

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: P547484

Luminaire Tested: **FMR-24-4-LD4-4STD-40-UNV-80-94-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: P547484
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-LD4-4STD-40-UNV-80-94-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

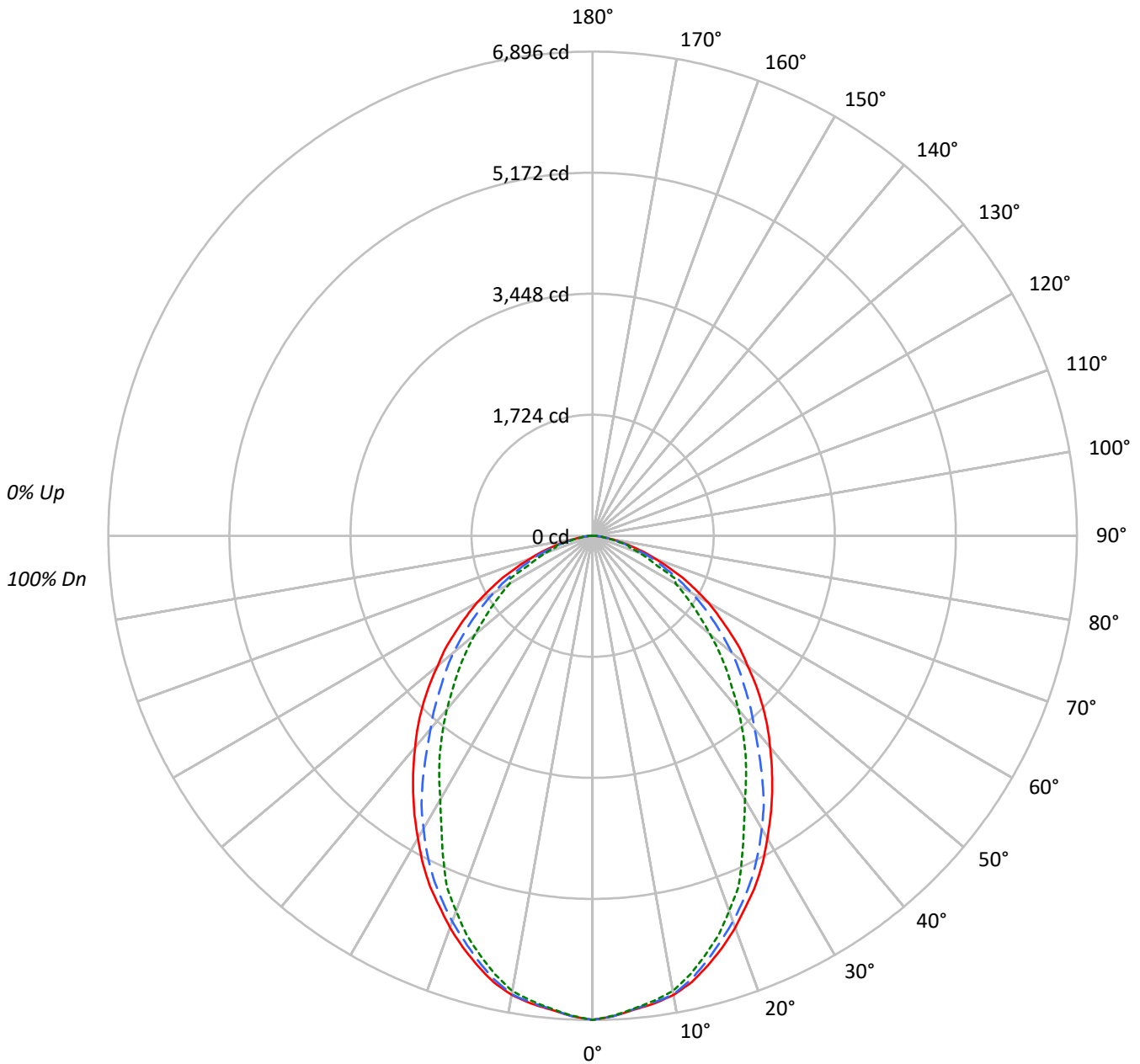
Lumens per Lamp: N/A
Luminaire Lumens: 13537.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 133.2
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°	9278	9278	9278
5°	9152	9141	9130
10°	9073	9062	8996
15°	8828	8739	8617
20°	8504	8367	8138
25°	8154	7977	7479
30°	7728	7481	6738
35°	7319	6914	6233
40°	6903	6301	5671
45°	6507	5825	5127
50°	6024	5406	4572
55°	5573	4899	4095
60°	5106	4376	3668
65°	4492	3832	3249
70°	3701	3356	2760
75°	2942	2569	2694
80°	1977	1853	1729
85°	1230	1477	1723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	641.9	4.7
10°-20°	1761.6	13.0
20°-30°	2438.8	18.0
30°-40°	2600.5	19.2
40°-50°	2372.4	17.5
50°-60°	1858.6	13.7
60°-70°	1211.3	8.9
70°-80°	536.7	4.0
80°-90°	115.2	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°	4842.3	35.8
0°-40°	7442.8	55.0
0°-60°	11673.8	86.2
0°-90°	13537.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13537.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6896	6896	6896	6896	6896	
5°	6776	6768	6768	6760	6760	643
15°	6338	6338	6274	6210	6186	1782
25°	5492	5461	5373	5182	5038	2522
35°	4456	4424	4209	3890	3795	2786
45°	3420	3348	3061	2806	2694	2634
55°	2376	2304	2089	1842	1746	2131
65°	1411	1331	1204	1228	1020	1391
75°	566	526	494	470	518	607
85°	80	88	96	104	112	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6895.6	6895.6	6895.6	6895.6	6895.6
2.5°	6847.7	6847.7	6847.7	6839.8	6839.8
5°	6776.0	6768.0	6768.0	6760.0	6760.0
7.5°	6720.2	6712.2	6704.2	6696.3	6680.3
10°	6640.5	6640.5	6632.5	6592.6	6584.7
12.5°	6512.9	6505.0	6473.1	6417.3	6401.3
15°	6337.5	6337.5	6273.8	6210.0	6186.1
17.5°	6146.2	6138.3	6058.5	5994.8	5962.9
20°	5939.0	5923.0	5843.3	5739.7	5683.9
22.5°	5707.8	5707.8	5612.1	5476.6	5420.8
25°	5492.5	5460.7	5373.0	5181.6	5038.1
27.5°	5245.4	5197.6	5101.9	4830.9	4663.5
30°	4974.4	4950.5	4814.9	4464.2	4336.6
32.5°	4719.3	4679.4	4535.9	4169.2	4065.6
35°	4456.2	4424.3	4209.1	3890.2	3794.6
37.5°	4193.1	4153.3	3882.2	3627.1	3507.6
40°	3930.1	3882.2	3587.3	3356.1	3228.6
42.5°	3683.0	3619.2	3332.2	3085.1	2941.6
45°	3419.9	3348.1	3061.2	2806.1	2694.5
47.5°	3156.8	3093.0	2830.0	2566.9	2439.4
50°	2877.8	2822.0	2582.8	2319.8	2184.3
52.5°	2646.6	2558.9	2327.8	2064.7	1953.1
55°	2375.6	2303.8	2088.6	1841.5	1745.8
57.5°	2128.5	2056.7	1857.4	1626.2	1546.5
60°	1897.3	1793.6	1626.2	1426.9	1363.2
62.5°	1642.2	1562.5	1419.0	1251.6	1331.3
65°	1411.0	1331.3	1203.7	1227.7	1020.4
67.5°	1155.9	1116.0	1004.4	892.8	860.9
70°	940.7	892.8	853.0	733.4	701.5
72.5°	749.3	701.5	645.7	581.9	558.0
75°	566.0	526.1	494.2	470.3	518.2
77.5°	390.6	374.7	350.8	326.8	318.9
80°	255.1	247.1	239.2	231.2	223.2
82.5°	151.5	151.5	151.5	151.5	151.5
85°	79.7	87.7	95.7	103.6	111.6
87.5°	47.8	47.8	55.8	63.8	71.7
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)