

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: P589306

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589306
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-40-UNV-80-94-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

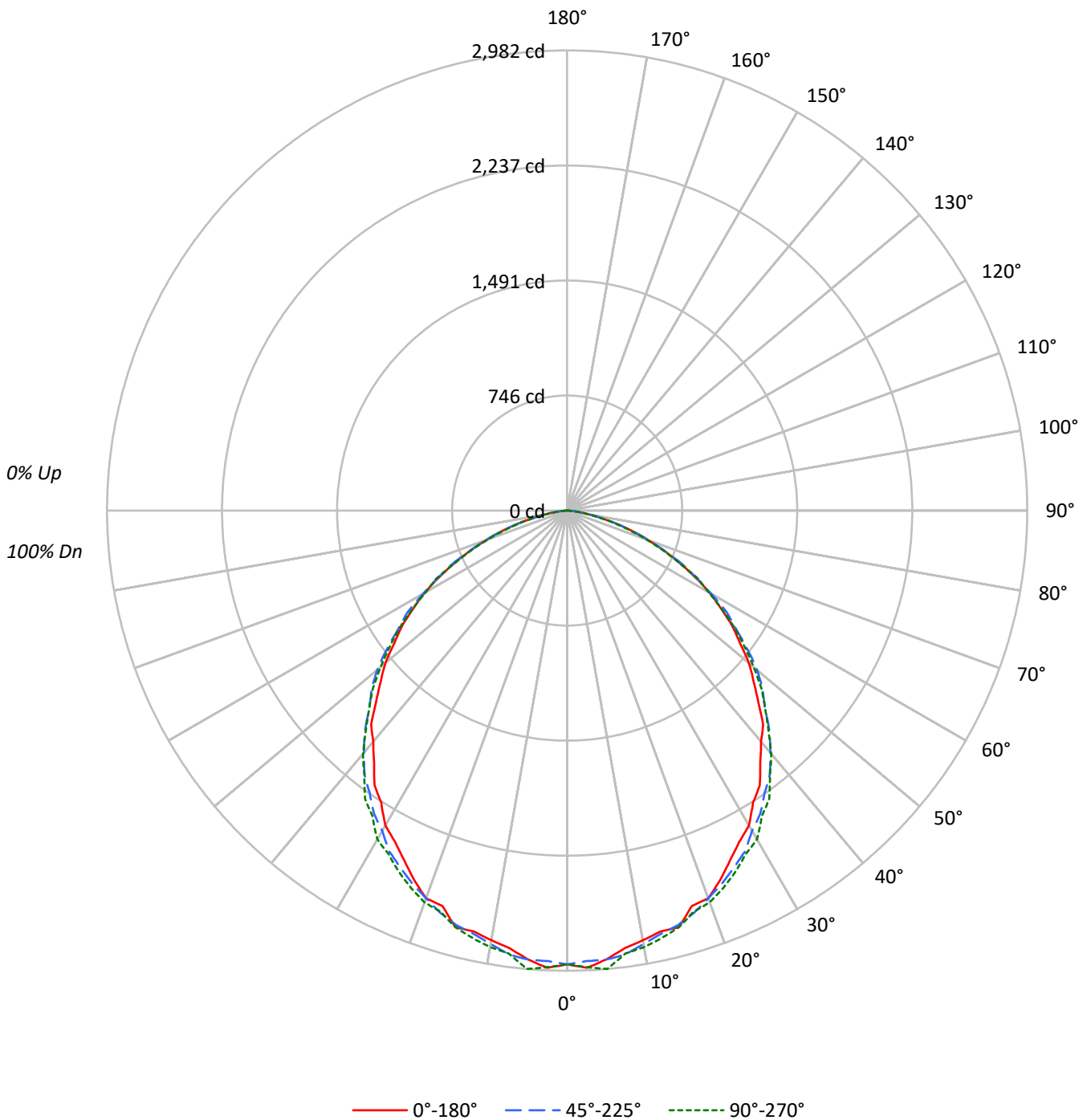
Lumens per Lamp: N/A
Luminaire Lumens: 7410.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
Input Voltage (V): NR
Input Current (A_{in}): 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: P589306

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589306

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-94-EDD

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°	7912	7912	7912
5°	7886	7889	8055
10°	7726	7793	7848
15°	7787	7745	7788
20°	7655	7655	7737
25°	7420	7582	7665
30°	7318	7447	7645
35°	7146	7333	7497
40°	6868	7198	7230
45°	6660	6897	6907
50°	6441	6732	6603
55°	6137	6257	6212
60°	5739	5796	5692
65°	5117	5247	5081
70°	4390	4405	4283
75°	3477	3470	3335
80°	2329	2266	2177
85°	1266	1254	1173



TEST NUMBER: P589306

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.6	3.7
10°-20°	783.8	10.6
20°-30°	1174.3	15.8
30°-40°	1391.8	18.8
40°-50°	1394.4	18.8
50°-60°	1183.6	16.0
60°-70°	798.0	10.8
70°-80°	350.6	4.7
80°-90°	57.0	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°	2234.7	30.2
0°-40°	3626.5	48.9
0°-60°	6204.4	83.7
0°-90°	7410.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2940	2940	2940	2940	2940	
5°	2919	2912	2920	2912	2982	275
15°	2795	2763	2780	2794	2796	779
25°	2499	2513	2554	2587	2582	1155
35°	2175	2182	2232	2284	2282	1351
45°	1750	1783	1812	1859	1815	1354
55°	1308	1299	1334	1324	1324	1164
65°	804	793	824	793	798	799
75°	334	328	334	310	321	358
85°	41	40	41	40	38	59
90°	0	0	0	0	0	



TEST NUMBER: P589306

CATALOG NUMBER: FMR-24-2-LD4-3HI-40-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2940.1	2940.1	2940.1	2940.1	2940.1
2.5°	2965.5	2943.1	2922.3	2946.6	2961.4
5°	2919.2	2912.4	2920.4	2911.6	2981.9
7.5°	2859.2	2885.4	2900.6	2891.1	2895.3
10°	2827.4	2818.2	2852.0	2875.6	2872.2
12.5°	2793.2	2806.9	2808.8	2834.2	2836.5
15°	2795.1	2762.8	2779.9	2794.3	2795.5
17.5°	2686.5	2721.4	2733.2	2766.2	2725.2
20°	2673.2	2647.8	2673.2	2707.0	2701.7
22.5°	2591.6	2563.1	2617.8	2647.8	2645.9
25°	2499.0	2512.7	2553.7	2587.1	2581.7
27.5°	2417.8	2433.7	2492.2	2538.1	2508.5
30°	2355.1	2347.1	2396.5	2437.5	2460.3
32.5°	2243.1	2272.0	2329.7	2370.3	2348.7
35°	2175.2	2181.6	2232.1	2283.8	2282.2
37.5°	2056.4	2086.4	2157.3	2171.8	2158.5
40°	1955.0	1985.0	2049.1	2064.7	2058.3
42.5°	1880.2	1885.5	1940.6	1958.4	1930.0
45°	1750.0	1782.7	1812.3	1859.0	1814.9
47.5°	1639.2	1654.4	1718.1	1730.7	1707.5
50°	1538.6	1543.9	1608.0	1592.5	1577.3
52.5°	1412.2	1434.6	1470.6	1467.6	1449.7
55°	1308.1	1299.4	1333.6	1324.5	1324.1
57.5°	1183.3	1198.4	1226.5	1212.1	1188.9
60°	1066.3	1066.7	1077.0	1060.6	1057.6
62.5°	936.1	940.7	943.0	922.8	955.5
65°	803.6	793.0	824.1	792.6	797.9
67.5°	681.8	687.1	684.1	664.3	671.9
70°	558.0	564.9	559.9	537.5	544.4
72.5°	444.9	436.6	441.9	413.8	426.7
75°	334.4	327.6	333.7	310.1	320.8
77.5°	227.8	233.1	229.3	216.8	224.0
80°	150.3	146.2	146.2	138.9	140.5
82.5°	87.7	83.5	82.4	80.1	83.5
85°	41.0	39.9	40.6	39.5	38.0
87.5°	14.8	15.2	15.2	14.4	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)