

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: P588697

Luminaire Tested: **FMR-24-2-LD4-1HI-35-UNV-80-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588697  
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-80-88-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

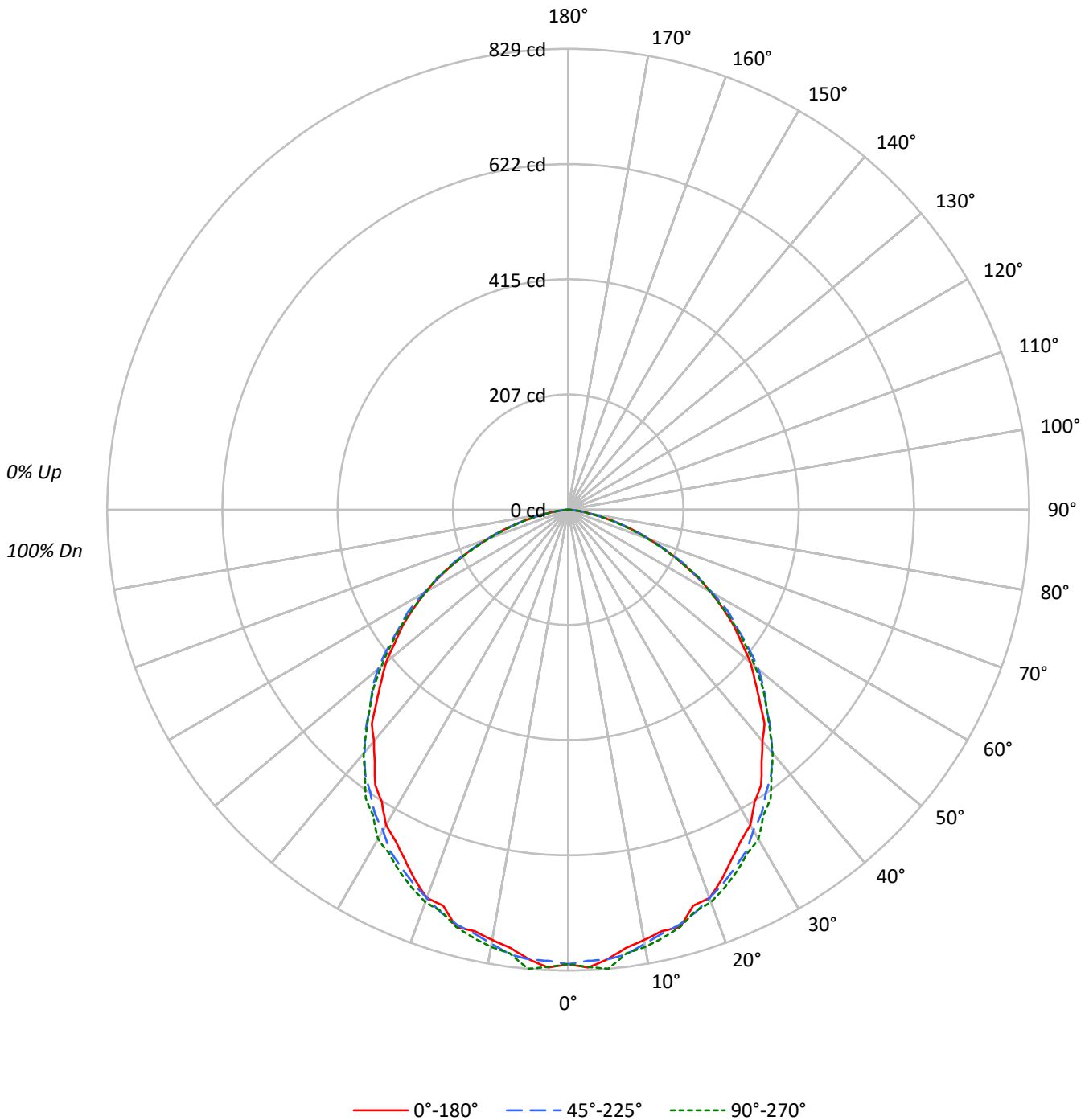
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2060.0 lumens  
Efficiency: N/A  
Efficacy: 95.4 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°	2200	2200	2200
5°	2192	2193	2239
10°	2148	2167	2182
15°	2165	2153	2165
20°	2128	2128	2151
25°	2063	2108	2131
30°	2034	2070	2125
35°	1986	2038	2084
40°	1909	2001	2010
45°	1851	1917	1920
50°	1791	1871	1836
55°	1706	1739	1727
60°	1595	1611	1582
65°	1422	1459	1412
70°	1220	1225	1190
75°	967	965	927
80°	648	629	604
85°	352	349	327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.9	3.7
10°-20°	217.9	10.6
20°-30°	326.5	15.8
30°-40°	386.9	18.8
40°-50°	387.6	18.8
50°-60°	329.0	16.0
60°-70°	221.8	10.8
70°-80°	97.5	4.7
80°-90°	15.8	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°	621.2	30.2
0°-40°	1008.2	48.9
0°-60°	1724.8	83.7
0°-90°	2060.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2060.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	817	817	817	817	817	
5°	812	810	812	809	829	77
15°	777	768	773	777	777	216
25°	695	698	710	719	718	321
35°	605	606	620	635	634	375
45°	486	496	504	517	505	376
55°	364	361	371	368	368	323
65°	223	220	229	220	222	222
75°	93	91	93	86	89	100
85°	11	11	11	11	11	17
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	817.4	817.4	817.4	817.4	817.4
2.5°	824.4	818.2	812.4	819.2	823.3
5°	811.6	809.7	811.9	809.4	829.0
7.5°	794.9	802.2	806.4	803.7	804.9
10°	786.0	783.5	792.9	799.4	798.5
12.5°	776.5	780.3	780.8	787.9	788.5
15°	777.0	768.1	772.8	776.8	777.1
17.5°	746.9	756.6	759.8	769.0	757.6
20°	743.2	736.1	743.2	752.6	751.1
22.5°	720.5	712.6	727.8	736.1	735.6
25°	694.7	698.5	709.9	719.2	717.7
27.5°	672.1	676.6	692.8	705.6	697.4
30°	654.7	652.5	666.2	677.6	684.0
32.5°	623.6	631.6	647.7	659.0	652.9
35°	604.7	606.5	620.5	634.9	634.5
37.5°	571.7	580.0	599.7	603.8	600.1
40°	543.5	551.8	569.7	574.0	572.2
42.5°	522.7	524.2	539.5	544.4	536.5
45°	486.5	495.6	503.8	516.8	504.6
47.5°	455.7	459.9	477.6	481.1	474.7
50°	427.7	429.2	447.0	442.7	438.5
52.5°	392.6	398.8	408.8	408.0	403.0
55°	363.7	361.2	370.7	368.2	368.1
57.5°	328.9	333.2	341.0	337.0	330.5
60°	296.4	296.5	299.4	294.9	294.0
62.5°	260.2	261.5	262.1	256.6	265.6
65°	223.4	220.5	229.1	220.4	221.8
67.5°	189.5	191.0	190.2	184.7	186.8
70°	155.1	157.0	155.7	149.4	151.3
72.5°	123.7	121.4	122.8	115.0	118.6
75°	93.0	91.1	92.8	86.2	89.2
77.5°	63.3	64.8	63.7	60.3	62.3
80°	41.8	40.6	40.6	38.6	39.0
82.5°	24.4	23.2	22.9	22.3	23.2
85°	11.4	11.1	11.3	11.0	10.6
87.5°	4.1	4.2	4.2	4.0	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)