

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: P589339

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-80-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589339
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-80-96-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

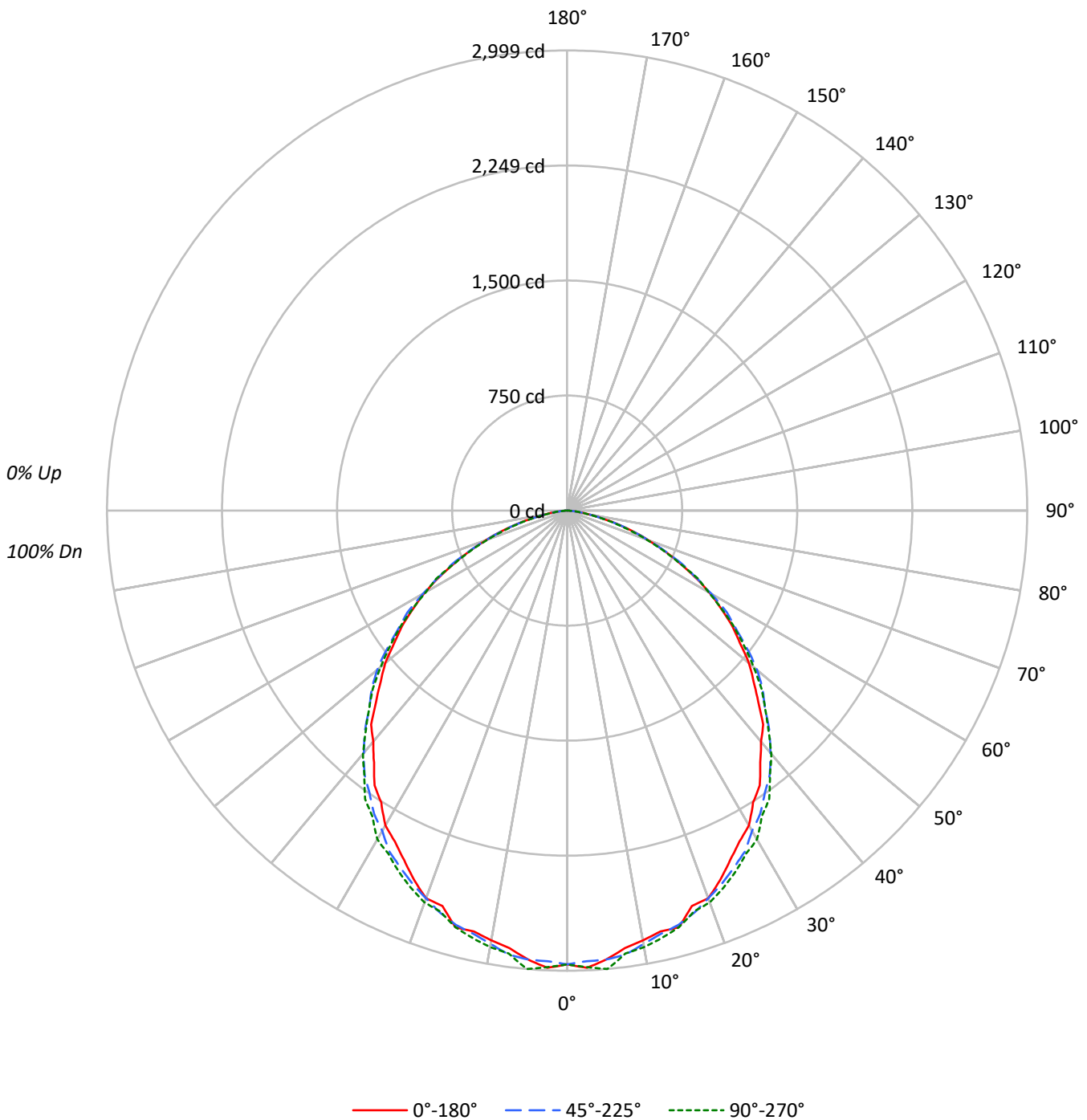
Lumens per Lamp: N/A
Luminaire Lumens: 7453.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	7958	7958	7958
5°	7931	7934	8102
10°	7771	7838	7894
15°	7832	7789	7833
20°	7700	7700	7782
25°	7463	7626	7710
30°	7361	7490	7689
35°	7187	7375	7541
40°	6908	7240	7272
45°	6699	6937	6947
50°	6478	6771	6641
55°	6173	6293	6248
60°	5772	5830	5725
65°	5147	5278	5110
70°	4416	4431	4308
75°	3498	3489	3354
80°	2343	2278	2190
85°	1272	1263	1179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.2	3.7
10°-20°	788.4	10.6
20°-30°	1181.1	15.8
30°-40°	1399.9	18.8
40°-50°	1402.5	18.8
50°-60°	1190.5	16.0
60°-70°	802.6	10.8
70°-80°	352.7	4.7
80°-90°	57.3	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°	2247.6	30.2
0°-40°	3647.5	48.9
0°-60°	6240.4	83.7
0°-90°	7453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7453.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2957	2957	2957	2957	2957	
5°	2936	2929	2937	2928	2999	277
15°	2811	2779	2796	2810	2812	783
25°	2514	2527	2568	2602	2597	1162
35°	2188	2194	2245	2297	2296	1358
45°	1760	1793	1823	1870	1826	1362
55°	1316	1307	1341	1332	1332	1170
65°	808	798	829	797	803	804
75°	336	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°	2957.2	2957.2	2957.2	2957.2	2957.2
2.5°	2982.7	2960.2	2939.2	2963.7	2978.5
5°	2936.2	2929.3	2937.3	2928.5	2999.2
7.5°	2875.8	2902.2	2917.5	2907.9	2912.1
10°	2843.8	2834.6	2868.6	2892.3	2888.8
12.5°	2809.4	2823.1	2825.1	2850.6	2852.9
15°	2811.3	2778.9	2796.0	2810.5	2811.7
17.5°	2702.1	2737.2	2749.1	2782.3	2741.1
20°	2688.7	2663.2	2688.7	2722.7	2717.4
22.5°	2606.7	2578.0	2633.0	2663.2	2661.3
25°	2513.5	2527.2	2568.5	2602.1	2596.7
27.5°	2431.8	2447.8	2506.6	2552.8	2523.0
30°	2368.8	2360.8	2410.4	2451.6	2474.5
32.5°	2256.1	2285.2	2343.2	2384.1	2362.3
35°	2187.8	2194.3	2245.1	2297.0	2295.5
37.5°	2068.3	2098.5	2169.9	2184.4	2171.0
40°	1966.4	1996.5	2061.0	2076.7	2070.2
42.5°	1891.1	1896.5	1951.8	1969.8	1941.2
45°	1760.2	1793.0	1822.8	1869.8	1825.5
47.5°	1648.7	1664.0	1728.1	1740.7	1717.4
50°	1547.5	1552.8	1617.4	1601.7	1586.4
52.5°	1420.4	1442.9	1479.2	1476.1	1458.2
55°	1315.7	1307.0	1341.3	1332.2	1331.8
57.5°	1190.1	1205.4	1233.6	1219.1	1195.8
60°	1072.5	1072.9	1083.2	1066.8	1063.7
62.5°	941.6	946.1	948.4	928.2	961.0
65°	808.3	797.6	828.9	797.2	802.6
67.5°	685.7	691.1	688.0	668.2	675.8
70°	561.3	568.1	563.2	540.7	547.5
72.5°	447.5	439.1	444.4	416.2	429.2
75°	336.4	329.5	335.6	311.9	322.6
77.5°	229.1	234.4	230.6	218.0	225.3
80°	151.2	147.0	147.0	139.7	141.3
82.5°	88.2	84.0	82.9	80.6	84.0
85°	41.2	40.1	40.9	39.7	38.2
87.5°	14.9	15.3	15.3	14.5	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)