

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: P589734

Luminaire Tested: **FMR-24-2-LD4-4LO-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589734
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-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

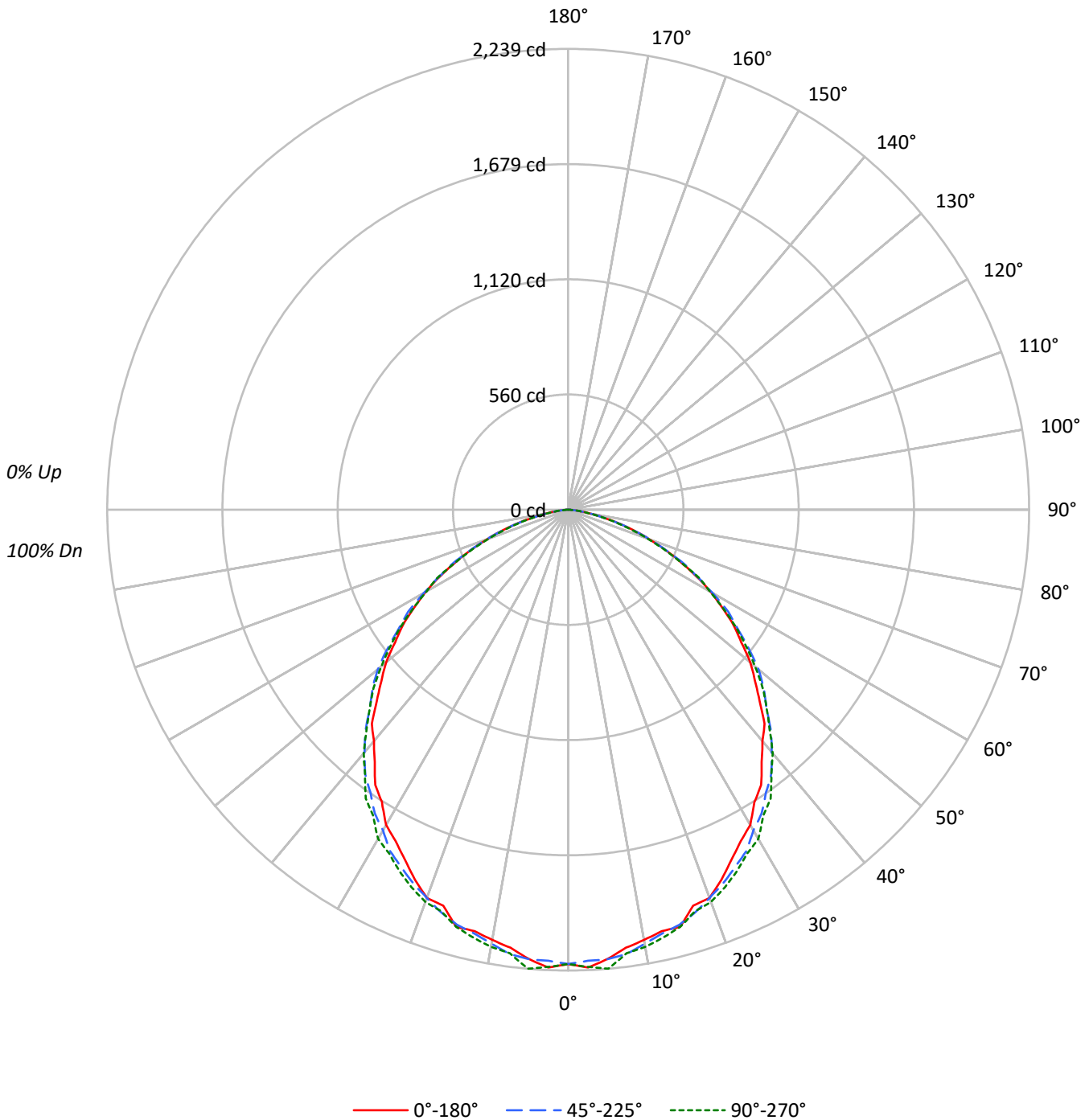
Lumens per Lamp: N/A
Luminaire Lumens: 5563.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5940	5940	5940
5°	5920	5922	6047
10°	5800	5851	5892
15°	5846	5814	5847
20°	5747	5747	5808
25°	5570	5692	5755
30°	5494	5591	5739
35°	5365	5505	5629
40°	5156	5404	5428
45°	5000	5178	5185
50°	4836	5054	4957
55°	4608	4697	4663
60°	4308	4351	4273
65°	3841	3940	3815
70°	3296	3308	3216
75°	2611	2604	2504
80°	1750	1700	1633
85°	951	942	880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.6	3.7
10°-20°	588.4	10.6
20°-30°	881.6	15.8
30°-40°	1044.9	18.8
40°-50°	1046.8	18.8
50°-60°	888.6	16.0
60°-70°	599.1	10.8
70°-80°	263.2	4.7
80°-90°	42.8	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°	1677.7	30.2
0°-40°	2722.5	48.9
0°-60°	4657.9	83.7
0°-90°	5563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2207	2207	2207	2207	2207	
5°	2192	2186	2192	2186	2239	207
15°	2098	2074	2087	2098	2099	585
25°	1876	1886	1917	1942	1938	867
35°	1633	1638	1676	1714	1713	1014
45°	1314	1338	1360	1396	1362	1016
55°	982	976	1001	994	994	874
65°	603	595	619	595	599	600
75°	251	246	250	233	241	269
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°	2207.3	2207.3	2207.3	2207.3	2207.3
2.5°	2226.4	2209.5	2193.9	2212.1	2223.2
5°	2191.6	2186.5	2192.4	2185.9	2238.6
7.5°	2146.6	2166.2	2177.6	2170.5	2173.6
10°	2122.6	2115.8	2141.1	2158.8	2156.2
12.5°	2097.0	2107.2	2108.7	2127.7	2129.5
15°	2098.4	2074.2	2087.0	2097.8	2098.7
17.5°	2016.9	2043.1	2051.9	2076.7	2046.0
20°	2006.9	1987.8	2006.9	2032.3	2028.3
22.5°	1945.6	1924.3	1965.3	1987.8	1986.4
25°	1876.1	1886.4	1917.1	1942.2	1938.2
27.5°	1815.1	1827.1	1871.0	1905.5	1883.2
30°	1768.1	1762.1	1799.2	1829.9	1847.0
32.5°	1684.0	1705.7	1749.0	1779.5	1763.2
35°	1633.0	1637.8	1675.7	1714.5	1713.4
37.5°	1543.8	1566.3	1619.6	1630.4	1620.5
40°	1467.7	1490.2	1538.4	1550.1	1545.2
42.5°	1411.6	1415.6	1456.9	1470.3	1448.9
45°	1313.8	1338.3	1360.5	1395.6	1362.5
47.5°	1230.6	1242.0	1289.9	1299.3	1281.9
50°	1155.1	1159.1	1207.2	1195.5	1184.1
52.5°	1060.2	1077.0	1104.1	1101.8	1088.4
55°	982.1	975.5	1001.2	994.3	994.0
57.5°	888.3	899.7	920.8	910.0	892.6
60°	800.5	800.8	808.5	796.3	794.0
62.5°	702.8	706.2	707.9	692.8	717.3
65°	603.3	595.3	618.7	595.1	599.1
67.5°	511.8	515.8	513.6	498.7	504.4
70°	418.9	424.1	420.4	403.5	408.7
72.5°	334.0	327.7	331.7	310.6	320.3
75°	251.1	245.9	250.5	232.8	240.8
77.5°	171.0	175.0	172.1	162.7	168.1
80°	112.9	109.7	109.7	104.3	105.4
82.5°	65.8	62.7	61.8	60.1	62.7
85°	30.8	29.9	30.5	29.6	28.5
87.5°	11.1	11.4	11.4	10.8	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)