

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: P588737

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-81-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588737
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-81-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

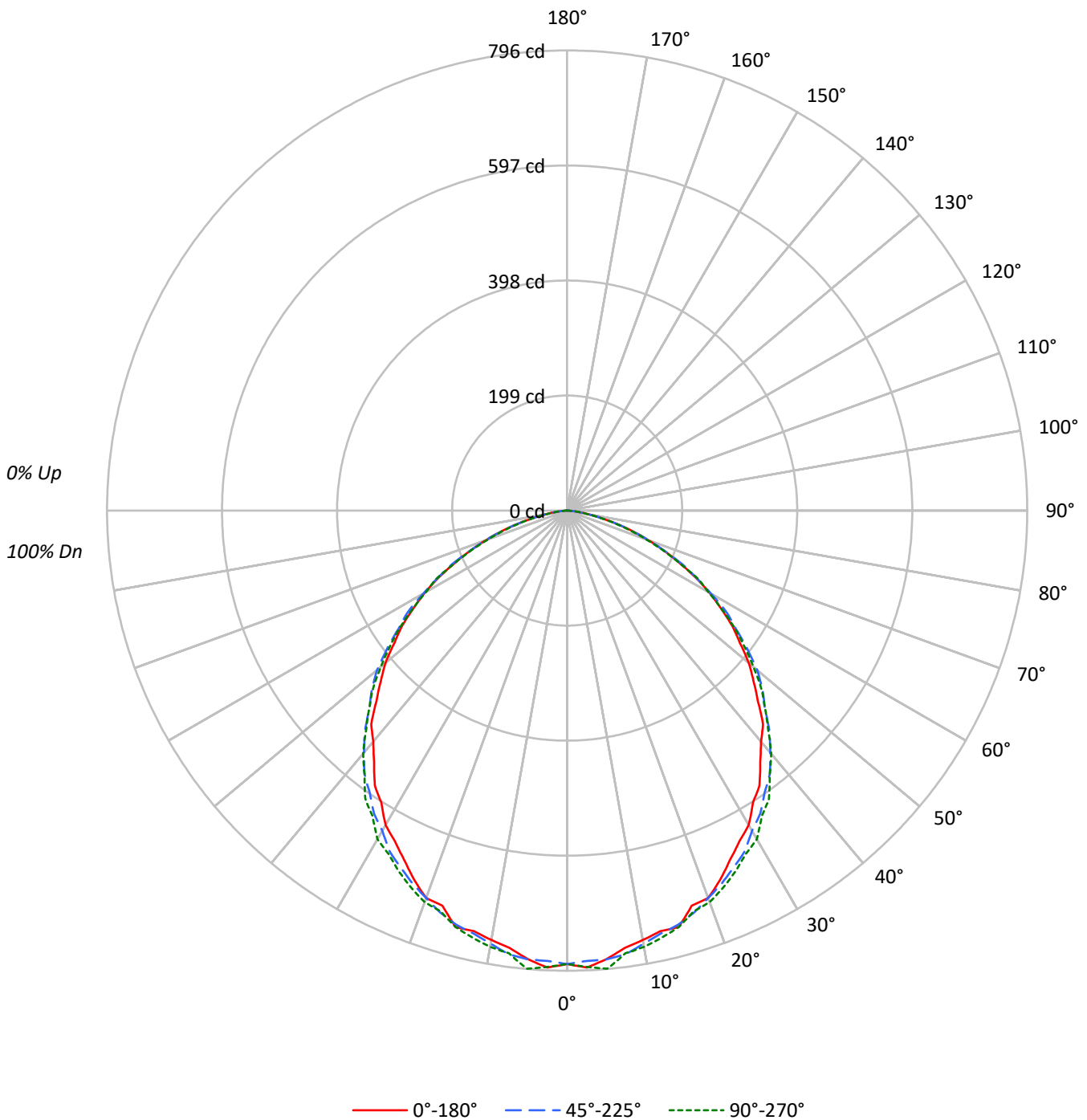
Lumens per Lamp: N/A
Luminaire Lumens: 1977.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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CATALOG NUMBER: FMR-24-2-LD4-1HI-40-UNV-81-88-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°	2111	2111	2111
5°	2104	2105	2149
10°	2061	2079	2094
15°	2077	2066	2078
20°	2042	2042	2064
25°	1980	2023	2045
30°	1952	1987	2040
35°	1906	1956	2000
40°	1832	1920	1929
45°	1777	1840	1843
50°	1719	1796	1762
55°	1637	1669	1658
60°	1531	1546	1519
65°	1365	1400	1356
70°	1172	1175	1142
75°	927	925	890
80°	621	604	581
85°	337	333	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	3.7
10°-20°	209.1	10.6
20°-30°	313.3	15.8
30°-40°	371.3	18.8
40°-50°	372.0	18.8
50°-60°	315.8	16.0
60°-70°	212.9	10.8
70°-80°	93.5	4.7
80°-90°	15.2	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°	596.2	30.2
0°-40°	967.5	48.9
0°-60°	1655.3	83.7
0°-90°	1977.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1977.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	779	777	779	777	796	73
15°	746	737	742	746	746	208
25°	667	670	681	690	689	308
35°	580	582	596	609	609	360
45°	467	476	484	496	484	361
55°	349	347	356	353	353	310
65°	214	212	220	212	213	213
75°	89	87	89	83	86	96
85°	11	11	11	10	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	784.4	784.4	784.4	784.4	784.4
2.5°	791.2	785.2	779.7	786.1	790.1
5°	778.9	777.0	779.2	776.8	795.6
7.5°	762.9	769.8	773.9	771.4	772.5
10°	754.3	751.9	760.9	767.2	766.3
12.5°	745.2	748.9	749.4	756.2	756.8
15°	745.7	737.1	741.7	745.5	745.8
17.5°	716.8	726.1	729.2	738.0	727.1
20°	713.2	706.4	713.2	722.2	720.8
22.5°	691.4	683.9	698.4	706.4	705.9
25°	666.7	670.4	681.3	690.2	688.8
27.5°	645.1	649.3	664.9	677.2	669.3
30°	628.3	626.2	639.4	650.3	656.4
32.5°	598.5	606.2	621.6	632.4	626.6
35°	580.3	582.1	595.5	609.3	608.9
37.5°	548.6	556.6	575.6	579.4	575.9
40°	521.6	529.6	546.7	550.9	549.1
42.5°	501.6	503.1	517.8	522.5	514.9
45°	466.9	475.6	483.5	496.0	484.2
47.5°	437.3	441.4	458.4	461.7	455.6
50°	410.5	411.9	429.0	424.9	420.8
52.5°	376.8	382.7	392.4	391.6	386.8
55°	349.0	346.7	355.8	353.4	353.3
57.5°	315.7	319.7	327.2	323.4	317.2
60°	284.5	284.6	287.3	283.0	282.2
62.5°	249.8	251.0	251.6	246.2	254.9
65°	214.4	211.6	219.9	211.5	212.9
67.5°	181.9	183.3	182.5	177.2	179.3
70°	148.9	150.7	149.4	143.4	145.2
72.5°	118.7	116.5	117.9	110.4	113.8
75°	89.2	87.4	89.0	82.7	85.6
77.5°	60.8	62.2	61.2	57.8	59.8
80°	40.1	39.0	39.0	37.1	37.5
82.5°	23.4	22.3	22.0	21.4	22.3
85°	10.9	10.6	10.8	10.5	10.1
87.5°	3.9	4.1	4.1	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)