

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: P588744

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588744
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

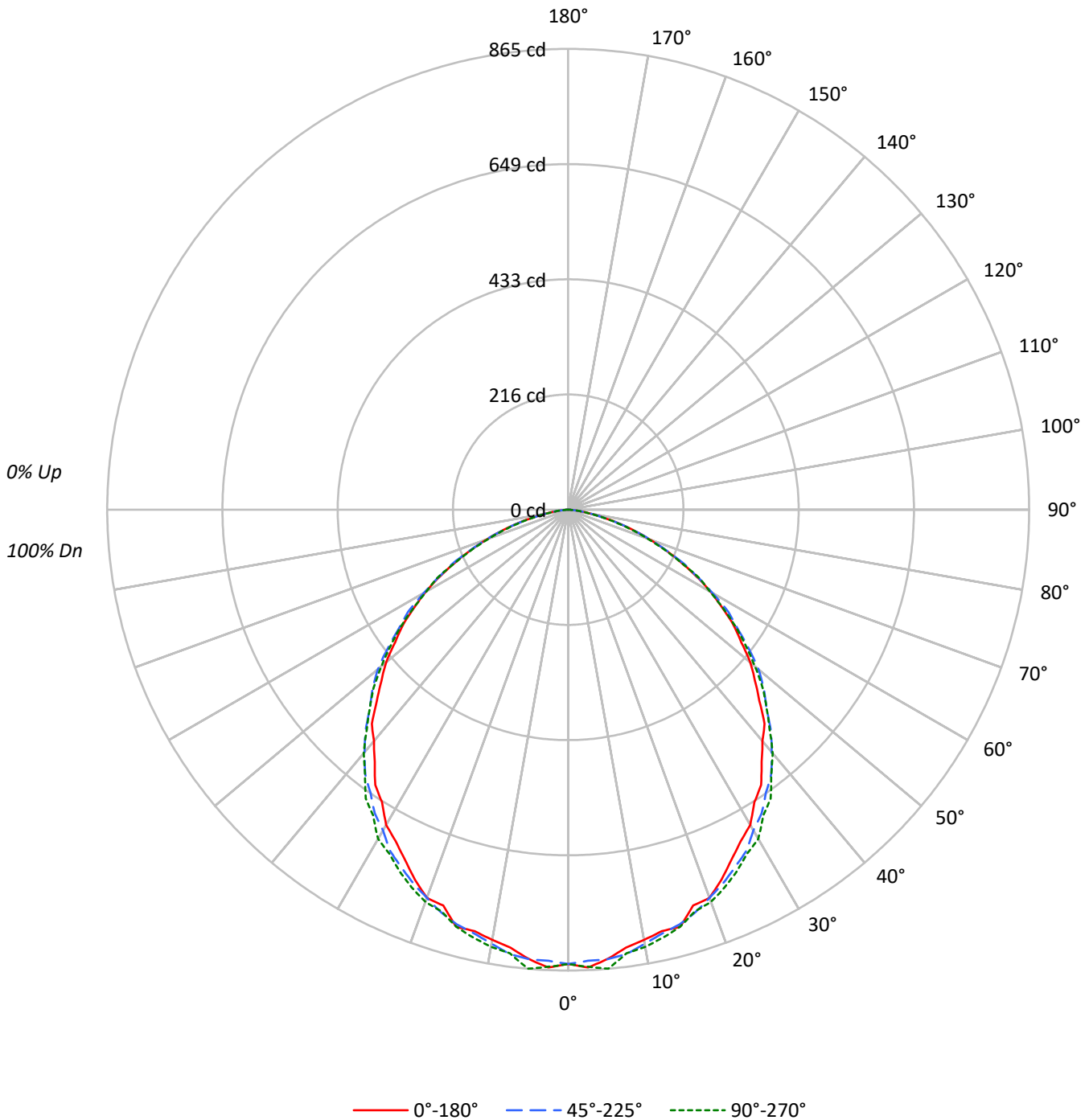
Lumens per Lamp: N/A
Luminaire Lumens: 2149.0 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P588744

CATALOG NUMBER: FMR-24-2-LD4-1HI-40-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°	2295	2295	2295
5°	2287	2288	2336
10°	2241	2260	2276
15°	2258	2246	2259
20°	2220	2220	2244
25°	2152	2199	2223
30°	2122	2160	2217
35°	2072	2126	2174
40°	1992	2088	2097
45°	1931	2000	2003
50°	1868	1953	1915
55°	1780	1815	1802
60°	1665	1681	1651
65°	1484	1522	1473
70°	1273	1278	1242
75°	1009	1006	967
80°	676	657	631
85°	367	364	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	3.7
10°-20°	227.3	10.6
20°-30°	340.6	15.8
30°-40°	403.6	18.8
40°-50°	404.4	18.8
50°-60°	343.2	16.0
60°-70°	231.4	10.8
70°-80°	101.7	4.7
80°-90°	16.5	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°	648.1	30.2
0°-40°	1051.7	48.9
0°-60°	1799.4	83.7
0°-90°	2149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	847	845	847	844	865	80
15°	811	801	806	810	811	226
25°	725	729	741	750	749	335
35°	631	633	647	662	662	392
45°	508	517	526	539	526	393
55°	379	377	387	384	384	337
65°	233	230	239	230	231	232
75°	97	95	97	90	93	104
85°	12	12	12	11	11	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	852.7	852.7	852.7	852.7	852.7
2.5°	860.0	853.5	847.5	854.5	858.8
5°	846.6	844.6	846.9	844.4	864.8
7.5°	829.2	836.8	841.2	838.5	839.7
10°	820.0	817.3	827.1	834.0	833.0
12.5°	810.1	814.0	814.6	822.0	822.6
15°	810.6	801.3	806.2	810.4	810.7
17.5°	779.1	789.3	792.7	802.2	790.4
20°	775.3	767.9	775.3	785.1	783.5
22.5°	751.6	743.3	759.2	767.9	767.3
25°	724.7	728.7	740.6	750.3	748.7
27.5°	701.2	705.8	722.8	736.1	727.5
30°	683.0	680.7	695.0	706.9	713.5
32.5°	650.5	658.9	675.6	687.4	681.1
35°	630.8	632.7	647.3	662.3	661.9
37.5°	596.4	605.1	625.7	629.8	626.0
40°	567.0	575.7	594.3	598.8	596.9
42.5°	545.3	546.8	562.8	568.0	559.7
45°	507.5	517.0	525.6	539.1	526.4
47.5°	475.4	479.8	498.3	501.9	495.2
50°	446.2	447.7	466.4	461.8	457.4
52.5°	409.5	416.0	426.5	425.6	420.4
55°	379.4	376.8	386.8	384.1	384.0
57.5°	343.2	347.6	355.7	351.5	344.8
60°	309.3	309.4	312.3	307.6	306.7
62.5°	271.5	272.8	273.5	267.6	277.1
65°	233.1	230.0	239.0	229.9	231.4
67.5°	197.7	199.3	198.4	192.7	194.9
70°	161.8	163.8	162.4	155.9	157.9
72.5°	129.0	126.6	128.1	120.0	123.7
75°	97.0	95.0	96.8	89.9	93.0
77.5°	66.1	67.6	66.5	62.9	65.0
80°	43.6	42.4	42.4	40.3	40.7
82.5°	25.4	24.2	23.9	23.2	24.2
85°	11.9	11.6	11.8	11.4	11.0
87.5°	4.3	4.4	4.4	4.2	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)