

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: P545223

Luminaire Tested: **FMR-12-1-LD4-2STD-50-UNV-82-84-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: P545223
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-12-1-LD4-2STD-50-UNV-82-84-EDD
Description: 1X1 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

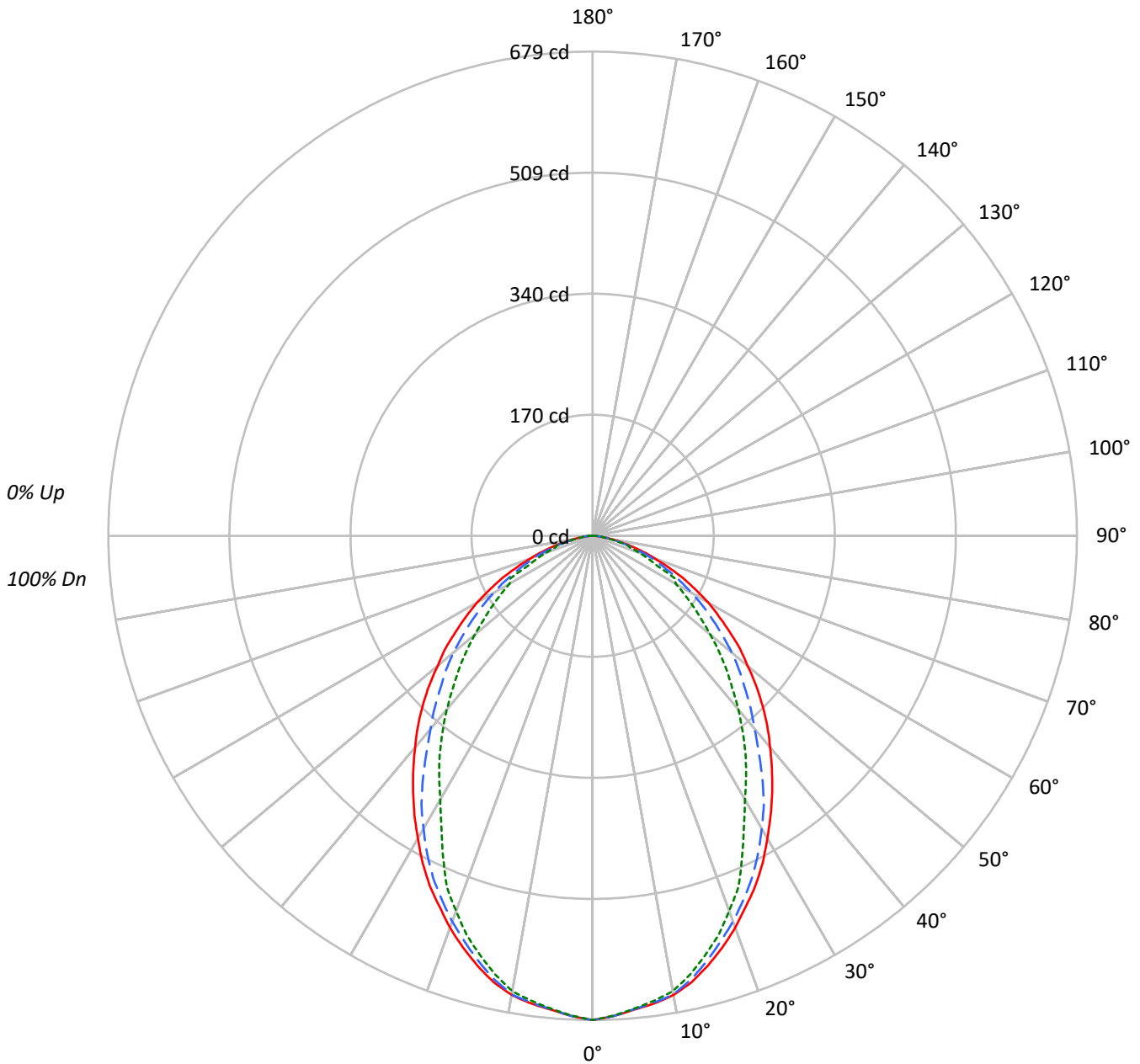
Lumens per Lamp: N/A
Luminaire Lumens: 1333.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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									
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°	7309	7309	7309
5°	7209	7202	7193
10°	7147	7138	7087
15°	6955	6885	6788
20°	6699	6591	6411
25°	6424	6284	5892
30°	6088	5893	5307
35°	5766	5447	4911
40°	5438	4963	4467
45°	5127	4588	4039
50°	4746	4258	3602
55°	4389	3860	3226
60°	4021	3447	2889
65°	3538	3018	2560
70°	2914	2644	2175
75°	2316	2025	2121
80°	1556	1457	1364
85°	963	1161	1359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	4.7
10°-20°	173.5	13.0
20°-30°	240.1	18.0
30°-40°	256.1	19.2
40°-50°	233.6	17.5
50°-60°	183.0	13.7
60°-70°	119.3	8.9
70°-80°	52.8	4.0
80°-90°	11.3	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°	476.8	35.8
0°-40°	732.9	55.0
0°-60°	1149.5	86.2
0°-90°	1333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1333.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	667	666	666	666	666	63
15°	624	624	618	612	609	175
25°	541	538	529	510	496	248
35°	439	436	414	383	374	274
45°	337	330	301	276	265	259
55°	234	227	206	181	172	210
65°	139	131	118	121	100	137
75°	56	52	49	46	51	60
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.0	679.0	679.0	679.0	679.0
2.5°	674.3	674.3	674.3	673.5	673.5
5°	667.2	666.5	666.5	665.7	665.7
7.5°	661.7	661.0	660.2	659.4	657.8
10°	653.9	653.9	653.1	649.2	648.4
12.5°	641.3	640.5	637.4	631.9	630.3
15°	624.1	624.1	617.8	611.5	609.1
17.5°	605.2	604.4	596.6	590.3	587.2
20°	584.8	583.2	575.4	565.2	559.7
22.5°	562.0	562.0	552.6	539.3	533.8
25°	540.9	537.7	529.1	510.2	496.1
27.5°	516.5	511.8	502.4	475.7	459.2
30°	489.8	487.5	474.1	439.6	427.0
32.5°	464.7	460.8	446.7	410.5	400.3
35°	438.8	435.7	414.5	383.1	373.7
37.5°	412.9	409.0	382.3	357.2	345.4
40°	387.0	382.3	353.2	330.5	317.9
42.5°	362.7	356.4	328.1	303.8	289.7
45°	336.8	329.7	301.4	276.3	265.3
47.5°	310.9	304.6	278.7	252.8	240.2
50°	283.4	277.9	254.3	228.4	215.1
52.5°	260.6	252.0	229.2	203.3	192.3
55°	233.9	226.9	205.7	181.3	171.9
57.5°	209.6	202.5	182.9	160.1	152.3
60°	186.8	176.6	160.1	140.5	134.2
62.5°	161.7	153.9	139.7	123.2	131.1
65°	138.9	131.1	118.5	120.9	100.5
67.5°	113.8	109.9	98.9	87.9	84.8
70°	92.6	87.9	84.0	72.2	69.1
72.5°	73.8	69.1	63.6	57.3	54.9
75°	55.7	51.8	48.7	46.3	51.0
77.5°	38.5	36.9	34.5	32.2	31.4
80°	25.1	24.3	23.5	22.8	22.0
82.5°	14.9	14.9	14.9	14.9	14.9
85°	7.8	8.6	9.4	10.2	11.0
87.5°	4.7	4.7	5.5	6.3	7.1
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)