

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: P545544

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-82-85-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: P545544
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-LD4-2HI-35-UNV-82-85-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

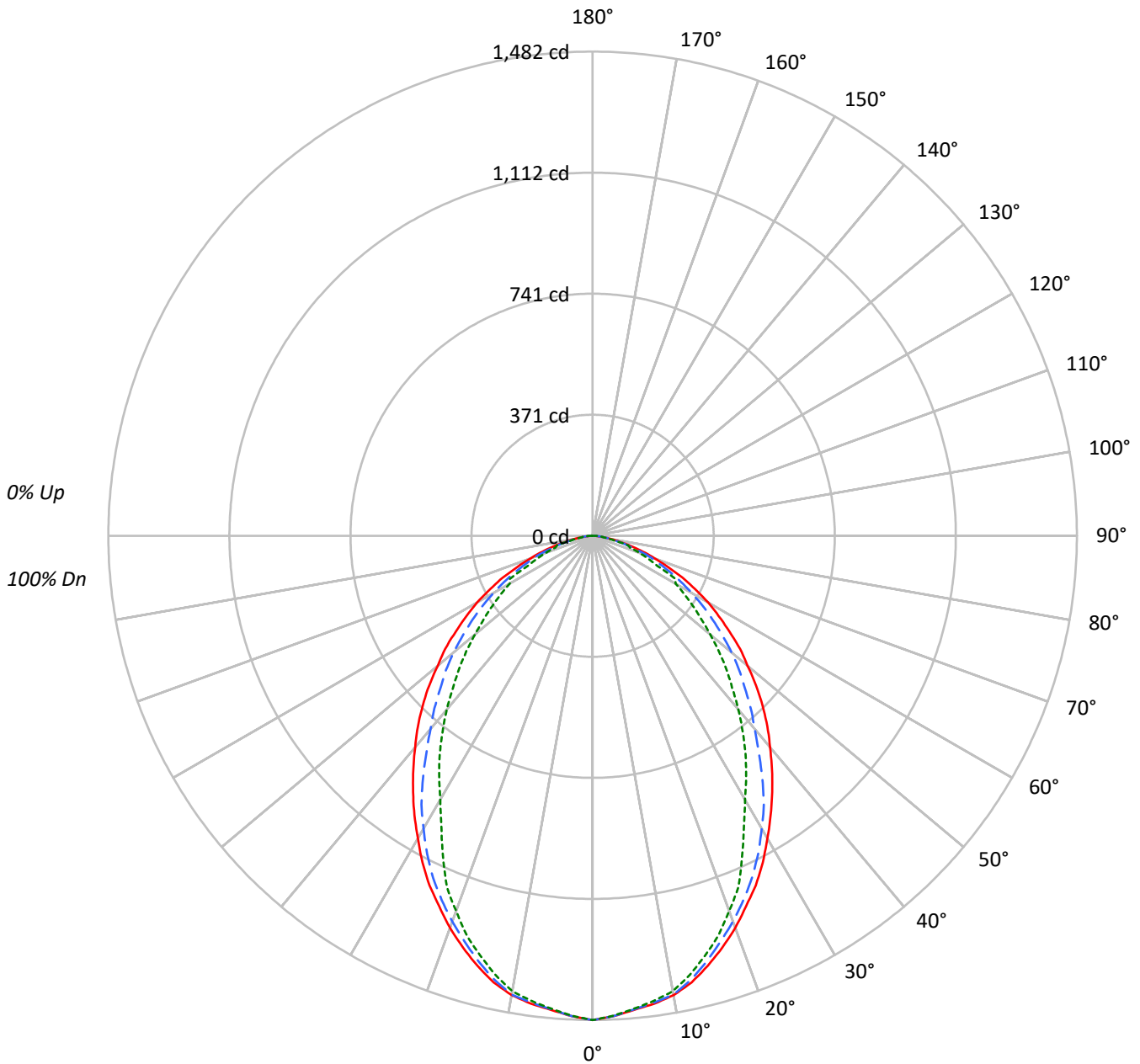
Lumens per Lamp: N/A
Luminaire Lumens: 2910.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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: P545544

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-82-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P545544

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-82-85-EDD

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°	7978	7978	7978
5°	7869	7860	7851
10°	7801	7792	7736
15°	7591	7514	7409
20°	7312	7194	6998
25°	7011	6859	6431
30°	6645	6433	5793
35°	6294	5945	5359
40°	5935	5417	4876
45°	5596	5008	4408
50°	5179	4649	3931
55°	4792	4213	3521
60°	4391	3763	3154
65°	3862	3296	2793
70°	3182	2886	2373
75°	2531	2208	2316
80°	1698	1593	1488
85°	1056	1272	1482



TEST NUMBER: P545544

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-82-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	4.7
10°-20°	378.7	13.0
20°-30°	524.3	18.0
30°-40°	559.0	19.2
40°-50°	510.0	17.5
50°-60°	399.5	13.7
60°-70°	260.4	8.9
70°-80°	115.4	4.0
80°-90°	24.8	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°	1040.9	35.8
0°-40°	1599.9	55.0
0°-60°	2509.5	86.2
0°-90°	2910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1482	1482	1482	1482	1482	
5°	1457	1455	1455	1453	1453	138
15°	1362	1362	1349	1335	1330	383
25°	1181	1174	1155	1114	1083	542
35°	958	951	905	836	816	599
45°	735	720	658	603	579	566
55°	511	495	449	396	375	458
65°	303	286	259	264	219	299
75°	122	113	106	101	111	130
85°	17	19	21	22	24	24
90°	0	0	0	0	0	



TEST NUMBER: P545544

CATALOG NUMBER: FMR-12-2-LD4-2HI-35-UNV-82-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1482.3	1482.3	1482.3	1482.3	1482.3
2.5°	1472.0	1472.0	1472.0	1470.3	1470.3
5°	1456.6	1454.9	1454.9	1453.2	1453.2
7.5°	1444.6	1442.9	1441.2	1439.5	1436.0
10°	1427.5	1427.5	1425.8	1417.2	1415.5
12.5°	1400.1	1398.3	1391.5	1379.5	1376.1
15°	1362.4	1362.4	1348.6	1334.9	1329.8
17.5°	1321.2	1319.5	1302.4	1288.7	1281.8
20°	1276.7	1273.2	1256.1	1233.8	1221.8
22.5°	1227.0	1227.0	1206.4	1177.3	1165.3
25°	1180.7	1173.9	1155.0	1113.9	1083.0
27.5°	1127.6	1117.3	1096.7	1038.5	1002.5
30°	1069.3	1064.2	1035.1	959.6	932.2
32.5°	1014.5	1005.9	975.1	896.2	874.0
35°	957.9	951.1	904.8	836.3	815.7
37.5°	901.4	892.8	834.6	779.7	754.0
40°	844.8	834.6	771.1	721.5	694.0
42.5°	791.7	778.0	716.3	663.2	632.3
45°	735.2	719.7	658.0	603.2	579.2
47.5°	678.6	664.9	608.3	551.8	524.4
50°	618.6	606.6	555.2	498.7	469.5
52.5°	568.9	550.1	500.4	443.8	419.8
55°	510.7	495.2	449.0	395.9	375.3
57.5°	457.5	442.1	399.3	349.6	332.4
60°	407.9	385.6	349.6	306.7	293.0
62.5°	353.0	335.9	305.0	269.0	286.2
65°	303.3	286.2	258.8	263.9	219.3
67.5°	248.5	239.9	215.9	191.9	185.1
70°	202.2	191.9	183.4	157.7	150.8
72.5°	161.1	150.8	138.8	125.1	120.0
75°	121.7	113.1	106.2	101.1	111.4
77.5°	84.0	80.5	75.4	70.3	68.5
80°	54.8	53.1	51.4	49.7	48.0
82.5°	32.6	32.6	32.6	32.6	32.6
85°	17.1	18.9	20.6	22.3	24.0
87.5°	10.3	10.3	12.0	13.7	15.4
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)