

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: P588918

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-80-85-EDD**

Issue Date: 12/8/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P588918  
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-LD4-1STD-40-UNV-80-85-EDD  
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

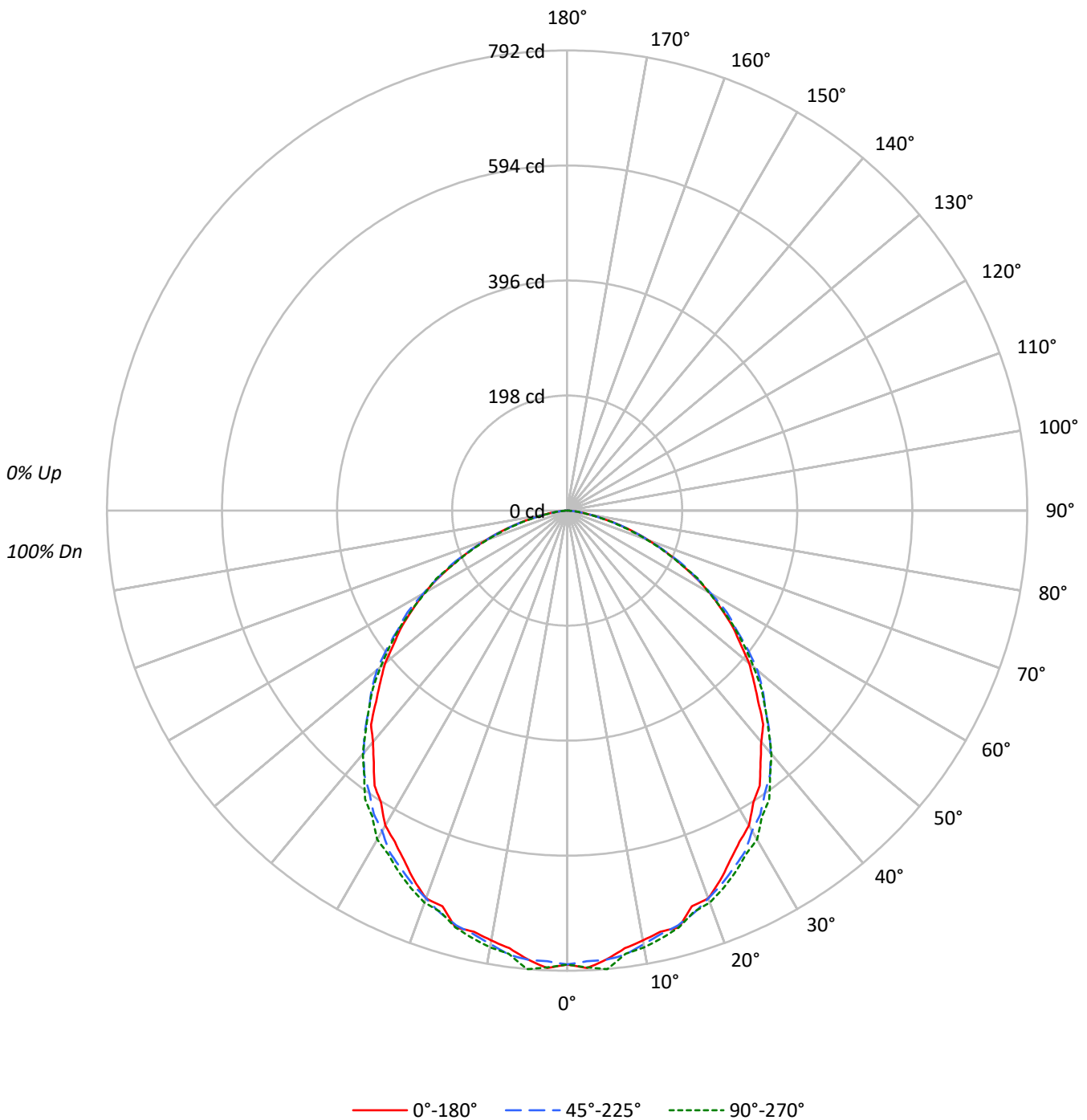
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1969.0 lumens  
Efficiency: N/A  
Efficacy: 118.6 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): 16.6  
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°	2102	2102	2102
5°	2095	2096	2140
10°	2053	2071	2085
15°	2069	2058	2069
20°	2034	2034	2056
25°	1972	2015	2037
30°	1945	1979	2031
35°	1899	1948	1992
40°	1825	1913	1921
45°	1770	1833	1835
50°	1711	1789	1755
55°	1631	1663	1650
60°	1525	1540	1512
65°	1359	1394	1350
70°	1167	1171	1138
75°	924	922	886
80°	618	601	578
85°	337	333	312



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.5	3.7
10°-20°	208.3	10.6
20°-30°	312.0	15.8
30°-40°	369.8	18.8
40°-50°	370.5	18.8
50°-60°	314.5	16.0
60°-70°	212.0	10.8
70°-80°	93.2	4.7
80°-90°	15.1	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°	593.8	30.2
0°-40°	963.6	48.9
0°-60°	1648.6	83.7
0°-90°	1969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1969.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	776	774	776	774	792	73
15°	743	734	739	742	743	207
25°	664	668	679	687	686	307
35°	578	580	593	607	606	359
45°	465	474	482	494	482	360
55°	348	345	354	352	352	309
65°	214	211	219	211	212	212
75°	89	87	89	82	85	95
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°	781.2	781.2	781.2	781.2	781.2
2.5°	788.0	782.1	776.5	783.0	786.9
5°	775.7	773.9	776.0	773.7	792.3
7.5°	759.8	766.7	770.8	768.2	769.3
10°	751.3	748.9	757.8	764.1	763.2
12.5°	742.2	745.8	746.3	753.1	753.7
15°	742.7	734.1	738.7	742.5	742.8
17.5°	713.9	723.1	726.3	735.1	724.2
20°	710.3	703.6	710.3	719.3	717.9
22.5°	688.6	681.1	695.6	703.6	703.1
25°	664.0	667.7	678.6	687.4	686.0
27.5°	642.5	646.7	662.2	674.4	666.6
30°	625.8	623.7	636.8	647.7	653.7
32.5°	596.0	603.7	619.0	629.8	624.1
35°	578.0	579.7	593.1	606.8	606.4
37.5°	546.4	554.4	573.3	577.1	573.6
40°	519.5	527.5	544.5	548.6	546.9
42.5°	499.6	501.0	515.7	520.4	512.8
45°	465.0	473.7	481.6	494.0	482.3
47.5°	435.6	439.6	456.5	459.9	453.7
50°	408.8	410.2	427.3	423.2	419.1
52.5°	375.2	381.2	390.8	390.0	385.2
55°	347.6	345.3	354.4	351.9	351.8
57.5°	314.4	318.5	325.9	322.1	315.9
60°	283.3	283.4	286.2	281.8	281.0
62.5°	248.7	250.0	250.6	245.2	253.9
65°	213.5	210.7	219.0	210.6	212.0
67.5°	181.2	182.6	181.8	176.5	178.5
70°	148.3	150.1	148.8	142.8	144.6
72.5°	118.2	116.0	117.4	109.9	113.4
75°	88.9	87.1	88.7	82.4	85.2
77.5°	60.5	61.9	60.9	57.6	59.5
80°	39.9	38.8	38.8	36.9	37.3
82.5°	23.3	22.2	21.9	21.3	22.2
85°	10.9	10.6	10.8	10.5	10.1
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)