

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: P545450

Luminaire Tested: **FMR-12-2-LD4-1STD-35-UNV-82-87-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: P545450
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-LD4-1STD-35-UNV-82-87-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC 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

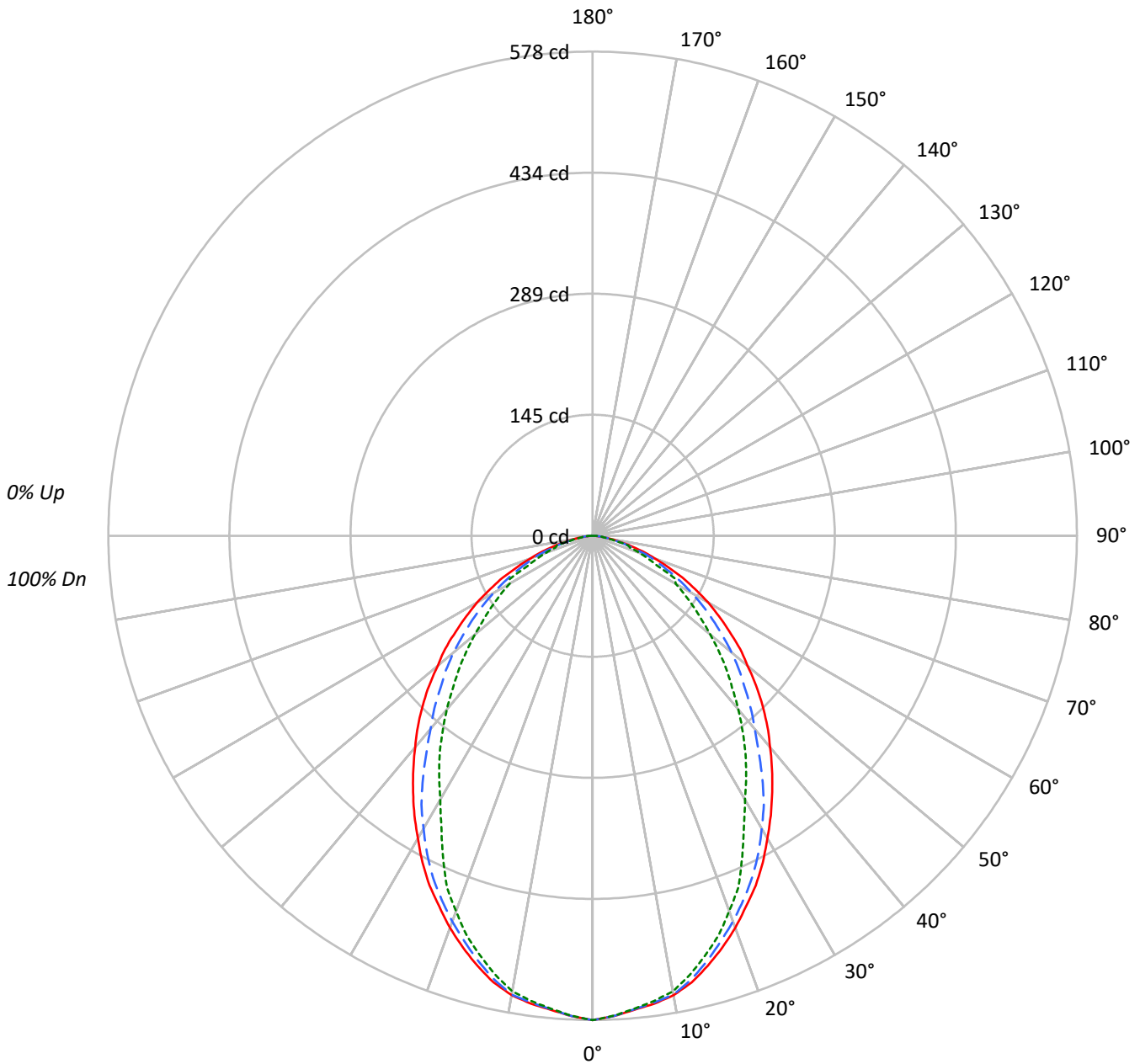
Lumens per Lamp: N/A
Luminaire Lumens: 1135.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P545450

CATALOG NUMBER: FMR-12-2-LD4-1STD-35-UNV-82-87-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°	3112	3112	3112
5°	3069	3066	3062
10°	3043	3039	3017
15°	2961	2931	2890
20°	2852	2806	2730
25°	2735	2675	2508
30°	2592	2509	2260
35°	2455	2319	2091
40°	2315	2113	1902
45°	2182	1954	1719
50°	2020	1814	1533
55°	1869	1643	1374
60°	1713	1468	1230
65°	1507	1285	1090
70°	1242	1125	925
75°	988	861	902
80°	663	623	580
85°	414	494	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	4.7
10°-20°	147.7	13.0
20°-30°	204.5	18.0
30°-40°	218.0	19.2
40°-50°	198.9	17.5
50°-60°	155.8	13.7
60°-70°	101.6	8.9
70°-80°	45.0	4.0
80°-90°	9.7	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°	406.0	35.8
0°-40°	624.0	55.0
0°-60°	978.8	86.2
0°-90°	1135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1135.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	578	578	578	578	578	
5°	568	568	568	567	567	54
15°	531	531	526	521	519	149
25°	460	458	450	434	422	211
35°	374	371	353	326	318	234
45°	287	281	257	235	226	221
55°	199	193	175	154	146	179
65°	118	112	101	103	86	117
75°	48	44	41	39	43	51
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	578.2	578.2	578.2	578.2	578.2
2.5°	574.1	574.1	574.1	573.5	573.5
5°	568.1	567.5	567.5	566.8	566.8
7.5°	563.4	562.8	562.1	561.4	560.1
10°	556.8	556.8	556.1	552.8	552.1
12.5°	546.1	545.4	542.7	538.1	536.7
15°	531.4	531.4	526.0	520.7	518.7
17.5°	515.3	514.7	508.0	502.6	500.0
20°	497.9	496.6	489.9	481.2	476.6
22.5°	478.6	478.6	470.5	459.2	454.5
25°	460.5	457.8	450.5	434.5	422.4
27.5°	439.8	435.8	427.8	405.0	391.0
30°	417.1	415.1	403.7	374.3	363.6
32.5°	395.7	392.3	380.3	349.6	340.9
35°	373.6	371.0	352.9	326.2	318.2
37.5°	351.6	348.2	325.5	304.1	294.1
40°	329.5	325.5	300.8	281.4	270.7
42.5°	308.8	303.4	279.4	258.7	246.6
45°	286.7	280.7	256.7	235.3	225.9
47.5°	264.7	259.3	237.3	215.2	204.5
50°	241.3	236.6	216.6	194.5	183.1
52.5°	221.9	214.6	195.2	173.1	163.8
55°	199.2	193.2	175.1	154.4	146.4
57.5°	178.5	172.4	155.7	136.4	129.7
60°	159.1	150.4	136.4	119.6	114.3
62.5°	137.7	131.0	119.0	104.9	111.6
65°	118.3	111.6	100.9	102.9	85.6
67.5°	96.9	93.6	84.2	74.9	72.2
70°	78.9	74.9	71.5	61.5	58.8
72.5°	62.8	58.8	54.1	48.8	46.8
75°	47.5	44.1	41.4	39.4	43.4
77.5°	32.8	31.4	29.4	27.4	26.7
80°	21.4	20.7	20.1	19.4	18.7
82.5°	12.7	12.7	12.7	12.7	12.7
85°	6.7	7.4	8.0	8.7	9.4
87.5°	4.0	4.0	4.7	5.3	6.0
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)