

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: P588745

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588745
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-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

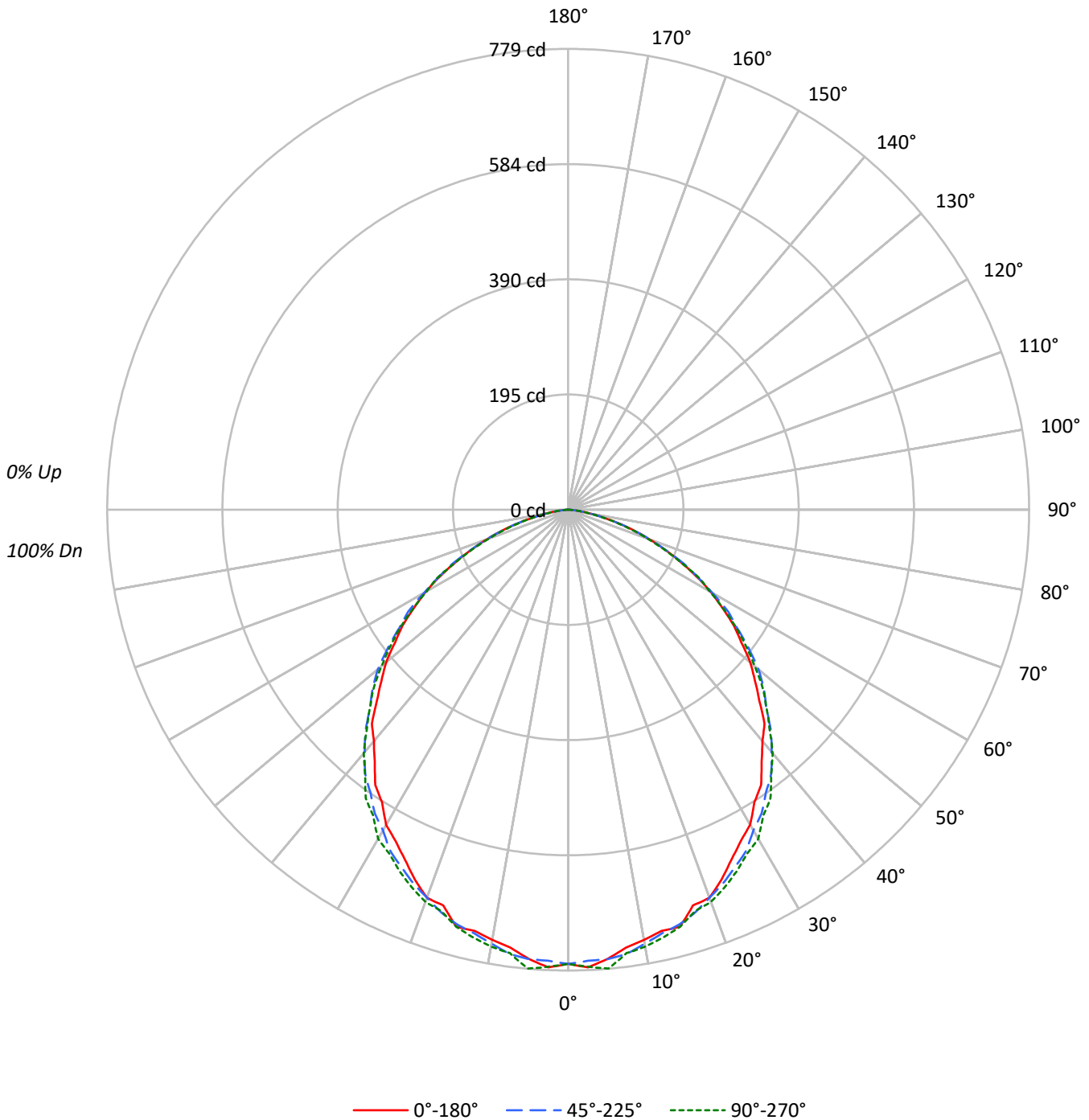
Lumens per Lamp: N/A
Luminaire Lumens: 1935.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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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°	2066	2066	2066
5°	2059	2060	2103
10°	2017	2035	2049
15°	2033	2022	2034
20°	1999	1999	2020
25°	1938	1980	2002
30°	1911	1945	1996
35°	1866	1915	1958
40°	1793	1880	1888
45°	1739	1801	1803
50°	1682	1758	1724
55°	1603	1634	1622
60°	1499	1513	1486
65°	1337	1370	1327
70°	1146	1150	1119
75°	908	906	871
80°	609	592	569
85°	330	327	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	3.7
10°-20°	204.7	10.6
20°-30°	306.6	15.8
30°-40°	363.5	18.8
40°-50°	364.1	18.8
50°-60°	309.1	16.0
60°-70°	208.4	10.8
70°-80°	91.6	4.7
80°-90°	14.9	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°	583.5	30.2
0°-40°	947.0	48.9
0°-60°	1620.2	83.7
0°-90°	1935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	762	760	763	760	779	72
15°	730	722	726	730	730	203
25°	653	656	667	676	674	302
35°	568	570	583	596	596	353
45°	457	466	473	485	474	354
55°	342	339	348	346	346	304
65°	210	207	215	207	208	209
75°	87	86	87	81	84	94
85°	11	10	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°	767.8	767.8	767.8	767.8	767.8
2.5°	774.4	768.6	763.1	769.4	773.3
5°	762.3	760.5	762.6	760.3	778.7
7.5°	746.6	753.5	757.4	755.0	756.1
10°	738.3	735.9	744.8	750.9	750.0
12.5°	729.4	733.0	733.5	740.1	740.7
15°	729.9	721.5	725.9	729.7	730.0
17.5°	701.5	710.7	713.7	722.4	711.7
20°	698.1	691.4	698.1	706.9	705.5
22.5°	676.8	669.3	683.6	691.4	690.9
25°	652.6	656.1	666.8	675.6	674.2
27.5°	631.4	635.5	650.8	662.8	655.0
30°	615.0	612.9	625.8	636.5	642.5
32.5°	585.8	593.3	608.4	619.0	613.3
35°	568.0	569.7	582.9	596.4	596.0
37.5°	537.0	544.8	563.4	567.1	563.7
40°	510.5	518.3	535.1	539.2	537.5
42.5°	491.0	492.4	506.8	511.4	504.0
45°	457.0	465.5	473.2	485.4	473.9
47.5°	428.0	432.0	448.7	451.9	445.9
50°	401.8	403.2	419.9	415.8	411.9
52.5°	368.8	374.6	384.0	383.2	378.6
55°	341.6	339.3	348.2	345.9	345.8
57.5°	309.0	313.0	320.3	316.5	310.5
60°	278.5	278.6	281.2	277.0	276.2
62.5°	244.5	245.6	246.2	241.0	249.5
65°	209.9	207.1	215.2	207.0	208.4
67.5°	178.0	179.4	178.6	173.5	175.5
70°	145.7	147.5	146.2	140.4	142.2
72.5°	116.2	114.0	115.4	108.1	111.4
75°	87.3	85.5	87.1	81.0	83.8
77.5°	59.5	60.9	59.9	56.6	58.5
80°	39.3	38.2	38.2	36.3	36.7
82.5°	22.9	21.8	21.5	20.9	21.8
85°	10.7	10.4	10.6	10.3	9.9
87.5°	3.9	4.0	4.0	3.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)