

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: P588711

Luminaire Tested: **FMR-24-2-LD4-1HI-35-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588711
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-35-UNV-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

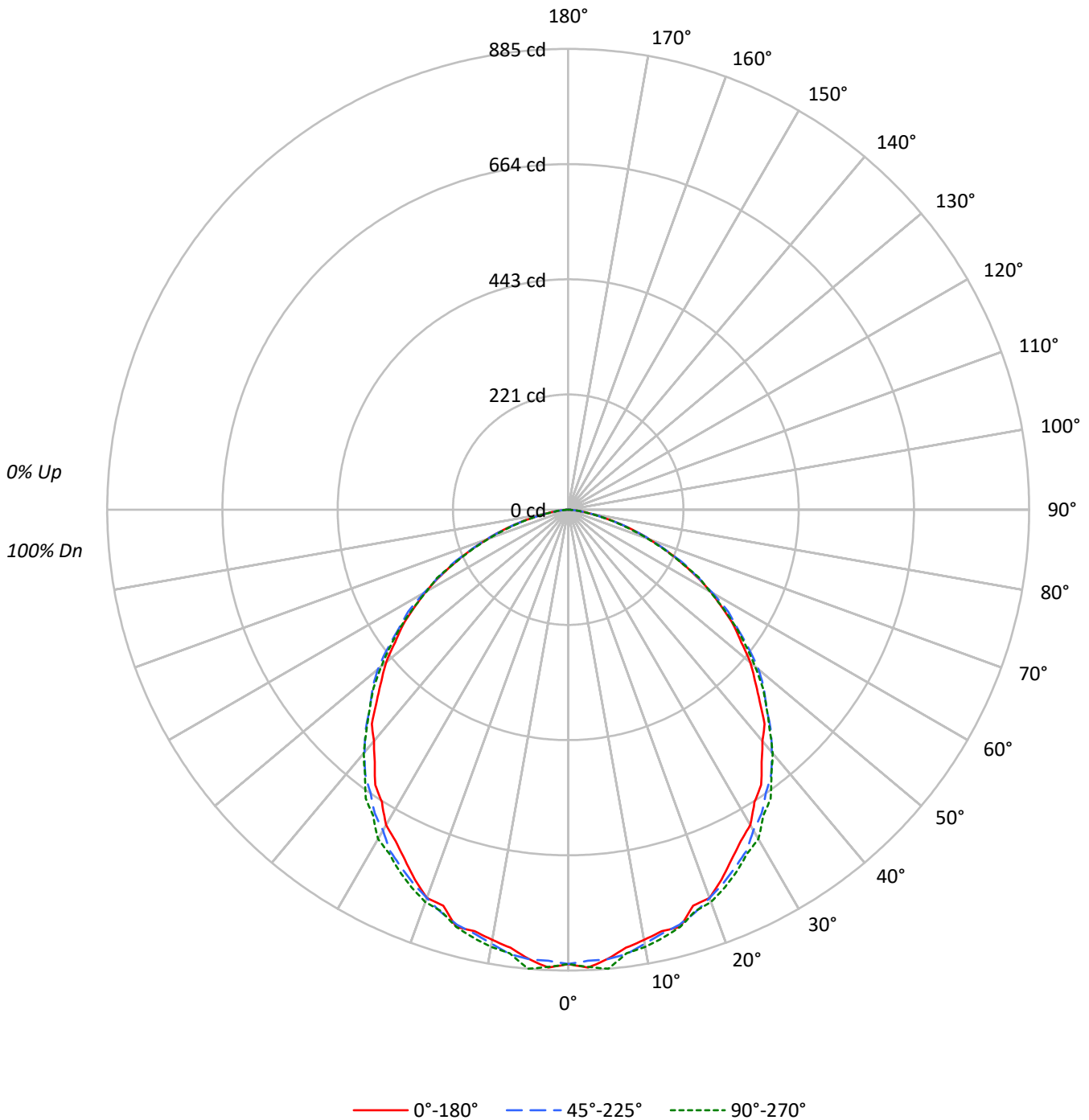
Lumens per Lamp: N/A
Luminaire Lumens: 2199.0 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P588711

CATALOG NUMBER: FMR-24-2-LD4-1HI-35-UNV-82-86-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	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					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2348	2348	2348
5°	2340	2341	2390
10°	2293	2313	2329
15°	2311	2298	2311
20°	2272	2272	2296
25°	2202	2250	2275
30°	2172	2210	2269
35°	2121	2176	2225
40°	2038	2136	2146
45°	1976	2047	2050
50°	1912	1998	1960
55°	1821	1857	1843
60°	1703	1720	1689
65°	1519	1557	1508
70°	1303	1308	1271
75°	1031	1029	990
80°	691	673	646
85°	377	374	349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	3.7
10°-20°	232.6	10.6
20°-30°	348.5	15.8
30°-40°	413.0	18.8
40°-50°	413.8	18.8
50°-60°	351.2	16.0
60°-70°	236.8	10.8
70°-80°	104.0	4.7
80°-90°	16.9	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°	663.2	30.2
0°-40°	1076.2	48.9
0°-60°	1841.2	83.7
0°-90°	2199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	866	864	867	864	885	82
15°	830	820	825	829	830	231
25°	742	746	758	768	766	343
35°	646	647	662	678	677	401
45°	519	529	538	552	539	402
55°	388	386	396	393	393	345
65°	238	235	245	235	237	237
75°	99	97	99	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°	872.5	872.5	872.5	872.5	872.5
2.5°	880.1	873.4	867.2	874.4	878.8
5°	866.3	864.3	866.6	864.1	884.9
7.5°	848.5	856.3	860.8	858.0	859.2
10°	839.0	836.3	846.4	853.4	852.3
12.5°	828.9	833.0	833.5	841.1	841.8
15°	829.5	819.9	825.0	829.2	829.6
17.5°	797.3	807.6	811.1	820.9	808.7
20°	793.3	785.8	793.3	803.3	801.8
22.5°	769.1	760.6	776.9	785.8	785.2
25°	741.6	745.7	757.8	767.7	766.2
27.5°	717.5	722.2	739.6	753.2	744.4
30°	698.9	696.5	711.2	723.4	730.1
32.5°	665.7	674.2	691.4	703.4	697.0
35°	645.5	647.4	662.4	677.7	677.3
37.5°	610.2	619.1	640.2	644.5	640.6
40°	580.2	589.1	608.1	612.7	610.8
42.5°	558.0	559.6	575.9	581.2	572.7
45°	519.3	529.0	537.8	551.7	538.6
47.5°	486.4	490.9	509.9	513.6	506.7
50°	456.6	458.2	477.2	472.6	468.1
52.5°	419.1	425.7	436.4	435.5	430.2
55°	388.2	385.6	395.8	393.1	392.9
57.5°	351.1	355.6	364.0	359.7	352.8
60°	316.4	316.6	319.6	314.8	313.9
62.5°	277.8	279.2	279.8	273.9	283.6
65°	238.5	235.3	244.6	235.2	236.8
67.5°	202.3	203.9	203.0	197.1	199.4
70°	165.6	167.6	166.2	159.5	161.5
72.5°	132.0	129.6	131.1	122.8	126.6
75°	99.2	97.2	99.0	92.0	95.2
77.5°	67.6	69.2	68.0	64.3	66.5
80°	44.6	43.4	43.4	41.2	41.7
82.5°	26.0	24.8	24.4	23.8	24.8
85°	12.2	11.8	12.1	11.7	11.3
87.5°	4.4	4.5	4.5	4.3	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)