

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: P545736

Luminaire Tested: **FMR-12-2-LD4-2STD-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: P545736
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-LD4-2STD-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

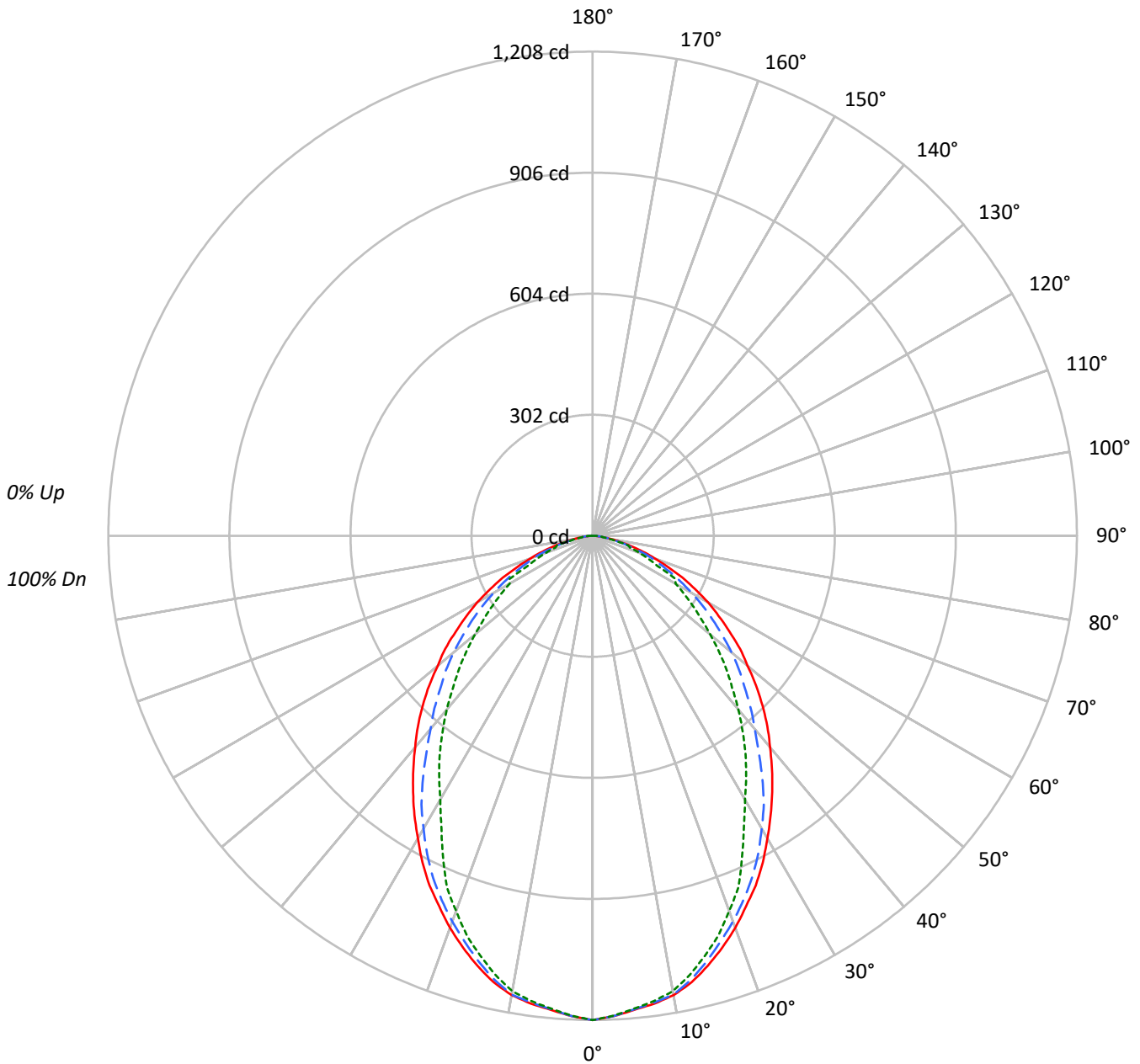
Lumens per Lamp: N/A
Luminaire Lumens: 2372.0 lumens
Efficiency: N/A
Efficacy: 71.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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

TEST NUMBER: P545736

CATALOG NUMBER: FMR-12-2-LD4-2STD-35-UNV-82-85-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°	6503	6503	6503
5°	6414	6407	6399
10°	6359	6351	6305
15°	6187	6125	6039
20°	5960	5864	5704
25°	5715	5591	5242
30°	5417	5243	4722
35°	5130	4845	4368
40°	4838	4416	3974
45°	4561	4083	3593
50°	4222	3790	3204
55°	3906	3434	2870
60°	3578	3068	2571
65°	3148	2686	2277
70°	2593	2353	1934
75°	2063	1801	1888
80°	1385	1299	1212
85°	865	1037	1210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	4.7
10°-20°	308.7	13.0
20°-30°	427.3	18.0
30°-40°	455.7	19.2
40°-50°	415.7	17.5
50°-60°	325.7	13.7
60°-70°	212.2	8.9
70°-80°	94.0	4.0
80°-90°	20.2	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°	848.5	35.8
0°-40°	1304.1	55.0
0°-60°	2045.5	86.2
0°-90°	2372.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2372.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1208	1208	1208	1208	1208	
5°	1187	1186	1186	1184	1184	113
15°	1110	1110	1099	1088	1084	312
25°	962	957	942	908	883	442
35°	781	775	738	682	665	488
45°	599	587	536	492	472	462
55°	416	404	366	323	306	373
65°	247	233	211	215	179	244
75°	99	92	87	82	91	106
85°	14	15	17	18	20	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1208.3	1208.3	1208.3	1208.3	1208.3
2.5°	1199.9	1199.9	1199.9	1198.5	1198.5
5°	1187.3	1185.9	1185.9	1184.5	1184.5
7.5°	1177.5	1176.1	1174.7	1173.3	1170.6
10°	1163.6	1163.6	1162.2	1155.2	1153.8
12.5°	1141.2	1139.8	1134.2	1124.5	1121.7
15°	1110.5	1110.5	1099.3	1088.1	1083.9
17.5°	1077.0	1075.6	1061.6	1050.4	1044.8
20°	1040.6	1037.9	1023.9	1005.7	995.9
22.5°	1000.1	1000.1	983.4	959.6	949.9
25°	962.4	956.8	941.5	907.9	882.8
27.5°	919.1	910.7	894.0	846.5	817.2
30°	871.6	867.4	843.7	782.2	759.9
32.5°	826.9	819.9	794.8	730.5	712.4
35°	780.8	775.2	737.5	681.7	664.9
37.5°	734.7	727.8	680.3	635.6	614.6
40°	688.6	680.3	628.6	588.1	565.7
42.5°	645.3	634.2	583.9	540.6	515.4
45°	599.2	586.7	536.4	491.7	472.1
47.5°	553.1	542.0	495.9	449.8	427.4
50°	504.3	494.5	452.6	406.5	382.7
52.5°	463.8	448.4	407.9	361.8	342.2
55°	416.3	403.7	366.0	322.7	305.9
57.5°	373.0	360.4	325.5	285.0	271.0
60°	332.4	314.3	285.0	250.0	238.9
62.5°	287.7	273.8	248.6	219.3	233.3
65°	247.2	233.3	210.9	215.1	178.8
67.5°	202.5	195.6	176.0	156.4	150.9
70°	164.8	156.4	149.5	128.5	122.9
72.5°	131.3	122.9	113.1	102.0	97.8
75°	99.2	92.2	86.6	82.4	90.8
77.5°	68.4	65.7	61.5	57.3	55.9
80°	44.7	43.3	41.9	40.5	39.1
82.5°	26.5	26.5	26.5	26.5	26.5
85°	14.0	15.4	16.8	18.2	19.6
87.5°	8.4	8.4	9.8	11.2	12.6
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)