

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: P589337

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589337
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

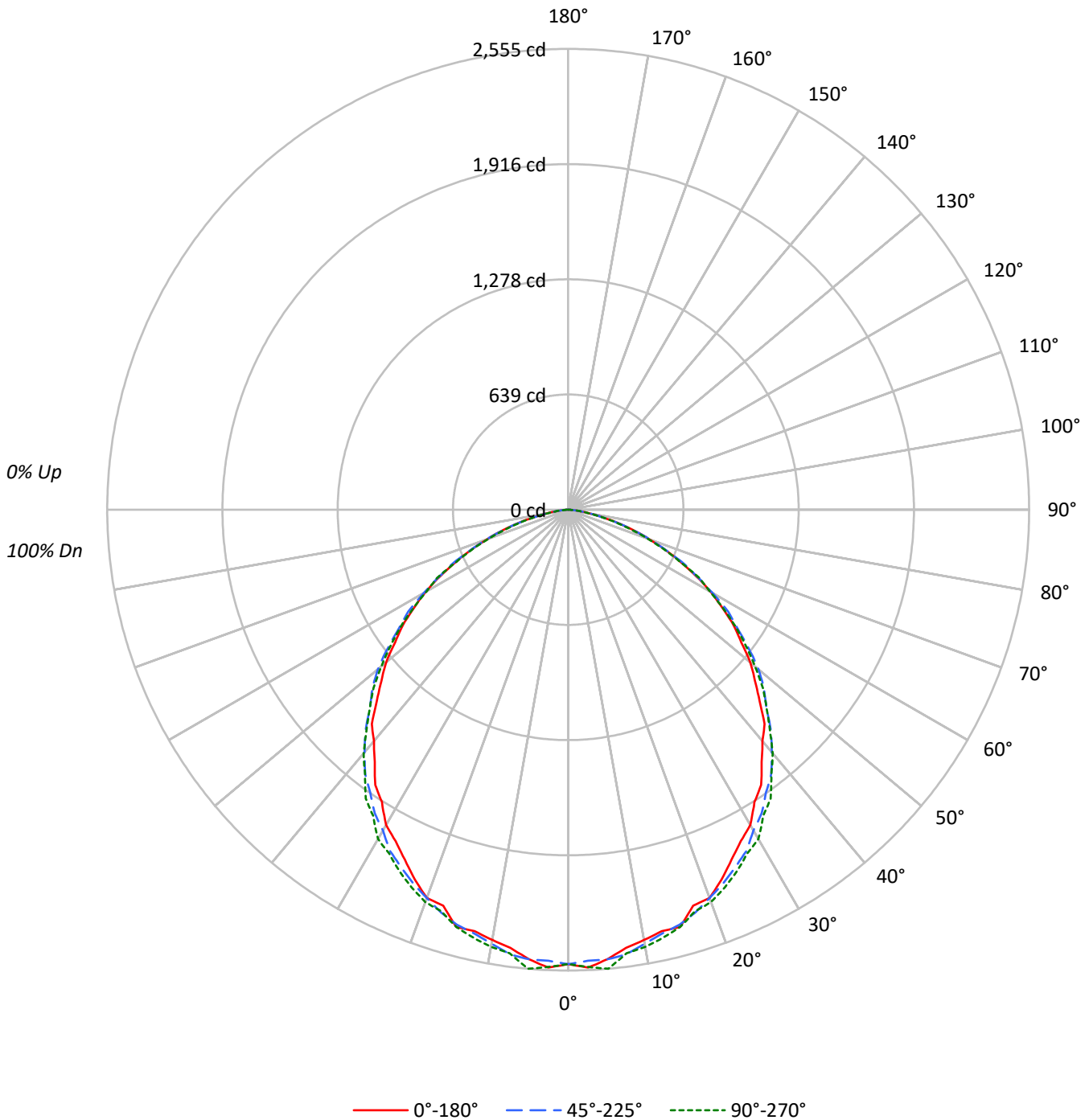
Lumens per Lamp: N/A
Luminaire Lumens: 6349.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	6779	6779	6779
5°	6756	6759	6901
10°	6619	6677	6724
15°	6672	6636	6673
20°	6559	6559	6629
25°	6358	6497	6568
30°	6270	6380	6550
35°	6122	6283	6424
40°	5884	6167	6195
45°	5706	5909	5918
50°	5519	5768	5658
55°	5258	5361	5323
60°	4917	4966	4877
65°	4385	4496	4353
70°	3762	3775	3670
75°	2980	2973	2857
80°	1996	1940	1864
85°	1084	1074	1003



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.0	3.7
10°-20°	671.6	10.6
20°-30°	1006.2	15.8
30°-40°	1192.5	18.8
40°-50°	1194.7	18.8
50°-60°	1014.1	16.0
60°-70°	683.7	10.8
70°-80°	300.4	4.7
80°-90°	48.8	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°	1914.7	30.2
0°-40°	3107.2	48.9
0°-60°	5316.0	83.7
0°-90°	6349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6349.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2519	2519	2519	2519	2519	
5°	2501	2495	2502	2495	2555	236
15°	2395	2367	2382	2394	2395	667
25°	2141	2153	2188	2217	2212	990
35°	1864	1869	1912	1957	1956	1157
45°	1499	1527	1553	1593	1555	1160
55°	1121	1113	1143	1135	1134	997
65°	689	680	706	679	684	685
75°	287	281	286	266	275	307
85°	35	34	35	34	32	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2519.1	2519.1	2519.1	2519.1	2519.1
2.5°	2540.9	2521.7	2503.8	2524.7	2537.3
5°	2501.2	2495.4	2502.2	2494.7	2554.9
7.5°	2449.8	2472.3	2485.3	2477.2	2480.7
10°	2422.5	2414.7	2443.7	2463.8	2460.9
12.5°	2393.2	2405.0	2406.6	2428.4	2430.3
15°	2394.9	2367.2	2381.9	2394.2	2395.2
17.5°	2301.9	2331.8	2341.9	2370.2	2335.0
20°	2290.5	2268.7	2290.5	2319.4	2314.9
22.5°	2220.5	2196.1	2243.0	2268.7	2267.0
25°	2141.2	2152.9	2188.0	2216.6	2212.1
27.5°	2071.6	2085.2	2135.3	2174.7	2149.3
30°	2017.9	2011.1	2053.4	2088.5	2108.0
32.5°	1921.9	1946.7	1996.1	2030.9	2012.4
35°	1863.7	1869.3	1912.5	1956.8	1955.5
37.5°	1761.9	1787.6	1848.4	1860.8	1849.4
40°	1675.1	1700.8	1755.7	1769.1	1763.5
42.5°	1611.0	1615.6	1662.7	1678.0	1653.6
45°	1499.4	1527.4	1552.8	1592.8	1555.1
47.5°	1404.5	1417.5	1472.1	1482.9	1463.0
50°	1318.3	1322.8	1377.8	1364.5	1351.4
52.5°	1210.0	1229.1	1260.0	1257.4	1242.2
55°	1120.8	1113.4	1142.6	1134.8	1134.5
57.5°	1013.8	1026.8	1050.9	1038.5	1018.7
60°	913.6	914.0	922.8	908.8	906.2
62.5°	802.1	806.0	807.9	790.7	818.7
65°	688.6	679.5	706.1	679.1	683.7
67.5°	584.2	588.7	586.1	569.2	575.7
70°	478.1	484.0	479.8	460.6	466.4
72.5°	381.2	374.0	378.6	354.5	365.6
75°	286.6	280.7	285.9	265.7	274.8
77.5°	195.2	199.7	196.5	185.7	191.9
80°	128.8	125.2	125.2	119.0	120.3
82.5°	75.1	71.6	70.6	68.6	71.6
85°	35.1	34.2	34.8	33.8	32.5
87.5°	12.7	13.0	13.0	12.4	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)