

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: P589726

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589726
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-50-UNV-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

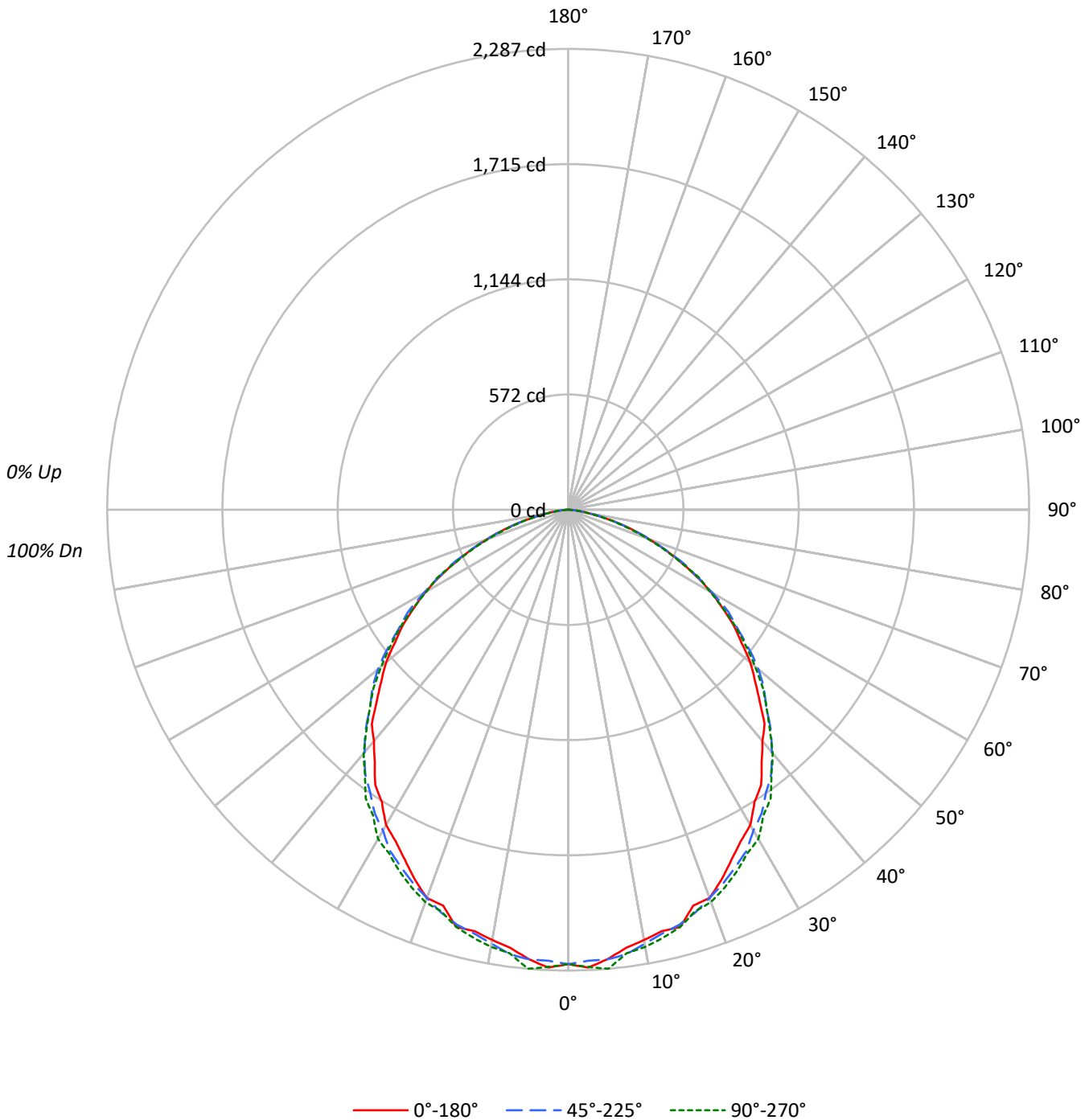
Lumens per Lamp: N/A
Luminaire Lumens: 5683.0 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6068	6068	6068
5°	6048	6050	6178
10°	5925	5977	6019
15°	5972	5940	5973
20°	5871	5871	5934
25°	5691	5815	5879
30°	5612	5711	5863
35°	5480	5624	5750
40°	5267	5521	5545
45°	5108	5289	5297
50°	4940	5163	5064
55°	4707	4799	4764
60°	4401	4445	4365
65°	3924	4025	3897
70°	3367	3378	3285
75°	2667	2661	2558
80°	1787	1737	1669
85°	969	963	898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.1	3.7
10°-20°	601.1	10.6
20°-30°	900.6	15.8
30°-40°	1067.4	18.8
40°-50°	1069.4	18.8
50°-60°	907.7	16.0
60°-70°	612.0	10.8
70°-80°	268.9	4.7
80°-90°	43.7	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°	1713.9	30.2
0°-40°	2781.3	48.9
0°-60°	4758.4	83.7
0°-90°	5683.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2255	2255	2255	2255	2255	
5°	2239	2234	2240	2233	2287	211
15°	2144	2119	2132	2143	2144	597
25°	1917	1927	1958	1984	1980	886
35°	1668	1673	1712	1752	1750	1036
45°	1342	1367	1390	1426	1392	1038
55°	1003	997	1023	1016	1016	892
65°	616	608	632	608	612	613
75°	256	251	256	238	246	275
85°	31	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°	2254.9	2254.9	2254.9	2254.9	2254.9
2.5°	2274.4	2257.2	2241.2	2259.8	2271.2
5°	2238.9	2233.6	2239.7	2233.0	2286.9
7.5°	2192.9	2212.9	2224.6	2217.3	2220.5
10°	2168.4	2161.4	2187.3	2205.4	2202.8
12.5°	2142.2	2152.7	2154.1	2173.6	2175.4
15°	2143.7	2118.9	2132.0	2143.1	2143.9
17.5°	2060.4	2087.2	2096.2	2121.5	2090.1
20°	2050.2	2030.7	2050.2	2076.1	2072.0
22.5°	1987.6	1965.8	2007.7	2030.7	2029.2
25°	1916.6	1927.0	1958.5	1984.1	1980.0
27.5°	1854.3	1866.5	1911.3	1946.6	1923.8
30°	1806.2	1800.1	1838.0	1869.4	1886.9
32.5°	1720.3	1742.5	1786.7	1817.9	1801.3
35°	1668.2	1673.2	1711.9	1751.5	1750.3
37.5°	1577.1	1600.1	1654.5	1665.6	1655.4
40°	1499.4	1522.4	1571.6	1583.5	1578.6
42.5°	1442.0	1446.1	1488.3	1502.0	1480.2
45°	1342.2	1367.2	1389.9	1425.7	1391.9
47.5°	1257.1	1268.8	1317.7	1327.3	1309.5
50°	1180.0	1184.1	1233.3	1221.3	1209.7
52.5°	1083.0	1100.2	1127.9	1125.5	1111.9
55°	1003.3	996.6	1022.8	1015.8	1015.5
57.5°	907.5	919.1	940.7	929.6	911.8
60°	817.8	818.1	826.0	813.4	811.1
62.5°	717.9	721.4	723.2	707.8	732.8
65°	616.3	608.2	632.1	607.9	612.0
67.5°	522.9	527.0	524.6	509.5	515.3
70°	428.0	433.2	429.4	412.3	417.5
72.5°	341.2	334.8	338.9	317.3	327.2
75°	256.5	251.3	255.9	237.9	246.0
77.5°	174.7	178.8	175.8	166.2	171.8
80°	115.3	112.1	112.1	106.6	107.7
82.5°	67.3	64.1	63.2	61.4	64.1
85°	31.4	30.6	31.2	30.3	29.1
87.5°	11.4	11.6	11.6	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)