

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: P589500

Luminaire Tested: **FMR-24-2-LD4-3STD-40-UNV-80-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589500
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-LD4-3STD-40-UNV-80-97-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

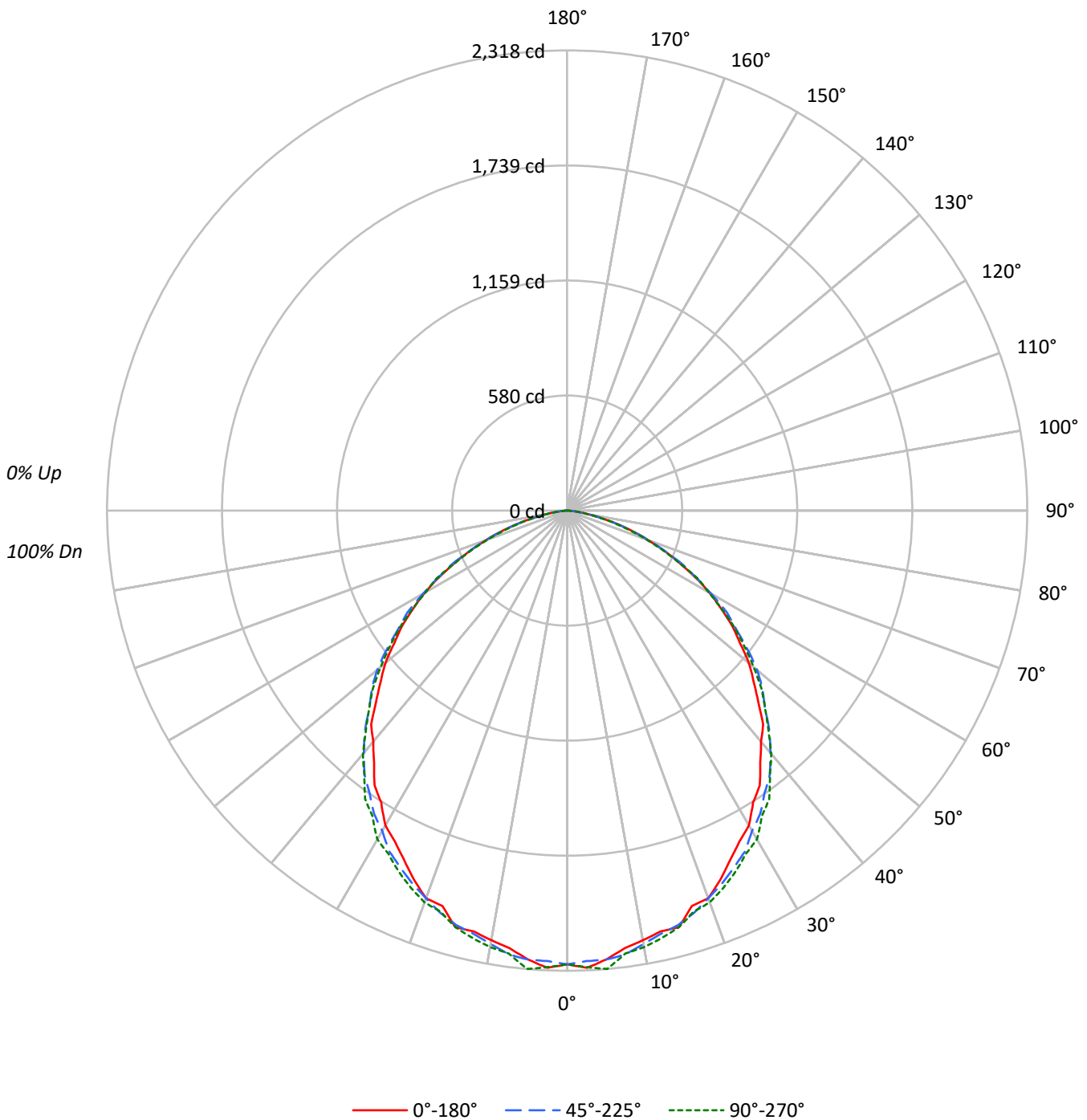
Lumens per Lamp: N/A
Luminaire Lumens: 5760.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	6150	6150	6150
5°	6130	6132	6261
10°	6005	6058	6101
15°	6053	6020	6054
20°	5951	5951	6014
25°	5768	5894	5959
30°	5688	5789	5942
35°	5554	5700	5828
40°	5338	5596	5620
45°	5177	5361	5369
50°	5007	5233	5133
55°	4771	4863	4829
60°	4461	4506	4425
65°	3978	4079	3950
70°	3413	3424	3329
75°	2703	2697	2592
80°	1812	1760	1692
85°	985	976	911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.0	3.7
10°-20°	609.3	10.6
20°-30°	912.8	15.8
30°-40°	1081.9	18.8
40°-50°	1083.9	18.8
50°-60°	920.0	16.0
60°-70°	620.3	10.8
70°-80°	272.6	4.7
80°-90°	44.3	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°	1737.1	30.2
0°-40°	2819.0	48.9
0°-60°	4822.9	83.7
0°-90°	5760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5760.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2285	2285	2285	2285	2285	
5°	2269	2264	2270	2263	2318	214
15°	2173	2148	2161	2172	2173	605
25°	1942	1953	1985	2011	2007	898
35°	1691	1696	1735	1775	1774	1050
45°	1360	1386	1409	1445	1411	1052
55°	1017	1010	1037	1030	1029	905
65°	625	616	641	616	620	621
75°	260	255	259	241	249	279
85°	32	31	32	31	30	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2285.4	2285.4	2285.4	2285.4	2285.4
2.5°	2305.2	2287.8	2271.6	2290.4	2301.9
5°	2269.2	2263.9	2270.1	2263.3	2317.9
7.5°	2222.6	2242.9	2254.7	2247.4	2250.6
10°	2197.8	2190.7	2217.0	2235.3	2232.6
12.5°	2171.2	2181.8	2183.3	2203.1	2204.9
15°	2172.7	2147.6	2160.9	2172.1	2173.0
17.5°	2088.3	2115.5	2124.6	2150.3	2118.4
20°	2078.0	2058.2	2078.0	2104.2	2100.1
22.5°	2014.5	1992.4	2034.9	2058.2	2056.7
25°	1942.5	1953.2	1985.0	2011.0	2006.9
27.5°	1879.4	1891.8	1937.2	1972.9	1949.9
30°	1830.7	1824.5	1862.9	1894.7	1912.4
32.5°	1743.6	1766.1	1810.9	1842.5	1825.7
35°	1690.8	1695.8	1735.1	1775.2	1774.0
37.5°	1598.5	1621.8	1677.0	1688.2	1677.8
40°	1519.7	1543.0	1592.9	1605.0	1599.9
42.5°	1461.5	1465.7	1508.5	1522.3	1500.2
45°	1360.3	1385.7	1408.7	1445.0	1410.8
47.5°	1274.2	1286.0	1335.5	1345.3	1327.3
50°	1196.0	1200.1	1250.0	1237.9	1226.1
52.5°	1097.7	1115.1	1143.2	1140.8	1126.9
55°	1016.9	1010.1	1036.6	1029.5	1029.3
57.5°	919.8	931.6	953.4	942.2	924.2
60°	828.9	829.2	837.2	824.5	822.1
62.5°	727.7	731.2	733.0	717.3	742.7
65°	624.7	616.4	640.6	616.1	620.3
67.5°	530.0	534.1	531.7	516.4	522.3
70°	433.8	439.1	435.2	417.8	423.1
72.5°	345.8	339.3	343.5	321.6	331.7
75°	260.0	254.7	259.4	241.1	249.3
77.5°	177.1	181.2	178.2	168.5	174.1
80°	116.9	113.6	113.6	108.0	109.2
82.5°	68.2	64.9	64.0	62.3	64.9
85°	31.9	31.0	31.6	30.7	29.5
87.5°	11.5	11.8	11.8	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)