

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: P589477

Luminaire Tested: **FMR-24-2-LD4-3STD-35-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589477
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-82-84-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

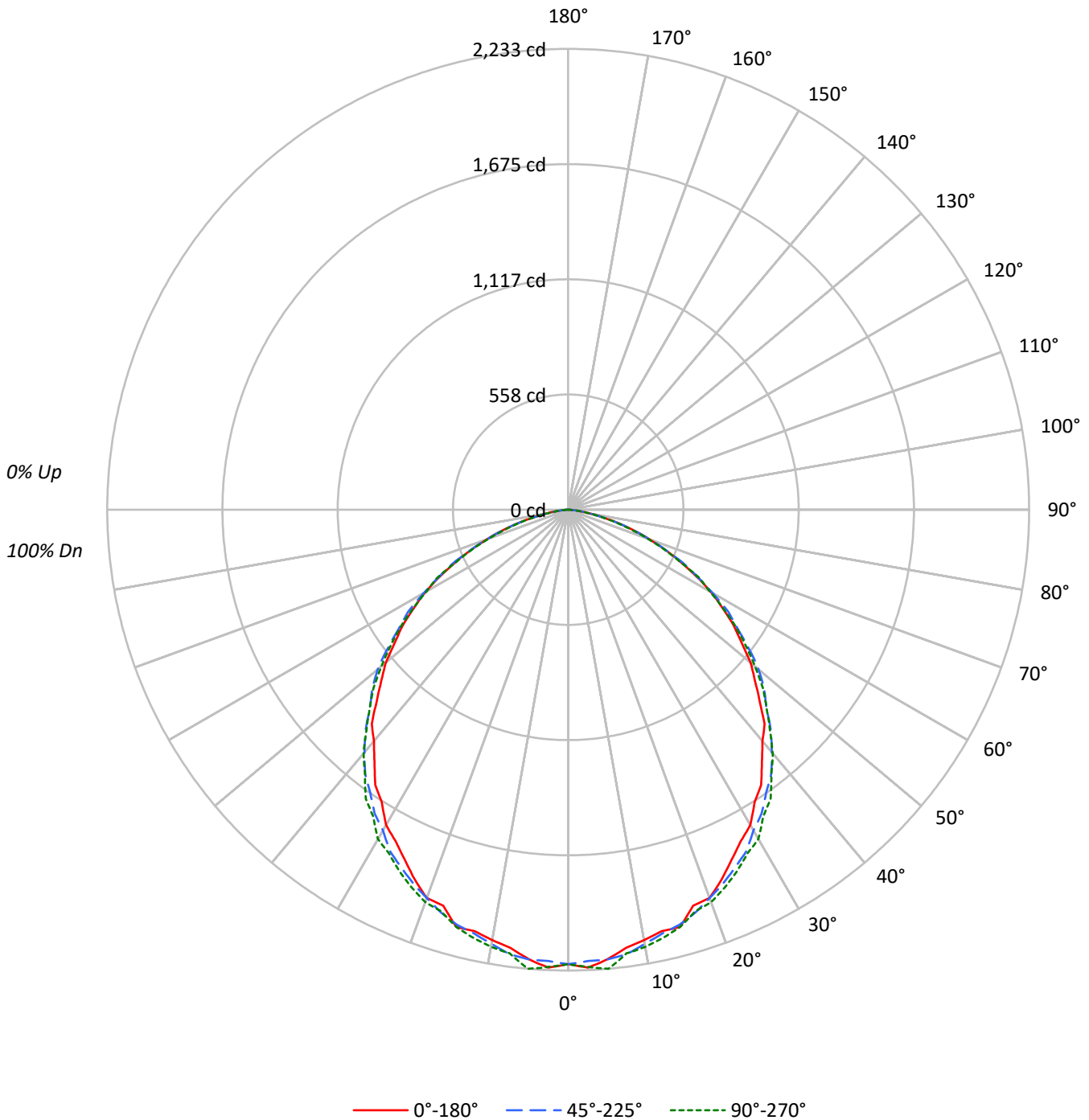
Lumens per Lamp: N/A
Luminaire Lumens: 5550.0 lumens
Efficiency: N/A
Efficacy: 111.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5926	5926	5926
5°	5906	5908	6033
10°	5787	5837	5878
15°	5832	5801	5833
20°	5734	5734	5795
25°	5557	5679	5741
30°	5481	5577	5726
35°	5352	5492	5616
40°	5144	5391	5415
45°	4988	5166	5173
50°	4824	5042	4946
55°	4597	4686	4653
60°	4299	4341	4263
65°	3833	3931	3806
70°	3289	3300	3208
75°	2604	2598	2498
80°	1745	1697	1630
85°	948	939	877



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.1	3.7
10°-20°	587.1	10.6
20°-30°	879.5	15.8
30°-40°	1042.4	18.8
40°-50°	1044.4	18.8
50°-60°	886.5	16.0
60°-70°	597.7	10.8
70°-80°	262.6	4.7
80°-90°	42.7	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°	1673.7	30.2
0°-40°	2716.2	48.9
0°-60°	4647.0	83.7
0°-90°	5550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5550.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2202	2202	2202	2202	2202	
5°	2186	2181	2187	2181	2233	206
15°	2094	2069	2082	2093	2094	583
25°	1872	1882	1913	1938	1934	865
35°	1629	1634	1672	1710	1709	1012
45°	1311	1335	1357	1392	1359	1014
55°	980	973	999	992	992	872
65°	602	594	617	594	598	599
75°	250	245	250	232	240	268
85°	31	30	30	30	28	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2202.1	2202.1	2202.1	2202.1	2202.1
2.5°	2221.1	2204.4	2188.7	2206.9	2218.0
5°	2186.5	2181.3	2187.3	2180.8	2233.4
7.5°	2141.5	2161.2	2172.5	2165.4	2168.5
10°	2117.7	2110.8	2136.1	2153.8	2151.2
12.5°	2092.1	2102.3	2103.7	2122.8	2124.5
15°	2093.5	2069.3	2082.1	2092.9	2093.8
17.5°	2012.2	2038.3	2047.1	2071.9	2041.2
20°	2002.2	1983.2	2002.2	2027.5	2023.5
22.5°	1941.1	1919.8	1960.7	1983.2	1981.7
25°	1871.7	1881.9	1912.7	1937.7	1933.7
27.5°	1810.9	1822.8	1866.6	1901.0	1878.8
30°	1764.0	1758.0	1794.9	1825.7	1842.7
32.5°	1680.1	1701.7	1744.9	1775.3	1759.1
35°	1629.2	1634.0	1671.8	1710.5	1709.4
37.5°	1540.2	1562.7	1615.8	1626.6	1616.7
40°	1464.3	1486.7	1534.8	1546.4	1541.6
42.5°	1408.3	1412.2	1453.5	1466.8	1445.5
45°	1310.7	1335.2	1357.4	1392.3	1359.4
47.5°	1227.7	1239.1	1286.9	1296.2	1278.9
50°	1152.4	1156.4	1204.4	1192.7	1181.4
52.5°	1057.7	1074.5	1101.5	1099.2	1085.8
55°	979.8	973.2	998.8	992.0	991.7
57.5°	886.2	897.6	918.7	907.9	890.5
60°	798.7	799.0	806.6	794.4	792.1
62.5°	701.1	704.6	706.3	691.2	715.6
65°	601.9	594.0	617.3	593.7	597.7
67.5°	510.6	514.6	512.4	497.6	503.3
70°	418.0	423.1	419.4	402.6	407.7
72.5°	333.2	327.0	331.0	309.9	319.6
75°	250.5	245.4	249.9	232.3	240.3
77.5°	170.6	174.6	171.7	162.3	167.8
80°	112.6	109.5	109.5	104.1	105.2
82.5°	65.7	62.6	61.7	60.0	62.6
85°	30.7	29.9	30.4	29.6	28.4
87.5°	11.1	11.4	11.4	10.8	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)