

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: P588776

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588776
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-LD4-1HI-50-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

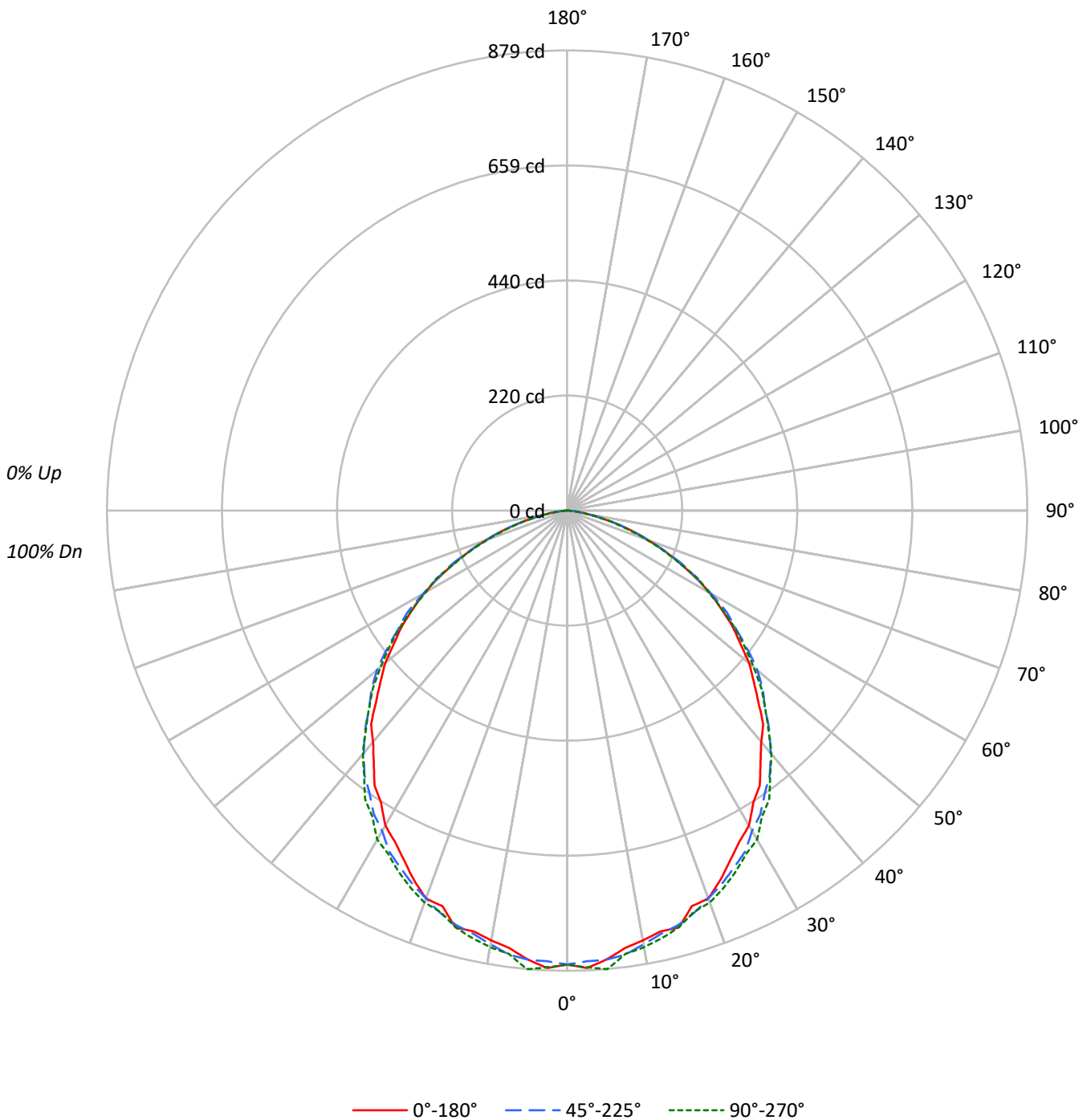
Lumens per Lamp: N/A
Luminaire Lumens: 2185.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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

TEST NUMBER: P588776

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-82-87-EDD

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°	2333	2333	2333
5°	2325	2326	2375
10°	2278	2298	2314
15°	2296	2284	2296
20°	2257	2257	2281
25°	2188	2236	2260
30°	2158	2196	2254
35°	2107	2162	2211
40°	2025	2122	2132
45°	1964	2034	2037
50°	1899	1985	1947
55°	1810	1845	1832
60°	1692	1709	1679
65°	1509	1547	1498
70°	1294	1299	1263
75°	1025	1023	984
80°	687	668	642
85°	374	371	346



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.5	3.7
10°-20°	231.1	10.6
20°-30°	346.3	15.8
30°-40°	410.4	18.8
40°-50°	411.2	18.8
50°-60°	349.0	16.0
60°-70°	235.3	10.8
70°-80°	103.4	4.7
80°-90°	16.8	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°	658.9	30.2
0°-40°	1069.3	48.9
0°-60°	1829.5	83.7
0°-90°	2185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	861	859	861	859	879	81
15°	824	815	820	824	824	230
25°	737	741	753	763	761	341
35°	641	643	658	673	673	398
45°	516	526	534	548	535	399
55°	386	383	393	390	390	343
65°	237	234	243	234	235	236
75°	99	97	98	92	95	106
85°	12	12	12	12	11	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.0	867.0	867.0	867.0	867.0
2.5°	874.5	867.8	861.7	868.9	873.2
5°	860.8	858.8	861.1	858.6	879.3
7.5°	843.1	850.8	855.3	852.5	853.7
10°	833.7	831.0	841.0	847.9	846.9
12.5°	823.6	827.7	828.2	835.7	836.4
15°	824.2	814.7	819.7	824.0	824.3
17.5°	792.2	802.5	805.9	815.7	803.6
20°	788.3	780.8	788.3	798.2	796.7
22.5°	764.2	755.8	771.9	780.8	780.2
25°	736.9	740.9	753.0	762.9	761.3
27.5°	712.9	717.6	734.9	748.4	739.7
30°	694.5	692.1	706.7	718.7	725.5
32.5°	661.4	669.9	687.0	698.9	692.6
35°	641.4	643.3	658.2	673.4	673.0
37.5°	606.4	615.2	636.1	640.4	636.5
40°	576.5	585.3	604.2	608.8	606.9
42.5°	554.4	556.0	572.2	577.5	569.1
45°	516.0	525.7	534.4	548.2	535.2
47.5°	483.3	487.8	506.6	510.3	503.5
50°	453.7	455.2	474.2	469.6	465.1
52.5°	416.4	423.0	433.6	432.7	427.5
55°	385.7	383.2	393.2	390.5	390.4
57.5°	348.9	353.4	361.7	357.4	350.6
60°	314.4	314.5	317.6	312.8	311.9
62.5°	276.0	277.4	278.1	272.1	281.7
65°	237.0	233.8	243.0	233.7	235.3
67.5°	201.0	202.6	201.7	195.9	198.1
70°	164.5	166.6	165.1	158.5	160.5
72.5°	131.2	128.7	130.3	122.0	125.8
75°	98.6	96.6	98.4	91.5	94.6
77.5°	67.2	68.7	67.6	63.9	66.0
80°	44.3	43.1	43.1	41.0	41.4
82.5°	25.9	24.6	24.3	23.6	24.6
85°	12.1	11.8	12.0	11.6	11.2
87.5°	4.4	4.5	4.5	4.3	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)