

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: P589488

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589488
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-93-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

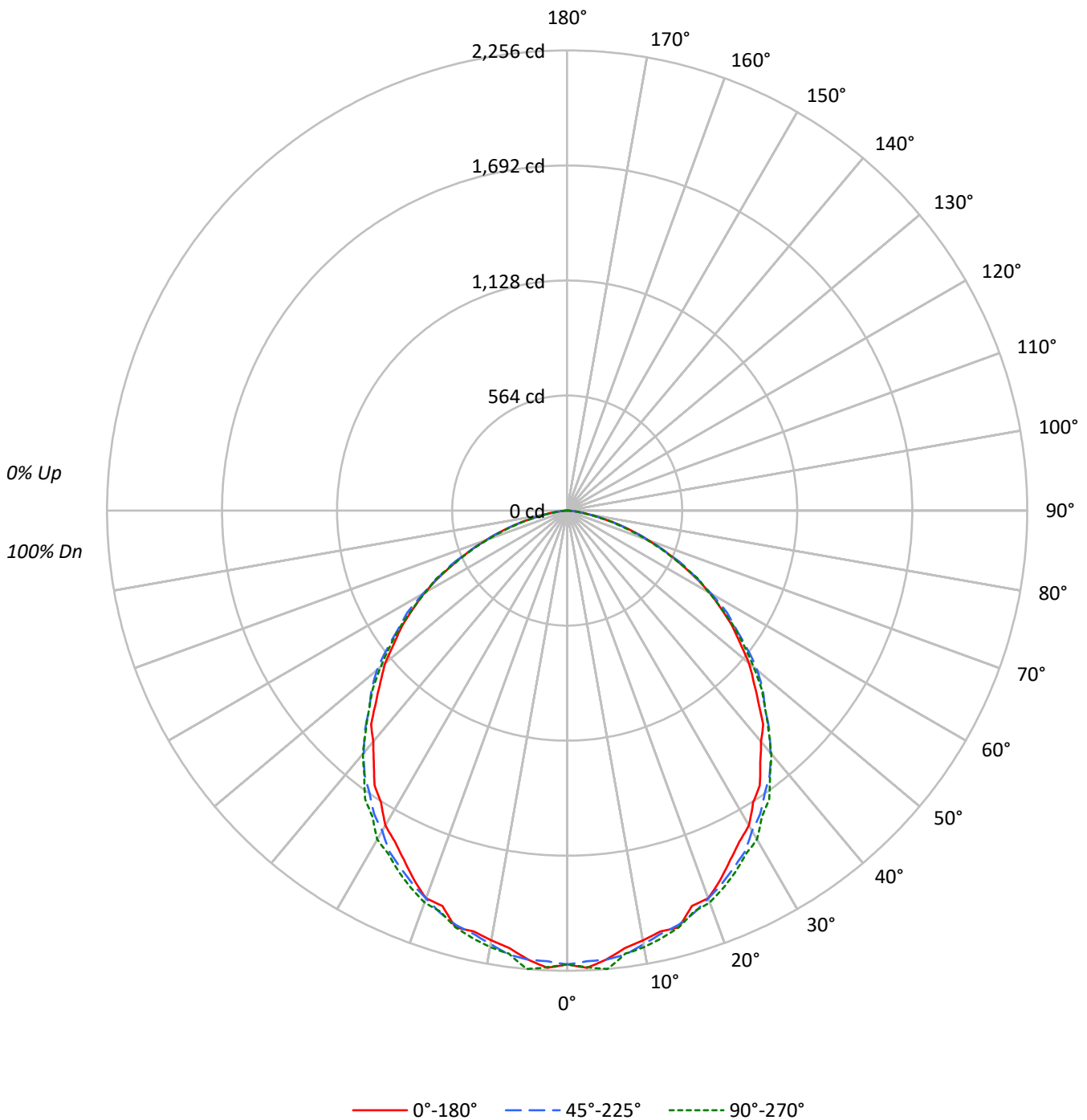
Lumens per Lamp: N/A
Luminaire Lumens: 5607.0 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5987	5987	5987
5°	5967	5969	6095
10°	5846	5897	5939
15°	5892	5860	5893
20°	5793	5793	5854
25°	5614	5737	5801
30°	5537	5635	5785
35°	5407	5548	5673
40°	5197	5447	5471
45°	5039	5219	5226
50°	4874	5094	4996
55°	4644	4734	4700
60°	4343	4386	4307
65°	3872	3971	3845
70°	3323	3334	3241
75°	2632	2625	2523
80°	1762	1714	1647
85°	957	948	886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.3	3.7
10°-20°	593.1	10.6
20°-30°	888.6	15.8
30°-40°	1053.1	18.8
40°-50°	1055.1	18.8
50°-60°	895.6	16.0
60°-70°	603.8	10.8
70°-80°	265.3	4.7
80°-90°	43.1	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°	1690.9	30.2
0°-40°	2744.1	48.9
0°-60°	4694.8	83.7
0°-90°	5607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5607.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2225	2225	2225	2225	2225	
5°	2209	2204	2210	2203	2256	208
15°	2115	2091	2104	2114	2115	589
25°	1891	1901	1932	1958	1954	874
35°	1646	1651	1689	1728	1727	1022
45°	1324	1349	1371	1407	1373	1024
55°	990	983	1009	1002	1002	881
65°	608	600	624	600	604	605
75°	253	248	252	235	243	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°	2224.7	2224.7	2224.7	2224.7	2224.7
2.5°	2244.0	2227.0	2211.2	2229.6	2240.8
5°	2208.9	2203.7	2209.8	2203.2	2256.3
7.5°	2163.5	2183.4	2194.8	2187.7	2190.8
10°	2139.4	2132.5	2158.1	2175.9	2173.3
12.5°	2113.6	2123.9	2125.3	2144.6	2146.3
15°	2115.0	2090.6	2103.5	2114.4	2115.3
17.5°	2032.8	2059.3	2068.2	2093.2	2062.1
20°	2022.8	2003.5	2022.8	2048.3	2044.3
22.5°	1961.0	1939.5	1980.8	2003.5	2002.1
25°	1890.9	1901.3	1932.3	1957.6	1953.6
27.5°	1829.5	1841.5	1885.8	1920.5	1898.1
30°	1782.1	1776.0	1813.4	1844.4	1861.6
32.5°	1697.3	1719.2	1762.8	1793.6	1777.2
35°	1645.9	1650.8	1689.0	1728.1	1726.9
37.5°	1556.0	1578.7	1632.4	1643.3	1633.3
40°	1479.3	1502.0	1550.6	1562.3	1557.4
42.5°	1422.7	1426.7	1468.4	1481.9	1460.4
45°	1324.2	1348.9	1371.3	1406.6	1373.3
47.5°	1240.3	1251.8	1300.1	1309.6	1292.0
50°	1164.2	1168.2	1216.8	1205.0	1193.5
52.5°	1068.6	1085.5	1112.8	1110.5	1097.0
55°	989.8	983.2	1009.1	1002.2	1001.9
57.5°	895.3	906.8	928.1	917.2	899.7
60°	806.9	807.2	814.9	802.6	800.3
62.5°	708.3	711.8	713.5	698.3	723.0
65°	608.1	600.1	623.6	599.8	603.8
67.5°	515.9	519.9	517.6	502.7	508.4
70°	422.3	427.4	423.7	406.7	411.9
72.5°	336.7	330.3	334.4	313.1	322.9
75°	253.1	247.9	252.5	234.7	242.7
77.5°	172.3	176.4	173.5	164.0	169.5
80°	113.7	110.6	110.6	105.1	106.3
82.5°	66.4	63.2	62.3	60.6	63.2
85°	31.0	30.2	30.7	29.9	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)