

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: P545155

Luminaire Tested: **FMR-12-1-LD4-2STD-35-UNV-81-88-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: P545155
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-35-UNV-81-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

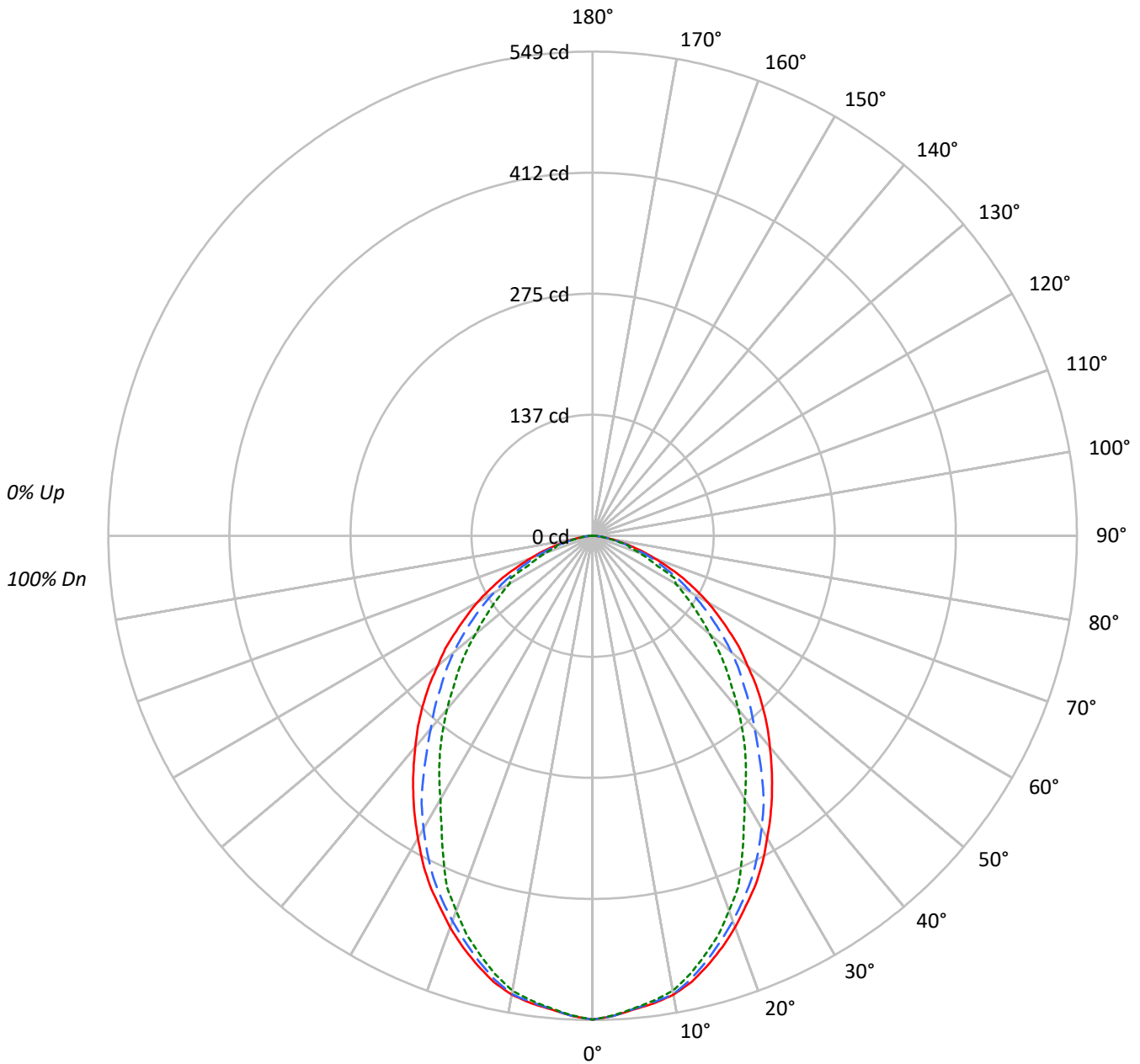
Lumens per Lamp: N/A
Luminaire Lumens: 1077.0 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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°	5905	5905	5905
5°	5825	5819	5811
10°	5774	5768	5726
15°	5619	5562	5485
20°	5412	5325	5180
25°	5190	5077	4760
30°	4919	4762	4288
35°	4658	4401	3967
40°	4394	4010	3610
45°	4142	3707	3264
50°	3835	3441	2910
55°	3547	3119	2607
60°	3249	2786	2336
65°	2860	2440	2068
70°	2354	2137	1756
75°	1871	1634	1713
80°	1258	1178	1103
85°	778	939	1099



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	4.7
10°-20°	140.2	13.0
20°-30°	194.0	18.0
30°-40°	206.9	19.2
40°-50°	188.7	17.5
50°-60°	147.9	13.7
60°-70°	96.4	8.9
70°-80°	42.7	4.0
80°-90°	9.2	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°	385.2	35.8
0°-40°	592.1	55.0
0°-60°	928.8	86.2
0°-90°	1077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	549	549	549	549	549	
5°	539	538	538	538	538	51
15°	504	504	499	494	492	142
25°	437	434	428	412	401	201
35°	354	352	335	310	302	222
45°	272	266	244	223	214	210
55°	189	183	166	146	139	170
65°	112	106	96	98	81	111
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	548.6	548.6	548.6	548.6	548.6
2.5°	544.8	544.8	544.8	544.2	544.2
5°	539.1	538.5	538.5	537.8	537.8
7.5°	534.7	534.0	533.4	532.8	531.5
10°	528.3	528.3	527.7	524.5	523.9
12.5°	518.2	517.5	515.0	510.6	509.3
15°	504.2	504.2	499.1	494.1	492.2
17.5°	489.0	488.4	482.0	476.9	474.4
20°	472.5	471.2	464.9	456.6	452.2
22.5°	454.1	454.1	446.5	435.7	431.3
25°	437.0	434.4	427.5	412.2	400.8
27.5°	417.3	413.5	405.9	384.3	371.0
30°	395.8	393.9	383.1	355.2	345.0
32.5°	375.5	372.3	360.9	331.7	323.5
35°	354.5	352.0	334.9	309.5	301.9
37.5°	333.6	330.4	308.9	288.6	279.1
40°	312.7	308.9	285.4	267.0	256.9
42.5°	293.0	287.9	265.1	245.4	234.0
45°	272.1	266.4	243.5	223.2	214.4
47.5°	251.2	246.1	225.2	204.2	194.1
50°	229.0	224.5	205.5	184.6	173.8
52.5°	210.6	203.6	185.2	164.3	155.4
55°	189.0	183.3	166.2	146.5	138.9
57.5°	169.3	163.6	147.8	129.4	123.0
60°	150.9	142.7	129.4	113.5	108.5
62.5°	130.7	124.3	112.9	99.6	105.9
65°	112.3	105.9	95.8	97.7	81.2
67.5°	92.0	88.8	79.9	71.0	68.5
70°	74.8	71.0	67.9	58.3	55.8
72.5°	59.6	55.8	51.4	46.3	44.4
75°	45.0	41.9	39.3	37.4	41.2
77.5°	31.1	29.8	27.9	26.0	25.4
80°	20.3	19.7	19.0	18.4	17.8
82.5°	12.1	12.1	12.1	12.1	12.1
85°	6.3	7.0	7.6	8.2	8.9
87.5°	3.8	3.8	4.4	5.1	5.7
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)