

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: P589307

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589307
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-80-96-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

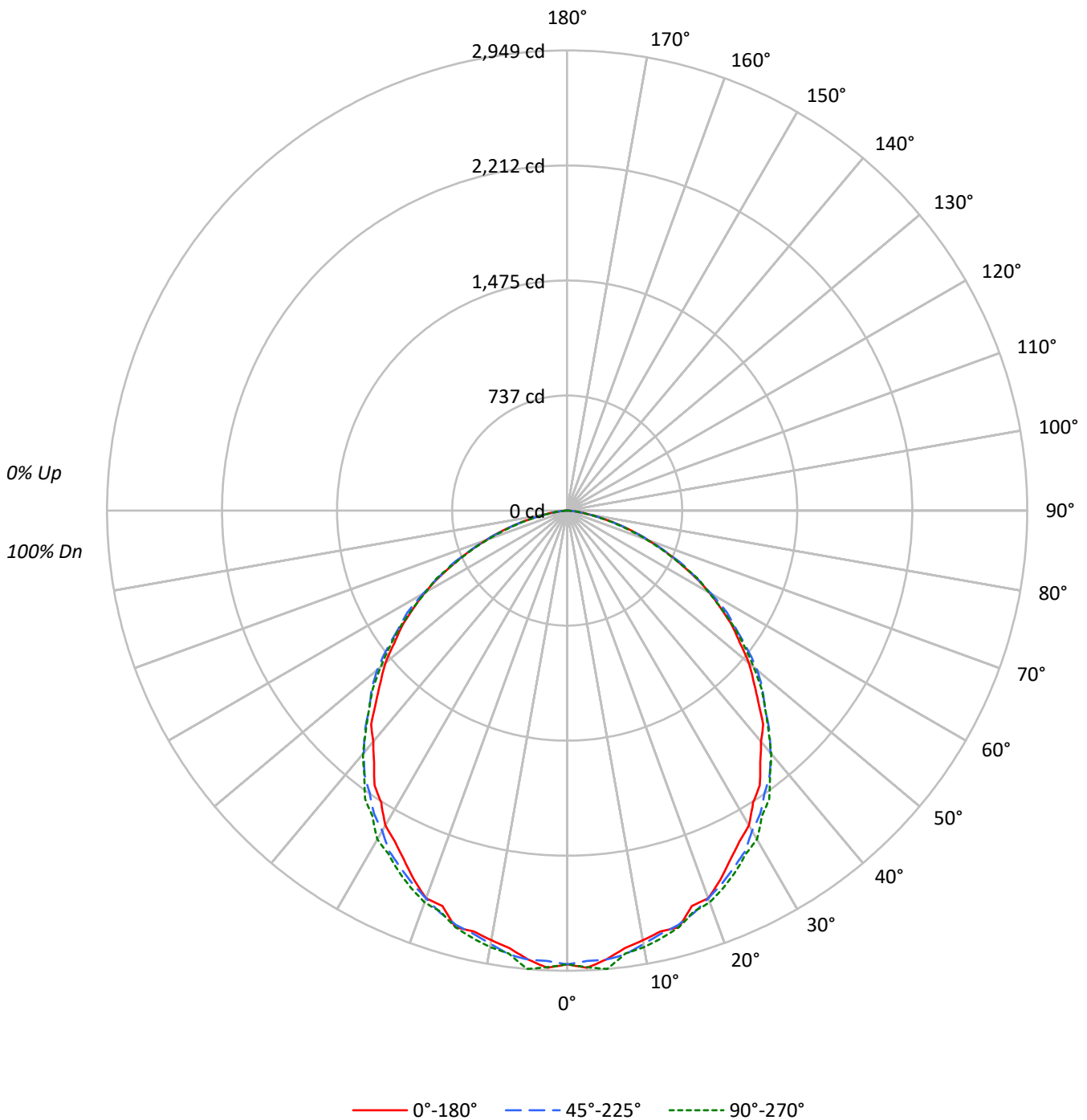
Lumens per Lamp: N/A
Luminaire Lumens: 7328.0 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	7824	7824	7824
5°	7798	7801	7966
10°	7640	7707	7761
15°	7701	7659	7702
20°	7571	7571	7651
25°	7338	7498	7581
30°	7237	7364	7560
35°	7067	7251	7414
40°	6792	7119	7150
45°	6586	6820	6830
50°	6370	6657	6530
55°	6069	6187	6143
60°	5675	5732	5629
65°	5060	5189	5025
70°	4342	4356	4235
75°	3438	3431	3298
80°	2304	2239	2152
85°	1250	1241	1158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.5	3.7
10°-20°	775.1	10.6
20°-30°	1161.3	15.8
30°-40°	1376.4	18.8
40°-50°	1378.9	18.8
50°-60°	1170.5	16.0
60°-70°	789.1	10.8
70°-80°	346.7	4.7
80°-90°	56.3	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°	2209.9	30.2
0°-40°	3586.3	48.9
0°-60°	6135.8	83.7
0°-90°	7328.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7328.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2908	2908	2908	2908	2908	
5°	2887	2880	2888	2879	2949	272
15°	2764	2732	2749	2763	2764	770
25°	2471	2485	2525	2558	2553	1143
35°	2151	2158	2207	2258	2257	1336
45°	1731	1763	1792	1838	1795	1339
55°	1294	1285	1319	1310	1309	1151
65°	795	784	815	784	789	790
75°	331	324	330	307	317	354
85°	40	39	40	39	38	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2907.6	2907.6	2907.6	2907.6	2907.6
2.5°	2932.7	2910.6	2889.9	2913.9	2928.6
5°	2886.9	2880.2	2888.0	2879.4	2948.9
7.5°	2827.6	2853.5	2868.5	2859.1	2863.3
10°	2796.1	2787.1	2820.5	2843.7	2840.4
12.5°	2762.3	2775.8	2777.7	2802.8	2805.1
15°	2764.2	2732.2	2749.1	2763.4	2764.5
17.5°	2656.8	2691.3	2703.0	2735.6	2695.1
20°	2643.7	2618.5	2643.7	2677.1	2671.8
22.5°	2562.9	2534.8	2588.8	2618.5	2616.6
25°	2471.3	2484.9	2525.4	2558.4	2553.2
27.5°	2391.0	2406.8	2464.6	2510.0	2480.7
30°	2329.1	2321.2	2370.0	2410.5	2433.0
32.5°	2218.3	2246.8	2303.9	2344.1	2322.7
35°	2151.1	2157.5	2207.4	2258.5	2257.0
37.5°	2033.6	2063.3	2133.5	2147.7	2134.6
40°	1933.4	1963.0	2026.5	2041.9	2035.5
42.5°	1859.4	1864.7	1919.1	1936.8	1908.6
45°	1730.6	1762.9	1792.2	1838.4	1794.8
47.5°	1621.0	1636.0	1699.1	1711.5	1688.6
50°	1521.5	1526.8	1590.2	1574.9	1559.8
52.5°	1396.5	1418.7	1454.3	1451.3	1433.7
55°	1293.7	1285.0	1318.8	1309.8	1309.4
57.5°	1170.2	1185.2	1213.0	1198.7	1175.8
60°	1054.5	1054.9	1065.0	1048.9	1045.9
62.5°	925.8	930.3	932.5	912.6	944.9
65°	794.7	784.2	815.0	783.9	789.1
67.5°	674.2	679.5	676.5	657.0	664.5
70°	551.9	558.6	553.7	531.6	538.3
72.5°	440.0	431.7	437.0	409.2	422.0
75°	330.7	324.0	330.0	306.7	317.2
77.5°	225.2	230.5	226.7	214.4	221.5
80°	148.7	144.5	144.5	137.4	138.9
82.5°	86.7	82.6	81.5	79.2	82.6
85°	40.5	39.4	40.2	39.0	37.5
87.5°	14.6	15.0	15.0	14.3	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)