

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: P589684

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589684
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-LD4-4LO-35-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

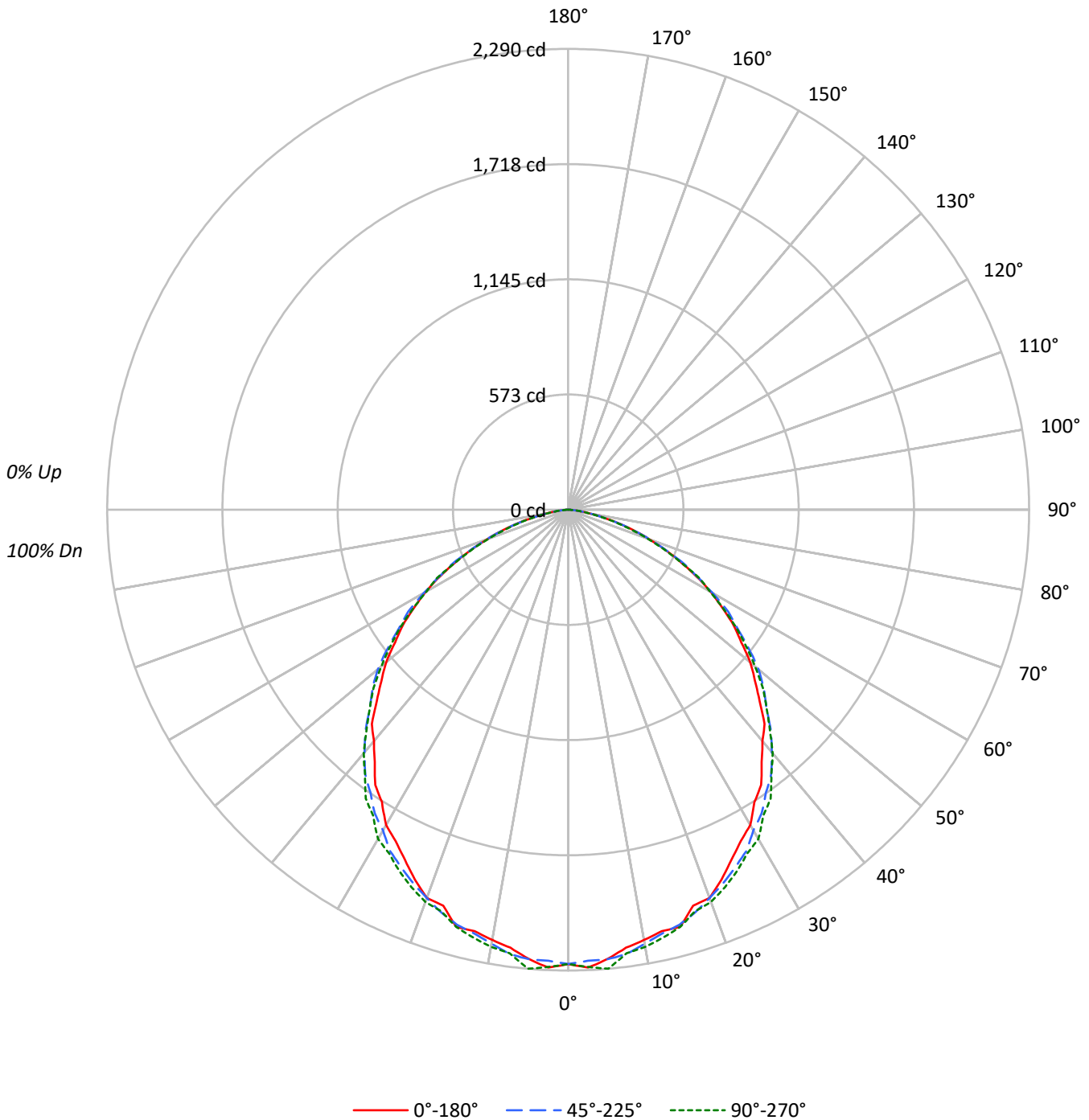
Lumens per Lamp: N/A
Luminaire Lumens: 5690.0 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (A_{in}): 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				
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°	6075	6075	6075
5°	6055	6058	6185
10°	5933	5984	6027
15°	5979	5947	5980
20°	5878	5878	5941
25°	5698	5822	5886
30°	5620	5718	5870
35°	5487	5631	5757
40°	5273	5527	5552
45°	5114	5296	5304
50°	4946	5169	5071
55°	4713	4804	4770
60°	4407	4451	4371
65°	3929	4029	3901
70°	3371	3383	3289
75°	2670	2664	2561
80°	1788	1739	1672
85°	973	963	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.4	3.7
10°-20°	601.9	10.6
20°-30°	901.7	15.8
30°-40°	1068.7	18.8
40°-50°	1070.7	18.8
50°-60°	908.9	16.0
60°-70°	612.7	10.8
70°-80°	269.2	4.7
80°-90°	43.8	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°	1716.0	30.2
0°-40°	2784.7	48.9
0°-60°	4764.2	83.7
0°-90°	5690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5690.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2258	2258	2258	2258	2258	
5°	2242	2236	2242	2236	2290	211
15°	2146	2122	2135	2146	2147	598
25°	1919	1929	1961	1987	1982	887
35°	1670	1675	1714	1754	1752	1037
45°	1344	1369	1392	1428	1394	1040
55°	1004	998	1024	1017	1017	894
65°	617	609	633	609	613	614
75°	257	252	256	238	246	275
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2257.6	2257.6	2257.6	2257.6	2257.6
2.5°	2277.2	2260.0	2243.9	2262.6	2274.0
5°	2241.6	2236.4	2242.5	2235.8	2289.7
7.5°	2195.6	2215.7	2227.3	2220.0	2223.3
10°	2171.1	2164.1	2190.0	2208.1	2205.5
12.5°	2144.8	2155.3	2156.8	2176.3	2178.1
15°	2146.3	2121.5	2134.6	2145.7	2146.6
17.5°	2062.9	2089.7	2098.8	2124.1	2092.7
20°	2052.7	2033.2	2052.7	2078.7	2074.6
22.5°	1990.1	1968.2	2010.2	2033.2	2031.7
25°	1918.9	1929.4	1960.9	1986.6	1982.5
27.5°	1856.5	1868.8	1913.7	1949.0	1926.2
30°	1808.5	1802.3	1840.2	1871.7	1889.2
32.5°	1722.5	1744.6	1788.9	1820.1	1803.5
35°	1670.3	1675.2	1714.0	1753.6	1752.5
37.5°	1579.0	1602.1	1656.6	1667.7	1657.5
40°	1501.2	1524.2	1573.5	1585.5	1580.5
42.5°	1443.8	1447.9	1490.1	1503.8	1482.0
45°	1343.8	1368.9	1391.6	1427.5	1393.6
47.5°	1258.7	1270.3	1319.3	1328.9	1311.2
50°	1181.4	1185.5	1234.8	1222.8	1211.2
52.5°	1084.4	1101.6	1129.3	1126.9	1113.2
55°	1004.5	997.8	1024.0	1017.0	1016.7
57.5°	908.6	920.3	941.8	930.8	913.0
60°	818.8	819.1	827.0	814.4	812.1
62.5°	718.8	722.3	724.1	708.6	733.7
65°	617.1	608.9	632.8	608.6	612.7
67.5°	523.5	527.6	525.3	510.1	516.0
70°	428.5	433.7	430.0	412.8	418.0
72.5°	341.6	335.2	339.3	317.7	327.6
75°	256.8	251.6	256.2	238.2	246.3
77.5°	174.9	179.0	176.1	166.4	172.0
80°	115.4	112.2	112.2	106.7	107.9
82.5°	67.3	64.1	63.3	61.5	64.1
85°	31.5	30.6	31.2	30.3	29.1
87.5°	11.4	11.7	11.7	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)