

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: P589750

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589750
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-35-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

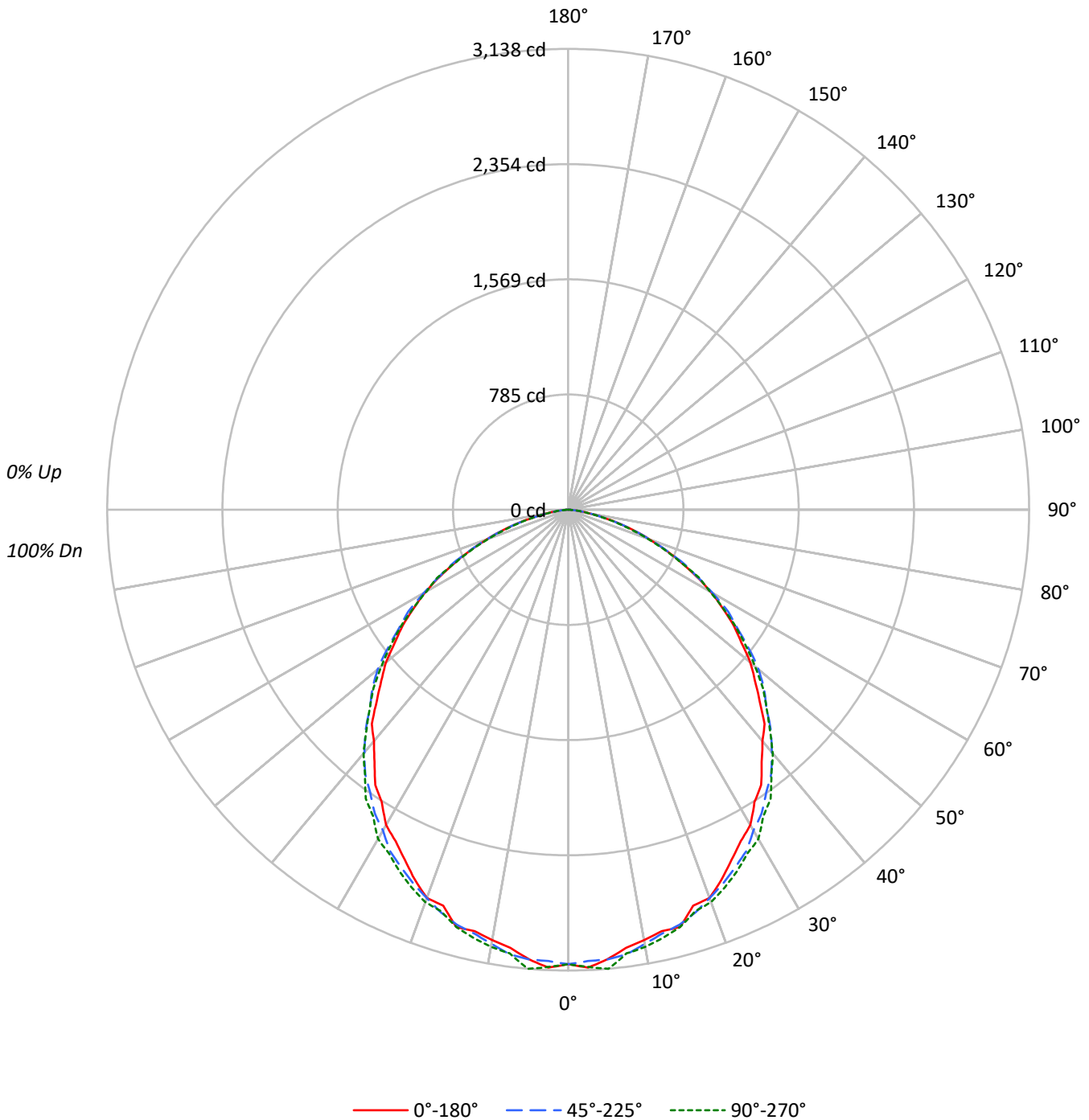
Lumens per Lamp: N/A
Luminaire Lumens: 7799.0 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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				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	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°	8327	8327	8327
5°	8300	8303	8478
10°	8131	8202	8260
15°	8196	8151	8197
20°	8057	8057	8143
25°	7810	7980	8068
30°	7702	7837	8046
35°	7521	7718	7891
40°	7228	7576	7610
45°	7010	7259	7269
50°	6779	7086	6950
55°	6459	6585	6538
60°	6040	6100	5991
65°	5386	5523	5347
70°	4621	4637	4508
75°	3660	3651	3510
80°	2452	2383	2290
85°	1334	1321	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.1	3.7
10°-20°	825.0	10.6
20°-30°	1236.0	15.8
30°-40°	1464.9	18.8
40°-50°	1467.6	18.8
50°-60°	1245.7	16.0
60°-70°	839.9	10.8
70°-80°	369.0	4.7
80°-90°	60.0	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°	2352.0	30.2
0°-40°	3816.9	48.9
0°-60°	6530.1	83.7
0°-90°	7799.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7799.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3094	3094	3094	3094	3094	
5°	3072	3065	3074	3064	3138	290
15°	2942	2908	2926	2941	2942	820
25°	2630	2645	2688	2723	2717	1216
35°	2289	2296	2349	2404	2402	1421
45°	1842	1876	1907	1957	1910	1425
55°	1377	1368	1404	1394	1394	1225
65°	846	835	867	834	840	841
75°	352	345	351	326	338	377
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°	3094.4	3094.4	3094.4	3094.4	3094.4
2.5°	3121.2	3097.6	3075.7	3101.2	3116.8
5°	3072.5	3065.3	3073.7	3064.5	3138.4
7.5°	3009.3	3036.9	3052.9	3042.9	3047.3
10°	2975.8	2966.2	3001.8	3026.5	3022.9
12.5°	2939.8	2954.2	2956.2	2983.0	2985.4
15°	2941.8	2907.9	2925.8	2941.0	2942.2
17.5°	2827.6	2864.3	2876.7	2911.5	2868.3
20°	2813.6	2786.8	2813.6	2849.1	2843.5
22.5°	2727.7	2697.7	2755.2	2786.8	2784.8
25°	2630.2	2644.6	2687.7	2722.9	2717.3
27.5°	2544.7	2561.5	2623.0	2671.3	2640.2
30°	2478.8	2470.4	2522.3	2565.5	2589.4
32.5°	2360.9	2391.3	2452.0	2494.7	2472.0
35°	2289.4	2296.2	2349.3	2403.6	2402.0
37.5°	2164.3	2195.9	2270.6	2285.8	2271.8
40°	2057.6	2089.2	2156.7	2173.1	2166.3
42.5°	1978.9	1984.5	2042.5	2061.2	2031.3
45°	1841.9	1876.2	1907.4	1956.6	1910.2
47.5°	1725.2	1741.2	1808.3	1821.5	1797.1
50°	1619.3	1624.9	1692.5	1676.1	1660.1
52.5°	1486.3	1509.9	1547.8	1544.6	1525.8
55°	1376.8	1367.6	1403.6	1394.0	1393.6
57.5°	1245.4	1261.4	1290.9	1275.7	1251.4
60°	1122.3	1122.7	1133.5	1116.3	1113.1
62.5°	985.3	990.1	992.5	971.3	1005.6
65°	845.8	834.6	867.4	834.2	839.8
67.5°	717.6	723.2	720.0	699.2	707.2
70°	587.3	594.5	589.3	565.8	572.9
72.5°	468.3	459.5	465.1	435.5	449.1
75°	352.0	344.8	351.2	326.4	337.6
77.5°	239.7	245.3	241.3	228.1	235.7
80°	158.2	153.8	153.8	146.2	147.8
82.5°	92.3	87.9	86.7	84.3	87.9
85°	43.2	42.0	42.8	41.6	40.0
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)