

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: P589144

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589144
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-50-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

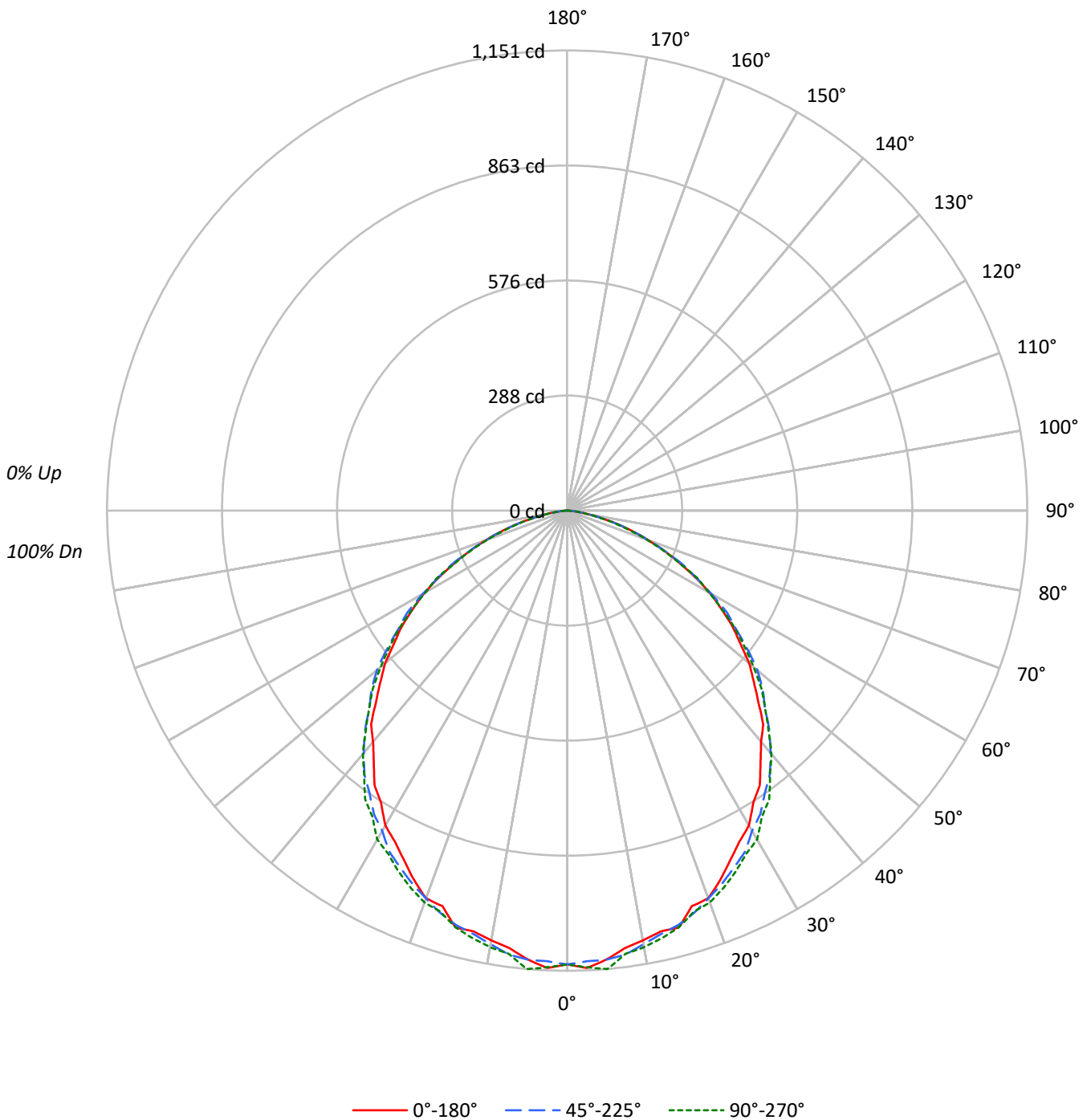
Lumens per Lamp: N/A
Luminaire Lumens: 2861.0 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589144

CATALOG NUMBER: FMR-24-2-LD4-2LO-50-UNV-80-87-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	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°	3055	3055	3055
5°	3045	3046	3110
10°	2983	3009	3030
15°	3007	2990	3007
20°	2956	2956	2987
25°	2865	2928	2960
30°	2825	2875	2952
35°	2759	2831	2895
40°	2651	2779	2792
45°	2571	2663	2667
50°	2487	2599	2550
55°	2370	2416	2398
60°	2216	2238	2197
65°	1976	2026	1962
70°	1696	1701	1654
75°	1342	1339	1288
80°	899	874	840
85°	488	485	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.8	3.7
10°-20°	302.6	10.6
20°-30°	453.4	15.8
30°-40°	537.4	18.8
40°-50°	538.4	18.8
50°-60°	457.0	16.0
60°-70°	308.1	10.8
70°-80°	135.4	4.7
80°-90°	22.0	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°	862.8	30.2
0°-40°	1400.2	48.9
0°-60°	2395.5	83.7
0°-90°	2861.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2861.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1127	1124	1128	1124	1151	106
15°	1079	1067	1073	1079	1079	301
25°	965	970	986	999	997	446
35°	840	842	862	882	881	521
45°	676	688	700	718	701	523
55°	505	502	515	511	511	449
65°	310	306	318	306	308	309
75°	129	126	129	120	124	138
85°	16	15	16	15	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1135.2	1135.2	1135.2	1135.2	1135.2
2.5°	1145.0	1136.3	1128.3	1137.7	1143.4
5°	1127.1	1124.5	1127.6	1124.2	1151.3
7.5°	1104.0	1114.1	1119.9	1116.3	1117.9
10°	1091.6	1088.1	1101.2	1110.3	1108.9
12.5°	1078.5	1083.7	1084.5	1094.3	1095.2
15°	1079.2	1066.7	1073.3	1078.9	1079.3
17.5°	1037.3	1050.7	1055.3	1068.0	1052.2
20°	1032.1	1022.3	1032.1	1045.2	1043.1
22.5°	1000.6	989.6	1010.7	1022.3	1021.6
25°	964.9	970.1	986.0	998.9	996.8
27.5°	933.5	939.7	962.2	980.0	968.5
30°	909.3	906.2	925.3	941.1	949.9
32.5°	866.1	877.2	899.5	915.2	906.8
35°	839.8	842.3	861.8	881.8	881.2
37.5°	794.0	805.5	832.9	838.5	833.4
40°	754.8	766.4	791.2	797.2	794.7
42.5°	726.0	728.0	749.3	756.1	745.2
45°	675.7	688.3	699.7	717.7	700.7
47.5°	632.9	638.7	663.4	668.2	659.3
50°	594.0	596.1	620.9	614.9	609.0
52.5°	545.2	553.9	567.8	566.6	559.7
55°	505.1	501.7	514.9	511.4	511.2
57.5°	456.9	462.7	473.6	468.0	459.1
60°	411.7	411.9	415.8	409.5	408.3
62.5°	361.4	363.2	364.1	356.3	368.9
65°	310.3	306.2	318.2	306.0	308.1
67.5°	263.2	265.3	264.1	256.5	259.4
70°	215.5	218.1	216.2	207.5	210.2
72.5°	171.8	168.6	170.6	159.8	164.7
75°	129.1	126.5	128.8	119.7	123.9
77.5°	87.9	90.0	88.5	83.7	86.5
80°	58.0	56.4	56.4	53.6	54.2
82.5°	33.9	32.2	31.8	30.9	32.2
85°	15.8	15.4	15.7	15.2	14.7
87.5°	5.7	5.9	5.9	5.6	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)