

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: P589725

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589725
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

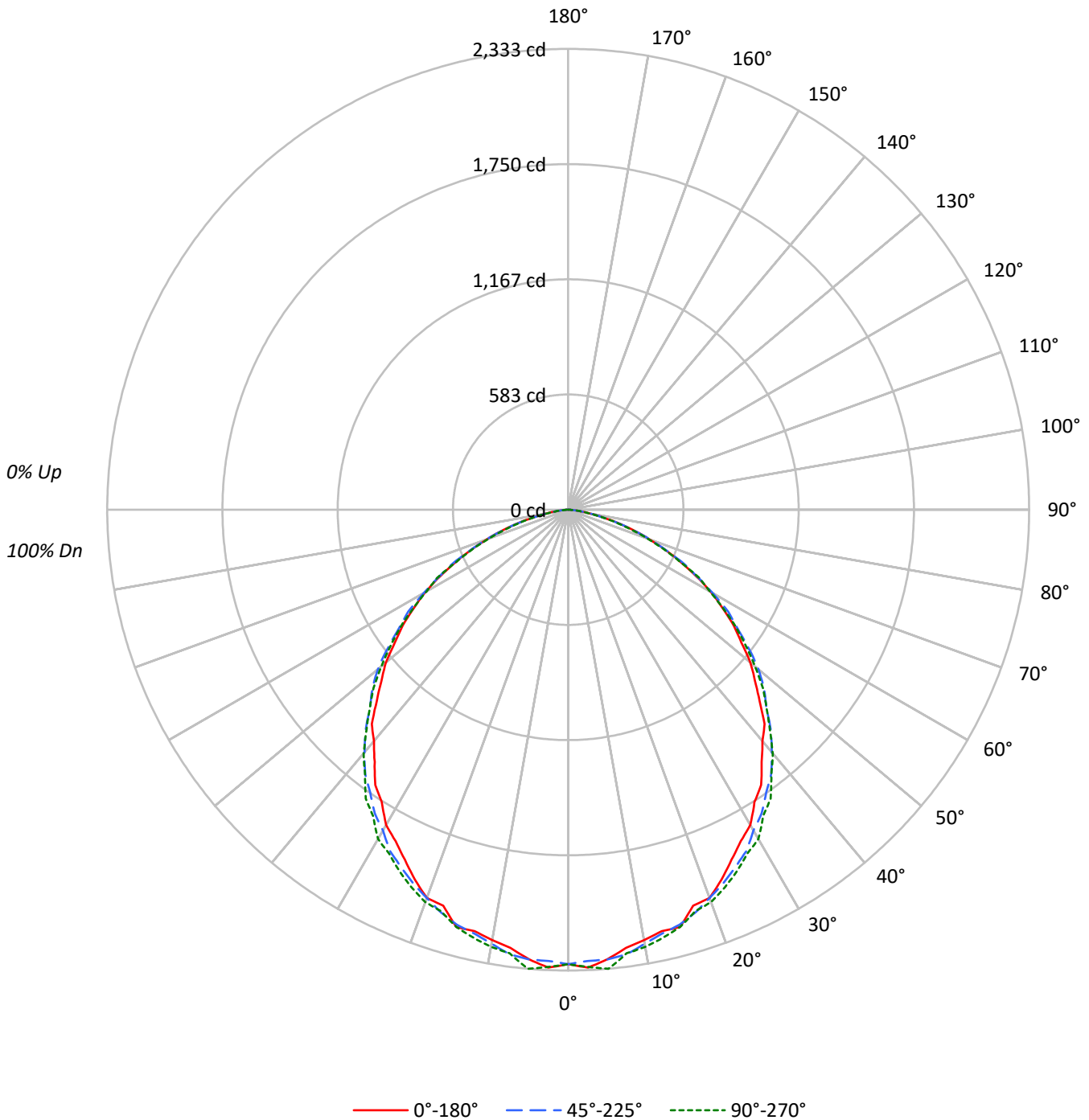
Lumens per Lamp: N/A
Luminaire Lumens: 5798.0 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6191	6191	6191
5°	6170	6173	6303
10°	6045	6098	6141
15°	6093	6060	6094
20°	5990	5990	6054
25°	5806	5933	5998
30°	5726	5827	5982
35°	5591	5737	5866
40°	5374	5632	5657
45°	5211	5396	5404
50°	5040	5267	5167
55°	4802	4896	4860
60°	4491	4535	4454
65°	4004	4106	3976
70°	3435	3447	3351
75°	2721	2715	2610
80°	1822	1773	1703
85°	991	982	917



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.4	3.7
10°-20°	613.3	10.6
20°-30°	918.8	15.8
30°-40°	1089.0	18.8
40°-50°	1091.0	18.8
50°-60°	926.1	16.0
60°-70°	624.4	10.8
70°-80°	274.4	4.7
80°-90°	44.6	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°	1748.5	30.2
0°-40°	2837.5	48.9
0°-60°	4854.7	83.7
0°-90°	5798.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5798.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2300	2300	2300	2300	2300	
5°	2284	2279	2285	2278	2333	215
15°	2187	2162	2175	2186	2187	609
25°	1955	1966	1998	2024	2020	904
35°	1702	1707	1746	1787	1786	1057
45°	1369	1395	1418	1455	1420	1059
55°	1024	1017	1044	1036	1036	911
65°	629	620	645	620	624	625
75°	262	256	261	243	251	280
85°	32	31	32	31	30	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2300.5	2300.5	2300.5	2300.5	2300.5
2.5°	2320.4	2302.9	2286.5	2305.5	2317.1
5°	2284.2	2278.8	2285.1	2278.2	2333.2
7.5°	2237.2	2257.7	2269.6	2262.2	2265.5
10°	2212.3	2205.2	2231.6	2250.0	2247.3
12.5°	2185.5	2196.2	2197.7	2217.6	2219.4
15°	2187.0	2161.8	2175.2	2186.4	2187.3
17.5°	2102.1	2129.4	2138.6	2164.5	2132.4
20°	2091.7	2071.8	2091.7	2118.1	2114.0
22.5°	2027.8	2005.5	2048.3	2071.8	2070.3
25°	1955.4	1966.0	1998.1	2024.3	2020.1
27.5°	1891.8	1904.3	1950.0	1985.9	1962.8
30°	1842.8	1836.5	1875.2	1907.2	1925.1
32.5°	1755.2	1777.7	1822.9	1854.7	1837.7
35°	1702.0	1707.0	1746.5	1786.9	1785.7
37.5°	1609.0	1632.5	1688.0	1699.3	1688.9
40°	1529.7	1553.2	1603.4	1615.5	1610.5
42.5°	1471.2	1475.3	1518.4	1532.4	1510.1
45°	1369.3	1394.9	1418.0	1454.6	1420.1
47.5°	1282.6	1294.5	1344.4	1354.2	1336.0
50°	1203.9	1208.0	1258.2	1246.0	1234.2
52.5°	1105.0	1122.5	1150.7	1148.3	1134.4
55°	1023.6	1016.7	1043.5	1036.3	1036.0
57.5°	925.8	937.7	959.7	948.4	930.3
60°	834.4	834.7	842.7	829.9	827.5
62.5°	732.5	736.0	737.8	722.1	747.6
65°	628.8	620.5	644.9	620.2	624.4
67.5°	533.5	537.6	535.2	519.8	525.7
70°	436.6	442.0	438.1	420.6	425.9
72.5°	348.1	341.6	345.7	323.8	333.9
75°	261.7	256.3	261.1	242.7	251.0
77.5°	178.2	182.4	179.4	169.6	175.2
80°	117.6	114.4	114.4	108.7	109.9
82.5°	68.6	65.3	64.5	62.7	65.3
85°	32.1	31.2	31.8	30.9	29.7
87.5°	11.6	11.9	11.9	11.3	10.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)