

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: P545306

Luminaire Tested: **FMR-12-2-LD4-1HI-50-UNV-80-87-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: P545306
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-LD4-1HI-50-UNV-80-87-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

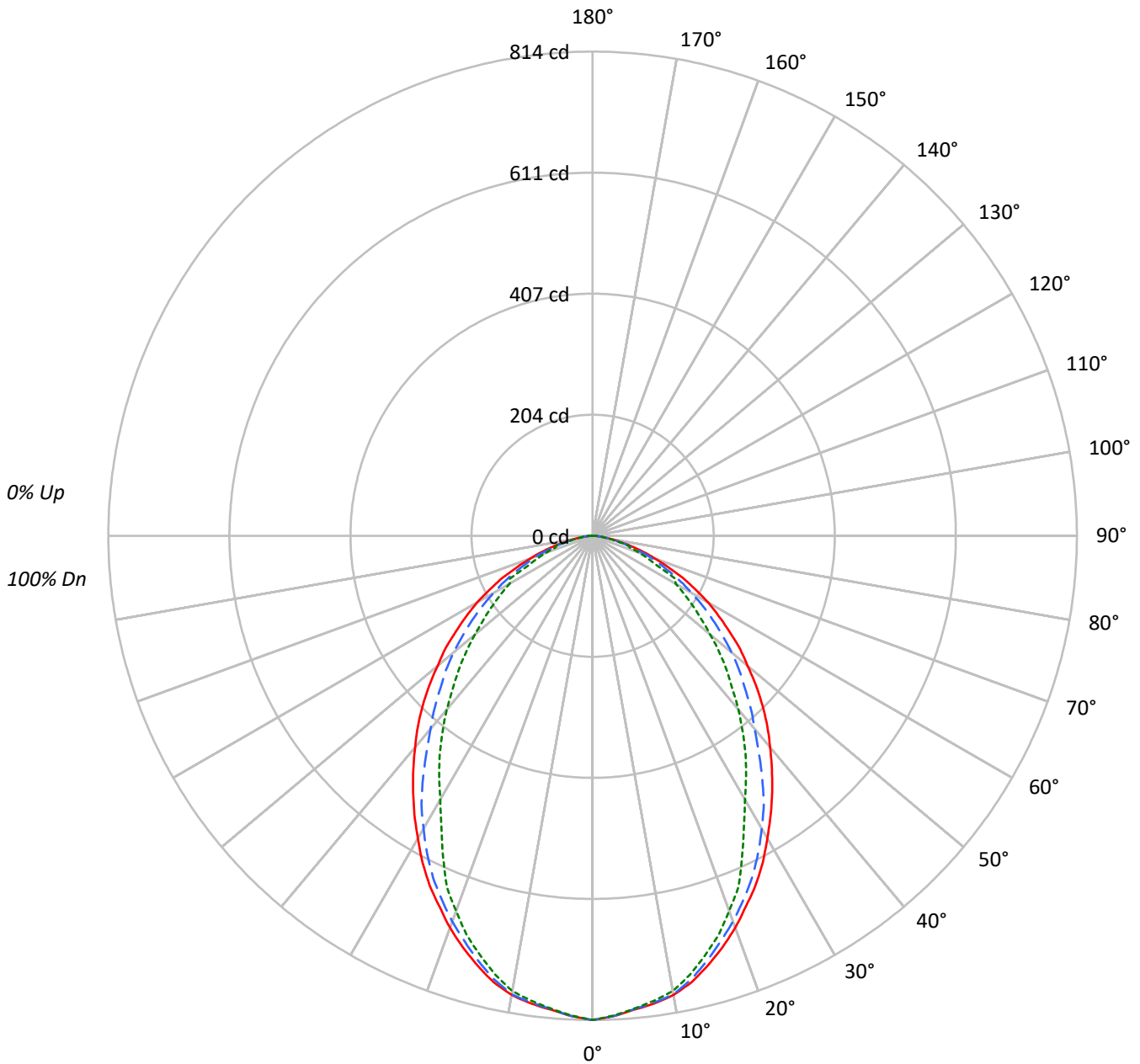
Lumens per Lamp: N/A
Luminaire Lumens: 1598.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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

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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°	4381	4381	4381
5°	4321	4316	4311
10°	4284	4279	4248
15°	4168	4126	4069
20°	4015	3951	3843
25°	3850	3767	3532
30°	3649	3532	3181
35°	3456	3265	2943
40°	3259	2975	2677
45°	3073	2751	2421
50°	2844	2553	2159
55°	2631	2314	1934
60°	2411	2067	1732
65°	2122	1810	1535
70°	1747	1585	1303
75°	1389	1212	1273
80°	933	874	815
85°	580	698	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	4.7
10°-20°	207.9	13.0
20°-30°	287.9	18.0
30°-40°	307.0	19.2
40°-50°	280.1	17.5
50°-60°	219.4	13.7
60°-70°	143.0	8.9
70°-80°	63.3	4.0
80°-90°	13.6	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°	571.6	35.8
0°-40°	878.6	55.0
0°-60°	1378.1	86.2
0°-90°	1598.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1598.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	814	814	814	814	814	
5°	800	799	799	798	798	76
15°	748	748	741	733	730	210
25°	648	645	634	612	595	298
35°	526	522	497	459	448	329
45°	404	395	361	331	318	311
55°	280	272	247	217	206	252
65°	167	157	142	145	120	164
75°	67	62	58	56	61	72
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	814.0	814.0	814.0	814.0	814.0
2.5°	808.4	808.4	808.4	807.4	807.4
5°	799.9	798.9	798.9	798.0	798.0
7.5°	793.3	792.4	791.4	790.5	788.6
10°	783.9	783.9	782.9	778.2	777.3
12.5°	768.8	767.9	764.1	757.5	755.7
15°	748.1	748.1	740.6	733.1	730.2
17.5°	725.5	724.6	715.2	707.7	703.9
20°	701.1	699.2	689.8	677.5	671.0
22.5°	673.8	673.8	662.5	646.5	639.9
25°	648.4	644.6	634.3	611.7	594.7
27.5°	619.2	613.6	602.3	570.3	550.5
30°	587.2	584.4	568.4	527.0	511.9
32.5°	557.1	552.4	535.5	492.2	479.9
35°	526.0	522.3	496.9	459.2	447.9
37.5°	495.0	490.3	458.3	428.2	414.1
40°	463.9	458.3	423.5	396.2	381.1
42.5°	434.8	427.2	393.4	364.2	347.2
45°	403.7	395.2	361.4	331.2	318.1
47.5°	372.7	365.1	334.1	303.0	288.0
50°	339.7	333.1	304.9	273.8	257.8
52.5°	312.4	302.1	274.8	243.7	230.6
55°	280.4	272.0	246.6	217.4	206.1
57.5°	251.3	242.8	219.3	192.0	182.6
60°	224.0	211.7	192.0	168.4	160.9
62.5°	193.9	184.4	167.5	147.7	157.2
65°	166.6	157.2	142.1	144.9	120.5
67.5°	136.5	131.7	118.6	105.4	101.6
70°	111.0	105.4	100.7	86.6	82.8
72.5°	88.5	82.8	76.2	68.7	65.9
75°	66.8	62.1	58.3	55.5	61.2
77.5°	46.1	44.2	41.4	38.6	37.6
80°	30.1	29.2	28.2	27.3	26.3
82.5°	17.9	17.9	17.9	17.9	17.9
85°	9.4	10.4	11.3	12.2	13.2
87.5°	5.6	5.6	6.6	7.5	8.5
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)