

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: P589301

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589301
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-LD4-3HI-40-UNV-80-84-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

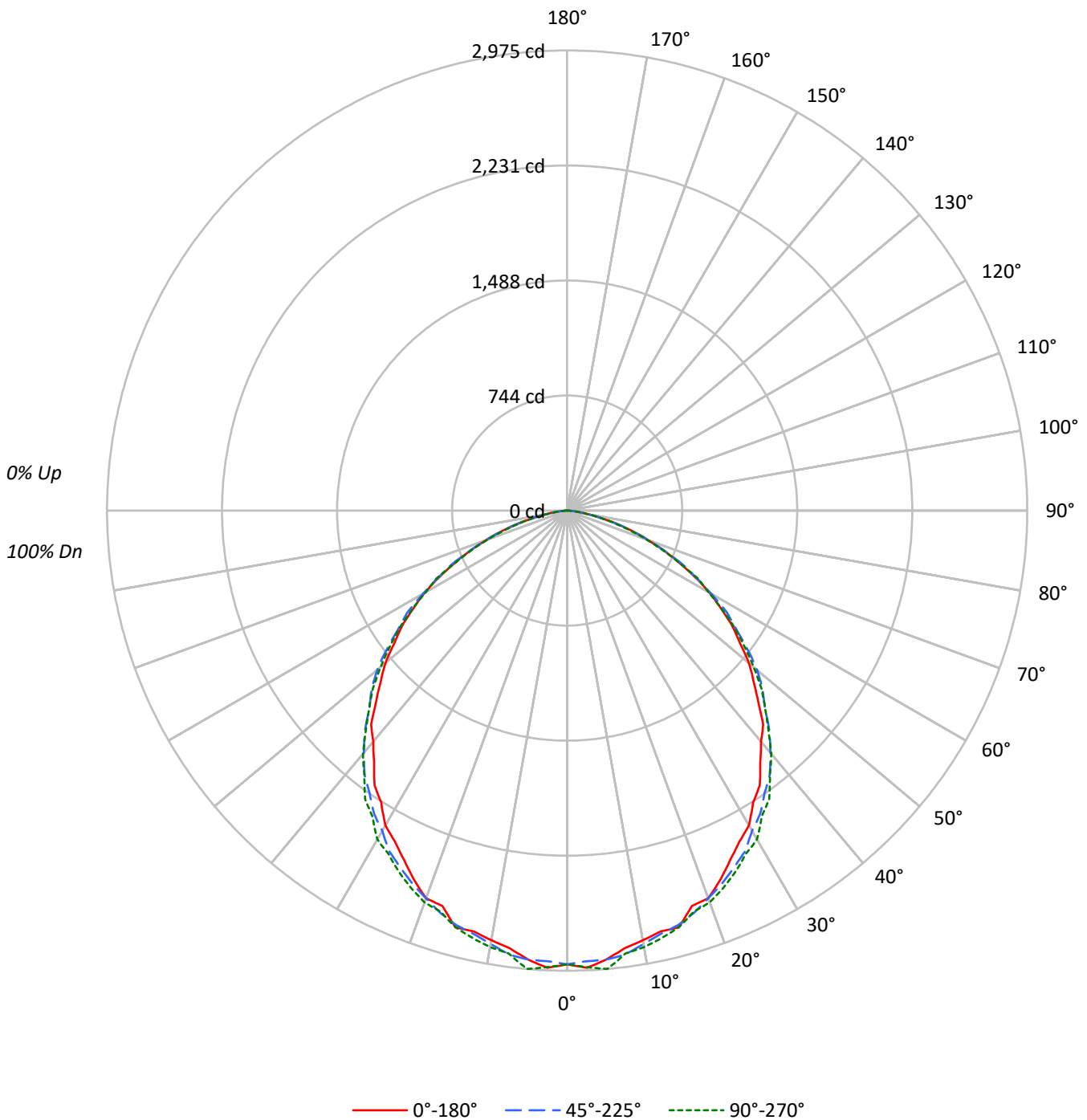
Lumens per Lamp: N/A
Luminaire Lumens: 7393.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	7894	7894	7894
5°	7867	7871	8036
10°	7708	7775	7830
15°	7769	7727	7770
20°	7638	7638	7719
25°	7403	7565	7648
30°	7301	7429	7627
35°	7129	7316	7480
40°	6852	7182	7214
45°	6645	6881	6891
50°	6426	6717	6588
55°	6123	6242	6198
60°	5726	5783	5679
65°	5105	5235	5069
70°	4381	4395	4273
75°	3470	3461	3327
80°	2325	2259	2171
85°	1263	1250	1170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.9	3.7
10°-20°	782.0	10.6
20°-30°	1171.6	15.8
30°-40°	1388.6	18.8
40°-50°	1391.2	18.8
50°-60°	1180.9	16.0
60°-70°	796.1	10.8
70°-80°	349.8	4.7
80°-90°	56.8	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°	2229.5	30.2
0°-40°	3618.1	48.9
0°-60°	6190.2	83.7
0°-90°	7393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7393.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2933	2933	2933	2933	2933	
5°	2912	2906	2914	2905	2975	275
15°	2789	2756	2774	2788	2789	777
25°	2493	2507	2548	2581	2576	1153
35°	2170	2177	2227	2278	2277	1347
45°	1746	1779	1808	1855	1811	1351
55°	1305	1296	1330	1321	1321	1161
65°	802	791	822	791	796	797
75°	334	327	333	309	320	358
85°	41	40	40	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2933.4	2933.4	2933.4	2933.4	2933.4
2.5°	2958.7	2936.4	2915.6	2939.8	2954.6
5°	2912.5	2905.7	2913.7	2905.0	2975.0
7.5°	2852.7	2878.8	2894.0	2884.5	2888.7
10°	2820.9	2811.8	2845.5	2869.0	2865.6
12.5°	2786.8	2800.4	2802.3	2827.7	2830.0
15°	2788.7	2756.5	2773.5	2787.9	2789.1
17.5°	2680.4	2715.2	2726.9	2759.9	2719.0
20°	2667.1	2641.7	2667.1	2700.8	2695.5
22.5°	2585.7	2557.3	2611.8	2641.7	2639.8
25°	2493.3	2506.9	2547.8	2581.1	2575.8
27.5°	2412.2	2428.1	2486.4	2532.3	2502.7
30°	2349.7	2341.8	2391.0	2431.9	2454.6
32.5°	2238.0	2266.8	2324.3	2364.9	2343.3
35°	2170.2	2176.6	2227.0	2278.5	2277.0
37.5°	2051.6	2081.6	2152.4	2166.8	2153.5
40°	1950.5	1980.4	2044.4	2060.0	2053.5
42.5°	1875.9	1881.2	1936.1	1953.9	1925.5
45°	1746.0	1778.6	1808.1	1854.7	1810.8
47.5°	1635.4	1650.6	1714.2	1726.7	1703.6
50°	1535.0	1540.3	1604.4	1588.8	1573.7
52.5°	1408.9	1431.3	1467.2	1464.2	1446.4
55°	1305.1	1296.4	1330.5	1321.4	1321.1
57.5°	1180.5	1195.7	1223.7	1209.3	1186.2
60°	1063.9	1064.3	1074.5	1058.2	1055.2
62.5°	934.0	938.5	940.8	920.7	953.3
65°	801.8	791.2	822.2	790.8	796.1
67.5°	680.2	685.5	682.5	662.8	670.4
70°	556.8	563.6	558.6	536.3	543.1
72.5°	443.9	435.6	440.9	412.8	425.7
75°	333.7	326.9	332.9	309.4	320.0
77.5°	227.2	232.5	228.8	216.3	223.5
80°	150.0	145.8	145.8	138.6	140.1
82.5°	87.5	83.3	82.2	79.9	83.3
85°	40.9	39.8	40.5	39.4	37.9
87.5°	14.8	15.1	15.1	14.4	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)