

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: P589288

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589288
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

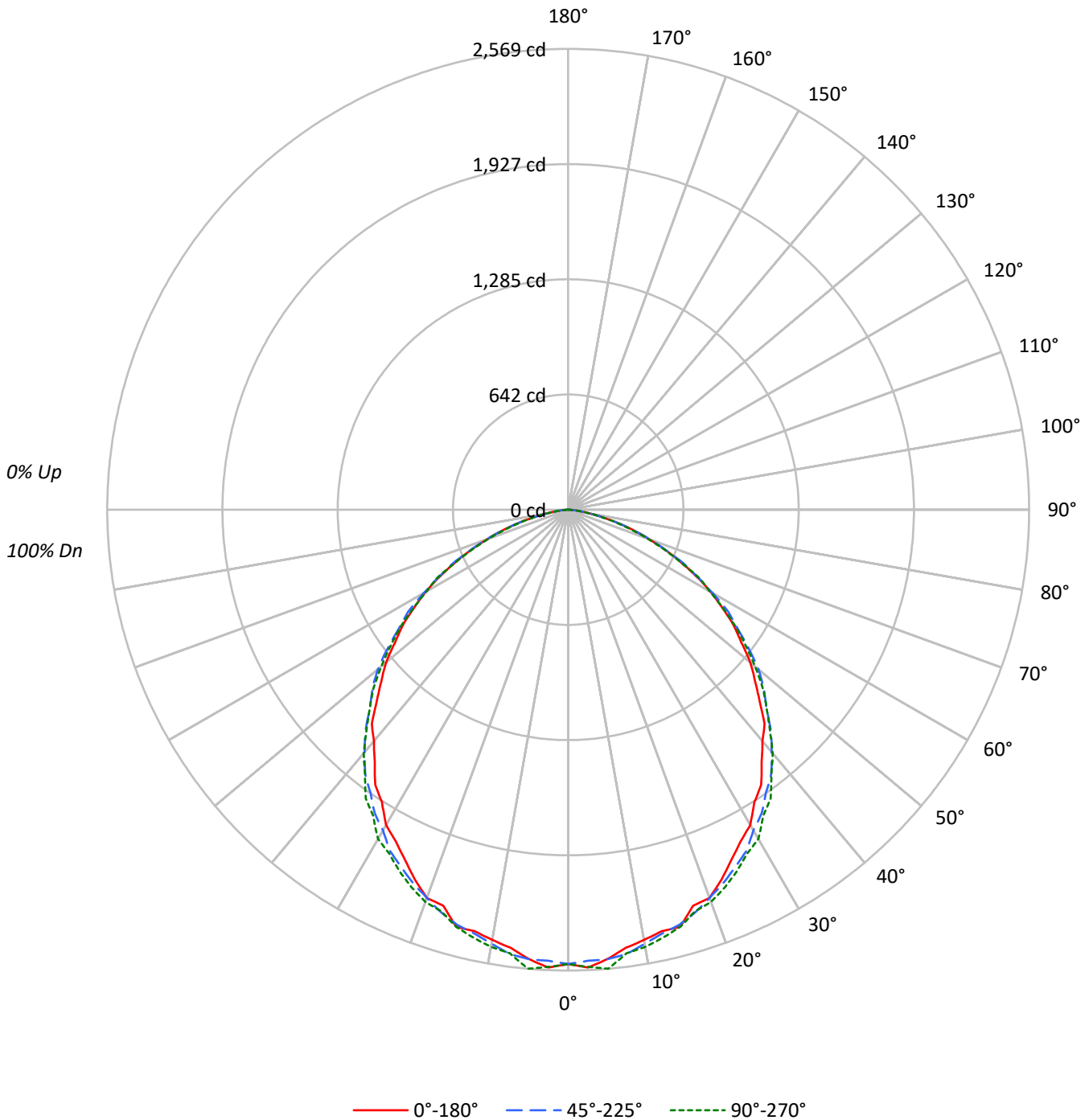
Lumens per Lamp: N/A
Luminaire Lumens: 6383.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P589288

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-82-87-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°	6815	6815	6815
5°	6793	6795	6938
10°	6655	6713	6760
15°	6708	6671	6708
20°	6594	6594	6665
25°	6391	6531	6603
30°	6304	6414	6585
35°	6155	6317	6458
40°	5916	6200	6228
45°	5737	5941	5950
50°	5548	5799	5688
55°	5286	5390	5351
60°	4943	4993	4903
65°	4408	4520	4377
70°	3782	3795	3689
75°	2995	2988	2873
80°	2007	1951	1875
85°	1090	1081	1010



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.2	3.7
10°-20°	675.2	10.6
20°-30°	1011.5	15.8
30°-40°	1198.9	18.8
40°-50°	1201.1	18.8
50°-60°	1019.5	16.0
60°-70°	687.4	10.8
70°-80°	302.0	4.7
80°-90°	49.1	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°	1924.9	30.2
0°-40°	3123.8	48.9
0°-60°	5344.5	83.7
0°-90°	6383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6383.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2533	2533	2533	2533	2533	
5°	2515	2509	2516	2508	2569	237
15°	2408	2380	2395	2407	2408	671
25°	2153	2164	2200	2228	2224	995
35°	1874	1879	1923	1967	1966	1163
45°	1508	1536	1561	1601	1563	1166
55°	1127	1119	1149	1141	1141	1002
65°	692	683	710	683	687	688
75°	288	282	287	267	276	309
85°	35	34	35	34	33	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2532.6	2532.6	2532.6	2532.6	2532.6
2.5°	2554.5	2535.2	2517.2	2538.2	2550.9
5°	2514.6	2508.7	2515.6	2508.1	2568.6
7.5°	2463.0	2485.5	2498.6	2490.4	2494.0
10°	2435.5	2427.6	2456.7	2477.0	2474.1
12.5°	2406.1	2417.8	2419.5	2441.4	2443.3
15°	2407.7	2379.9	2394.6	2407.0	2408.0
17.5°	2314.2	2344.3	2354.4	2382.8	2347.5
20°	2302.7	2280.8	2302.7	2331.8	2327.3
22.5°	2232.4	2207.9	2255.0	2280.8	2279.2
25°	2152.6	2164.4	2199.7	2228.5	2223.9
27.5°	2082.7	2096.4	2146.8	2186.3	2160.8
30°	2028.7	2021.8	2064.3	2099.7	2119.3
32.5°	1932.2	1957.1	2006.8	2041.8	2023.1
35°	1873.7	1879.3	1922.8	1967.2	1965.9
37.5°	1771.4	1797.2	1858.3	1870.8	1859.3
40°	1684.0	1709.9	1765.1	1778.6	1773.0
42.5°	1619.6	1624.2	1671.6	1687.0	1662.5
45°	1507.5	1535.6	1561.1	1601.3	1563.4
47.5°	1412.0	1425.1	1480.0	1490.8	1470.8
50°	1325.3	1329.9	1385.2	1371.8	1358.7
52.5°	1216.4	1235.7	1266.8	1264.2	1248.8
55°	1126.8	1119.3	1148.8	1140.9	1140.6
57.5°	1019.3	1032.3	1056.5	1044.1	1024.2
60°	918.5	918.9	927.7	913.6	911.0
62.5°	806.4	810.3	812.3	794.9	823.1
65°	692.3	683.1	709.9	682.8	687.4
67.5°	587.3	591.9	589.3	572.2	578.8
70°	480.7	486.6	482.3	463.0	468.9
72.5°	383.2	376.0	380.6	356.4	367.5
75°	288.1	282.2	287.4	267.2	276.3
77.5°	196.2	200.8	197.5	186.7	192.9
80°	129.5	125.9	125.9	119.7	121.0
82.5°	75.5	71.9	71.0	69.0	71.9
85°	35.3	34.3	35.0	34.0	32.7
87.5°	12.8	13.1	13.1	12.4	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)