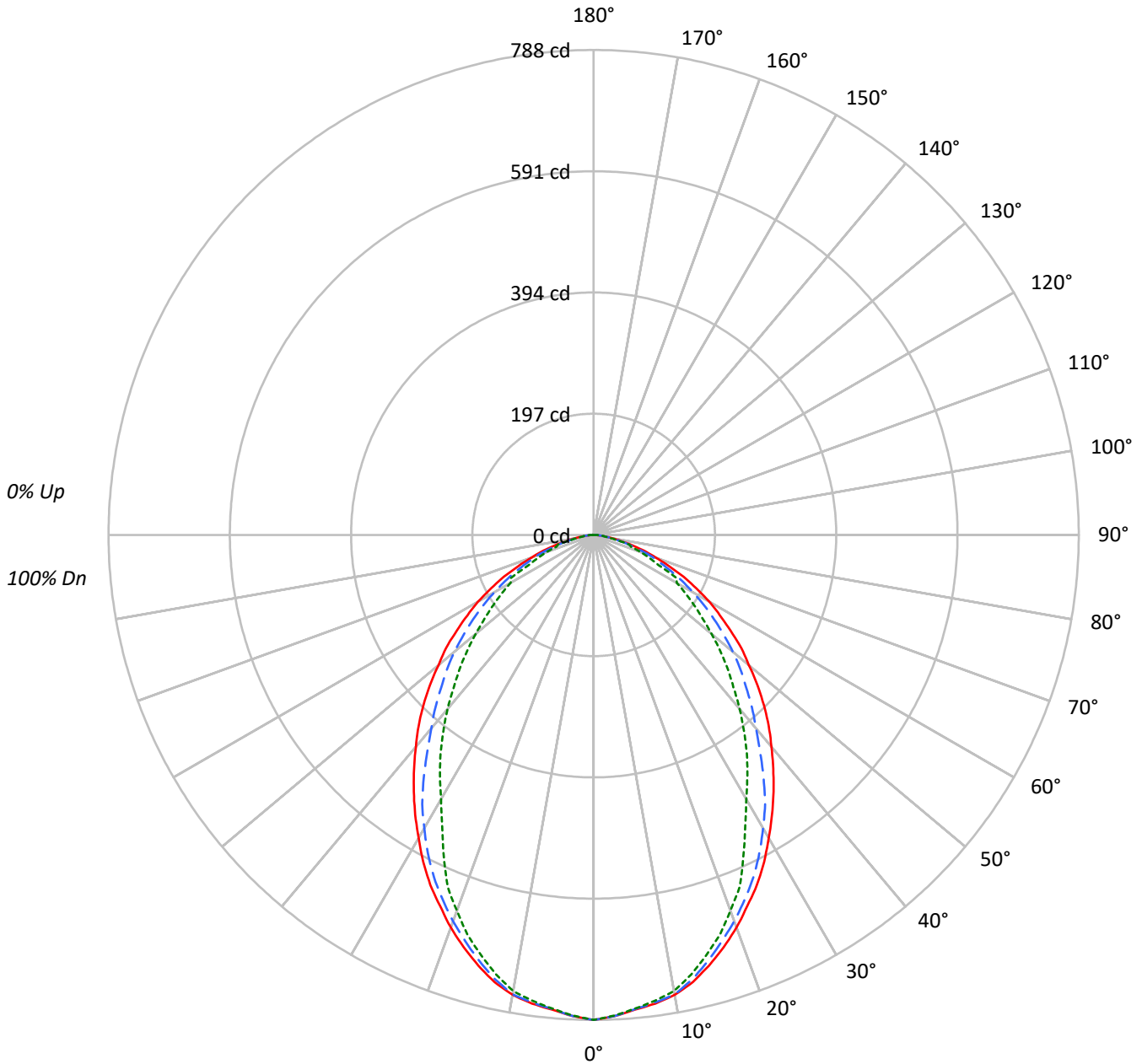
Lumens per Lamp: N/A
Luminaire Lumens: 1547.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P545241

CATALOG NUMBER: FMR-12-2-LD4-1HI-35-UNV-80-86-EDD

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°	4241	4241	4241
5°	4184	4178	4173
10°	4147	4142	4112
15°	4036	3995	3939
20°	3887	3825	3720
25°	3727	3646	3419
30°	3533	3419	3080
35°	3346	3160	2849
40°	3155	2881	2592
45°	2974	2662	2343
50°	2754	2472	2090
55°	2548	2240	1872
60°	2334	2000	1677
65°	2053	1752	1485
70°	1692	1534	1262
75°	1345	1175	1231
80°	905	846	790
85°	562	673	790



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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)