

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: P588959

Luminaire Tested: **FMR-24-2-LD4-1STD-50-UNV-81-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588959
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-LD4-1STD-50-UNV-81-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

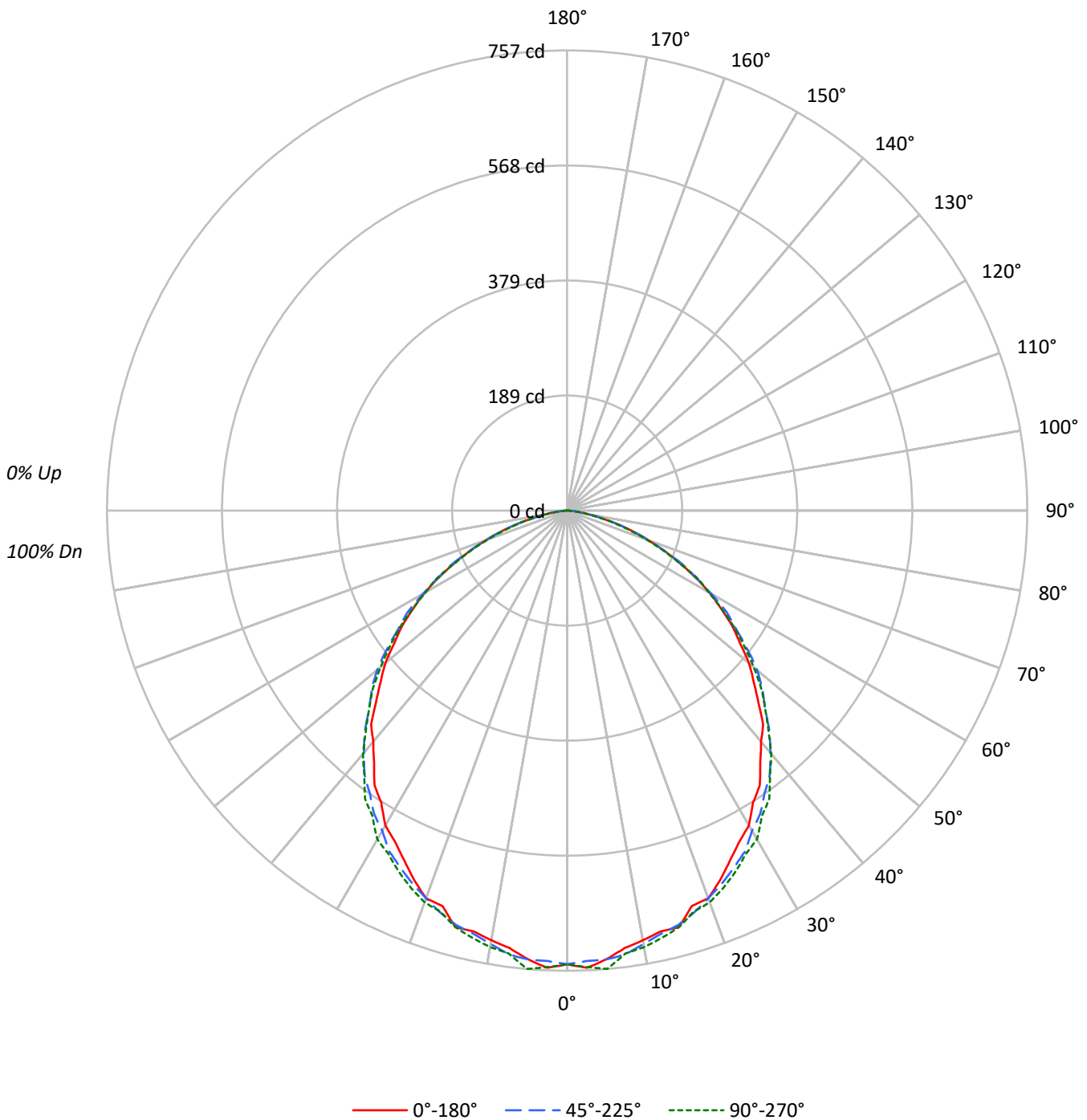
Lumens per Lamp: N/A
Luminaire Lumens: 1881.0 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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: P588959

CATALOG NUMBER: FMR-24-2-LD4-1STD-50-UNV-81-86-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588959

CATALOG NUMBER: FMR-24-2-LD4-1STD-50-UNV-81-86-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	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°	2008	2008	2008
5°	2002	2002	2045
10°	1961	1978	1992
15°	1977	1966	1977
20°	1943	1943	1964
25°	1884	1925	1946
30°	1858	1890	1940
35°	1814	1861	1903
40°	1743	1827	1835
45°	1690	1751	1753
50°	1635	1709	1676
55°	1558	1588	1577
60°	1457	1471	1445
65°	1299	1332	1290
70°	1115	1118	1087
75°	883	881	846
80°	592	575	553
85°	321	318	296



TEST NUMBER: P588959

CATALOG NUMBER: FMR-24-2-LD4-1STD-50-UNV-81-86-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	3.7
10°-20°	199.0	10.6
20°-30°	298.1	15.8
30°-40°	353.3	18.8
40°-50°	353.9	18.8
50°-60°	300.4	16.0
60°-70°	202.6	10.8
70°-80°	89.0	4.7
80°-90°	14.5	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°	567.3	30.2
0°-40°	920.6	48.9
0°-60°	1574.9	83.7
0°-90°	1881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	746	746	746	746	746	
5°	741	739	741	739	757	70
15°	710	701	706	709	710	198
25°	634	638	648	657	655	293
35°	552	554	567	580	579	343
45°	444	452	460	472	461	344
55°	332	330	338	336	336	295
65°	204	201	209	201	203	203
75°	85	83	85	79	81	91
85°	10	10	10	10	10	15
90°	0	0	0	0	0	



TEST NUMBER: P588959

CATALOG NUMBER: FMR-24-2-LD4-1STD-50-UNV-81-86-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	746.3	746.3	746.3	746.3	746.3
2.5°	752.8	747.1	741.8	748.0	751.7
5°	741.0	739.3	741.3	739.1	756.9
7.5°	725.8	732.5	736.3	733.9	735.0
10°	717.7	715.4	724.0	730.0	729.1
12.5°	709.0	712.5	713.0	719.4	720.0
15°	709.5	701.3	705.7	709.3	709.6
17.5°	682.0	690.8	693.8	702.2	691.8
20°	678.6	672.1	678.6	687.2	685.8
22.5°	657.9	650.6	664.5	672.1	671.7
25°	634.4	637.8	648.2	656.7	655.4
27.5°	613.7	617.8	632.6	644.3	636.8
30°	597.8	595.8	608.3	618.7	624.5
32.5°	569.4	576.7	591.4	601.7	596.2
35°	552.2	553.8	566.6	579.7	579.3
37.5°	522.0	529.6	547.6	551.3	547.9
40°	496.3	503.9	520.2	524.1	522.5
42.5°	477.3	478.6	492.6	497.1	489.9
45°	444.2	452.5	460.0	471.9	460.7
47.5°	416.1	420.0	436.1	439.3	433.4
50°	390.6	391.9	408.2	404.2	400.4
52.5°	358.5	364.2	373.3	372.5	368.0
55°	332.1	329.9	338.5	336.2	336.1
57.5°	300.4	304.2	311.3	307.7	301.8
60°	270.7	270.8	273.4	269.2	268.5
62.5°	237.6	238.8	239.4	234.3	242.5
65°	204.0	201.3	209.2	201.2	202.6
67.5°	173.1	174.4	173.6	168.6	170.6
70°	141.7	143.4	142.1	136.5	138.2
72.5°	112.9	110.8	112.2	105.0	108.3
75°	84.9	83.2	84.7	78.7	81.4
77.5°	57.8	59.2	58.2	55.0	56.9
80°	38.2	37.1	37.1	35.3	35.7
82.5°	22.3	21.2	20.9	20.3	21.2
85°	10.4	10.1	10.3	10.0	9.6
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)