

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: P547243

Luminaire Tested: **FMR-24-4-LD4-3STD-50-UNV-82-88-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: P547243
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-24-4-LD4-3STD-50-UNV-82-88-EDD
Description: 2X4 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

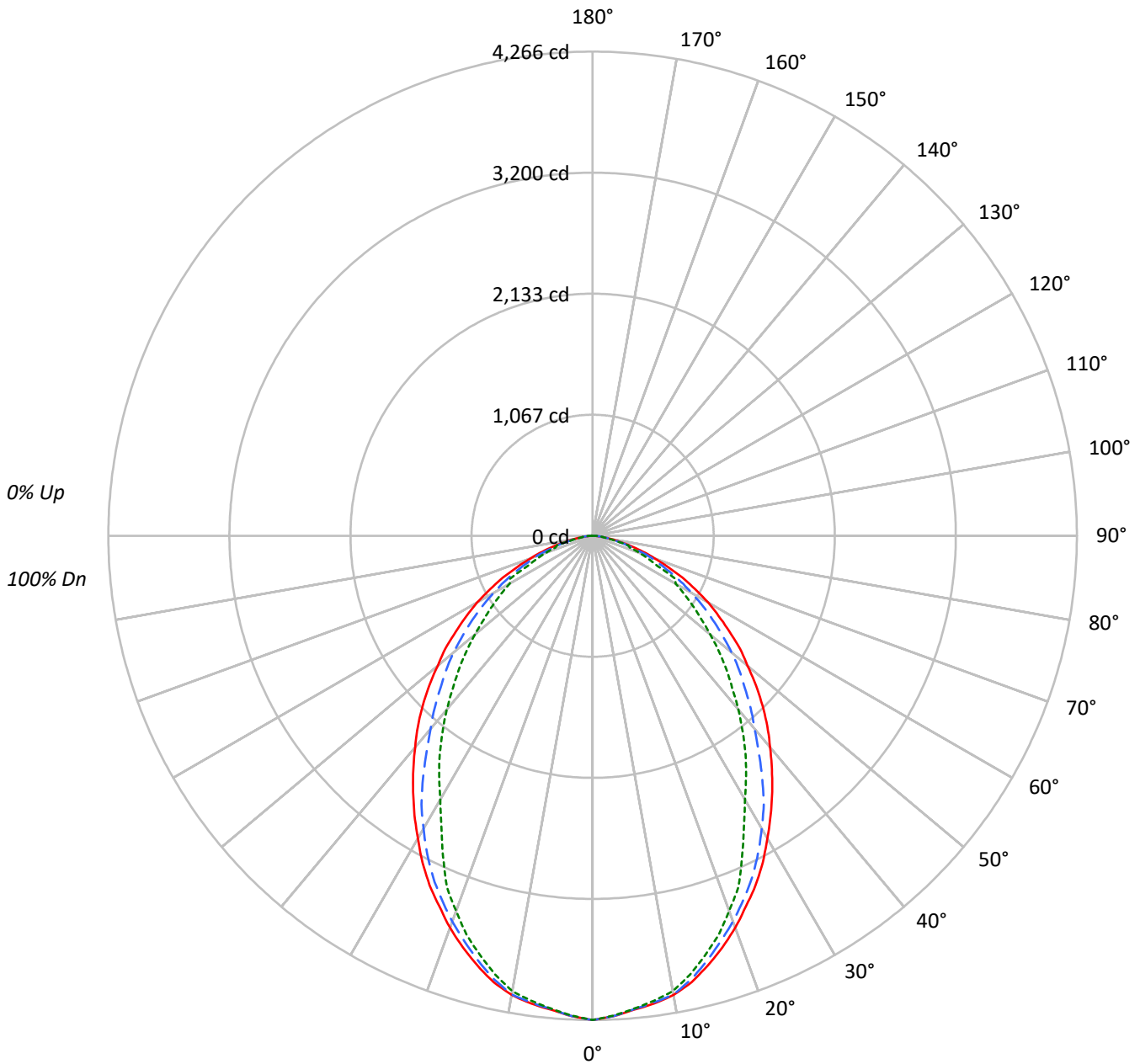
Lumens per Lamp: N/A
Luminaire Lumens: 8375.0 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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: P547243

CATALOG NUMBER: FMR-24-4-LD4-3STD-50-UNV-82-88-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°	5740	5740	5740
5°	5662	5655	5649
10°	5613	5606	5566
15°	5462	5407	5331
20°	5261	5176	5035
25°	5045	4935	4627
30°	4781	4628	4168
35°	4528	4277	3856
40°	4271	3898	3508
45°	4026	3604	3172
50°	3727	3345	2829
55°	3448	3031	2534
60°	3159	2707	2270
65°	2779	2371	2010
70°	2290	2076	1707
75°	1821	1590	1667
80°	1223	1147	1070
85°	761	914	1065



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	397.1	4.7
10°-20°	1089.9	13.0
20°-30°	1508.8	18.0
30°-40°	1608.8	19.2
40°-50°	1467.7	17.5
50°-60°	1149.9	13.7
60°-70°	749.4	8.9
70°-80°	332.0	4.0
80°-90°	71.3	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°	2995.8	35.8
0°-40°	4604.7	55.0
0°-60°	7222.2	86.2
0°-90°	8375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8375.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4266	4266	4266	4266	4266	
5°	4192	4187	4187	4182	4182	398
15°	3921	3921	3881	3842	3827	1102
25°	3398	3378	3324	3206	3117	1560
35°	2757	2737	2604	2407	2348	1724
45°	2116	2071	1894	1736	1667	1630
55°	1470	1425	1292	1139	1080	1318
65°	873	824	745	760	631	860
75°	350	326	306	291	321	375
85°	49	54	59	64	69	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4266.1	4266.1	4266.1	4266.1	4266.1
2.5°	4236.5	4236.5	4236.5	4231.6	4231.6
5°	4192.1	4187.2	4187.2	4182.3	4182.3
7.5°	4157.6	4152.7	4147.7	4142.8	4133.0
10°	4108.3	4108.3	4103.4	4078.7	4073.8
12.5°	4029.4	4024.4	4004.7	3970.2	3960.3
15°	3920.9	3920.9	3881.4	3842.0	3827.2
17.5°	3802.5	3797.6	3748.3	3708.8	3689.1
20°	3674.3	3664.4	3615.1	3551.0	3516.5
22.5°	3531.3	3531.3	3472.1	3388.2	3353.7
25°	3398.1	3378.4	3324.1	3205.7	3117.0
27.5°	3245.2	3215.6	3156.4	2988.7	2885.2
30°	3077.5	3062.7	2978.9	2761.9	2683.0
32.5°	2919.7	2895.0	2806.3	2579.4	2515.3
35°	2756.9	2737.2	2604.1	2406.8	2347.6
37.5°	2594.2	2569.5	2401.8	2244.0	2170.0
40°	2431.4	2401.8	2219.4	2076.3	1997.4
42.5°	2278.5	2239.1	2061.5	1908.7	1819.9
45°	2115.8	2071.4	1893.9	1736.0	1667.0
47.5°	1953.0	1913.6	1750.8	1588.1	1509.2
50°	1780.4	1745.9	1597.9	1435.2	1351.3
52.5°	1637.4	1583.1	1440.1	1277.4	1208.3
55°	1469.7	1425.3	1292.2	1139.3	1080.1
57.5°	1316.8	1272.4	1149.1	1006.1	956.8
60°	1173.8	1109.7	1006.1	882.8	843.4
62.5°	1016.0	966.7	877.9	774.3	823.6
65°	873.0	823.6	744.7	759.5	631.3
67.5°	715.1	690.5	621.4	552.4	532.6
70°	582.0	552.4	527.7	453.7	434.0
72.5°	463.6	434.0	399.5	360.0	345.2
75°	350.2	325.5	305.8	291.0	320.6
77.5°	241.7	231.8	217.0	202.2	197.3
80°	157.8	152.9	148.0	143.0	138.1
82.5°	93.7	93.7	93.7	93.7	93.7
85°	49.3	54.3	59.2	64.1	69.0
87.5°	29.6	29.6	34.5	39.5	44.4
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)