

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: P589752

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589752
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-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

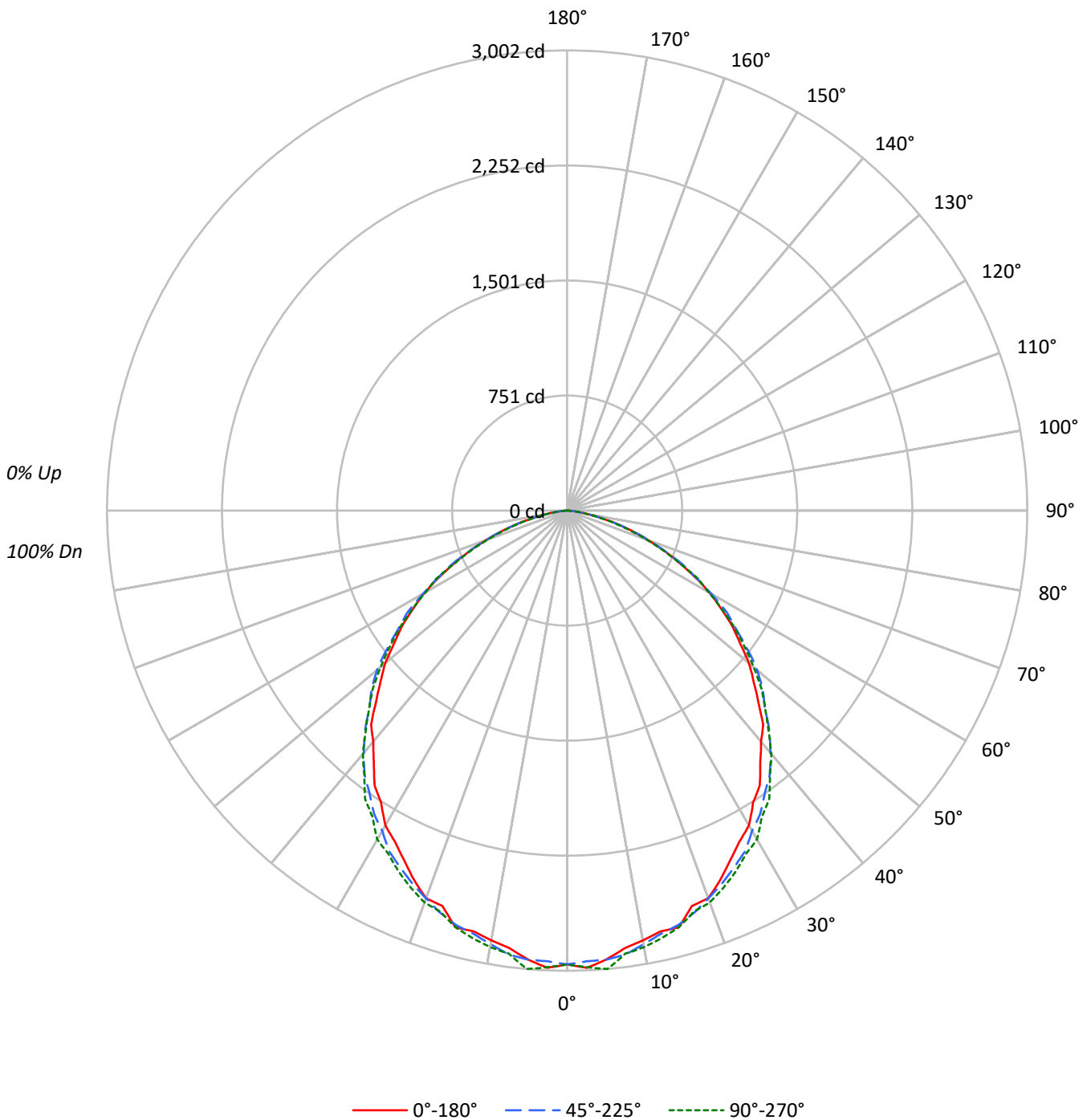
Lumens per Lamp: N/A
Luminaire Lumens: 7461.0 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7966	7966	7966
5°	7940	7943	8110
10°	7779	7847	7902
15°	7840	7798	7841
20°	7708	7708	7790
25°	7471	7634	7718
30°	7368	7498	7697
35°	7195	7383	7549
40°	6915	7248	7280
45°	6706	6944	6954
50°	6486	6778	6648
55°	6179	6300	6255
60°	5779	5836	5731
65°	5152	5284	5116
70°	4421	4436	4312
75°	3501	3493	3358
80°	2346	2281	2191
85°	1275	1263	1179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.5	3.7
10°-20°	789.2	10.6
20°-30°	1182.4	15.8
30°-40°	1401.4	18.8
40°-50°	1404.0	18.8
50°-60°	1191.7	16.0
60°-70°	803.5	10.8
70°-80°	353.1	4.7
80°-90°	57.4	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°	2250.1	30.2
0°-40°	3651.4	48.9
0°-60°	6247.1	83.7
0°-90°	7461.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2960	2960	2960	2960	2960	
5°	2939	2932	2940	2932	3002	277
15°	2814	2782	2799	2814	2815	784
25°	2516	2530	2571	2605	2600	1163
35°	2190	2197	2248	2300	2298	1360
45°	1762	1795	1825	1872	1827	1363
55°	1317	1308	1343	1334	1333	1172
65°	809	798	830	798	803	805
75°	337	330	336	312	323	361
85°	41	40	41	40	38	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2960.3	2960.3	2960.3	2960.3	2960.3
2.5°	2985.9	2963.4	2942.4	2966.8	2981.7
5°	2939.3	2932.4	2940.5	2931.7	3002.4
7.5°	2878.9	2905.3	2920.6	2911.0	2915.2
10°	2846.8	2837.6	2871.7	2895.4	2891.9
12.5°	2812.4	2826.2	2828.1	2853.7	2856.0
15°	2814.3	2781.8	2799.0	2813.6	2814.7
17.5°	2705.0	2740.2	2752.0	2785.3	2744.0
20°	2691.6	2666.0	2691.6	2725.6	2720.3
22.5°	2609.5	2580.8	2635.8	2666.0	2664.1
25°	2516.2	2530.0	2571.2	2604.9	2599.5
27.5°	2434.4	2450.4	2509.3	2555.6	2525.7
30°	2371.3	2363.3	2413.0	2454.3	2477.2
32.5°	2258.6	2287.6	2345.7	2386.6	2364.8
35°	2190.2	2196.6	2247.5	2299.5	2297.9
37.5°	2070.5	2100.7	2172.2	2186.7	2173.3
40°	1968.5	1998.7	2063.3	2078.9	2072.4
42.5°	1893.2	1898.5	1953.9	1971.9	1943.2
45°	1762.1	1794.9	1824.7	1871.8	1827.4
47.5°	1650.4	1665.7	1730.0	1742.6	1719.3
50°	1549.2	1554.5	1619.1	1603.4	1588.1
52.5°	1421.9	1444.4	1480.7	1477.7	1459.7
55°	1317.1	1308.4	1342.8	1333.6	1333.2
57.5°	1191.4	1206.7	1235.0	1220.4	1197.1
60°	1073.7	1074.1	1084.4	1067.9	1064.9
62.5°	942.6	947.2	949.4	929.2	962.1
65°	809.2	798.5	829.8	798.1	803.4
67.5°	686.5	691.8	688.8	668.9	676.5
70°	561.9	568.8	563.8	541.2	548.1
72.5°	448.0	439.6	444.9	416.6	429.6
75°	336.7	329.9	336.0	312.3	323.0
77.5°	229.3	234.7	230.9	218.3	225.5
80°	151.4	147.2	147.2	139.9	141.4
82.5°	88.3	84.1	82.9	80.6	84.1
85°	41.3	40.1	40.9	39.8	38.2
87.5°	14.9	15.3	15.3	14.5	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)