

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: P589352

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589352
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-50-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

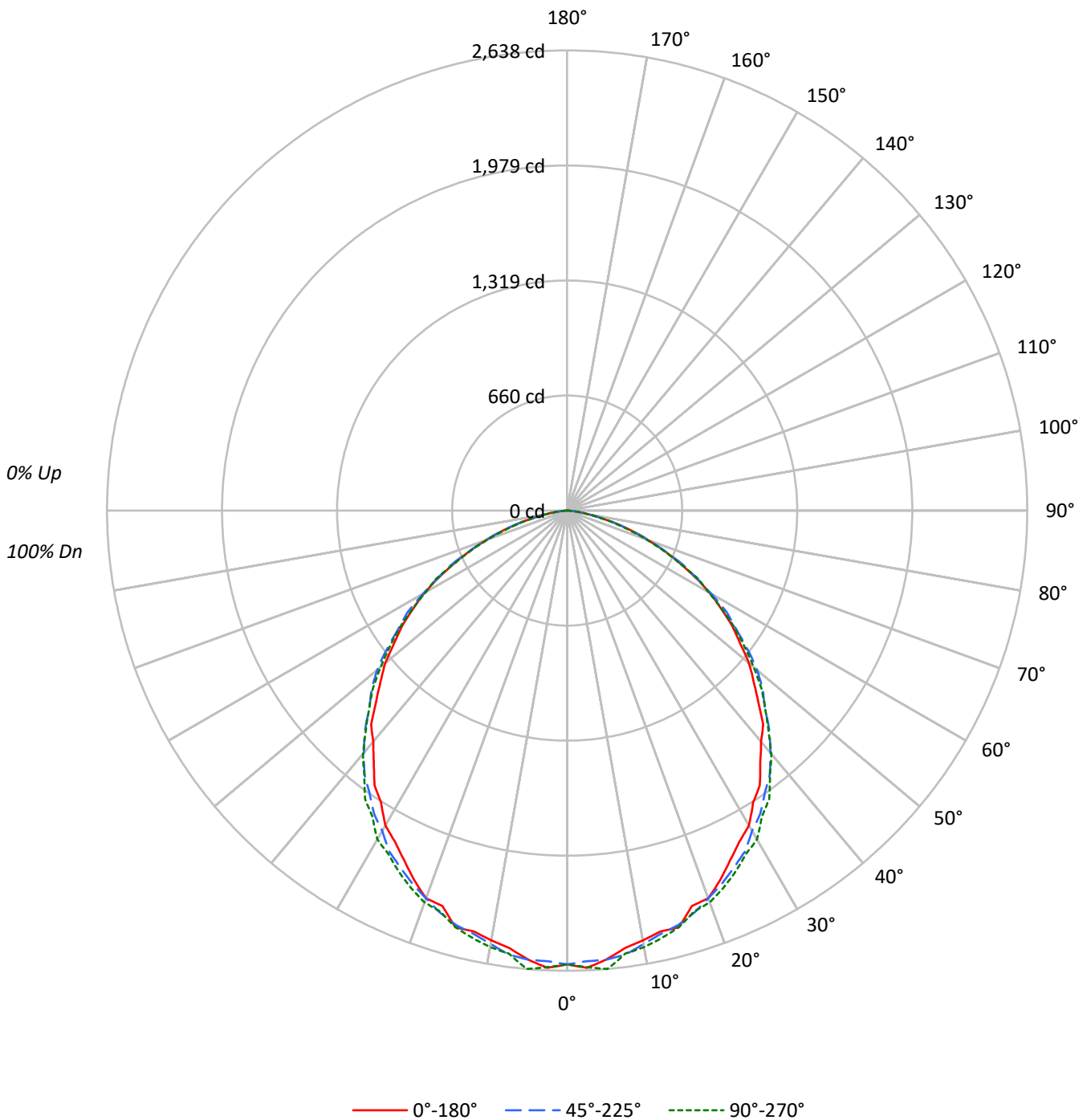
Lumens per Lamp: N/A
Luminaire Lumens: 6556.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7000	7000	7000
5°	6977	6980	7126
10°	6835	6895	6944
15°	6890	6852	6890
20°	6773	6773	6845
25°	6565	6708	6782
30°	6475	6588	6764
35°	6322	6488	6633
40°	6076	6369	6397
45°	5892	6102	6111
50°	5699	5956	5842
55°	5430	5536	5496
60°	5077	5128	5036
65°	4527	4643	4495
70°	3884	3898	3789
75°	3077	3069	2951
80°	2061	2004	1926
85°	1121	1108	1037



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.7	3.7
10°-20°	693.5	10.6
20°-30°	1039.0	15.8
30°-40°	1231.4	18.8
40°-50°	1233.7	18.8
50°-60°	1047.2	16.0
60°-70°	706.0	10.8
70°-80°	310.2	4.7
80°-90°	50.4	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°	1977.1	30.2
0°-40°	3208.5	48.9
0°-60°	5489.3	83.7
0°-90°	6556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2601	2601	2601	2601	2601	
5°	2583	2577	2584	2576	2638	243
15°	2473	2444	2460	2472	2473	689
25°	2211	2223	2259	2289	2284	1022
35°	1924	1930	1975	2020	2019	1195
45°	1548	1577	1603	1645	1606	1198
55°	1157	1150	1180	1172	1172	1030
65°	711	702	729	701	706	707
75°	296	290	295	274	284	317
85°	36	35	36	35	34	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2601.3	2601.3	2601.3	2601.3	2601.3
2.5°	2623.8	2603.9	2585.5	2607.0	2620.1
5°	2582.8	2576.7	2583.8	2576.1	2638.2
7.5°	2529.7	2552.9	2566.3	2557.9	2561.6
10°	2501.5	2493.4	2523.3	2544.2	2541.1
12.5°	2471.3	2483.4	2485.0	2507.5	2509.6
15°	2473.0	2444.4	2459.5	2472.3	2473.3
17.5°	2376.9	2407.8	2418.2	2447.4	2411.2
20°	2365.1	2342.6	2365.1	2395.0	2390.3
22.5°	2292.9	2267.7	2316.1	2342.6	2341.0
25°	2211.0	2223.1	2259.3	2288.9	2284.2
27.5°	2139.1	2153.2	2204.9	2245.6	2219.4
30°	2083.7	2076.6	2120.3	2156.6	2176.7
32.5°	1984.6	2010.1	2061.2	2097.1	2078.0
35°	1924.5	1930.2	1974.9	2020.5	2019.2
37.5°	1819.4	1845.9	1908.7	1921.5	1909.7
40°	1729.7	1756.2	1813.0	1826.8	1821.0
42.5°	1663.5	1668.2	1716.9	1732.7	1707.5
45°	1548.3	1577.2	1603.4	1644.7	1605.8
47.5°	1450.3	1463.7	1520.1	1531.2	1510.7
50°	1361.3	1366.0	1422.7	1408.9	1395.5
52.5°	1249.4	1269.2	1301.1	1298.4	1282.7
55°	1157.4	1149.7	1179.9	1171.8	1171.5
57.5°	1046.9	1060.3	1085.2	1072.4	1051.9
60°	943.4	943.8	952.8	938.4	935.7
62.5°	828.2	832.3	834.3	816.5	845.4
65°	711.0	701.6	729.2	701.3	706.0
67.5°	603.2	607.9	605.2	587.8	594.5
70°	493.7	499.8	495.4	475.6	481.6
72.5°	393.6	386.2	390.9	366.1	377.5
75°	295.9	289.8	295.2	274.4	283.8
77.5°	201.5	206.2	202.9	191.8	198.2
80°	133.0	129.3	129.3	122.9	124.3
82.5°	77.6	73.9	72.9	70.9	73.9
85°	36.3	35.3	35.9	34.9	33.6
87.5°	13.1	13.4	13.4	12.8	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)