

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: P544858

Luminaire Tested: **FMR-12-1-LD4-1STD-35-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: P544858
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-LD4-1STD-35-UNV-80-87-EDD
Description: 1X1 FMR TROFFER WITH .125 PRISMATIC ACRYLIC 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

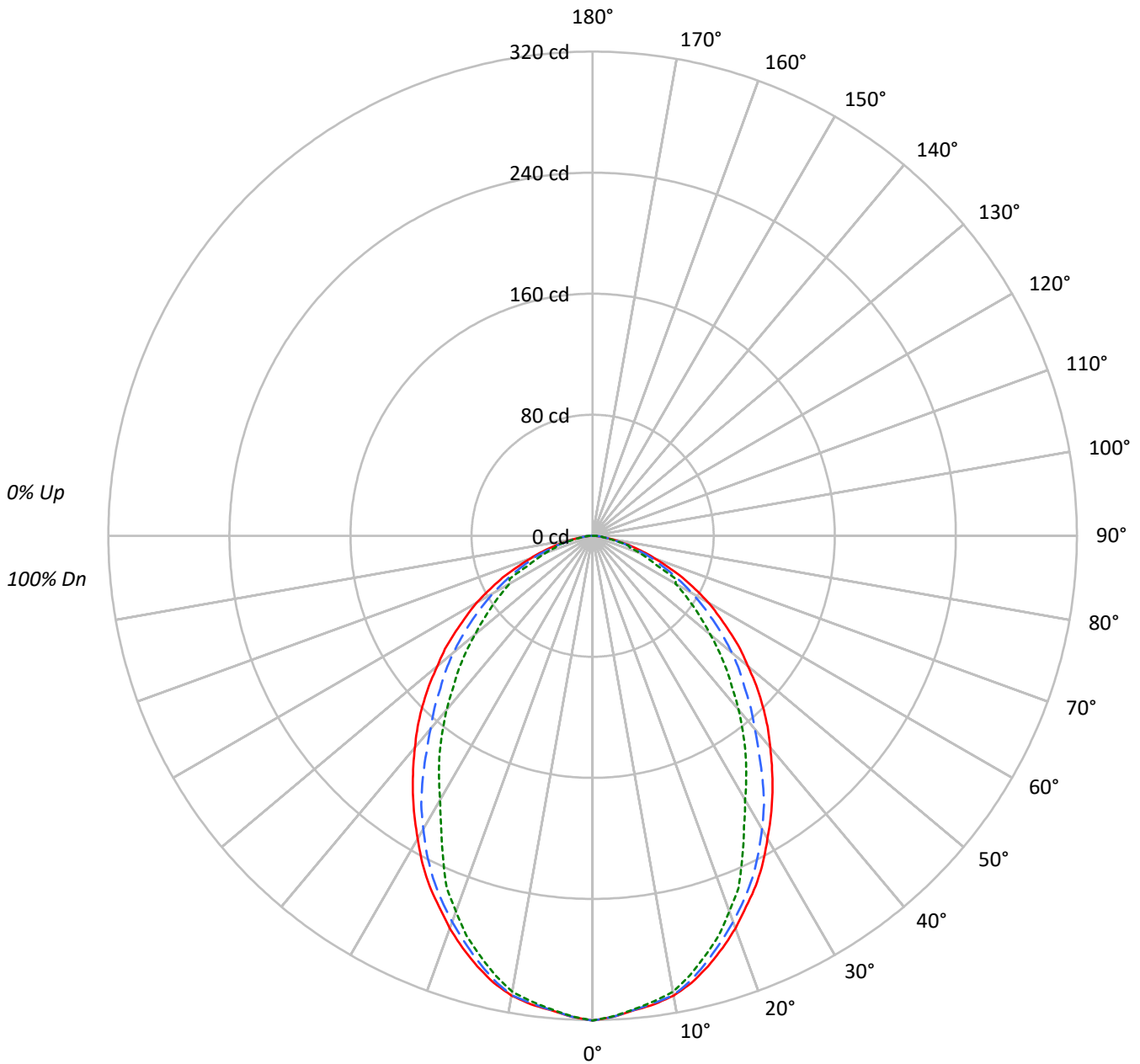
Lumens per Lamp: N/A
Luminaire Lumens: 629.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 8.3
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°	3449	3449	3449
5°	3401	3398	3394
10°	3373	3369	3345
15°	3282	3248	3203
20°	3162	3110	3025
25°	3031	2966	2780
30°	2872	2780	2504
35°	2721	2570	2317
40°	2566	2342	2108
45°	2419	2165	1906
50°	2239	2009	1700
55°	2072	1820	1522
60°	1899	1628	1363
65°	1671	1424	1207
70°	1375	1246	1026
75°	1094	957	1002
80°	738	688	645
85°	457	543	642



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.8	4.7
10°-20°	81.9	13.0
20°-30°	113.3	18.0
30°-40°	120.8	19.2
40°-50°	110.2	17.5
50°-60°	86.4	13.7
60°-70°	56.3	8.9
70°-80°	24.9	4.0
80°-90°	5.3	0.8
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°	225.0	35.8
0°-40°	345.8	55.0
0°-60°	542.4	86.2
0°-90°	629.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	629.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	320	320	320	320	320	
5°	315	314	314	314	314	30
15°	294	294	292	288	287	83
25°	255	254	250	241	234	117
35°	207	206	196	181	176	129
45°	159	156	142	130	125	122
55°	110	107	97	86	81	99
65°	66	62	56	57	47	65
75°	26	24	23	22	24	28
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	320.4	320.4	320.4	320.4	320.4
2.5°	318.2	318.2	318.2	317.8	317.8
5°	314.8	314.5	314.5	314.1	314.1
7.5°	312.3	311.9	311.5	311.1	310.4
10°	308.6	308.6	308.2	306.3	306.0
12.5°	302.6	302.3	300.8	298.2	297.4
15°	294.5	294.5	291.5	288.5	287.4
17.5°	285.6	285.2	281.5	278.5	277.1
20°	276.0	275.2	271.5	266.7	264.1
22.5°	265.2	265.2	260.8	254.5	251.9
25°	255.2	253.7	249.7	240.8	234.1
27.5°	243.7	241.5	237.1	224.5	216.7
30°	231.1	230.0	223.7	207.4	201.5
32.5°	219.3	217.4	210.8	193.7	188.9
35°	207.1	205.6	195.6	180.8	176.3
37.5°	194.8	193.0	180.4	168.5	163.0
40°	182.6	180.4	166.7	155.9	150.0
42.5°	171.1	168.2	154.8	143.3	136.7
45°	158.9	155.6	142.2	130.4	125.2
47.5°	146.7	143.7	131.5	119.3	113.3
50°	133.7	131.1	120.0	107.8	101.5
52.5°	123.0	118.9	108.2	95.9	90.8
55°	110.4	107.0	97.0	85.6	81.1
57.5°	98.9	95.6	86.3	75.6	71.9
60°	88.2	83.3	75.6	66.3	63.3
62.5°	76.3	72.6	65.9	58.2	61.9
65°	65.6	61.9	55.9	57.0	47.4
67.5°	53.7	51.9	46.7	41.5	40.0
70°	43.7	41.5	39.6	34.1	32.6
72.5°	34.8	32.6	30.0	27.0	25.9
75°	26.3	24.4	23.0	21.9	24.1
77.5°	18.2	17.4	16.3	15.2	14.8
80°	11.9	11.5	11.1	10.7	10.4
82.5°	7.0	7.0	7.0	7.0	7.0
85°	3.7	4.1	4.4	4.8	5.2
87.5°	2.2	2.2	2.6	3.0	3.3
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)