

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: P589478

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589478
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-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

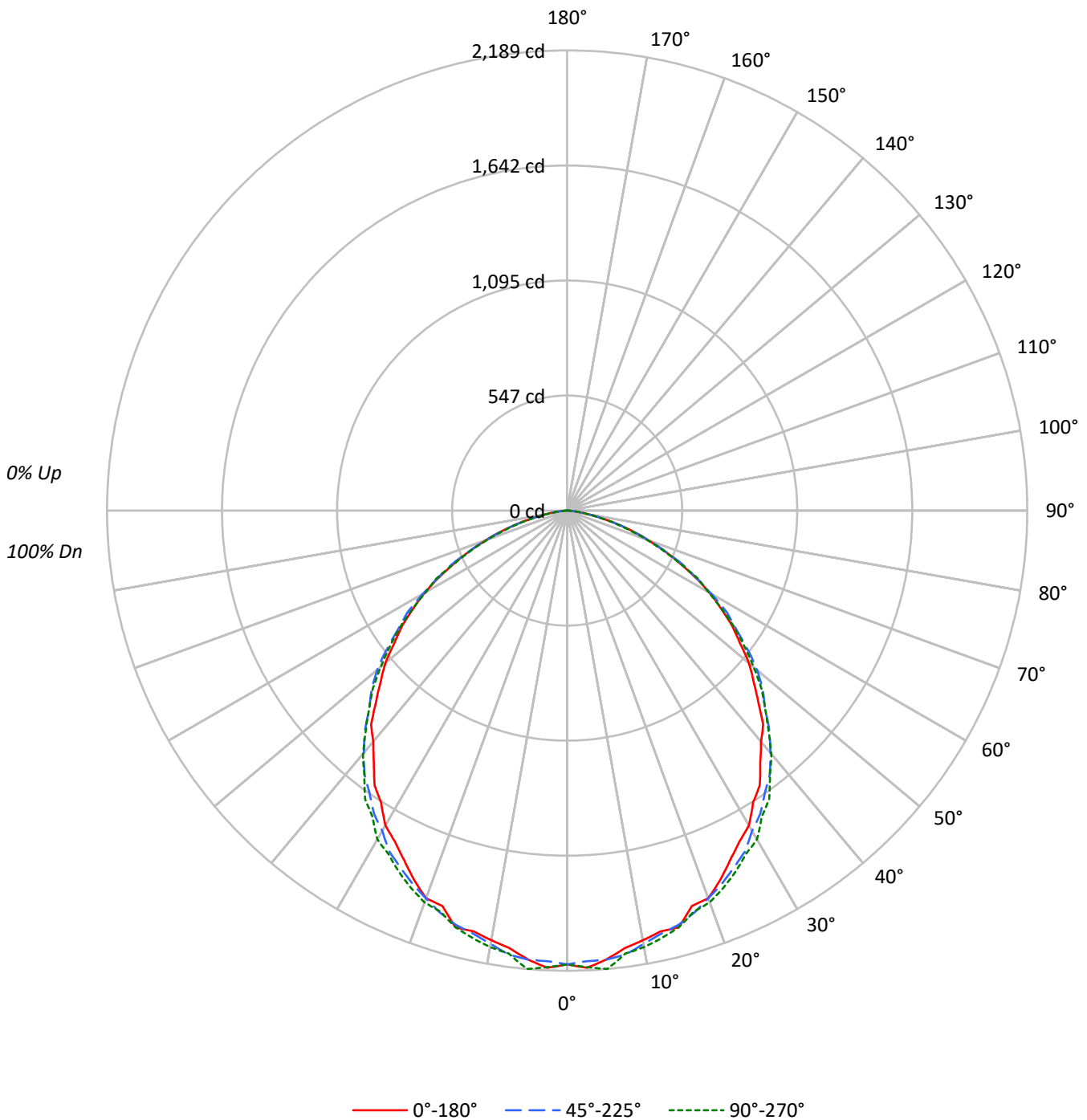
Lumens per Lamp: N/A
Luminaire Lumens: 5440.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5808	5808	5808
5°	5789	5791	5913
10°	5672	5721	5762
15°	5717	5685	5718
20°	5620	5620	5680
25°	5447	5566	5628
30°	5372	5467	5612
35°	5246	5383	5504
40°	5042	5285	5308
45°	4889	5063	5071
50°	4729	4942	4848
55°	4506	4593	4561
60°	4213	4255	4179
65°	3757	3852	3730
70°	3223	3234	3144
75°	2552	2547	2449
80°	1711	1663	1598
85°	929	920	861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	3.7
10°-20°	575.4	10.6
20°-30°	862.1	15.8
30°-40°	1021.8	18.8
40°-50°	1023.7	18.8
50°-60°	868.9	16.0
60°-70°	585.8	10.8
70°-80°	257.4	4.7
80°-90°	41.8	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°	1640.6	30.2
0°-40°	2662.3	48.9
0°-60°	4554.9	83.7
0°-90°	5440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2158	2158	2158	2158	2158	
5°	2143	2138	2144	2138	2189	202
15°	2052	2028	2041	2051	2052	572
25°	1835	1845	1875	1899	1895	848
35°	1597	1602	1639	1677	1676	991
45°	1285	1309	1330	1365	1332	994
55°	960	954	979	972	972	854
65°	590	582	605	582	586	587
75°	246	240	245	228	236	263
85°	30	29	30	29	28	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2158.5	2158.5	2158.5	2158.5	2158.5
2.5°	2177.1	2160.7	2145.4	2163.2	2174.1
5°	2143.1	2138.1	2144.0	2137.6	2189.1
7.5°	2099.1	2118.3	2129.5	2122.5	2125.6
10°	2075.7	2069.0	2093.8	2111.1	2108.6
12.5°	2050.6	2060.6	2062.0	2080.7	2082.4
15°	2052.0	2028.3	2040.8	2051.4	2052.3
17.5°	1972.3	1997.9	2006.6	2030.8	2000.7
20°	1962.5	1943.9	1962.5	1987.3	1983.4
22.5°	1902.6	1881.7	1921.8	1943.9	1942.5
25°	1834.6	1844.6	1874.7	1899.3	1895.4
27.5°	1775.0	1786.7	1829.6	1863.3	1841.6
30°	1729.0	1723.1	1759.4	1789.5	1806.2
32.5°	1646.8	1668.0	1710.3	1740.1	1724.3
35°	1596.9	1601.6	1638.7	1676.6	1675.5
37.5°	1509.7	1531.7	1583.8	1594.4	1584.6
40°	1435.3	1457.3	1504.4	1515.8	1511.1
42.5°	1380.4	1384.3	1424.7	1437.8	1416.9
45°	1284.8	1308.7	1330.5	1364.7	1332.4
47.5°	1203.4	1214.5	1261.4	1270.5	1253.5
50°	1129.5	1133.4	1180.5	1169.1	1158.0
52.5°	1036.7	1053.2	1079.6	1077.4	1064.3
55°	960.4	954.0	979.0	972.3	972.1
57.5°	868.7	879.8	900.4	889.9	872.9
60°	782.8	783.1	790.6	778.7	776.4
62.5°	687.2	690.6	692.3	677.5	701.5
65°	590.0	582.2	605.0	581.9	585.8
67.5°	500.5	504.4	502.2	487.7	493.3
70°	409.7	414.7	411.1	394.6	399.6
72.5°	326.6	320.5	324.4	303.8	313.2
75°	245.5	240.5	245.0	227.7	235.5
77.5°	167.2	171.1	168.3	159.1	164.4
80°	110.4	107.3	107.3	102.0	103.1
82.5°	64.4	61.3	60.5	58.8	61.3
85°	30.1	29.3	29.8	29.0	27.9
87.5°	10.9	11.1	11.1	10.6	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)