

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: P589005

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589005
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-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

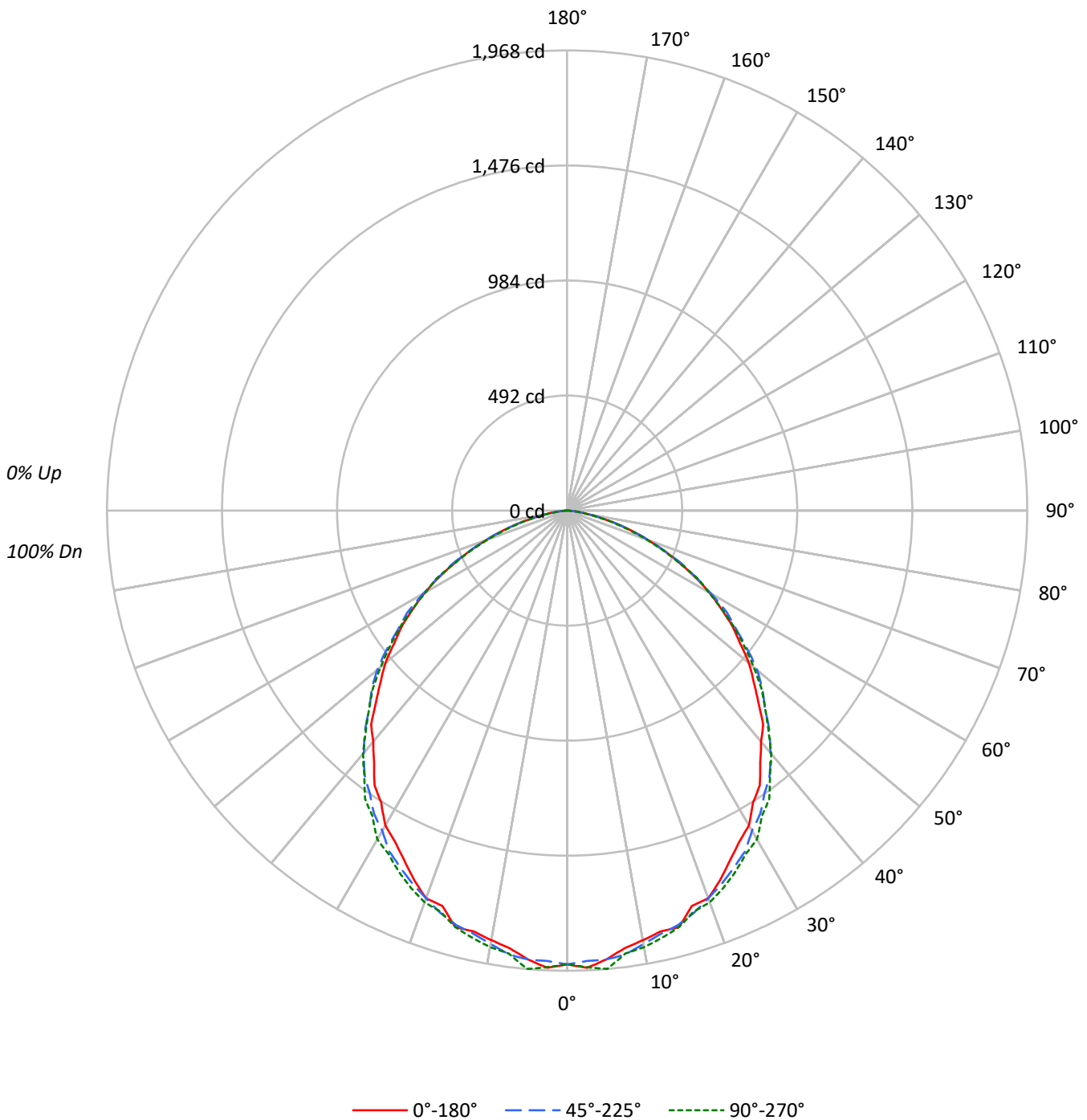
Lumens per Lamp: N/A
Luminaire Lumens: 4890.0 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P589005

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-93-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589005

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-93-84-EDD

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°	5221	5221	5221
5°	5204	5206	5316
10°	5098	5143	5179
15°	5139	5111	5139
20°	5052	5052	5106
25°	4896	5004	5059
30°	4829	4914	5045
35°	4715	4839	4948
40°	4532	4750	4771
45°	4395	4552	4558
50°	4250	4443	4358
55°	4050	4129	4100
60°	3787	3825	3756
65°	3377	3463	3353
70°	2898	2907	2826
75°	2295	2289	2201
80°	1537	1494	1437
85°	837	827	775



TEST NUMBER: P589005

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-93-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.5	3.7
10°-20°	517.2	10.6
20°-30°	774.9	15.8
30°-40°	918.5	18.8
40°-50°	920.2	18.8
50°-60°	781.1	16.0
60°-70°	526.6	10.8
70°-80°	231.4	4.7
80°-90°	37.6	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°	1474.7	30.2
0°-40°	2393.2	48.9
0°-60°	4094.4	83.7
0°-90°	4890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1940	1940	1940	1940	1940	
5°	1926	1922	1927	1921	1968	182
15°	1844	1823	1834	1844	1845	514
25°	1649	1658	1685	1707	1704	762
35°	1435	1440	1473	1507	1506	891
45°	1155	1176	1196	1227	1198	893
55°	863	858	880	874	874	768
65°	530	523	544	523	527	527
75°	221	216	220	205	212	237
85°	27	26	27	26	25	39
90°	0	0	0	0	0	



TEST NUMBER: P589005

CATALOG NUMBER: FMR-24-2-LD4-2HI-35-UNV-93-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1940.2	1940.2	1940.2	1940.2	1940.2
2.5°	1957.0	1942.2	1928.5	1944.5	1954.3
5°	1926.5	1921.9	1927.2	1921.4	1967.8
7.5°	1886.9	1904.2	1914.2	1907.9	1910.7
10°	1865.8	1859.8	1882.1	1897.6	1895.4
12.5°	1843.3	1852.3	1853.6	1870.3	1871.8
15°	1844.5	1823.2	1834.5	1844.0	1844.8
17.5°	1772.9	1795.9	1803.7	1825.5	1798.4
20°	1764.1	1747.3	1764.1	1786.4	1782.9
22.5°	1710.3	1691.5	1727.5	1747.3	1746.1
25°	1649.1	1658.2	1685.2	1707.3	1703.7
27.5°	1595.5	1606.0	1644.6	1674.9	1655.4
30°	1554.2	1548.9	1581.5	1608.5	1623.6
32.5°	1480.3	1499.3	1537.4	1564.2	1549.9
35°	1435.4	1439.7	1473.0	1507.1	1506.1
37.5°	1357.0	1376.8	1423.7	1433.2	1424.4
40°	1290.1	1309.9	1352.3	1362.5	1358.3
42.5°	1240.8	1244.3	1280.6	1292.4	1273.6
45°	1154.9	1176.4	1196.0	1226.8	1197.7
47.5°	1081.7	1091.7	1133.8	1142.1	1126.8
50°	1015.3	1018.8	1061.2	1050.9	1040.9
52.5°	931.9	946.7	970.5	968.5	956.7
55°	863.3	857.5	880.1	874.0	873.8
57.5°	780.9	790.9	809.4	799.9	784.6
60°	703.7	703.9	710.7	699.9	697.9
62.5°	617.8	620.8	622.3	609.0	630.5
65°	530.3	523.3	543.9	523.1	526.6
67.5°	449.9	453.4	451.4	438.4	443.4
70°	368.3	372.8	369.5	354.7	359.2
72.5°	293.6	288.1	291.6	273.1	281.6
75°	220.7	216.2	220.2	204.7	211.7
77.5°	150.3	153.8	151.3	143.0	147.8
80°	99.2	96.4	96.4	91.7	92.7
82.5°	57.9	55.1	54.4	52.9	55.1
85°	27.1	26.3	26.8	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)