

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: P589844

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589844
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-4STD-50-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

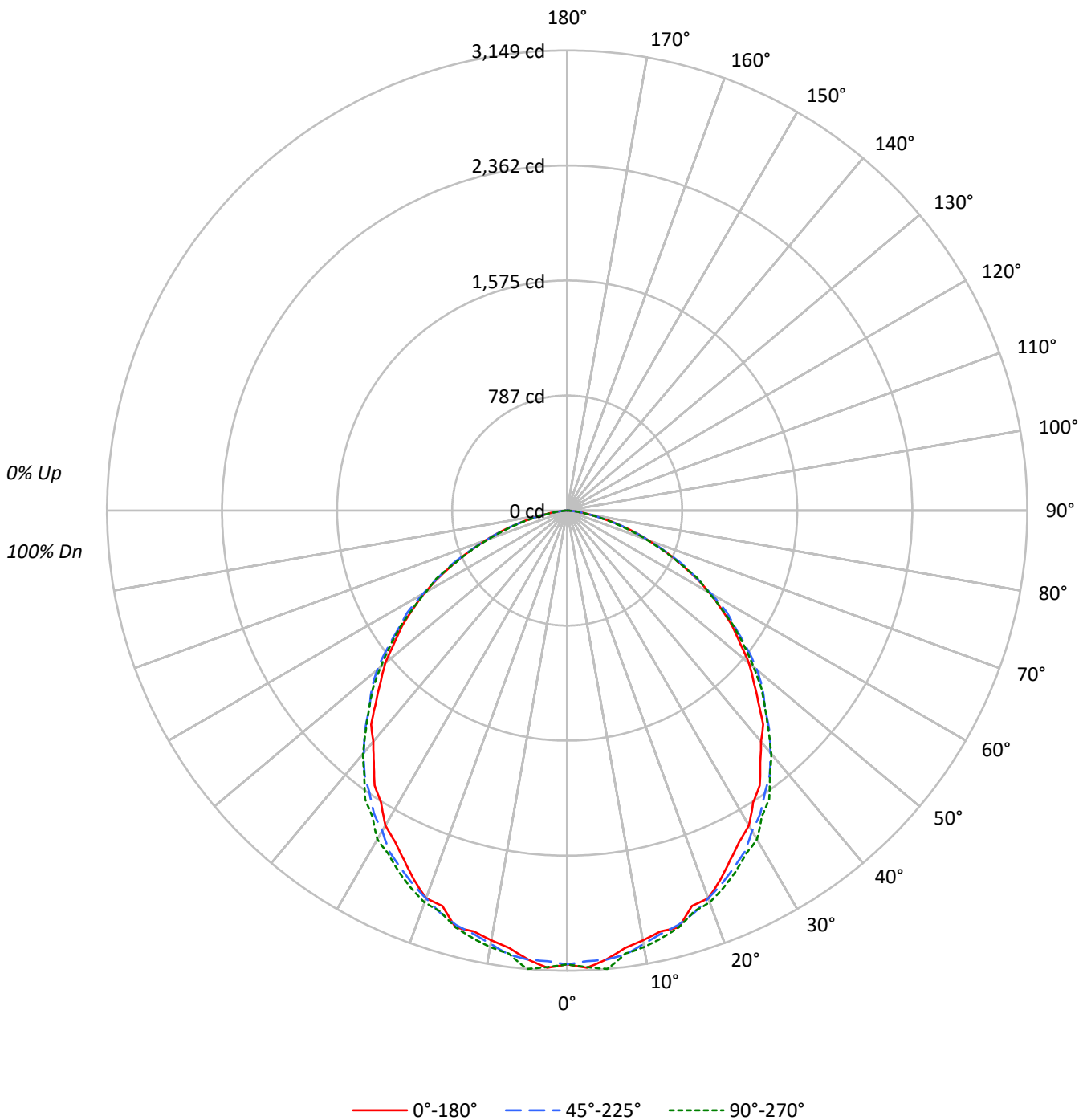
Lumens per Lamp: N/A
Luminaire Lumens: 7826.0 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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

TEST NUMBER: P589844

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-93-97-EDD

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	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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53																												
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46																												
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41																												
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36																												
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32																												
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29																												
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8356	8356	8356
5°	8328	8331	8507
10°	8159	8231	8289
15°	8224	8179	8225
20°	8085	8085	8171
25°	7837	8008	8096
30°	7729	7865	8074
35°	7547	7744	7918
40°	7253	7602	7636
45°	7034	7284	7295
50°	6803	7110	6974
55°	6482	6608	6561
60°	6061	6121	6012
65°	5405	5542	5366
70°	4637	4653	4523
75°	3672	3664	3523
80°	2461	2393	2298
85°	1337	1325	1238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.1	3.7
10°-20°	827.8	10.6
20°-30°	1240.2	15.8
30°-40°	1469.9	18.8
40°-50°	1472.6	18.8
50°-60°	1250.0	16.0
60°-70°	842.8	10.8
70°-80°	370.3	4.7
80°-90°	60.2	0.8
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°	2360.1	30.2
0°-40°	3830.1	48.9
0°-60°	6552.7	83.7
0°-90°	7826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3105	3105	3105	3105	3105	
5°	3083	3076	3084	3075	3149	291
15°	2952	2918	2936	2951	2952	822
25°	2639	2654	2697	2732	2727	1220
35°	2297	2304	2357	2412	2410	1426
45°	1848	1883	1914	1963	1917	1430
55°	1382	1372	1408	1399	1398	1229
65°	849	838	870	837	843	844
75°	353	346	352	328	339	379
85°	43	42	43	42	40	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3105.2	3105.2	3105.2	3105.2	3105.2
2.5°	3132.0	3108.4	3086.3	3112.0	3127.6
5°	3083.1	3075.9	3084.3	3075.1	3149.3
7.5°	3019.8	3047.4	3063.5	3053.4	3057.9
10°	2986.1	2976.5	3012.1	3037.0	3033.4
12.5°	2950.0	2964.4	2966.4	2993.3	2995.7
15°	2952.0	2917.9	2936.0	2951.2	2952.4
17.5°	2837.3	2874.2	2886.7	2921.5	2878.2
20°	2823.3	2796.4	2823.3	2859.0	2853.4
22.5°	2737.1	2707.0	2764.8	2796.4	2794.4
25°	2639.3	2653.7	2697.0	2732.3	2726.7
27.5°	2553.5	2570.3	2632.1	2680.6	2649.3
30°	2487.3	2478.9	2531.0	2574.3	2598.4
32.5°	2369.1	2399.5	2460.5	2503.4	2480.5
35°	2297.3	2304.1	2357.4	2412.0	2410.4
37.5°	2171.8	2203.5	2278.5	2293.7	2279.7
40°	2064.8	2096.4	2164.2	2180.6	2173.8
42.5°	1985.8	1991.4	2049.5	2068.4	2038.3
45°	1848.3	1882.7	1914.0	1963.3	1916.8
47.5°	1731.2	1747.2	1814.6	1827.8	1803.4
50°	1624.9	1630.6	1698.3	1681.9	1665.8
52.5°	1491.4	1515.1	1553.2	1550.0	1531.1
55°	1381.6	1372.4	1408.4	1398.8	1398.4
57.5°	1249.7	1265.7	1295.4	1280.2	1255.7
60°	1126.2	1126.6	1137.4	1120.2	1117.0
62.5°	988.7	993.5	995.9	974.6	1009.1
65°	848.8	837.5	870.4	837.1	842.7
67.5°	720.1	725.7	722.5	701.6	709.6
70°	589.4	596.6	591.4	567.7	574.9
72.5°	469.9	461.1	466.7	437.0	450.6
75°	353.2	346.0	352.4	327.6	338.8
77.5°	240.6	246.2	242.2	228.9	236.5
80°	158.8	154.4	154.4	146.7	148.3
82.5°	92.6	88.2	87.0	84.6	88.2
85°	43.3	42.1	42.9	41.7	40.1
87.5°	15.6	16.0	16.0	15.2	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)