

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: P589747

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589747
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

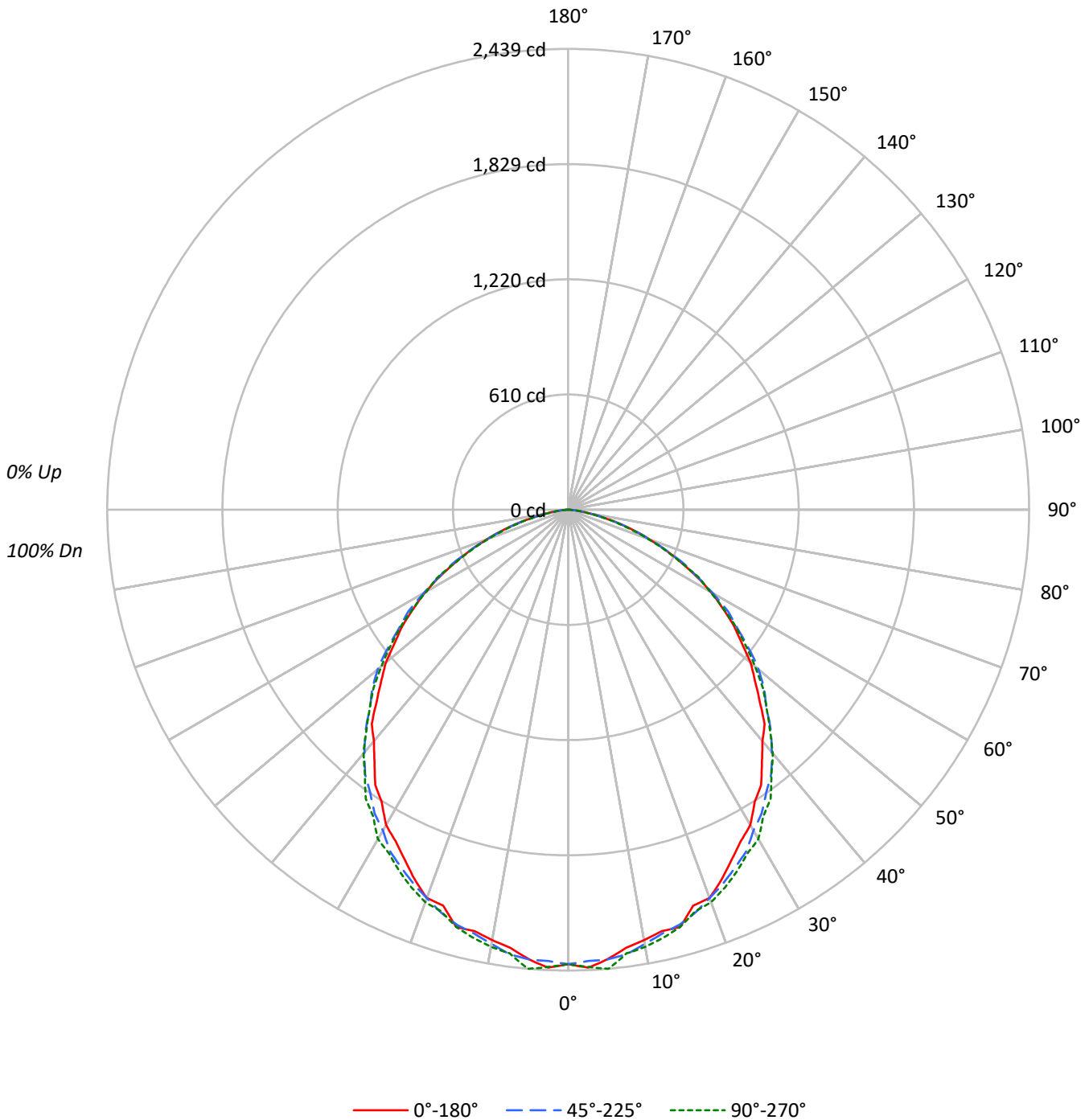
Lumens per Lamp: N/A
Luminaire Lumens: 6062.0 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	6472	6472	6472
5°	6451	6454	6589
10°	6320	6375	6421
15°	6370	6336	6371
20°	6263	6263	6329
25°	6070	6203	6271
30°	5987	6092	6254
35°	5846	5999	6134
40°	5618	5889	5915
45°	5449	5642	5651
50°	5269	5507	5402
55°	5021	5119	5082
60°	4695	4742	4656
65°	4186	4293	4157
70°	3592	3604	3504
75°	2845	2838	2728
80°	1906	1853	1781
85°	1034	1025	960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.3	3.7
10°-20°	641.2	10.6
20°-30°	960.7	15.8
30°-40°	1138.6	18.8
40°-50°	1140.7	18.8
50°-60°	968.3	16.0
60°-70°	652.8	10.8
70°-80°	286.8	4.7
80°-90°	46.6	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°	1828.2	30.2
0°-40°	2966.8	48.9
0°-60°	5075.8	83.7
0°-90°	6062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2405	2405	2405	2405	2405	
5°	2388	2383	2389	2382	2439	225
15°	2287	2260	2274	2286	2287	637
25°	2044	2056	2089	2116	2112	945
35°	1780	1785	1826	1868	1867	1105
45°	1432	1458	1483	1521	1485	1107
55°	1070	1063	1091	1084	1083	952
65°	657	649	674	648	653	654
75°	274	268	273	254	262	293
85°	34	33	33	32	31	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2405.2	2405.2	2405.2	2405.2	2405.2
2.5°	2426.1	2407.7	2390.7	2410.5	2422.6
5°	2388.2	2382.6	2389.1	2382.0	2439.4
7.5°	2339.1	2360.5	2373.0	2365.2	2368.6
10°	2313.0	2305.6	2333.2	2352.5	2349.7
12.5°	2285.1	2296.2	2297.8	2318.6	2320.5
15°	2286.6	2260.2	2274.2	2286.0	2286.9
17.5°	2197.8	2226.4	2236.0	2263.0	2229.5
20°	2186.9	2166.1	2186.9	2214.6	2210.2
22.5°	2120.2	2096.9	2141.6	2166.1	2164.6
25°	2044.4	2055.6	2089.1	2116.4	2112.1
27.5°	1977.9	1991.0	2038.8	2076.4	2052.1
30°	1926.7	1920.2	1960.5	1994.1	2012.7
32.5°	1835.1	1858.7	1905.9	1939.1	1921.4
35°	1779.5	1784.8	1826.1	1868.3	1867.1
37.5°	1682.3	1706.8	1764.9	1776.7	1765.8
40°	1599.4	1623.9	1676.4	1689.1	1683.8
42.5°	1538.2	1542.5	1587.6	1602.2	1578.9
45°	1431.7	1458.4	1482.6	1520.8	1484.8
47.5°	1341.0	1353.4	1405.6	1415.8	1396.9
50°	1258.7	1263.0	1315.5	1302.8	1290.4
52.5°	1155.3	1173.6	1203.1	1200.6	1186.0
55°	1070.2	1063.0	1091.0	1083.5	1083.2
57.5°	968.0	980.4	1003.4	991.6	972.7
60°	872.3	872.7	881.0	867.7	865.2
62.5°	765.8	769.6	771.4	755.0	781.7
65°	657.4	648.7	674.2	648.4	652.8
67.5°	557.8	562.1	559.6	543.5	549.7
70°	456.5	462.1	458.1	439.7	445.3
72.5°	364.0	357.1	361.5	338.5	349.1
75°	273.6	268.0	273.0	253.7	262.4
77.5°	186.3	190.7	187.6	177.3	183.2
80°	123.0	119.6	119.6	113.7	114.9
82.5°	71.7	68.3	67.4	65.5	68.3
85°	33.5	32.6	33.2	32.3	31.1
87.5°	12.1	12.4	12.4	11.8	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)