

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: P545347

Luminaire Tested: **FMR-12-2-LD4-1LO-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: P545347
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-LD4-1LO-35-UNV-81-88-EDD
Description: 1X2 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

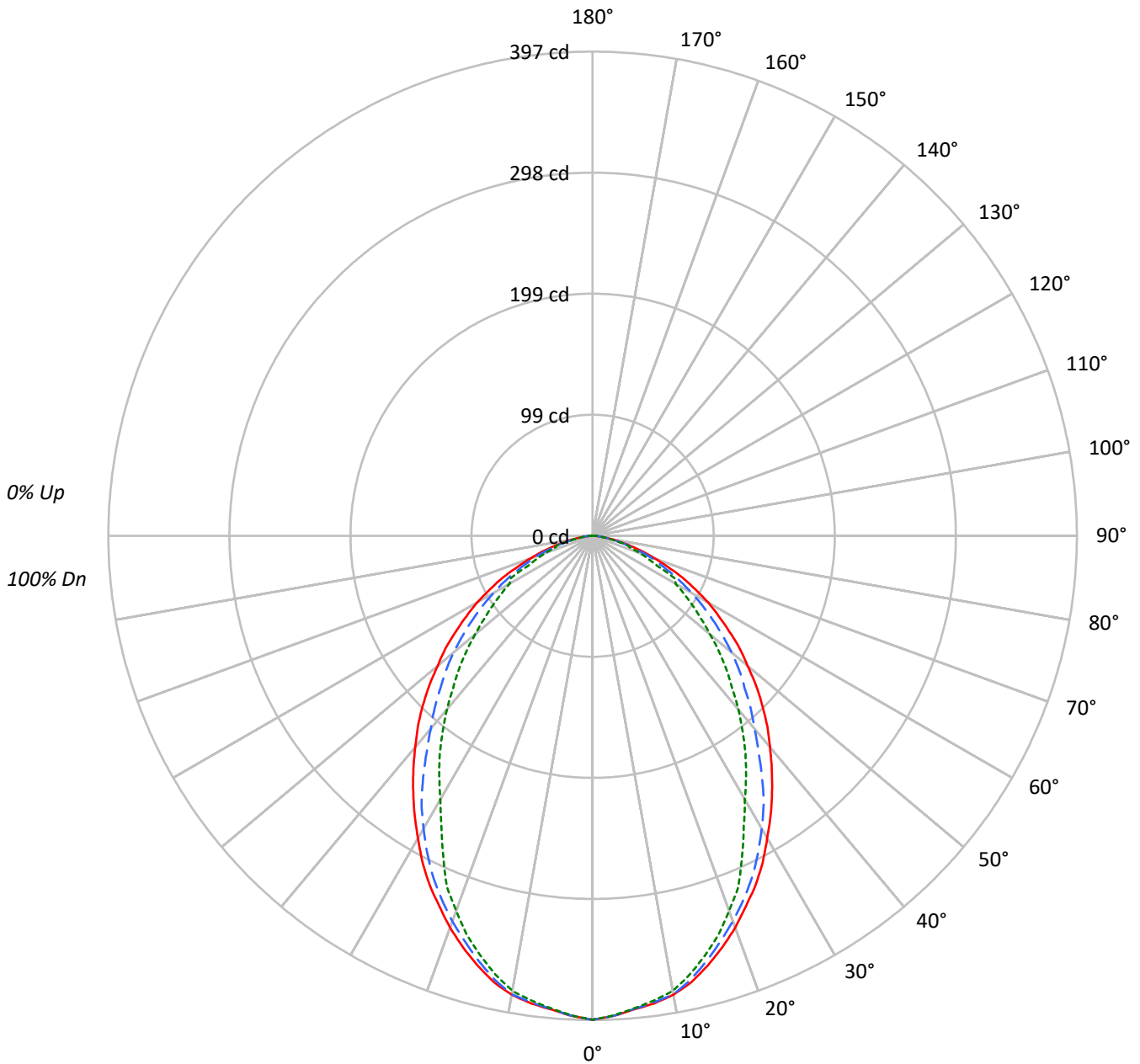
Lumens per Lamp: N/A
Luminaire Lumens: 779.0 lumens
Efficiency: N/A
Efficacy: 66.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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

TEST NUMBER: P545347

CATALOG NUMBER: FMR-12-2-LD4-1LO-35-UNV-81-88-EDD

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°	2136	2136	2136
5°	2106	2104	2102
10°	2088	2086	2071
15°	2032	2011	1984
20°	1958	1926	1873
25°	1877	1836	1722
30°	1779	1722	1551
35°	1685	1591	1435
40°	1589	1450	1305
45°	1498	1341	1181
50°	1387	1244	1052
55°	1283	1128	943
60°	1175	1008	844
65°	1034	883	748
70°	851	773	636
75°	678	591	620
80°	456	428	397
85°	284	340	395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.9	4.7
10°-20°	101.4	13.0
20°-30°	140.4	18.0
30°-40°	149.6	19.2
40°-50°	136.5	17.5
50°-60°	107.0	13.7
60°-70°	69.7	8.9
70°-80°	30.9	4.0
80°-90°	6.6	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°	278.7	35.8
0°-40°	428.3	55.0
0°-60°	671.8	86.2
0°-90°	779.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	390	390	390	389	389	37
15°	365	365	361	357	356	103
25°	316	314	309	298	290	145
35°	256	255	242	224	218	160
45°	197	193	176	162	155	152
55°	137	133	120	106	100	123
65°	81	77	69	71	59	80
75°	33	30	28	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	396.8	396.8	396.8	396.8	396.8
2.5°	394.1	394.1	394.1	393.6	393.6
5°	389.9	389.5	389.5	389.0	389.0
7.5°	386.7	386.3	385.8	385.3	384.4
10°	382.1	382.1	381.7	379.4	378.9
12.5°	374.8	374.3	372.5	369.3	368.4
15°	364.7	364.7	361.0	357.4	356.0
17.5°	353.7	353.2	348.6	345.0	343.1
20°	341.8	340.8	336.3	330.3	327.1
22.5°	328.5	328.5	323.0	315.2	311.9
25°	316.1	314.2	309.2	298.2	289.9
27.5°	301.9	299.1	293.6	278.0	268.4
30°	286.3	284.9	277.1	256.9	249.6
32.5°	271.6	269.3	261.0	239.9	234.0
35°	256.4	254.6	242.2	223.9	218.4
37.5°	241.3	239.0	223.4	208.7	201.8
40°	226.2	223.4	206.4	193.1	185.8
42.5°	211.9	208.3	191.8	177.5	169.3
45°	196.8	192.7	176.2	161.5	155.1
47.5°	181.7	178.0	162.9	147.7	140.4
50°	165.6	162.4	148.6	133.5	125.7
52.5°	152.3	147.3	134.0	118.8	112.4
55°	136.7	132.6	120.2	106.0	100.5
57.5°	122.5	118.4	106.9	93.6	89.0
60°	109.2	103.2	93.6	82.1	78.4
62.5°	94.5	89.9	81.7	72.0	76.6
65°	81.2	76.6	69.3	70.6	58.7
67.5°	66.5	64.2	57.8	51.4	49.5
70°	54.1	51.4	49.1	42.2	40.4
72.5°	43.1	40.4	37.2	33.5	32.1
75°	32.6	30.3	28.4	27.1	29.8
77.5°	22.5	21.6	20.2	18.8	18.3
80°	14.7	14.2	13.8	13.3	12.8
82.5°	8.7	8.7	8.7	8.7	8.7
85°	4.6	5.0	5.5	6.0	6.4
87.5°	2.8	2.8	3.2	3.7	4.1
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)