

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: P588945

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588945
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-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

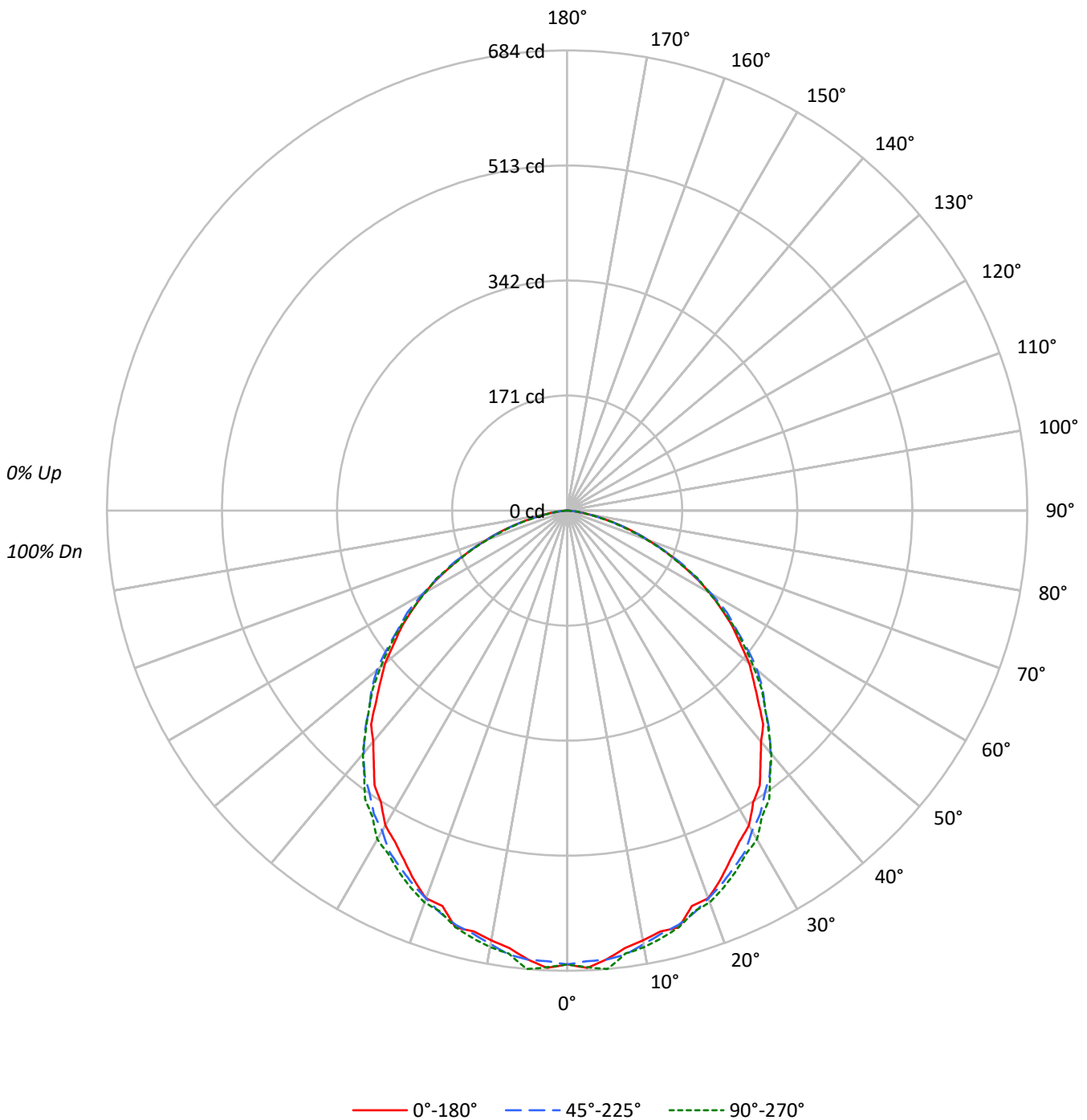
Lumens per Lamp: N/A
Luminaire Lumens: 1700.0 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P588945

CATALOG NUMBER: FMR-24-2-LD4-1STD-40-UNV-93-88-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°	1815	1815	1815
5°	1809	1810	1848
10°	1773	1788	1800
15°	1786	1777	1787
20°	1756	1756	1775
25°	1702	1740	1759
30°	1679	1708	1754
35°	1639	1682	1720
40°	1576	1651	1659
45°	1528	1582	1585
50°	1478	1544	1515
55°	1408	1435	1425
60°	1316	1330	1306
65°	1174	1204	1166
70°	1007	1011	983
75°	797	796	765
80°	535	519	499
85°	290	287	269



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	3.7
10°-20°	179.8	10.6
20°-30°	269.4	15.8
30°-40°	319.3	18.8
40°-50°	319.9	18.8
50°-60°	271.5	16.0
60°-70°	183.1	10.8
70°-80°	80.5	4.7
80°-90°	13.1	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°	512.7	30.2
0°-40°	832.0	48.9
0°-60°	1423.4	83.7
0°-90°	1700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1700.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	670	668	670	668	684	63
15°	641	634	638	641	641	179
25°	573	576	586	594	592	265
35°	499	500	512	524	524	310
45°	402	409	416	426	416	311
55°	300	298	306	304	304	267
65°	184	182	189	182	183	183
75°	77	75	77	71	74	82
85°	9	9	9	9	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.5	674.5	674.5	674.5	674.5
2.5°	680.4	675.2	670.4	676.0	679.4
5°	669.7	668.2	670.0	668.0	684.1
7.5°	656.0	662.0	665.5	663.3	664.2
10°	648.7	646.6	654.3	659.7	658.9
12.5°	640.8	643.9	644.4	650.2	650.7
15°	641.2	633.8	637.8	641.1	641.3
17.5°	616.3	624.4	627.1	634.6	625.2
20°	613.3	607.5	613.3	621.0	619.8
22.5°	594.6	588.0	600.6	607.5	607.0
25°	573.3	576.5	585.9	593.5	592.3
27.5°	554.7	558.3	571.8	582.3	575.5
30°	540.3	538.5	549.8	559.2	564.4
32.5°	514.6	521.2	534.5	543.8	538.8
35°	499.0	500.5	512.1	523.9	523.6
37.5°	471.8	478.7	494.9	498.2	495.2
40°	448.5	455.4	470.1	473.7	472.2
42.5°	431.4	432.6	445.2	449.3	442.8
45°	401.5	409.0	415.8	426.5	416.4
47.5°	376.1	379.5	394.2	397.0	391.7
50°	353.0	354.2	368.9	365.3	361.9
52.5°	324.0	329.1	337.4	336.7	332.6
55°	300.1	298.1	305.9	303.9	303.8
57.5°	271.5	274.9	281.4	278.1	272.8
60°	244.6	244.7	247.1	243.3	242.6
62.5°	214.8	215.8	216.3	211.7	219.2
65°	184.4	181.9	189.1	181.8	183.1
67.5°	156.4	157.6	156.9	152.4	154.2
70°	128.0	129.6	128.5	123.3	124.9
72.5°	102.1	100.2	101.4	94.9	97.9
75°	76.7	75.2	76.6	71.2	73.6
77.5°	52.3	53.5	52.6	49.7	51.4
80°	34.5	33.5	33.5	31.9	32.2
82.5°	20.1	19.2	18.9	18.4	19.2
85°	9.4	9.1	9.3	9.1	8.7
87.5°	3.4	3.5	3.5	3.3	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)