

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: P588761

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-80-88-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588761  
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-50-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 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

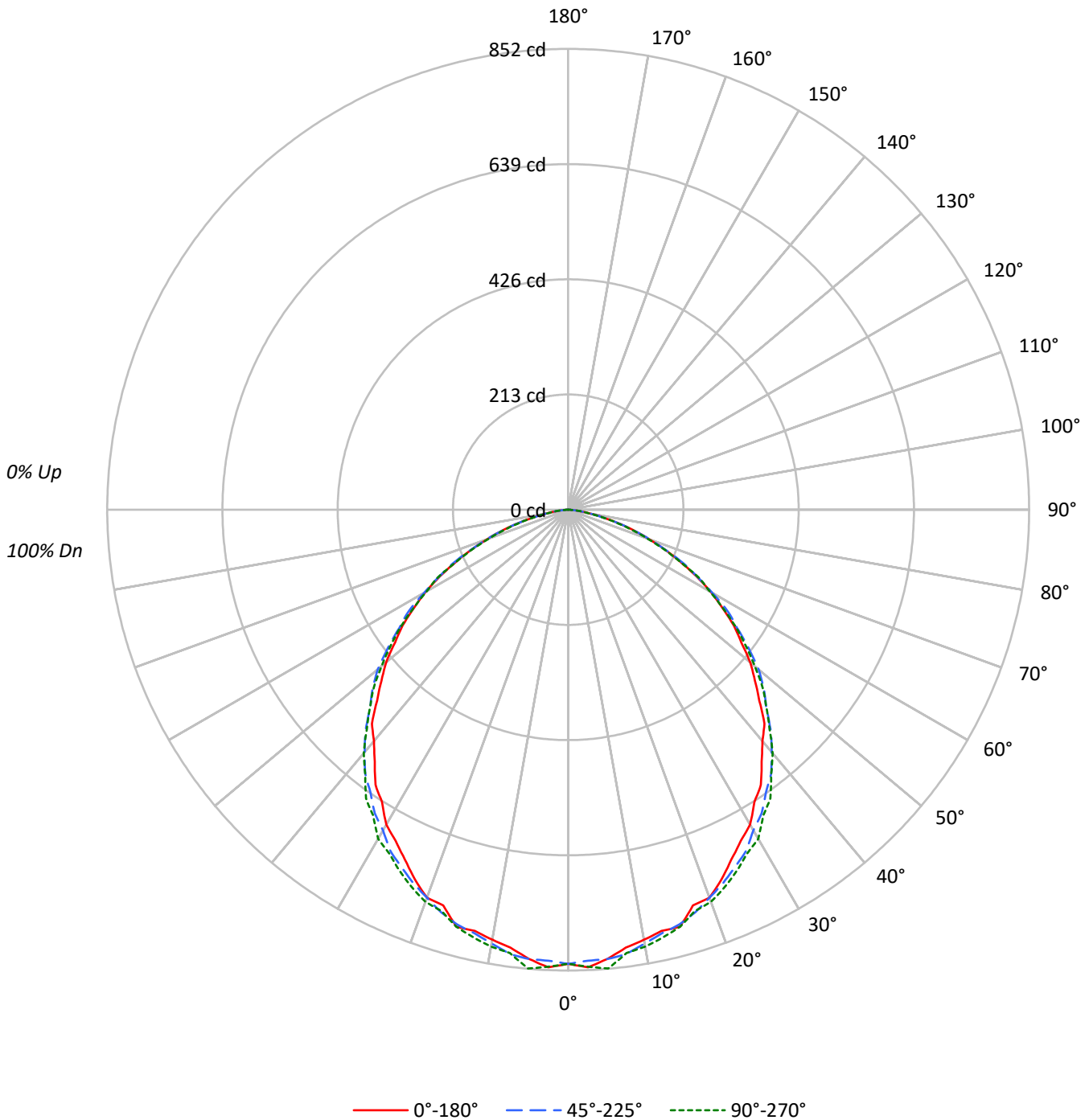
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2116.0 lumens  
Efficiency: N/A  
Efficacy: 98.0 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°	2259	2259	2259
5°	2252	2253	2300
10°	2206	2225	2241
15°	2224	2211	2224
20°	2186	2186	2209
25°	2119	2165	2189
30°	2090	2126	2183
35°	2040	2094	2141
40°	1961	2056	2065
45°	1902	1969	1972
50°	1840	1922	1886
55°	1753	1787	1774
60°	1639	1655	1625
65°	1461	1498	1451
70°	1254	1258	1223
75°	993	991	952
80°	665	646	621
85°	361	358	333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.0	3.7
10°-20°	223.8	10.6
20°-30°	335.3	15.8
30°-40°	397.4	18.8
40°-50°	398.2	18.8
50°-60°	338.0	16.0
60°-70°	227.9	10.8
70°-80°	100.1	4.7
80°-90°	16.3	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°	638.1	30.2
0°-40°	1035.6	48.9
0°-60°	1771.7	83.7
0°-90°	2116.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2116.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	834	832	834	831	852	79
15°	798	789	794	798	798	222
25°	714	718	729	739	737	330
35°	621	623	637	652	652	386
45°	500	509	518	531	518	387
55°	374	371	381	378	378	332
65°	230	226	235	226	228	228
75°	96	94	95	89	92	102
85°	12	11	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°	839.6	839.6	839.6	839.6	839.6
2.5°	846.8	840.4	834.5	841.4	845.6
5°	833.6	831.7	833.9	831.4	851.5
7.5°	816.5	824.0	828.3	825.6	826.8
10°	807.4	804.8	814.4	821.1	820.2
12.5°	797.6	801.5	802.1	809.3	810.0
15°	798.2	789.0	793.8	797.9	798.3
17.5°	767.2	777.1	780.5	789.9	778.2
20°	763.4	756.1	763.4	773.0	771.5
22.5°	740.1	731.9	747.5	756.1	755.6
25°	713.6	717.5	729.2	738.8	737.2
27.5°	690.4	695.0	711.7	724.8	716.3
30°	672.5	670.3	684.3	696.1	702.6
32.5°	640.5	648.8	665.3	676.9	670.7
35°	621.1	623.0	637.4	652.1	651.7
37.5°	587.2	595.8	616.0	620.2	616.4
40°	558.3	566.8	585.2	589.6	587.8
42.5°	536.9	538.4	554.2	559.2	551.1
45°	499.7	509.1	517.5	530.8	518.3
47.5°	468.1	472.4	490.6	494.2	487.6
50°	439.4	440.9	459.2	454.7	450.4
52.5°	403.3	409.7	420.0	419.1	414.0
55°	373.6	371.1	380.8	378.2	378.1
57.5°	337.9	342.2	350.2	346.1	339.5
60°	304.5	304.6	307.5	302.9	302.0
62.5°	267.3	268.6	269.3	263.5	272.8
65°	229.5	226.5	235.3	226.3	227.9
67.5°	194.7	196.2	195.3	189.7	191.9
70°	159.4	161.3	159.9	153.5	155.4
72.5°	127.0	124.7	126.2	118.2	121.8
75°	95.5	93.6	95.3	88.6	91.6
77.5°	65.0	66.6	65.5	61.9	64.0
80°	42.9	41.7	41.7	39.7	40.1
82.5°	25.0	23.8	23.5	22.9	23.8
85°	11.7	11.4	11.6	11.3	10.8
87.5°	4.2	4.3	4.3	4.1	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)