

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: P589305

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589305
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-80-88-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

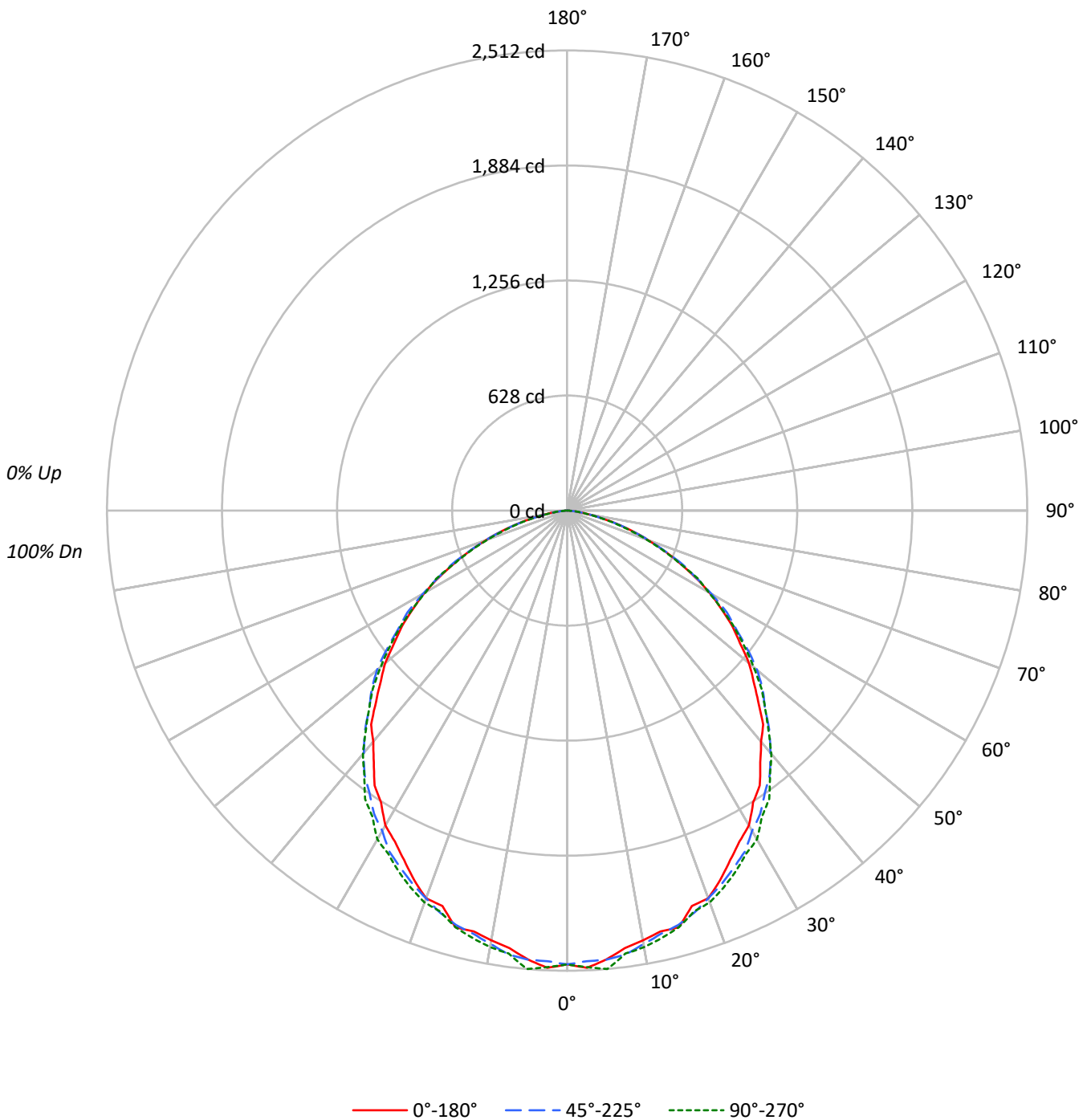
Lumens per Lamp: N/A
Luminaire Lumens: 6243.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6666	6666	6666
5°	6644	6646	6786
10°	6509	6566	6612
15°	6561	6525	6561
20°	6450	6450	6518
25°	6251	6388	6458
30°	6165	6274	6441
35°	6020	6178	6317
40°	5786	6065	6092
45°	5611	5811	5819
50°	5427	5672	5563
55°	5171	5271	5234
60°	4835	4884	4795
65°	4311	4421	4281
70°	3699	3711	3608
75°	2930	2923	2810
80°	1963	1908	1833
85°	1065	1056	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.0	3.7
10°-20°	660.4	10.6
20°-30°	989.4	15.8
30°-40°	1172.6	18.8
40°-50°	1174.8	18.8
50°-60°	997.2	16.0
60°-70°	672.3	10.8
70°-80°	295.4	4.7
80°-90°	48.0	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°	1882.7	30.2
0°-40°	3055.3	48.9
0°-60°	5227.3	83.7
0°-90°	6243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6243.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2477	2477	2477	2477	2477	
5°	2460	2454	2460	2453	2512	232
15°	2355	2328	2342	2354	2355	656
25°	2105	2117	2152	2180	2175	973
35°	1833	1838	1881	1924	1923	1138
45°	1474	1502	1527	1566	1529	1141
55°	1102	1095	1124	1116	1116	980
65°	677	668	694	668	672	673
75°	282	276	281	261	270	302
85°	34	34	34	33	32	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2477.1	2477.1	2477.1	2477.1	2477.1
2.5°	2498.5	2479.6	2462.0	2482.5	2495.0
5°	2459.5	2453.7	2460.4	2453.1	2512.2
7.5°	2408.9	2431.0	2443.8	2435.8	2439.3
10°	2382.1	2374.4	2402.9	2422.7	2419.8
12.5°	2353.3	2364.8	2366.4	2387.8	2389.8
15°	2354.9	2327.7	2342.1	2354.3	2355.2
17.5°	2263.4	2292.8	2302.8	2330.6	2296.0
20°	2252.2	2230.8	2252.2	2280.7	2276.2
22.5°	2183.5	2159.5	2205.5	2230.8	2229.2
25°	2105.4	2116.9	2151.5	2179.6	2175.1
27.5°	2037.0	2050.4	2099.7	2138.4	2113.4
30°	1984.2	1977.5	2019.1	2053.6	2072.8
32.5°	1889.9	1914.2	1962.8	1997.0	1978.8
35°	1832.6	1838.0	1880.6	1924.1	1922.8
37.5°	1732.5	1757.8	1817.6	1829.7	1818.5
40°	1647.1	1672.4	1726.4	1739.5	1734.1
42.5°	1584.1	1588.6	1635.0	1650.0	1626.0
45°	1474.4	1501.9	1526.9	1566.2	1529.1
47.5°	1381.0	1393.8	1447.5	1458.1	1438.6
50°	1296.3	1300.7	1354.8	1341.7	1328.9
52.5°	1189.8	1208.6	1239.0	1236.5	1221.4
55°	1102.1	1094.8	1123.6	1115.9	1115.6
57.5°	996.9	1009.7	1033.4	1021.2	1001.7
60°	898.4	898.7	907.4	893.6	891.0
62.5°	788.7	792.5	794.5	777.5	805.0
65°	677.1	668.1	694.3	667.8	672.3
67.5°	574.4	578.9	576.3	559.7	566.1
70°	470.1	475.9	471.7	452.9	458.6
72.5°	374.8	367.8	372.3	348.6	359.5
75°	281.8	276.0	281.1	261.3	270.3
77.5°	191.9	196.4	193.2	182.6	188.7
80°	126.7	123.1	123.1	117.1	118.3
82.5°	73.9	70.4	69.4	67.5	70.4
85°	34.5	33.6	34.2	33.3	32.0
87.5°	12.5	12.8	12.8	12.2	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)