

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: P545022

Luminaire Tested: **FMR-12-1-LD4-2HI-50-UNV-80-97-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: P545022
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-50-UNV-80-97-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

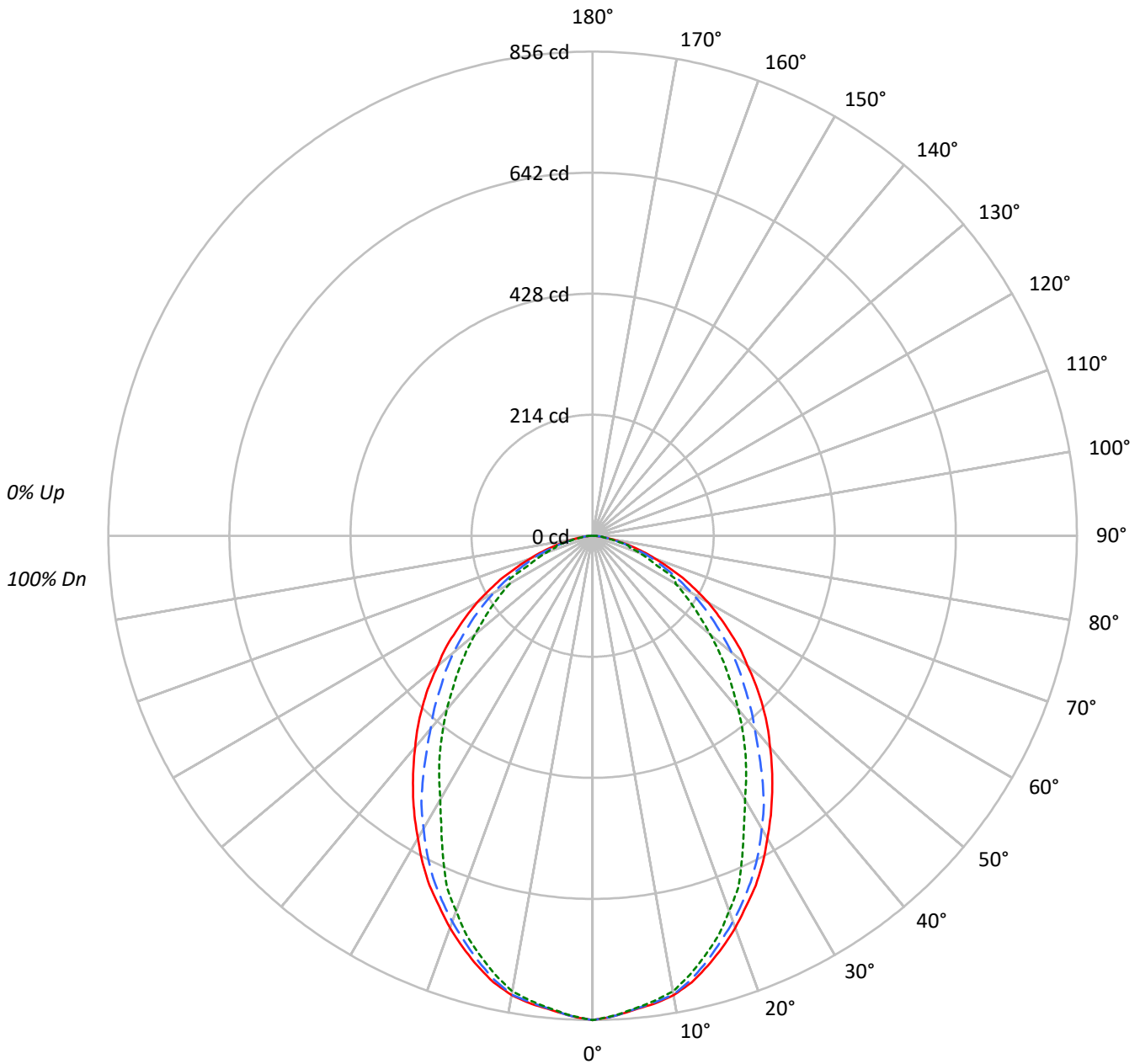
Lumens per Lamp: N/A
Luminaire Lumens: 1681.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	9217	9217	9217
5°	9091	9081	9071
10°	9013	9002	8937
15°	8770	8682	8561
20°	8448	8312	8085
25°	8101	7924	7430
30°	7677	7431	6693
35°	7272	6868	6192
40°	6857	6260	5633
45°	6465	5786	5093
50°	5985	5370	4541
55°	5536	4868	4069
60°	5072	4346	3645
65°	4462	3808	3227
70°	3676	3333	2741
75°	2924	2554	2674
80°	1965	1841	1717
85°	1223	1470	1717



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	4.7
10°-20°	218.8	13.0
20°-30°	302.8	18.0
30°-40°	322.9	19.2
40°-50°	294.6	17.5
50°-60°	230.8	13.7
60°-70°	150.4	8.9
70°-80°	66.6	4.0
80°-90°	14.3	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°	601.3	35.8
0°-40°	924.2	55.0
0°-60°	1449.6	86.2
0°-90°	1681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	841	840	840	840	840	80
15°	787	787	779	771	768	221
25°	682	678	667	643	626	313
35°	553	549	523	483	471	346
45°	425	416	380	348	335	327
55°	295	286	259	229	217	265
65°	175	165	150	152	127	173
75°	70	65	61	58	64	75
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.3	856.3	856.3	856.3	856.3
2.5°	850.3	850.3	850.3	849.3	849.3
5°	841.4	840.4	840.4	839.5	839.5
7.5°	834.5	833.5	832.5	831.5	829.6
10°	824.6	824.6	823.6	818.7	817.7
12.5°	808.8	807.8	803.8	796.9	794.9
15°	787.0	787.0	779.1	771.1	768.2
17.5°	763.2	762.2	752.3	744.4	740.5
20°	737.5	735.5	725.6	712.7	705.8
22.5°	708.8	708.8	696.9	680.1	673.1
25°	682.1	678.1	667.2	643.4	625.6
27.5°	651.4	645.4	633.5	599.9	579.1
30°	617.7	614.7	597.9	554.4	538.5
32.5°	586.0	581.1	563.3	517.7	504.9
35°	553.4	549.4	522.7	483.1	471.2
37.5°	520.7	515.7	482.1	450.4	435.6
40°	488.0	482.1	445.5	416.8	400.9
42.5°	457.3	449.4	413.8	383.1	365.3
45°	424.7	415.8	380.1	348.5	334.6
47.5°	392.0	384.1	351.4	318.8	302.9
50°	357.4	350.4	320.7	288.1	271.2
52.5°	328.7	317.8	289.1	256.4	242.5
55°	295.0	286.1	259.4	228.7	216.8
57.5°	264.3	255.4	230.7	201.9	192.0
60°	235.6	222.7	201.9	177.2	169.3
62.5°	203.9	194.0	176.2	155.4	165.3
65°	175.2	165.3	149.5	152.4	126.7
67.5°	143.5	138.6	124.7	110.9	106.9
70°	116.8	110.9	105.9	91.1	87.1
72.5°	93.1	87.1	80.2	72.3	69.3
75°	70.3	65.3	61.4	58.4	64.3
77.5°	48.5	46.5	43.6	40.6	39.6
80°	31.7	30.7	29.7	28.7	27.7
82.5°	18.8	18.8	18.8	18.8	18.8
85°	9.9	10.9	11.9	12.9	13.9
87.5°	5.9	5.9	6.9	7.9	8.9
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)