

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: P545690

Luminaire Tested: **FMR-12-2-LD4-2LO-50-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: P545690
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-LD4-2LO-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

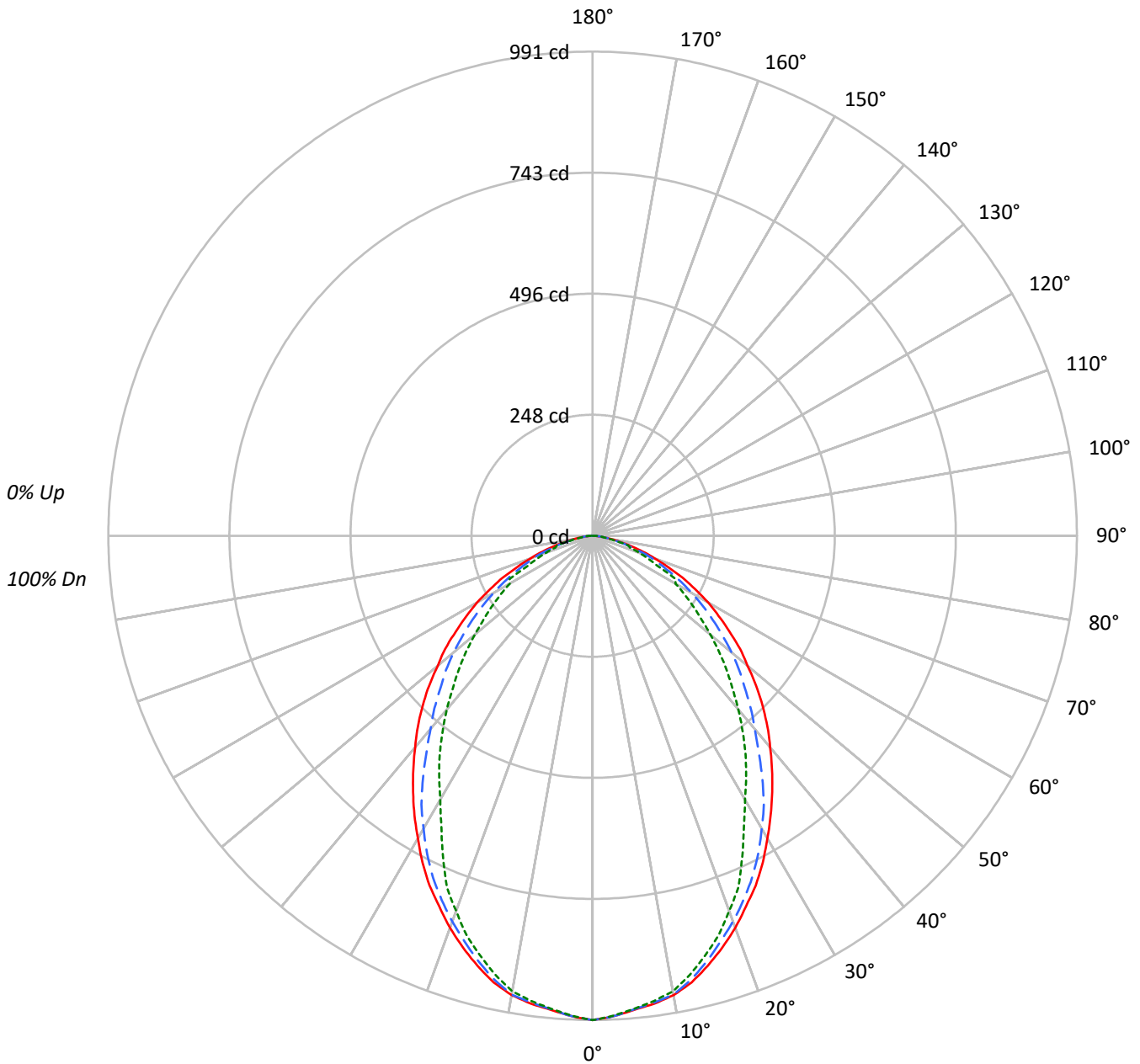
Lumens per Lamp: N/A
Luminaire Lumens: 1946.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	5335	5335	5335
5°	5263	5256	5250
10°	5217	5210	5173
15°	5076	5025	4955
20°	4889	4811	4680
25°	4689	4587	4301
30°	4444	4302	3874
35°	4209	3976	3584
40°	3969	3623	3261
45°	3742	3350	2948
50°	3464	3109	2629
55°	3204	2817	2355
60°	2935	2517	2110
65°	2583	2203	1868
70°	2127	1929	1586
75°	1693	1478	1549
80°	1137	1066	995
85°	710	852	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	4.7
10°-20°	253.2	13.0
20°-30°	350.6	18.0
30°-40°	373.8	19.2
40°-50°	341.0	17.5
50°-60°	267.2	13.7
60°-70°	174.1	8.9
70°-80°	77.1	4.0
80°-90°	16.6	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°	696.1	35.8
0°-40°	1069.9	55.0
0°-60°	1678.2	86.2
0°-90°	1946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1946.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	991	991	991	991	991	
5°	974	973	973	972	972	92
15°	911	911	902	893	889	256
25°	790	785	772	745	724	362
35°	641	636	605	559	546	400
45°	492	481	440	403	387	379
55°	342	331	300	265	251	306
65°	203	191	173	176	147	200
75°	81	76	71	68	74	87
85°	12	13	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	991.3	991.3	991.3	991.3	991.3
2.5°	984.4	984.4	984.4	983.2	983.2
5°	974.1	972.9	972.9	971.8	971.8
7.5°	966.1	964.9	963.8	962.6	960.3
10°	954.6	954.6	953.4	947.7	946.6
12.5°	936.3	935.1	930.5	922.5	920.2
15°	911.0	911.0	901.9	892.7	889.3
17.5°	883.5	882.4	870.9	861.8	857.2
20°	853.7	851.5	840.0	825.1	817.1
22.5°	820.5	820.5	806.8	787.3	779.3
25°	789.6	785.0	772.4	744.9	724.3
27.5°	754.1	747.2	733.4	694.5	670.4
30°	715.1	711.6	692.2	641.7	623.4
32.5°	678.4	672.7	652.1	599.3	584.4
35°	640.6	636.0	605.1	559.2	545.5
37.5°	602.8	597.1	558.1	521.4	504.2
40°	565.0	558.1	515.7	482.5	464.1
42.5°	529.4	520.3	479.0	443.5	422.9
45°	491.6	481.3	440.1	403.4	387.3
47.5°	453.8	444.6	406.8	369.0	350.7
50°	413.7	405.7	371.3	333.5	314.0
52.5°	380.5	367.9	334.6	296.8	280.8
55°	341.5	331.2	300.2	264.7	251.0
57.5°	306.0	295.7	267.0	233.8	222.3
60°	272.7	257.8	233.8	205.1	196.0
62.5°	236.1	224.6	204.0	179.9	191.4
65°	202.8	191.4	173.0	176.5	146.7
67.5°	166.2	160.4	144.4	128.3	123.8
70°	135.2	128.3	122.6	105.4	100.8
72.5°	107.7	100.8	92.8	83.7	80.2
75°	81.4	75.6	71.1	67.6	74.5
77.5°	56.2	53.9	50.4	47.0	45.8
80°	36.7	35.5	34.4	33.2	32.1
82.5°	21.8	21.8	21.8	21.8	21.8
85°	11.5	12.6	13.8	14.9	16.0
87.5°	6.9	6.9	8.0	9.2	10.3
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)