

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: P545801

Luminaire Tested: **FMR-12-2-LD4-2STD-50-UNV-82-86-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: P545801
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-50-UNV-82-86-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

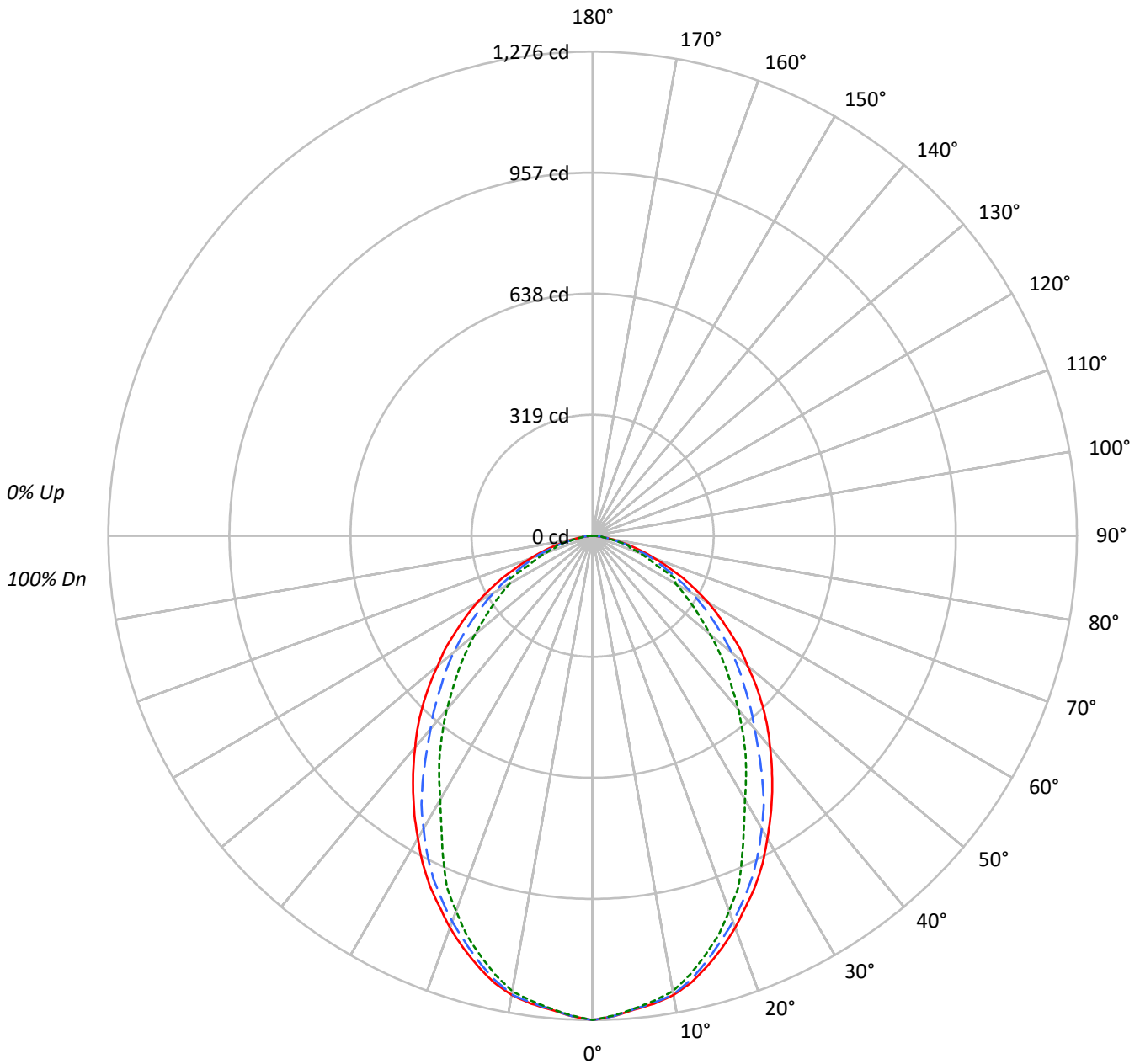
Lumens per Lamp: N/A
Luminaire Lumens: 2505.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6867	6867	6867
5°	6774	6766	6758
10°	6715	6707	6659
15°	6535	6469	6378
20°	6294	6193	6024
25°	6036	5904	5536
30°	5720	5537	4987
35°	5418	5117	4614
40°	5110	4664	4197
45°	4816	4312	3795
50°	4459	4002	3384
55°	4125	3627	3032
60°	3779	3239	2716
65°	3325	2836	2404
70°	2740	2483	2043
75°	2177	1903	1994
80°	1463	1373	1280
85°	914	1093	1278



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.8	4.7
10°-20°	326.0	13.0
20°-30°	451.3	18.0
30°-40°	481.2	19.2
40°-50°	439.0	17.5
50°-60°	343.9	13.7
60°-70°	224.2	8.9
70°-80°	99.3	4.0
80°-90°	21.3	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°	896.1	35.8
0°-40°	1377.3	55.0
0°-60°	2160.2	86.2
0°-90°	2505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2505.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1254	1252	1252	1251	1251	119
15°	1173	1173	1161	1149	1145	330
25°	1016	1010	994	959	932	467
35°	825	819	779	720	702	516
45°	633	620	566	519	499	487
55°	440	426	386	341	323	394
65°	261	246	223	227	189	257
75°	105	97	92	87	96	112
85°	15	16	18	19	21	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1276.0	1276.0	1276.0	1276.0	1276.0
2.5°	1267.2	1267.2	1267.2	1265.7	1265.7
5°	1253.9	1252.4	1252.4	1250.9	1250.9
7.5°	1243.6	1242.1	1240.6	1239.1	1236.2
10°	1228.8	1228.8	1227.3	1220.0	1218.5
12.5°	1205.2	1203.7	1197.8	1187.5	1184.6
15°	1172.8	1172.8	1161.0	1149.1	1144.7
17.5°	1137.3	1135.9	1121.1	1109.3	1103.4
20°	1099.0	1096.0	1081.3	1062.1	1051.8
22.5°	1056.2	1056.2	1038.5	1013.4	1003.1
25°	1016.4	1010.5	994.3	958.9	932.3
27.5°	970.7	961.8	944.1	893.9	863.0
30°	920.5	916.1	891.0	826.1	802.5
32.5°	873.3	865.9	839.4	771.5	752.3
35°	824.6	818.7	778.9	719.9	702.2
37.5°	775.9	768.6	718.4	671.2	649.1
40°	727.3	718.4	663.8	621.0	597.4
42.5°	681.5	669.7	616.6	570.9	544.3
45°	632.8	619.6	566.5	519.3	498.6
47.5°	584.2	572.4	523.7	475.0	451.4
50°	532.5	522.2	478.0	429.3	404.2
52.5°	489.8	473.5	430.7	382.1	361.4
55°	439.6	426.3	386.5	340.8	323.1
57.5°	393.9	380.6	343.7	300.9	286.2
60°	351.1	331.9	300.9	264.1	252.3
62.5°	303.9	289.1	262.6	231.6	246.4
65°	261.1	246.4	222.7	227.2	188.8
67.5°	213.9	206.5	185.9	165.2	159.3
70°	174.1	165.2	157.8	135.7	129.8
72.5°	138.7	129.8	119.5	107.7	103.3
75°	104.7	97.4	91.5	87.0	95.9
77.5°	72.3	69.3	64.9	60.5	59.0
80°	47.2	45.7	44.3	42.8	41.3
82.5°	28.0	28.0	28.0	28.0	28.0
85°	14.8	16.2	17.7	19.2	20.7
87.5°	8.9	8.9	10.3	11.8	13.3
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)