

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: P589833

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589833
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-50-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

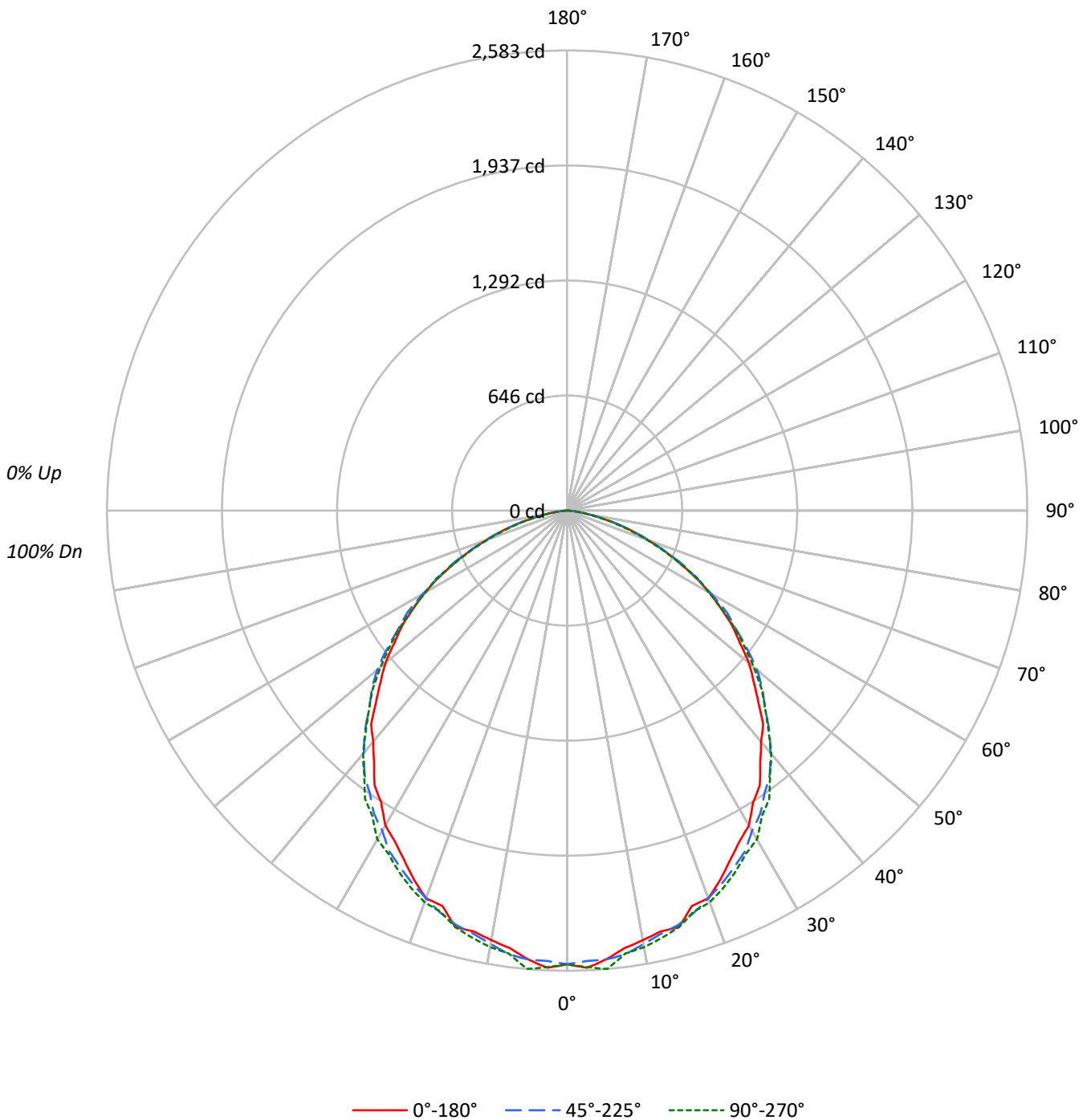
Lumens per Lamp: N/A
Luminaire Lumens: 6418.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6853	6853	6853
5°	6830	6833	6977
10°	6691	6750	6797
15°	6744	6708	6745
20°	6631	6631	6701
25°	6426	6567	6639
30°	6338	6450	6621
35°	6189	6351	6494
40°	5948	6235	6262
45°	5768	5974	5982
50°	5579	5831	5719
55°	5316	5419	5380
60°	4971	5020	4930
65°	4432	4545	4401
70°	3803	3816	3710
75°	3012	3005	2888
80°	2018	1962	1886
85°	1096	1087	1016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.5	3.7
10°-20°	678.9	10.6
20°-30°	1017.1	15.8
30°-40°	1205.5	18.8
40°-50°	1207.7	18.8
50°-60°	1025.1	16.0
60°-70°	691.1	10.8
70°-80°	303.7	4.7
80°-90°	49.4	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°	1935.5	30.2
0°-40°	3141.0	48.9
0°-60°	5373.8	83.7
0°-90°	6418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6418.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2546	2546	2546	2546	2546	
5°	2528	2522	2529	2522	2583	238
15°	2421	2393	2408	2420	2421	675
25°	2164	2176	2212	2241	2236	1001
35°	1884	1890	1933	1978	1977	1170
45°	1516	1544	1570	1610	1572	1172
55°	1133	1126	1155	1147	1147	1008
65°	696	687	714	686	691	692
75°	290	284	289	269	278	310
85°	36	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°	2546.5	2546.5	2546.5	2546.5	2546.5
2.5°	2568.5	2549.1	2531.0	2552.1	2564.9
5°	2528.4	2522.5	2529.4	2521.8	2582.7
7.5°	2476.5	2499.2	2512.3	2504.1	2507.7
10°	2448.8	2441.0	2470.2	2490.6	2487.6
12.5°	2419.3	2431.1	2432.7	2454.8	2456.7
15°	2420.9	2393.0	2407.7	2420.2	2421.2
17.5°	2326.9	2357.1	2367.3	2395.9	2360.4
20°	2315.4	2293.3	2315.4	2344.6	2340.0
22.5°	2244.7	2220.0	2267.4	2293.3	2291.7
25°	2164.4	2176.3	2211.8	2240.7	2236.1
27.5°	2094.1	2107.9	2158.5	2198.3	2172.7
30°	2039.8	2032.9	2075.7	2111.2	2130.9
32.5°	1942.8	1967.8	2017.8	2053.0	2034.2
35°	1884.0	1889.6	1933.3	1978.0	1976.7
37.5°	1781.1	1807.0	1868.5	1881.0	1869.5
40°	1693.3	1719.3	1774.8	1788.3	1782.7
42.5°	1628.5	1633.1	1680.8	1696.2	1671.6
45°	1515.7	1544.0	1569.7	1610.1	1572.0
47.5°	1419.7	1432.9	1488.1	1499.0	1478.9
50°	1332.6	1337.2	1392.8	1379.3	1366.1
52.5°	1223.1	1242.5	1273.7	1271.1	1255.7
55°	1133.0	1125.5	1155.0	1147.2	1146.8
57.5°	1024.8	1038.0	1062.3	1049.8	1029.8
60°	923.6	923.9	932.8	918.6	916.0
62.5°	810.8	814.7	816.7	799.3	827.6
65°	696.1	686.8	713.8	686.5	691.1
67.5°	590.5	595.1	592.5	575.4	582.0
70°	483.3	489.2	485.0	465.6	471.5
72.5°	385.3	378.1	382.7	358.4	369.6
75°	289.7	283.7	289.0	268.6	277.8
77.5°	197.3	201.9	198.6	187.7	194.0
80°	130.2	126.6	126.6	120.3	121.7
82.5°	76.0	72.3	71.3	69.4	72.3
85°	35.5	34.5	35.2	34.2	32.9
87.5°	12.8	13.2	13.2	12.5	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)