

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: P589785

Luminaire Tested: **FMR-24-2-LD4-4STD-40-UNV-80-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589785
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-LD4-4STD-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

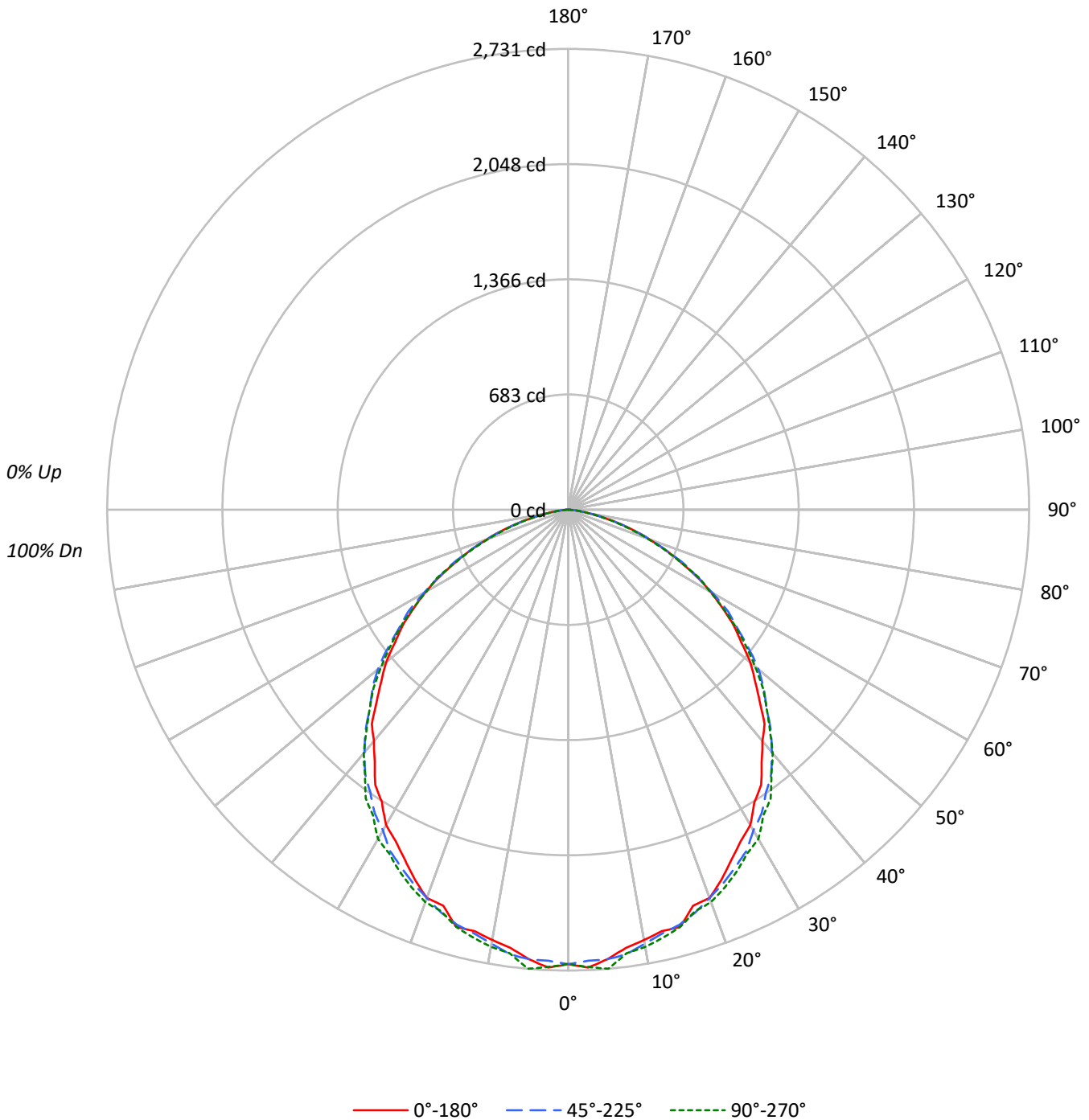
Lumens per Lamp: N/A
Luminaire Lumens: 6786.0 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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	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°	7245	7245	7245
5°	7222	7224	7377
10°	7075	7137	7187
15°	7131	7092	7132
20°	7011	7011	7085
25°	6795	6944	7020
30°	6702	6820	7001
35°	6544	6715	6866
40°	6289	6592	6621
45°	6099	6316	6325
50°	5899	6165	6047
55°	5621	5730	5689
60°	5255	5308	5212
65°	4686	4805	4653
70°	4020	4035	3922
75°	3185	3177	3055
80°	2134	2073	1993
85°	1158	1149	1074



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.3	3.7
10°-20°	717.8	10.6
20°-30°	1075.4	15.8
30°-40°	1274.6	18.8
40°-50°	1276.9	18.8
50°-60°	1083.9	16.0
60°-70°	730.8	10.8
70°-80°	321.1	4.7
80°-90°	52.2	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°	2046.5	30.2
0°-40°	3321.1	48.9
0°-60°	5681.9	83.7
0°-90°	6786.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6786.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2692	2692	2692	2692	2692	
5°	2673	2667	2674	2666	2731	252
15°	2560	2530	2546	2559	2560	713
25°	2288	2301	2339	2369	2364	1058
35°	1992	1998	2044	2091	2090	1237
45°	1603	1632	1660	1702	1662	1240
55°	1198	1190	1221	1213	1213	1066
65°	736	726	755	726	731	732
75°	306	300	306	284	294	328
85°	38	36	37	36	35	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2692.5	2692.5	2692.5	2692.5	2692.5
2.5°	2715.8	2695.3	2676.2	2698.4	2712.0
5°	2673.4	2667.1	2674.4	2666.4	2730.8
7.5°	2618.5	2642.5	2656.4	2647.7	2651.5
10°	2589.3	2580.9	2611.9	2633.4	2630.3
12.5°	2558.0	2570.5	2572.2	2595.5	2597.6
15°	2559.7	2530.2	2545.8	2559.0	2560.1
17.5°	2460.3	2492.3	2503.0	2533.3	2495.7
20°	2448.1	2424.8	2448.1	2479.1	2474.2
22.5°	2373.4	2347.3	2397.4	2424.8	2423.1
25°	2288.5	2301.1	2338.6	2369.2	2364.3
27.5°	2214.2	2228.8	2282.3	2324.4	2297.2
30°	2156.8	2149.5	2194.7	2232.2	2253.1
32.5°	2054.2	2080.7	2133.5	2170.7	2150.9
35°	1992.0	1997.9	2044.2	2091.4	2090.0
37.5°	1883.2	1910.7	1975.7	1988.9	1976.7
40°	1790.4	1817.8	1876.6	1890.8	1884.9
42.5°	1721.9	1726.8	1777.2	1793.5	1767.4
45°	1602.6	1632.5	1659.7	1702.4	1662.1
47.5°	1501.1	1515.0	1573.4	1584.9	1563.7
50°	1409.0	1413.9	1472.6	1458.4	1444.5
52.5°	1293.2	1313.8	1346.8	1344.0	1327.7
55°	1198.0	1190.0	1221.3	1212.9	1212.6
57.5°	1083.6	1097.5	1123.2	1110.0	1088.8
60°	976.5	976.9	986.3	971.3	968.5
62.5°	857.3	861.5	863.6	845.1	875.0
65°	736.0	726.2	754.7	725.9	730.8
67.5°	624.4	629.2	626.5	608.4	615.3
70°	511.0	517.3	512.8	492.3	498.5
72.5°	407.4	399.8	404.7	378.9	390.8
75°	306.3	300.0	305.6	284.0	293.8
77.5°	208.6	213.5	210.0	198.5	205.1
80°	137.7	133.8	133.8	127.2	128.6
82.5°	80.3	76.5	75.4	73.4	76.5
85°	37.5	36.5	37.2	36.2	34.8
87.5°	13.6	13.9	13.9	13.2	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)