

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: P589287

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589287
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-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

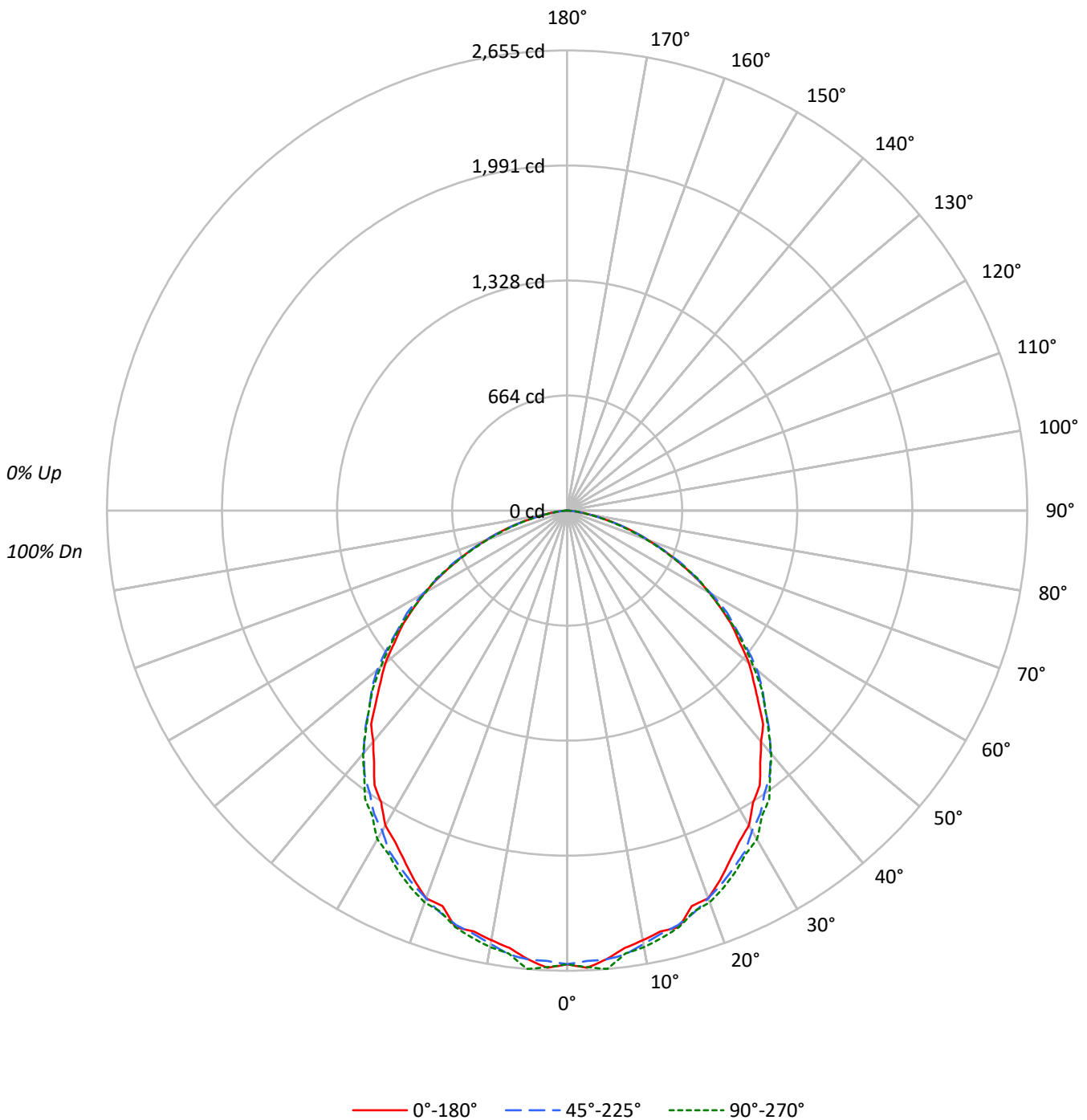
Lumens per Lamp: N/A
Luminaire Lumens: 6597.0 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7044	7044	7044
5°	7020	7023	7171
10°	6878	6938	6987
15°	6932	6895	6934
20°	6815	6815	6888
25°	6606	6750	6825
30°	6515	6630	6806
35°	6362	6528	6675
40°	6114	6408	6437
45°	5929	6140	6149
50°	5735	5993	5879
55°	5464	5570	5530
60°	5109	5160	5068
65°	4556	4672	4523
70°	3909	3922	3813
75°	3095	3089	2969
80°	2073	2016	1937
85°	1127	1118	1044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.2	3.7
10°-20°	697.8	10.6
20°-30°	1045.5	15.8
30°-40°	1239.1	18.8
40°-50°	1241.4	18.8
50°-60°	1053.7	16.0
60°-70°	710.4	10.8
70°-80°	312.2	4.7
80°-90°	50.7	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°	1989.5	30.2
0°-40°	3228.6	48.9
0°-60°	5523.7	83.7
0°-90°	6597.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6597.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2618	2618	2618	2618	2618	
5°	2599	2593	2600	2592	2655	245
15°	2488	2460	2475	2488	2489	693
25°	2225	2237	2274	2303	2298	1029
35°	1936	1942	1987	2033	2032	1202
45°	1558	1587	1613	1655	1616	1205
55°	1165	1157	1187	1179	1179	1036
65°	716	706	734	706	710	712
75°	298	292	297	276	286	319
85°	36	36	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°	2617.5	2617.5	2617.5	2617.5	2617.5
2.5°	2640.2	2620.2	2601.6	2623.3	2636.4
5°	2598.9	2592.9	2599.9	2592.2	2654.7
7.5°	2545.5	2568.9	2582.4	2573.9	2577.6
10°	2517.1	2509.0	2539.1	2560.1	2557.0
12.5°	2486.7	2498.9	2500.6	2523.2	2525.3
15°	2488.4	2459.7	2474.9	2487.7	2488.8
17.5°	2391.8	2422.9	2433.3	2462.7	2426.2
20°	2379.9	2357.3	2379.9	2410.0	2405.3
22.5°	2307.3	2281.9	2330.6	2357.3	2355.6
25°	2224.8	2237.0	2273.5	2303.2	2298.5
27.5°	2152.5	2166.7	2218.7	2259.6	2233.3
30°	2096.7	2089.6	2133.6	2170.1	2190.3
32.5°	1997.0	2022.7	2074.1	2110.2	2091.0
35°	1936.5	1942.3	1987.2	2033.2	2031.8
37.5°	1830.7	1857.4	1920.6	1933.5	1921.7
40°	1740.5	1767.2	1824.3	1838.2	1832.4
42.5°	1673.9	1678.7	1727.7	1743.6	1718.2
45°	1558.0	1587.1	1613.4	1655.0	1615.8
47.5°	1459.3	1472.8	1529.6	1540.8	1520.2
50°	1369.8	1374.5	1431.6	1417.8	1404.2
52.5°	1257.2	1277.2	1309.3	1306.6	1290.7
55°	1164.6	1156.8	1187.3	1179.2	1178.8
57.5°	1053.4	1066.9	1092.0	1079.1	1058.5
60°	949.3	949.7	958.8	944.3	941.6
62.5°	833.4	837.5	839.5	821.6	850.7
65°	715.5	706.0	733.7	705.7	710.4
67.5°	607.0	611.7	609.0	591.4	598.2
70°	496.8	502.9	498.5	478.6	484.6
72.5°	396.1	388.7	393.4	368.4	379.9
75°	297.7	291.7	297.1	276.1	285.6
77.5°	202.8	207.5	204.1	193.0	199.4
80°	133.8	130.1	130.1	123.7	125.0
82.5°	78.1	74.4	73.3	71.3	74.4
85°	36.5	35.5	36.2	35.1	33.8
87.5°	13.2	13.5	13.5	12.8	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)