

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: P588712

Luminaire Tested: **FMR-24-2-LD4-1HI-35-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588712
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-35-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

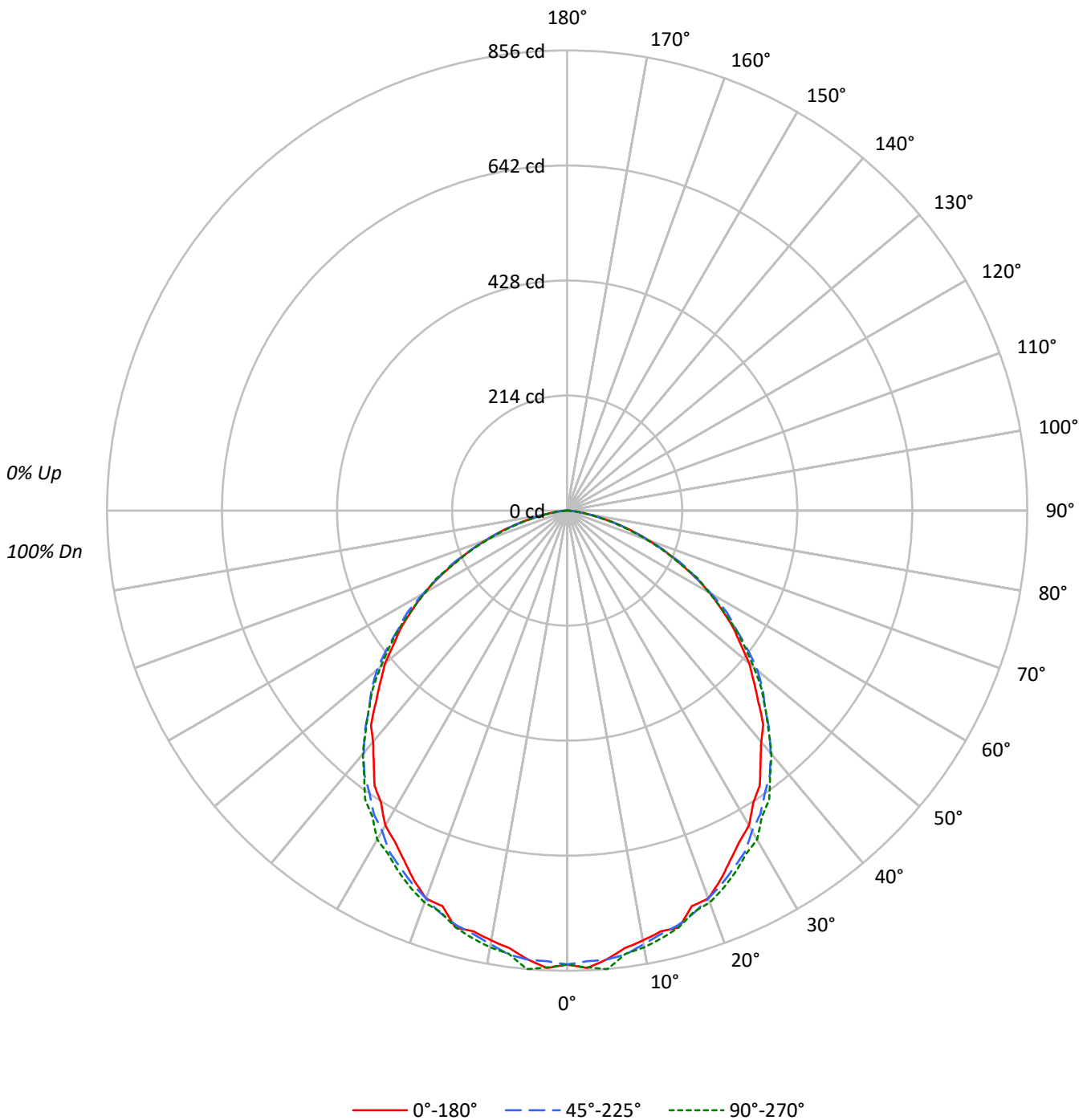
Lumens per Lamp: N/A
Luminaire Lumens: 2128.0 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P588712

CATALOG NUMBER: FMR-24-2-LD4-1HI-35-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P588712

CATALOG NUMBER: FMR-24-2-LD4-1HI-35-UNV-82-87-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°	2272	2272	2272
5°	2264	2266	2313
10°	2219	2238	2254
15°	2236	2224	2237
20°	2198	2198	2222
25°	2131	2178	2201
30°	2101	2138	2195
35°	2052	2106	2153
40°	1972	2067	2076
45°	1913	1980	1983
50°	1850	1933	1896
55°	1763	1797	1784
60°	1648	1665	1635
65°	1470	1507	1459
70°	1261	1265	1230
75°	998	996	958
80°	669	651	625
85°	364	361	337



TEST NUMBER: P588712

CATALOG NUMBER: FMR-24-2-LD4-1HI-35-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	3.7
10°-20°	225.1	10.6
20°-30°	337.2	15.8
30°-40°	399.7	18.8
40°-50°	400.4	18.8
50°-60°	339.9	16.0
60°-70°	229.2	10.8
70°-80°	100.7	4.7
80°-90°	16.4	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°	641.8	30.2
0°-40°	1041.4	48.9
0°-60°	1781.8	83.7
0°-90°	2128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2128.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	838	836	839	836	856	79
15°	803	793	798	802	803	224
25°	718	722	733	743	741	332
35°	625	626	641	656	655	388
45°	503	512	520	534	521	389
55°	376	373	383	380	380	334
65°	231	228	237	228	229	230
75°	96	94	96	89	92	103
85°	12	11	12	11	11	17
90°	0	0	0	0	0	



TEST NUMBER: P588712

CATALOG NUMBER: FMR-24-2-LD4-1HI-35-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.3	844.3	844.3	844.3	844.3
2.5°	851.6	845.2	839.2	846.2	850.4
5°	838.3	836.4	838.7	836.2	856.3
7.5°	821.1	828.6	833.0	830.3	831.5
10°	812.0	809.3	819.0	825.8	824.8
12.5°	802.1	806.1	806.6	813.9	814.6
15°	802.7	793.4	798.3	802.5	802.8
17.5°	771.5	781.5	784.9	794.4	782.6
20°	767.7	760.4	767.7	777.4	775.9
22.5°	744.3	736.1	751.8	760.4	759.8
25°	717.7	721.6	733.4	743.0	741.4
27.5°	694.3	698.9	715.7	728.9	720.4
30°	676.3	674.1	688.2	700.0	706.5
32.5°	644.2	652.5	669.0	680.7	674.5
35°	624.7	626.5	641.0	655.8	655.4
37.5°	590.5	599.2	619.5	623.7	619.9
40°	561.4	570.0	588.5	592.9	591.1
42.5°	540.0	541.5	557.3	562.4	554.2
45°	502.6	511.9	520.4	533.9	521.2
47.5°	470.7	475.1	493.4	497.0	490.4
50°	441.8	443.4	461.8	457.3	453.0
52.5°	405.5	412.0	422.3	421.5	416.3
55°	375.7	373.2	383.0	380.4	380.3
57.5°	339.8	344.2	352.2	348.1	341.4
60°	306.2	306.3	309.3	304.6	303.7
62.5°	268.8	270.1	270.8	265.0	274.4
65°	230.8	227.7	236.7	227.6	229.2
67.5°	195.8	197.3	196.4	190.8	193.0
70°	160.3	162.2	160.8	154.4	156.3
72.5°	127.8	125.4	126.9	118.8	122.5
75°	96.0	94.1	95.8	89.1	92.1
77.5°	65.4	66.9	65.8	62.2	64.3
80°	43.2	42.0	42.0	39.9	40.3
82.5°	25.2	24.0	23.7	23.0	24.0
85°	11.8	11.4	11.7	11.3	10.9
87.5°	4.3	4.4	4.4	4.1	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)