

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: P588889

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

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588889
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-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

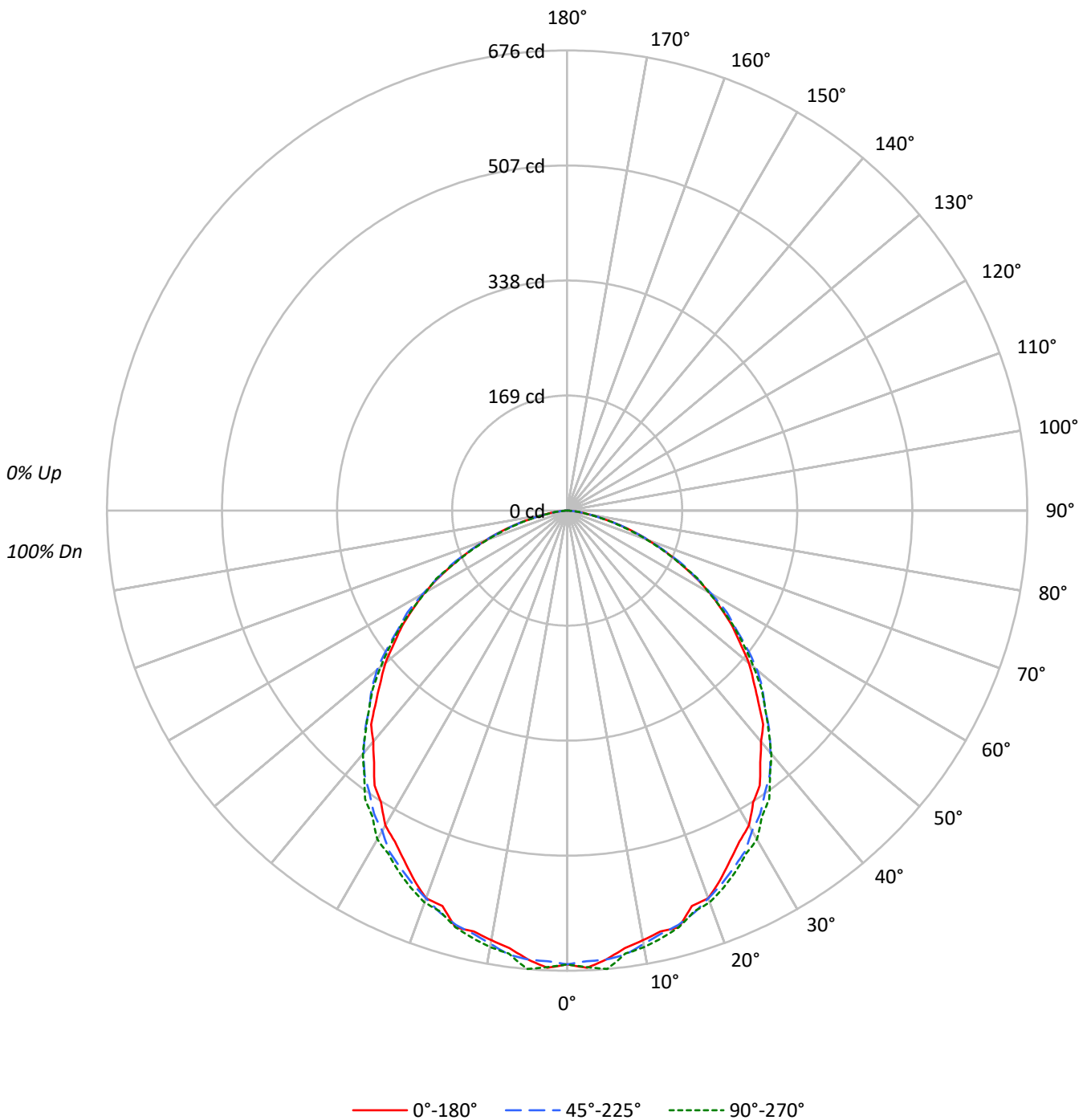
Lumens per Lamp: N/A
Luminaire Lumens: 1680.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1794	1794	1794
5°	1788	1789	1826
10°	1752	1767	1779
15°	1765	1756	1766
20°	1736	1736	1754
25°	1682	1719	1738
30°	1659	1688	1733
35°	1620	1663	1700
40°	1557	1632	1639
45°	1510	1564	1566
50°	1460	1526	1497
55°	1392	1419	1408
60°	1301	1314	1291
65°	1160	1189	1152
70°	995	998	971
75°	788	787	756
80°	528	513	493
85°	287	284	266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.7	3.7
10°-20°	177.7	10.6
20°-30°	266.2	15.8
30°-40°	315.5	18.8
40°-50°	316.1	18.8
50°-60°	268.3	16.0
60°-70°	180.9	10.8
70°-80°	79.5	4.7
80°-90°	12.9	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°	506.6	30.2
0°-40°	822.2	48.9
0°-60°	1406.7	83.7
0°-90°	1680.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1680.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	662	660	662	660	676	62
15°	634	626	630	634	634	177
25°	567	570	579	586	585	262
35°	493	495	506	518	517	306
45°	397	404	411	422	412	307
55°	297	295	302	300	300	264
65°	182	180	187	180	181	181
75°	76	74	76	70	73	81
85°	9	9	9	9	9	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.6	666.6	666.6	666.6	666.6
2.5°	672.3	667.3	662.5	668.0	671.4
5°	661.8	660.3	662.1	660.1	676.0
7.5°	648.2	654.2	657.6	655.5	656.4
10°	641.0	639.0	646.6	652.0	651.2
12.5°	633.3	636.4	636.8	642.6	643.1
15°	633.7	626.4	630.3	633.5	633.8
17.5°	609.1	617.0	619.7	627.2	617.9
20°	606.1	600.3	606.1	613.7	612.5
22.5°	587.6	581.1	593.5	600.3	599.9
25°	566.6	569.7	579.0	586.5	585.3
27.5°	548.2	551.8	565.0	575.4	568.7
30°	534.0	532.1	543.3	552.6	557.8
32.5°	508.6	515.1	528.2	537.4	532.5
35°	493.2	494.6	506.1	517.8	517.4
37.5°	466.2	473.0	489.1	492.4	489.4
40°	443.2	450.0	464.6	468.1	466.7
42.5°	426.3	427.5	440.0	444.0	437.6
45°	396.8	404.2	410.9	421.5	411.5
47.5°	371.6	375.1	389.5	392.4	387.1
50°	348.8	350.0	364.6	361.0	357.6
52.5°	320.2	325.2	333.4	332.7	328.7
55°	296.6	294.6	302.4	300.3	300.2
57.5°	268.3	271.7	278.1	274.8	269.6
60°	241.8	241.8	244.2	240.5	239.8
62.5°	212.2	213.3	213.8	209.2	216.6
65°	182.2	179.8	186.8	179.7	180.9
67.5°	154.6	155.8	155.1	150.6	152.3
70°	126.5	128.1	126.9	121.9	123.4
72.5°	100.9	99.0	100.2	93.8	96.7
75°	75.8	74.3	75.7	70.3	72.7
77.5°	51.6	52.8	52.0	49.1	50.8
80°	34.1	33.1	33.1	31.5	31.8
82.5°	19.9	18.9	18.7	18.2	18.9
85°	9.3	9.0	9.2	9.0	8.6
87.5°	3.4	3.4	3.4	3.3	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)