

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: P589302

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589302
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-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

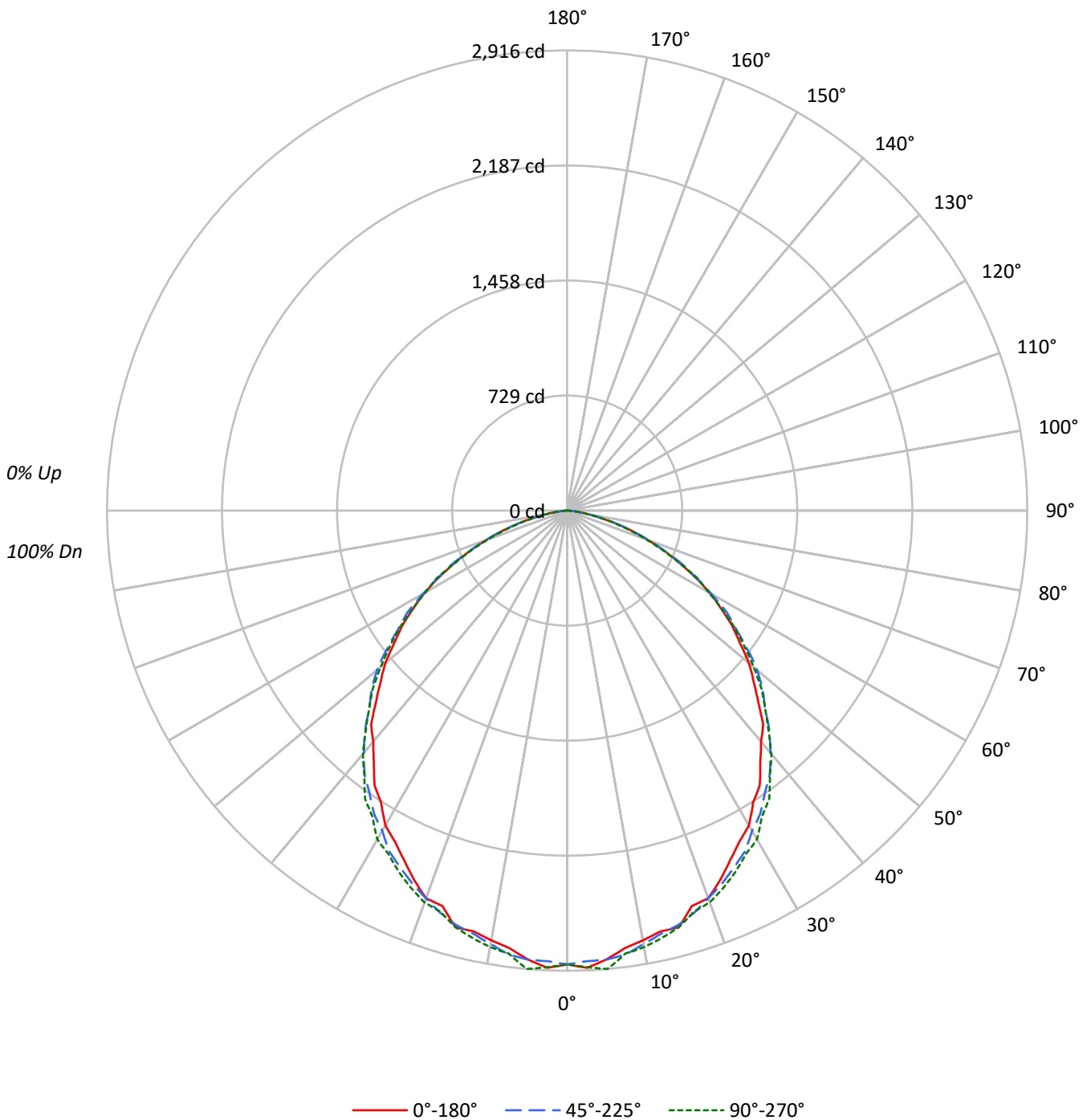
Lumens per Lamp: N/A
Luminaire Lumens: 7247.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7738	7738	7738
5°	7712	7715	7878
10°	7556	7622	7676
15°	7616	7574	7617
20°	7487	7487	7567
25°	7257	7415	7497
30°	7157	7283	7477
35°	6988	7171	7332
40°	6717	7040	7071
45°	6513	6745	6755
50°	6299	6584	6458
55°	6002	6119	6076
60°	5613	5669	5567
65°	5005	5132	4969
70°	4294	4308	4189
75°	3401	3393	3262
80°	2278	2214	2129
85°	1238	1226	1145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.5	3.7
10°-20°	766.6	10.6
20°-30°	1148.5	15.8
30°-40°	1361.2	18.8
40°-50°	1363.7	18.8
50°-60°	1157.5	16.0
60°-70°	780.4	10.8
70°-80°	342.9	4.7
80°-90°	55.7	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°	2185.5	30.2
0°-40°	3546.7	48.9
0°-60°	6067.9	83.7
0°-90°	7247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7247.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2875	2875	2875	2875	2875	
5°	2855	2848	2856	2848	2916	269
15°	2734	2702	2719	2733	2734	762
25°	2444	2457	2498	2530	2525	1130
35°	2127	2134	2183	2234	2232	1321
45°	1712	1743	1772	1818	1775	1324
55°	1279	1271	1304	1295	1295	1138
65°	786	776	806	775	780	782
75°	327	320	326	303	314	351
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2875.4	2875.4	2875.4	2875.4	2875.4
2.5°	2900.3	2878.4	2858.0	2881.7	2896.2
5°	2855.0	2848.3	2856.1	2847.6	2916.3
7.5°	2796.3	2822.0	2836.8	2827.5	2831.6
10°	2765.2	2756.3	2789.3	2812.3	2809.0
12.5°	2731.7	2745.1	2747.0	2771.8	2774.1
15°	2733.6	2702.0	2718.8	2732.9	2734.0
17.5°	2627.4	2661.6	2673.1	2705.4	2665.3
20°	2614.4	2589.6	2614.4	2647.5	2642.3
22.5°	2534.6	2506.8	2560.2	2589.6	2587.7
25°	2444.0	2457.4	2497.5	2530.2	2525.0
27.5°	2364.6	2380.2	2437.3	2482.3	2453.3
30°	2303.3	2295.5	2343.8	2383.9	2406.2
32.5°	2193.8	2222.0	2278.4	2318.2	2297.0
35°	2127.3	2133.6	2183.0	2233.5	2232.0
37.5°	2011.1	2040.5	2109.9	2124.0	2111.0
40°	1912.0	1941.3	2004.1	2019.3	2013.0
42.5°	1838.9	1844.1	1897.9	1915.3	1887.5
45°	1711.5	1743.4	1772.4	1818.1	1775.0
47.5°	1603.1	1618.0	1680.3	1692.6	1669.9
50°	1504.7	1509.9	1572.7	1557.4	1542.6
52.5°	1381.1	1403.0	1438.3	1435.3	1417.9
55°	1279.4	1270.8	1304.2	1295.3	1295.0
57.5°	1157.2	1172.1	1199.5	1185.4	1162.8
60°	1042.9	1043.2	1053.3	1037.3	1034.3
62.5°	915.5	920.0	922.2	902.5	934.5
65°	786.0	775.6	806.0	775.2	780.4
67.5°	666.8	672.0	669.0	649.7	657.1
70°	545.8	552.4	547.6	525.7	532.4
72.5°	435.1	427.0	432.1	404.7	417.3
75°	327.1	320.4	326.3	303.3	313.7
77.5°	222.8	228.0	224.2	212.0	219.0
80°	147.0	142.9	142.9	135.9	137.4
82.5°	85.8	81.7	80.6	78.3	81.7
85°	40.1	39.0	39.7	38.6	37.1
87.5°	14.5	14.9	14.9	14.1	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)