

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: P545207

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-80-84-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: P545207
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-50-UNV-80-84-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

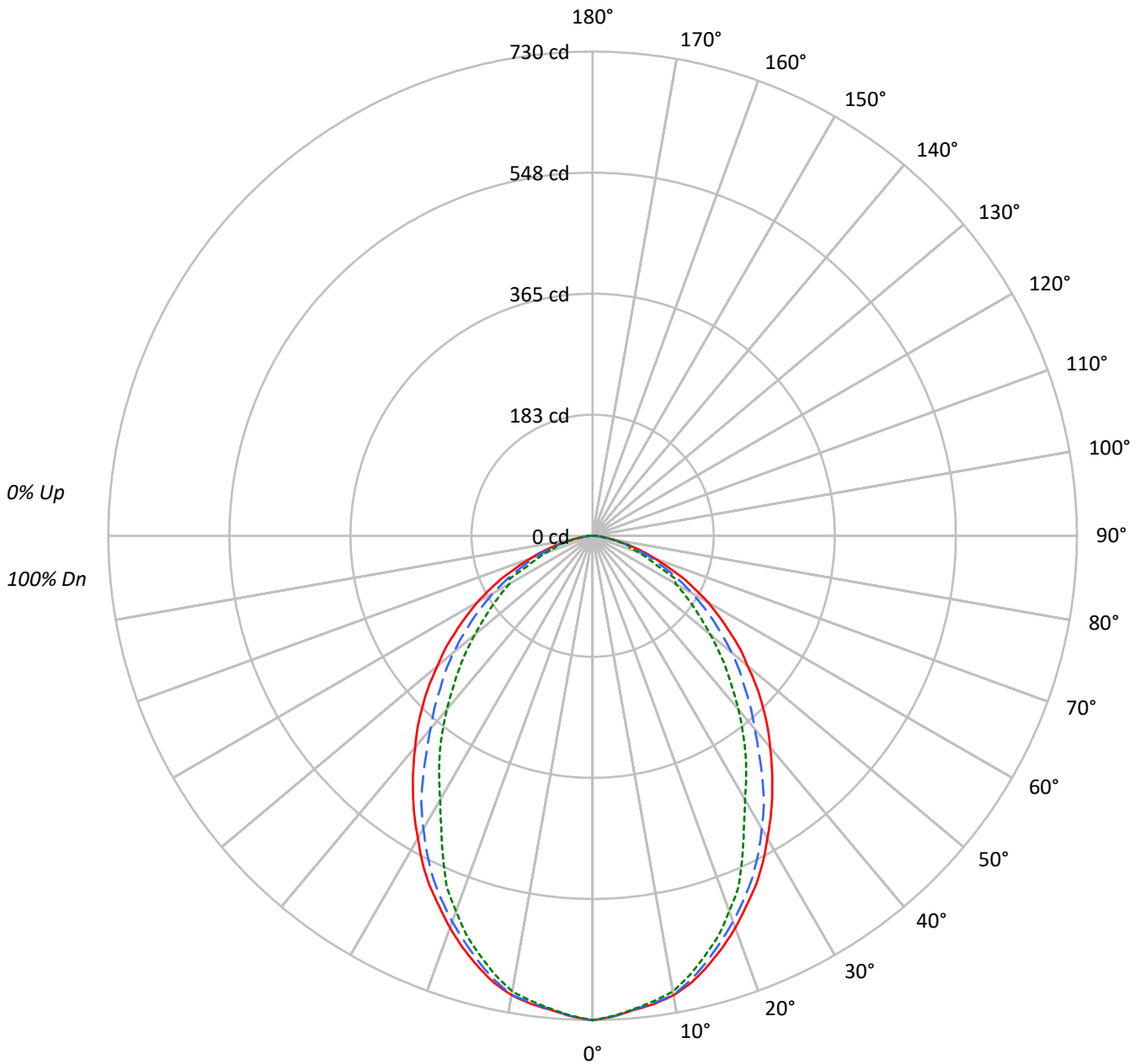
Lumens per Lamp: N/A
Luminaire Lumens: 1434.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	7863	7863	7863
5°	7756	7746	7737
10°	7688	7679	7624
15°	7481	7406	7302
20°	7206	7090	6897
25°	6910	6760	6339
30°	6549	6340	5710
35°	6204	5859	5282
40°	5850	5339	4806
45°	5515	4937	4344
50°	5106	4582	3875
55°	4722	4151	3470
60°	4327	3709	3109
65°	3808	3247	2753
70°	3135	2845	2338
75°	2495	2179	2283
80°	1674	1568	1463
85°	1037	1247	1457



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.0	4.7
10°-20°	186.6	13.0
20°-30°	258.3	18.0
30°-40°	275.5	19.2
40°-50°	251.3	17.5
50°-60°	196.9	13.7
60°-70°	128.3	8.9
70°-80°	56.9	4.0
80°-90°	12.2	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°	512.9	35.8
0°-40°	788.4	55.0
0°-60°	1236.6	86.2
0°-90°	1434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1434.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	718	717	717	716	716	68
15°	671	671	665	658	655	189
25°	582	578	569	549	534	267
35°	472	469	446	412	402	295
45°	362	355	324	297	285	279
55°	252	244	221	195	185	226
65°	150	141	128	130	108	147
75°	60	56	52	50	55	64
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	730.5	730.5	730.5	730.5	730.5
2.5°	725.4	725.4	725.4	724.5	724.5
5°	717.8	716.9	716.9	716.1	716.1
7.5°	711.9	711.0	710.2	709.3	707.7
10°	703.4	703.4	702.6	698.4	697.5
12.5°	689.9	689.1	685.7	679.8	678.1
15°	671.3	671.3	664.6	657.8	655.3
17.5°	651.1	650.2	641.8	635.0	631.7
20°	629.1	627.4	619.0	608.0	602.1
22.5°	604.6	604.6	594.5	580.1	574.2
25°	581.8	578.5	569.2	548.9	533.7
27.5°	555.7	550.6	540.5	511.7	494.0
30°	526.9	524.4	510.1	472.9	459.4
32.5°	499.9	495.7	480.5	441.7	430.7
35°	472.1	468.7	445.9	412.1	402.0
37.5°	444.2	440.0	411.3	384.2	371.6
40°	416.3	411.3	380.0	355.5	342.0
42.5°	390.1	383.4	353.0	326.8	311.6
45°	362.3	354.7	324.3	297.3	285.4
47.5°	334.4	327.7	299.8	271.9	258.4
50°	304.9	298.9	273.6	245.7	231.4
52.5°	280.4	271.1	246.6	218.7	206.9
55°	251.6	244.0	221.2	195.1	184.9
57.5°	225.5	217.9	196.8	172.3	163.8
60°	201.0	190.0	172.3	151.2	144.4
62.5°	174.0	165.5	150.3	132.6	141.0
65°	149.5	141.0	127.5	130.0	108.1
67.5°	122.4	118.2	106.4	94.6	91.2
70°	99.6	94.6	90.4	77.7	74.3
72.5°	79.4	74.3	68.4	61.6	59.1
75°	60.0	55.7	52.4	49.8	54.9
77.5°	41.4	39.7	37.2	34.6	33.8
80°	27.0	26.2	25.3	24.5	23.6
82.5°	16.0	16.0	16.0	16.0	16.0
85°	8.4	9.3	10.1	11.0	11.8
87.5°	5.1	5.1	5.9	6.8	7.6
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)