

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: P589464

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589464
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-LD4-3STD-35-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

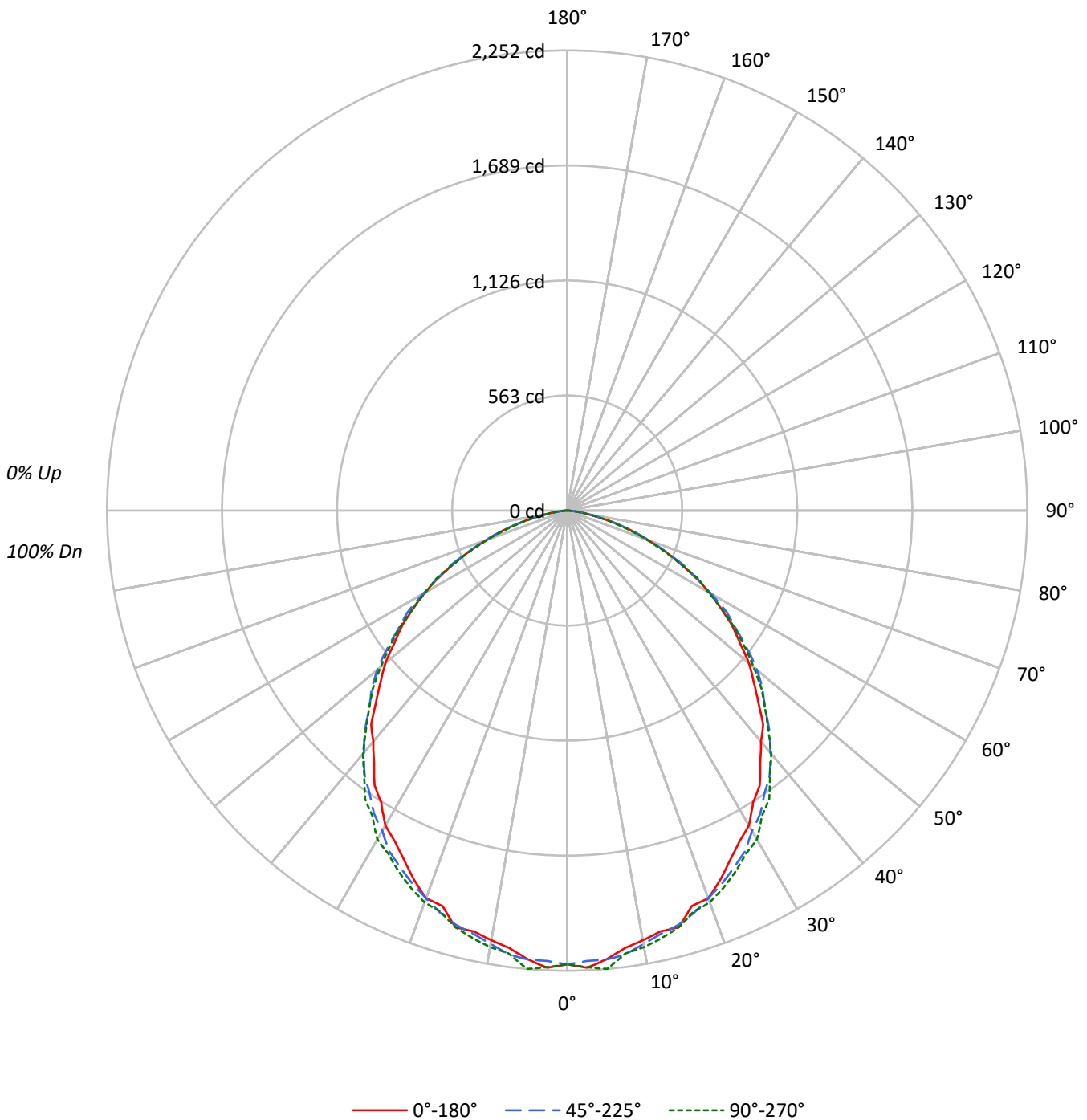
Lumens per Lamp: N/A
Luminaire Lumens: 5596.0 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	5975	5975	5975
5°	5955	5957	6083
10°	5834	5885	5927
15°	5880	5849	5881
20°	5781	5781	5843
25°	5603	5726	5789
30°	5527	5624	5773
35°	5396	5538	5662
40°	5186	5436	5460
45°	5030	5208	5216
50°	4864	5084	4987
55°	4635	4725	4691
60°	4334	4377	4299
65°	3864	3963	3837
70°	3316	3327	3234
75°	2626	2620	2518
80°	1759	1711	1644
85°	957	948	886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.9	3.7
10°-20°	591.9	10.6
20°-30°	886.8	15.8
30°-40°	1051.1	18.8
40°-50°	1053.0	18.8
50°-60°	893.8	16.0
60°-70°	602.6	10.8
70°-80°	264.8	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°	1687.6	30.2
0°-40°	2738.7	48.9
0°-60°	4685.6	83.7
0°-90°	5596.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5596.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2220	2220	2220	2220	2220	
5°	2205	2199	2205	2199	2252	208
15°	2111	2086	2099	2110	2111	588
25°	1887	1898	1928	1954	1950	872
35°	1643	1648	1686	1725	1724	1020
45°	1322	1346	1369	1404	1371	1022
55°	988	981	1007	1000	1000	879
65°	607	599	622	599	603	604
75°	253	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°	2220.4	2220.4	2220.4	2220.4	2220.4
2.5°	2239.6	2222.6	2206.9	2225.2	2236.4
5°	2204.6	2199.4	2205.4	2198.9	2251.9
7.5°	2159.3	2179.1	2190.5	2183.4	2186.5
10°	2135.2	2128.3	2153.8	2171.6	2169.0
12.5°	2109.4	2119.7	2121.2	2140.4	2142.1
15°	2110.8	2086.5	2099.4	2110.3	2111.1
17.5°	2028.8	2055.2	2064.1	2089.1	2058.1
20°	2018.8	1999.6	2018.8	2044.3	2040.3
22.5°	1957.2	1935.7	1977.0	1999.6	1998.2
25°	1887.2	1897.5	1928.5	1953.7	1949.7
27.5°	1825.9	1837.9	1882.1	1916.8	1894.4
30°	1778.6	1772.6	1809.8	1840.8	1858.0
32.5°	1694.0	1715.8	1759.4	1790.0	1773.7
35°	1642.7	1647.6	1685.7	1724.7	1723.5
37.5°	1553.0	1575.6	1629.2	1640.1	1630.1
40°	1476.4	1499.1	1547.5	1559.3	1554.4
42.5°	1419.9	1423.9	1465.5	1479.0	1457.5
45°	1321.6	1346.3	1368.6	1403.9	1370.6
47.5°	1237.9	1249.4	1297.5	1307.0	1289.5
50°	1161.9	1165.9	1214.4	1202.6	1191.2
52.5°	1066.5	1083.4	1110.6	1108.3	1094.8
55°	987.9	981.3	1007.1	1000.2	999.9
57.5°	893.6	905.1	926.3	915.4	897.9
60°	805.3	805.6	813.3	801.0	798.7
62.5°	707.0	710.4	712.1	696.9	721.6
65°	606.9	598.9	622.4	598.6	602.6
67.5°	514.9	518.9	516.6	501.7	507.4
70°	421.4	426.6	422.9	405.9	411.1
72.5°	336.0	329.7	333.7	312.5	322.2
75°	252.6	247.4	252.0	234.2	242.2
77.5°	172.0	176.0	173.2	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)