

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: P588810

Luminaire Tested: **FMR-24-2-LD4-1LO-35-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588810
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-LD4-1LO-35-UNV-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

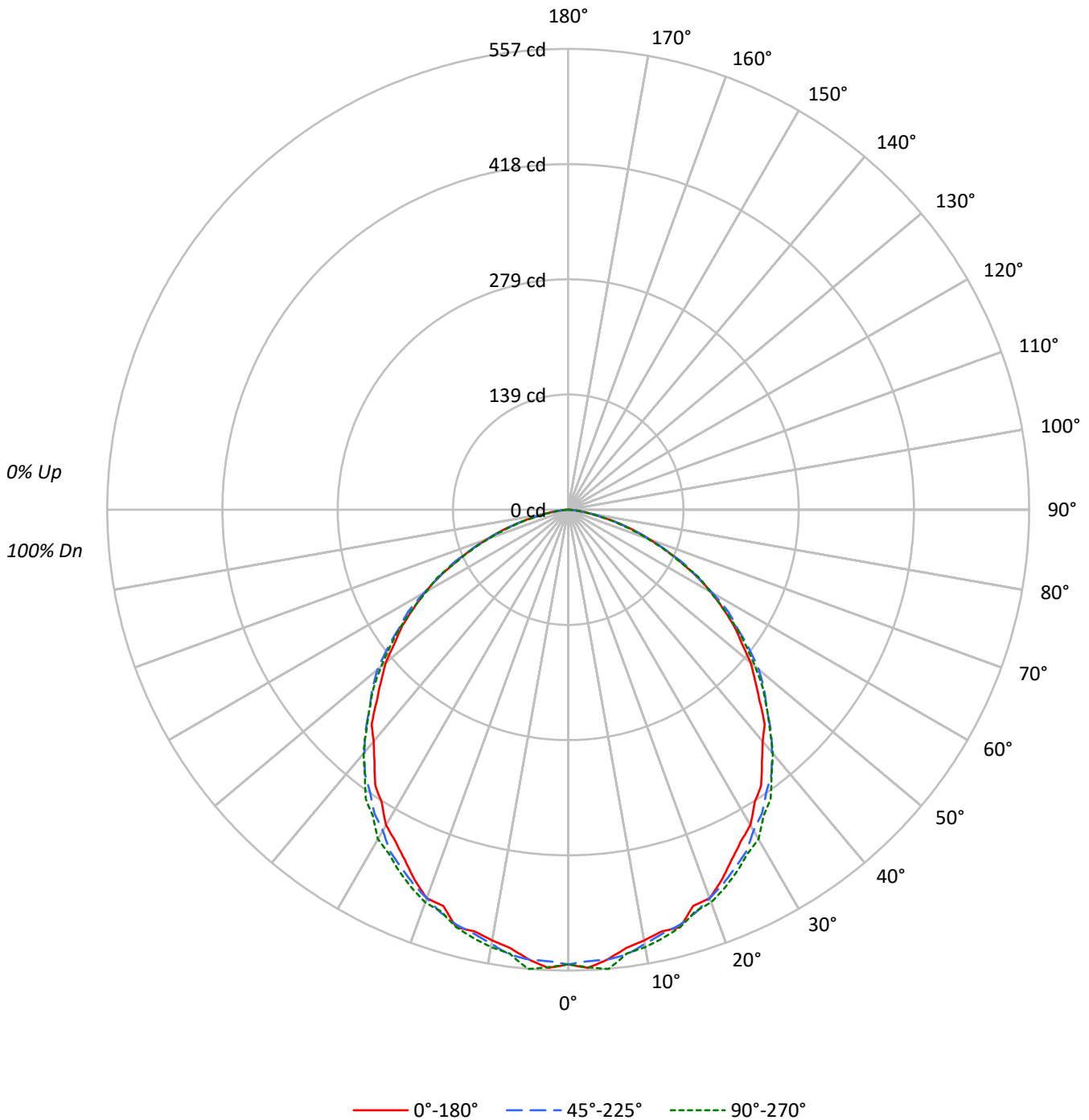
Lumens per Lamp: N/A
Luminaire Lumens: 1385.0 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P588810

CATALOG NUMBER: FMR-24-2-LD4-1LO-35-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588810

CATALOG NUMBER: FMR-24-2-LD4-1LO-35-UNV-82-94-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									70									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	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						100													
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86						86													
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73						73													
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62						62													
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53						53													
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46						46													
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41						41													
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36						36													
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32						32													
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29						29													
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26						26													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1479	1479	1479
5°	1474	1474	1505
10°	1444	1457	1467
15°	1455	1448	1456
20°	1431	1431	1446
25°	1387	1417	1433
30°	1368	1392	1429
35°	1336	1371	1401
40°	1284	1345	1351
45°	1245	1289	1291
50°	1204	1258	1234
55°	1147	1170	1161
60°	1073	1083	1064
65°	956	981	949
70°	821	824	800
75°	650	649	624
80°	435	423	408
85°	238	235	219



TEST NUMBER: P588810

CATALOG NUMBER: FMR-24-2-LD4-1LO-35-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	3.7
10°-20°	146.5	10.6
20°-30°	219.5	15.8
30°-40°	260.1	18.8
40°-50°	260.6	18.8
50°-60°	221.2	16.0
60°-70°	149.1	10.8
70°-80°	65.6	4.7
80°-90°	10.7	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°	417.7	30.2
0°-40°	677.8	48.9
0°-60°	1159.7	83.7
0°-90°	1385.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1385.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	546	544	546	544	557	51
15°	522	516	520	522	522	146
25°	467	470	477	484	483	216
35°	407	408	417	427	427	252
45°	327	333	339	348	339	253
55°	244	243	249	248	248	217
65°	150	148	154	148	149	149
75°	62	61	62	58	60	67
85°	8	8	8	7	7	11
90°	0	0	0	0	0	



TEST NUMBER: P588810

CATALOG NUMBER: FMR-24-2-LD4-1LO-35-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.5	549.5	549.5	549.5	549.5
2.5°	554.3	550.1	546.2	550.7	553.5
5°	545.6	544.4	545.8	544.2	557.3
7.5°	534.4	539.3	542.2	540.4	541.2
10°	528.5	526.8	533.1	537.5	536.8
12.5°	522.1	524.6	525.0	529.7	530.2
15°	522.4	516.4	519.6	522.3	522.5
17.5°	502.1	508.7	510.9	517.0	509.4
20°	499.7	494.9	499.7	506.0	505.0
22.5°	484.4	479.1	489.3	494.9	494.5
25°	467.1	469.6	477.3	483.5	482.6
27.5°	451.9	454.9	465.8	474.4	468.9
30°	440.2	438.7	447.9	455.6	459.8
32.5°	419.3	424.7	435.4	443.0	439.0
35°	406.6	407.8	417.2	426.9	426.6
37.5°	384.4	390.0	403.2	405.9	403.4
40°	365.4	371.0	383.0	385.9	384.7
42.5°	351.4	352.4	362.7	366.0	360.7
45°	327.1	333.2	338.7	347.5	339.2
47.5°	306.4	309.2	321.1	323.5	319.1
50°	287.6	288.6	300.6	297.6	294.8
52.5°	263.9	268.1	274.9	274.3	271.0
55°	244.5	242.9	249.3	247.6	247.5
57.5°	221.2	224.0	229.2	226.6	222.2
60°	199.3	199.4	201.3	198.2	197.7
62.5°	175.0	175.8	176.2	172.5	178.6
65°	150.2	148.2	154.0	148.2	149.1
67.5°	127.4	128.4	127.9	124.2	125.6
70°	104.3	105.6	104.7	100.5	101.7
72.5°	83.2	81.6	82.6	77.3	79.8
75°	62.5	61.2	62.4	58.0	60.0
77.5°	42.6	43.6	42.9	40.5	41.9
80°	28.1	27.3	27.3	26.0	26.3
82.5°	16.4	15.6	15.4	15.0	15.6
85°	7.7	7.5	7.6	7.4	7.1
87.5°	2.8	2.8	2.8	2.7	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)