

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: P589010

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589010
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-LD4-2HI-35-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

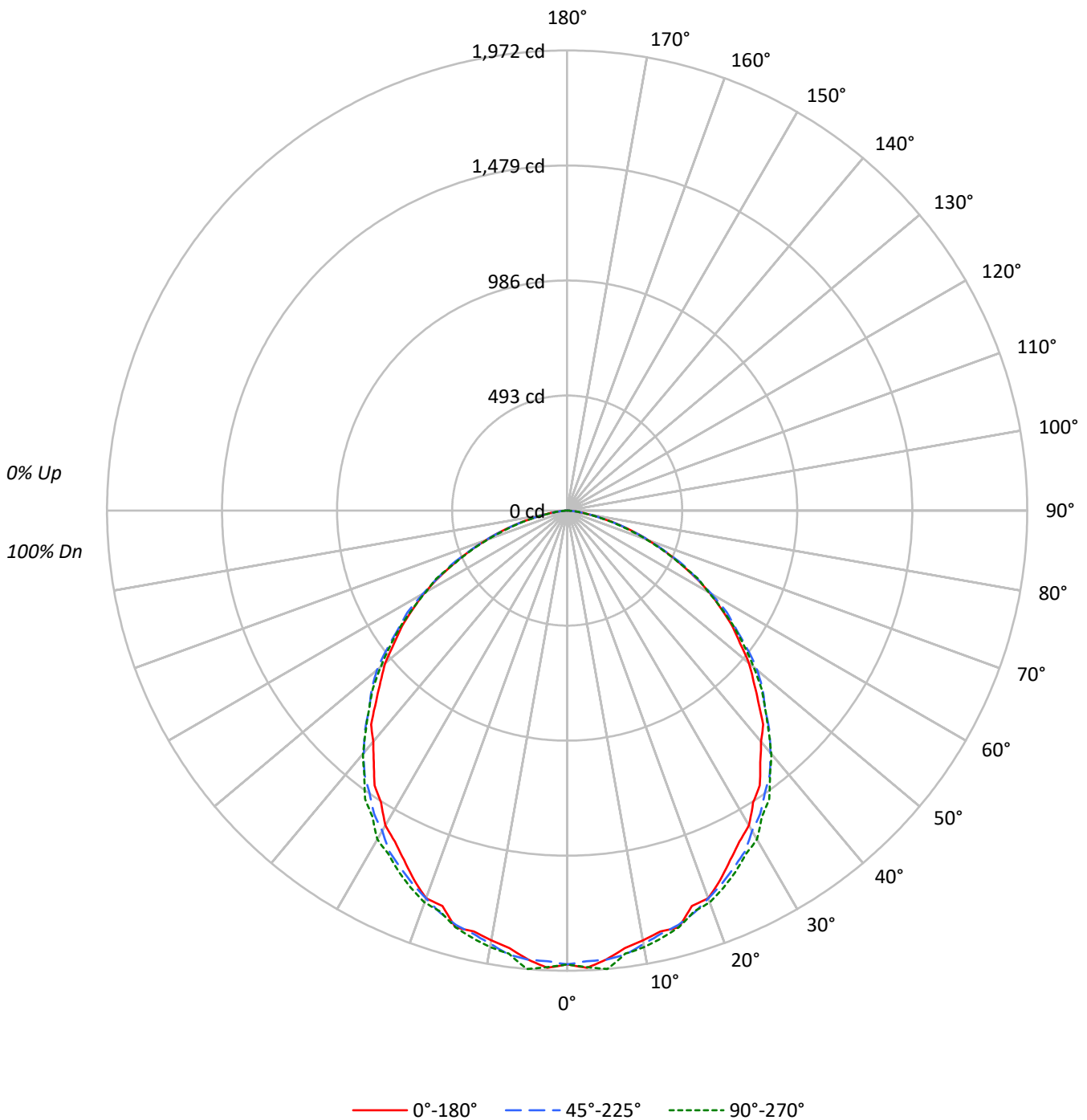
Lumens per Lamp: N/A
Luminaire Lumens: 4901.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	5233	5233	5233
5°	5216	5217	5327
10°	5110	5154	5191
15°	5150	5122	5151
20°	5063	5063	5117
25°	4907	5015	5070
30°	4840	4925	5056
35°	4726	4850	4959
40°	4542	4761	4782
45°	4405	4561	4568
50°	4260	4453	4367
55°	4059	4138	4109
60°	3796	3834	3765
65°	3384	3471	3361
70°	2904	2913	2832
75°	2300	2295	2206
80°	1540	1499	1440
85°	837	831	775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.9	3.7
10°-20°	518.4	10.6
20°-30°	776.7	15.8
30°-40°	920.5	18.8
40°-50°	922.2	18.8
50°-60°	782.8	16.0
60°-70°	527.8	10.8
70°-80°	231.9	4.7
80°-90°	37.7	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°	1478.0	30.2
0°-40°	2398.6	48.9
0°-60°	4103.6	83.7
0°-90°	4901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1945	1945	1945	1945	1945	
5°	1931	1926	1932	1926	1972	182
15°	1849	1827	1839	1848	1849	515
25°	1653	1662	1689	1711	1708	764
35°	1439	1443	1476	1510	1510	893
45°	1158	1179	1199	1230	1200	895
55°	865	859	882	876	876	770
65°	532	524	545	524	528	529
75°	221	217	221	205	212	237
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1944.6	1944.6	1944.6	1944.6	1944.6
2.5°	1961.4	1946.6	1932.8	1948.9	1958.7
5°	1930.8	1926.3	1931.5	1925.8	1972.2
7.5°	1891.1	1908.4	1918.5	1912.2	1915.0
10°	1870.0	1864.0	1886.3	1901.9	1899.7
12.5°	1847.4	1856.5	1857.7	1874.5	1876.0
15°	1848.7	1827.3	1838.6	1848.2	1848.9
17.5°	1776.9	1800.0	1807.8	1829.6	1802.5
20°	1768.1	1751.3	1768.1	1790.4	1786.9
22.5°	1714.1	1695.3	1731.4	1751.3	1750.0
25°	1652.8	1661.9	1689.0	1711.1	1707.6
27.5°	1599.1	1609.7	1648.3	1678.7	1659.1
30°	1557.7	1552.4	1585.1	1612.2	1627.2
32.5°	1483.6	1502.7	1540.9	1567.7	1553.4
35°	1438.7	1442.9	1476.3	1510.5	1509.5
37.5°	1360.1	1379.9	1426.9	1436.4	1427.6
40°	1293.0	1312.9	1355.3	1365.6	1361.3
42.5°	1243.6	1247.1	1283.5	1295.3	1276.5
45°	1157.5	1179.1	1198.6	1229.5	1200.4
47.5°	1084.2	1094.2	1136.4	1144.7	1129.3
50°	1017.6	1021.1	1063.6	1053.3	1043.2
52.5°	934.0	948.8	972.7	970.7	958.9
55°	865.2	859.4	882.0	876.0	875.8
57.5°	782.6	792.7	811.2	801.7	786.4
60°	705.3	705.5	712.3	701.5	699.5
62.5°	619.2	622.2	623.7	610.4	632.0
65°	531.5	524.5	545.1	524.2	527.8
67.5°	450.9	454.4	452.4	439.4	444.4
70°	369.1	373.6	370.3	355.5	360.0
72.5°	294.3	288.7	292.3	273.7	282.2
75°	221.2	216.7	220.7	205.1	212.2
77.5°	150.6	154.2	151.7	143.4	148.1
80°	99.4	96.7	96.7	91.9	92.9
82.5°	58.0	55.2	54.5	53.0	55.2
85°	27.1	26.4	26.9	26.1	25.1
87.5°	9.8	10.0	10.0	9.5	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)