

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: P589130

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589130
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-LD4-2LO-40-UNV-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

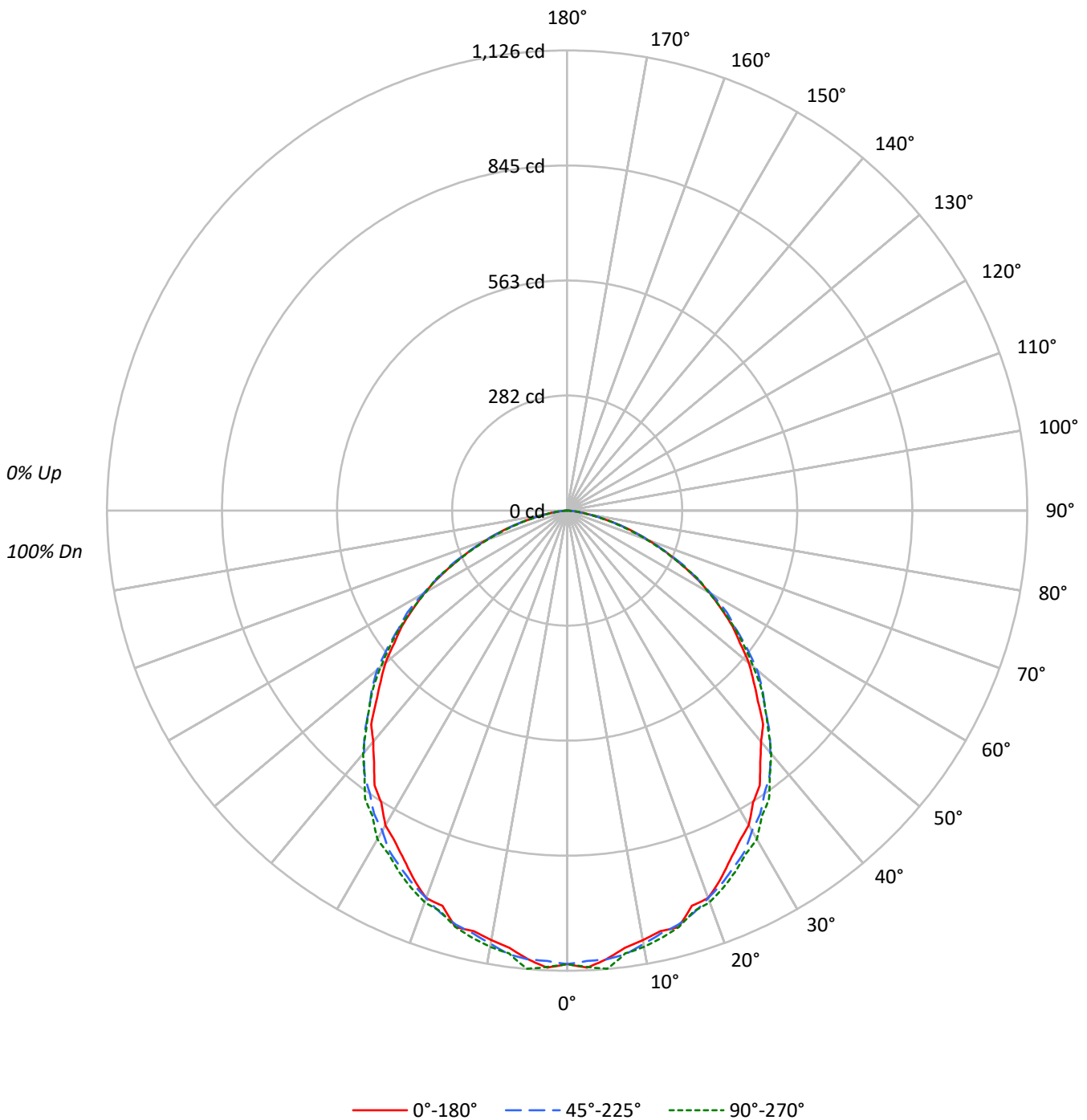
Lumens per Lamp: N/A
Luminaire Lumens: 2797.0 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2986	2986	2986
5°	2977	2978	3040
10°	2916	2942	2962
15°	2939	2923	2940
20°	2889	2889	2920
25°	2801	2862	2893
30°	2762	2811	2886
35°	2697	2768	2830
40°	2592	2717	2729
45°	2514	2603	2607
50°	2431	2541	2493
55°	2317	2362	2345
60°	2166	2188	2148
65°	1931	1981	1918
70°	1657	1663	1617
75°	1312	1310	1259
80°	879	855	821
85°	479	472	442



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.7
10°-20°	295.9	10.6
20°-30°	443.3	15.8
30°-40°	525.4	18.8
40°-50°	526.3	18.8
50°-60°	446.8	16.0
60°-70°	301.2	10.8
70°-80°	132.4	4.7
80°-90°	21.5	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°	843.5	30.2
0°-40°	1368.9	48.9
0°-60°	2341.9	83.7
0°-90°	2797.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2797.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1110	1110	1110	1110	1110	
5°	1102	1099	1102	1099	1126	104
15°	1055	1043	1049	1055	1055	294
25°	943	948	964	976	974	436
35°	821	824	842	862	862	510
45°	661	673	684	702	685	511
55°	494	490	503	500	500	439
65°	303	299	311	299	301	302
75°	126	124	126	117	121	135
85°	16	15	15	15	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1109.8	1109.8	1109.8	1109.8	1109.8
2.5°	1119.4	1110.9	1103.0	1112.2	1117.8
5°	1101.9	1099.3	1102.3	1099.0	1125.5
7.5°	1079.3	1089.1	1094.9	1091.3	1092.9
10°	1067.2	1063.8	1076.5	1085.4	1084.1
12.5°	1054.3	1059.5	1060.2	1069.8	1070.7
15°	1055.0	1042.9	1049.3	1054.8	1055.2
17.5°	1014.1	1027.2	1031.7	1044.2	1028.7
20°	1009.0	999.4	1009.0	1021.8	1019.8
22.5°	978.2	967.5	988.1	999.4	998.7
25°	943.3	948.4	963.9	976.5	974.5
27.5°	912.6	918.6	940.7	958.0	946.9
30°	889.0	886.0	904.6	920.1	928.7
32.5°	846.7	857.6	879.4	894.7	886.5
35°	821.1	823.5	842.5	862.0	861.5
37.5°	776.2	787.5	814.3	819.8	814.7
40°	737.9	749.3	773.5	779.4	776.9
42.5°	709.7	711.7	732.5	739.2	728.5
45°	660.6	672.9	684.1	701.7	685.1
47.5°	618.7	624.5	648.5	653.3	644.5
50°	580.8	582.8	607.0	601.1	595.4
52.5°	533.0	541.5	555.1	554.0	547.2
55°	493.8	490.5	503.4	499.9	499.8
57.5°	446.6	452.4	463.0	457.5	448.8
60°	402.5	402.6	406.5	400.4	399.2
62.5°	353.4	355.1	355.9	348.3	360.7
65°	303.3	299.3	311.1	299.2	301.2
67.5°	257.3	259.4	258.2	250.8	253.6
70°	210.6	213.2	211.4	202.9	205.5
72.5°	167.9	164.8	166.8	156.2	161.1
75°	126.2	123.7	126.0	117.1	121.1
77.5°	86.0	88.0	86.5	81.8	84.5
80°	56.7	55.2	55.2	52.4	53.0
82.5°	33.1	31.5	31.1	30.2	31.5
85°	15.5	15.0	15.3	14.9	14.3
87.5°	5.6	5.7	5.7	5.4	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)