

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: P588780

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-82-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588780
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-LD4-1HI-50-UNV-82-97-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

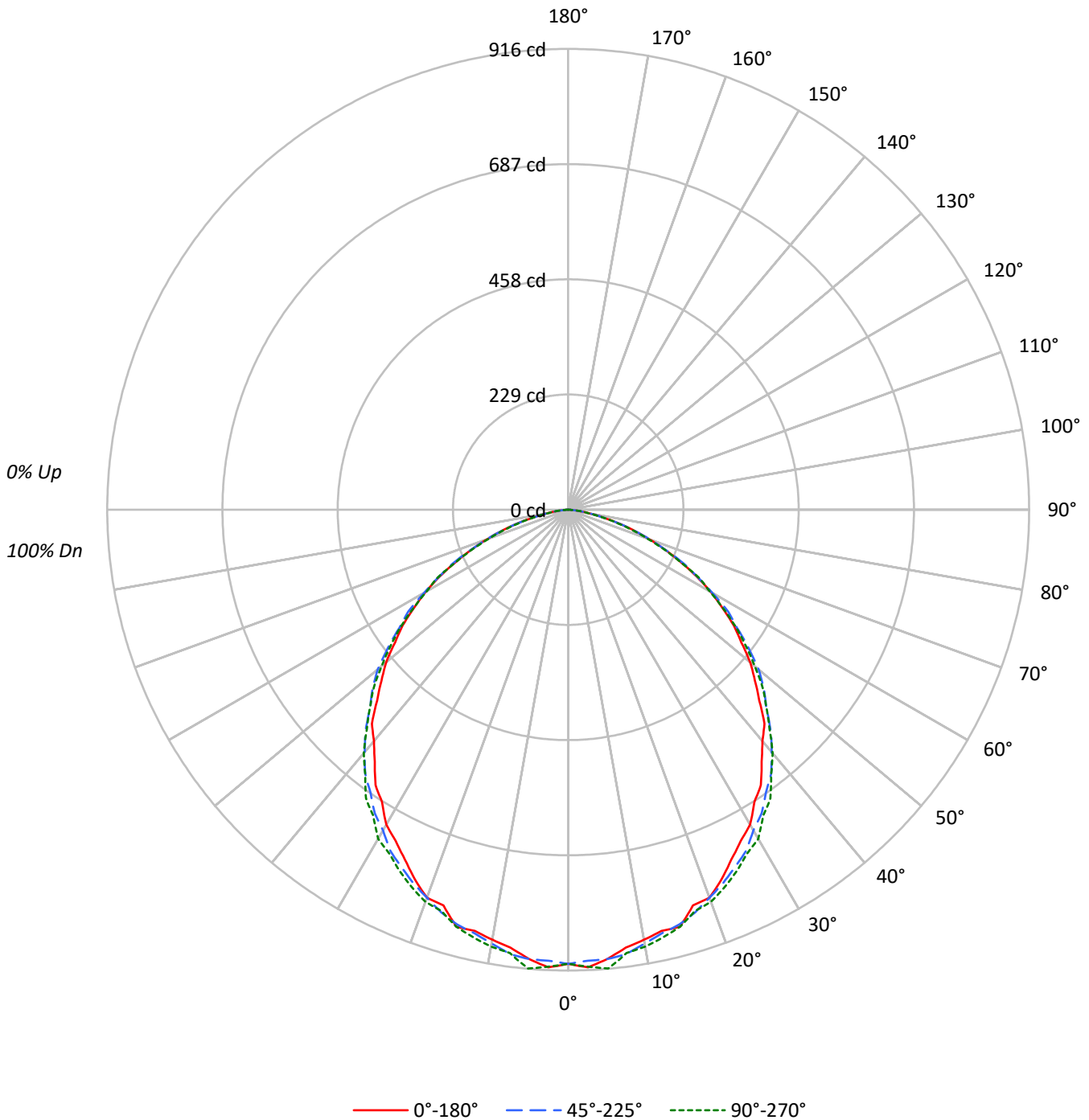
Lumens per Lamp: N/A
Luminaire Lumens: 2275.0 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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: P588780

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-82-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588780

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-82-97-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°	2429	2429	2429
5°	2421	2422	2473
10°	2372	2393	2410
15°	2391	2378	2391
20°	2350	2350	2375
25°	2278	2328	2353
30°	2247	2286	2347
35°	2194	2251	2302
40°	2108	2210	2220
45°	2045	2117	2120
50°	1978	2067	2027
55°	1884	1921	1907
60°	1762	1779	1748
65°	1571	1611	1560
70°	1348	1352	1315
75°	1068	1065	1024
80°	716	696	668
85°	389	386	361



TEST NUMBER: P588780

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-82-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.9	3.7
10°-20°	240.6	10.6
20°-30°	360.5	15.8
30°-40°	427.3	18.8
40°-50°	428.1	18.8
50°-60°	363.4	16.0
60°-70°	245.0	10.8
70°-80°	107.6	4.7
80°-90°	17.5	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°	686.1	30.2
0°-40°	1113.4	48.9
0°-60°	1904.8	83.7
0°-90°	2275.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2275.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	896	894	897	894	916	84
15°	858	848	854	858	858	239
25°	767	771	784	794	793	355
35°	668	670	685	701	701	415
45°	537	547	556	571	557	416
55°	402	399	409	407	406	357
65°	247	244	253	243	245	245
75°	103	101	102	95	98	110
85°	13	12	12	12	12	18
90°	0	0	0	0	0	



TEST NUMBER: P588780

CATALOG NUMBER: FMR-24-2-LD4-1HI-50-UNV-82-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.7	902.7	902.7	902.7	902.7
2.5°	910.5	903.6	897.2	904.6	909.2
5°	896.3	894.2	896.6	893.9	915.5
7.5°	877.8	885.9	890.5	887.6	888.9
10°	868.0	865.3	875.6	882.8	881.8
12.5°	857.6	861.8	862.3	870.1	870.8
15°	858.1	848.2	853.5	857.9	858.3
17.5°	824.8	835.5	839.1	849.3	836.7
20°	820.7	812.9	820.7	831.1	829.5
22.5°	795.7	786.9	803.7	812.9	812.3
25°	767.2	771.4	784.0	794.3	792.6
27.5°	742.3	747.2	765.1	779.2	770.1
30°	723.1	720.6	735.8	748.4	755.3
32.5°	688.7	697.5	715.3	727.7	721.1
35°	667.8	669.8	685.3	701.2	700.7
37.5°	631.3	640.5	662.3	666.8	662.7
40°	600.2	609.4	629.1	633.9	631.9
42.5°	577.3	578.9	595.8	601.3	592.5
45°	537.3	547.3	556.4	570.7	557.2
47.5°	503.3	507.9	527.5	531.3	524.2
50°	472.4	474.0	493.7	488.9	484.3
52.5°	433.6	440.4	451.5	450.6	445.1
55°	401.6	398.9	409.4	406.6	406.5
57.5°	363.3	367.9	376.6	372.1	365.0
60°	327.4	327.5	330.6	325.6	324.7
62.5°	287.4	288.8	289.5	283.3	293.4
65°	246.7	243.5	253.0	243.4	245.0
67.5°	209.3	211.0	210.0	204.0	206.3
70°	171.3	173.4	171.9	165.0	167.1
72.5°	136.6	134.0	135.7	127.0	131.0
75°	102.7	100.6	102.4	95.2	98.5
77.5°	69.9	71.6	70.4	66.5	68.8
80°	46.2	44.9	44.9	42.7	43.1
82.5°	26.9	25.6	25.3	24.6	25.6
85°	12.6	12.2	12.5	12.1	11.7
87.5°	4.5	4.7	4.7	4.4	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)