

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: P589667

Luminaire Tested: **FMR-24-2-LD4-4LO-35-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589667
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-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

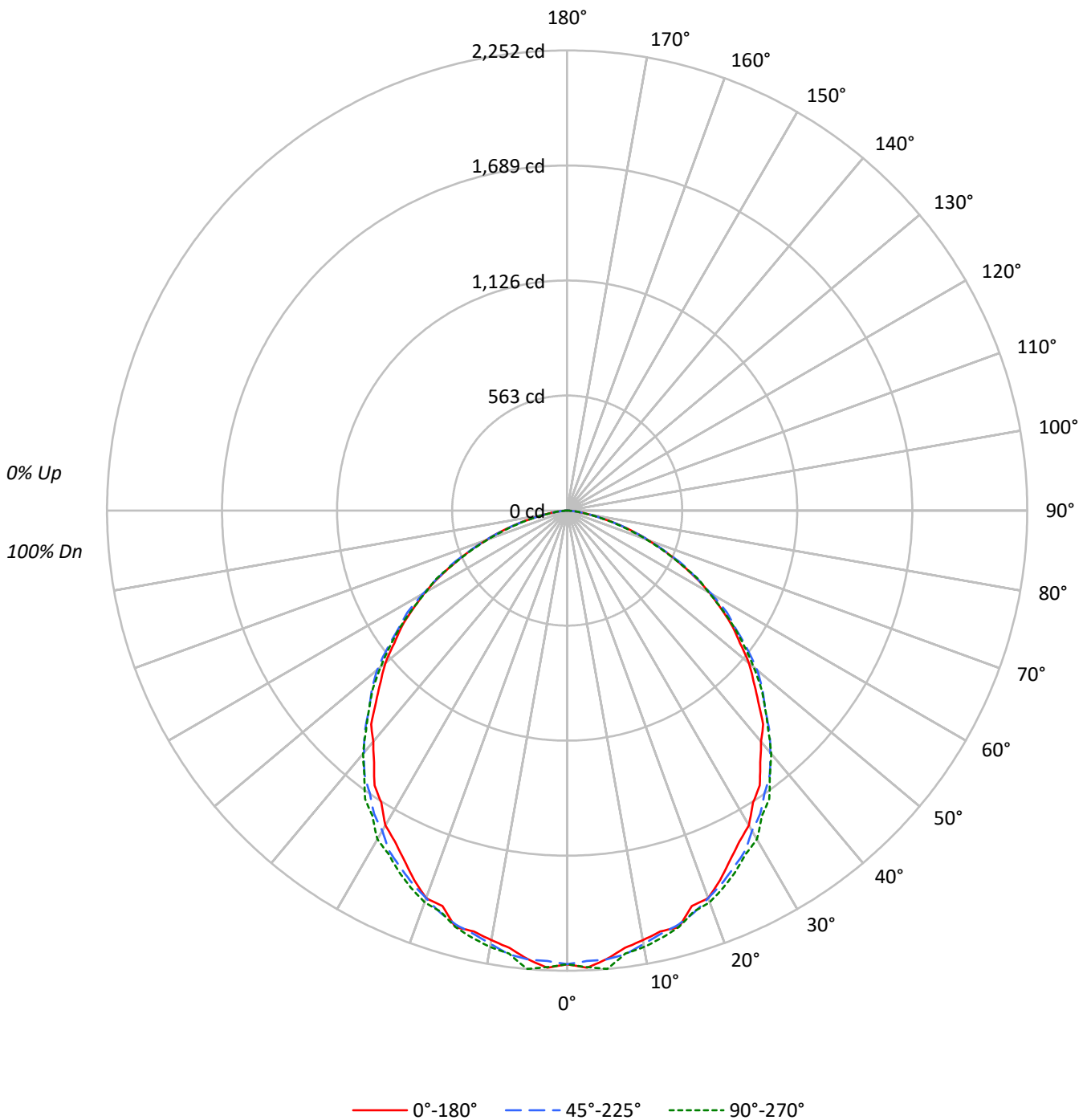
Lumens per Lamp: N/A
Luminaire Lumens: 5595.0 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
Input Voltage (V): NR
Input Current (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: P589667

CATALOG NUMBER: FMR-24-2-LD4-4LO-35-UNV-81-96-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	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°	5974	5974	5974
5°	5954	5956	6082
10°	5833	5884	5926
15°	5880	5848	5880
20°	5780	5780	5842
25°	5603	5725	5788
30°	5526	5623	5772
35°	5395	5537	5661
40°	5185	5435	5459
45°	5029	5208	5215
50°	4863	5083	4986
55°	4634	4724	4691
60°	4333	4377	4298
65°	3864	3962	3836
70°	3315	3327	3234
75°	2625	2619	2518
80°	1759	1711	1644
85°	957	948	886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.8	3.7
10°-20°	591.8	10.6
20°-30°	886.7	15.8
30°-40°	1050.9	18.8
40°-50°	1052.8	18.8
50°-60°	893.7	16.0
60°-70°	602.5	10.8
70°-80°	264.7	4.7
80°-90°	43.0	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°	1687.3	30.2
0°-40°	2738.2	48.9
0°-60°	4684.7	83.7
0°-90°	5595.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5595.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2220	2220	2220	2220	2220	
5°	2204	2199	2205	2198	2252	208
15°	2110	2086	2099	2110	2111	588
25°	1887	1897	1928	1953	1949	872
35°	1642	1647	1685	1724	1723	1020
45°	1321	1346	1368	1404	1370	1022
55°	988	981	1007	1000	1000	879
65°	607	599	622	598	602	603
75°	252	247	252	234	242	271
85°	31	30	31	30	29	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2220.0	2220.0	2220.0	2220.0	2220.0
2.5°	2239.2	2222.2	2206.5	2224.8	2236.0
5°	2204.2	2199.0	2205.0	2198.5	2251.5
7.5°	2158.9	2178.7	2190.1	2183.0	2186.1
10°	2134.8	2127.9	2153.5	2171.2	2168.6
12.5°	2109.0	2119.3	2120.8	2140.0	2141.7
15°	2110.5	2086.1	2099.0	2109.9	2110.7
17.5°	2028.5	2054.9	2063.7	2088.7	2057.7
20°	2018.5	1999.2	2018.5	2044.0	2040.0
22.5°	1956.8	1935.3	1976.6	1999.2	1997.8
25°	1886.9	1897.2	1928.2	1953.4	1949.4
27.5°	1825.6	1837.6	1881.7	1916.4	1894.1
30°	1778.3	1772.2	1809.5	1840.5	1857.7
32.5°	1693.7	1715.5	1759.1	1789.7	1773.4
35°	1642.4	1647.3	1685.4	1724.4	1723.2
37.5°	1552.7	1575.3	1628.9	1639.8	1629.8
40°	1476.1	1498.8	1547.2	1559.0	1554.1
42.5°	1419.7	1423.7	1465.3	1478.7	1457.2
45°	1321.4	1346.0	1368.4	1403.6	1370.4
47.5°	1237.7	1249.1	1297.3	1306.7	1289.3
50°	1161.7	1165.7	1214.2	1202.4	1191.0
52.5°	1066.3	1083.2	1110.4	1108.1	1094.6
55°	987.7	981.1	1006.9	1000.1	999.8
57.5°	893.4	904.9	926.1	915.2	897.7
60°	805.1	805.4	813.2	800.8	798.6
62.5°	706.8	710.3	712.0	696.8	721.4
65°	606.8	598.8	622.3	598.5	602.5
67.5°	514.8	518.8	516.5	501.6	507.3
70°	421.3	426.5	422.8	405.9	411.0
72.5°	335.9	329.6	333.6	312.4	322.2
75°	252.5	247.4	251.9	234.2	242.2
77.5°	172.0	176.0	173.1	163.7	169.1
80°	113.5	110.4	110.4	104.9	106.1
82.5°	66.2	63.1	62.2	60.5	63.1
85°	31.0	30.1	30.7	29.8	28.7
87.5°	11.2	11.5	11.5	10.9	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)