

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: P589078

Luminaire Tested: **FMR-24-2-LD4-2LO-35-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589078
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-LD4-2LO-35-UNV-80-85-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

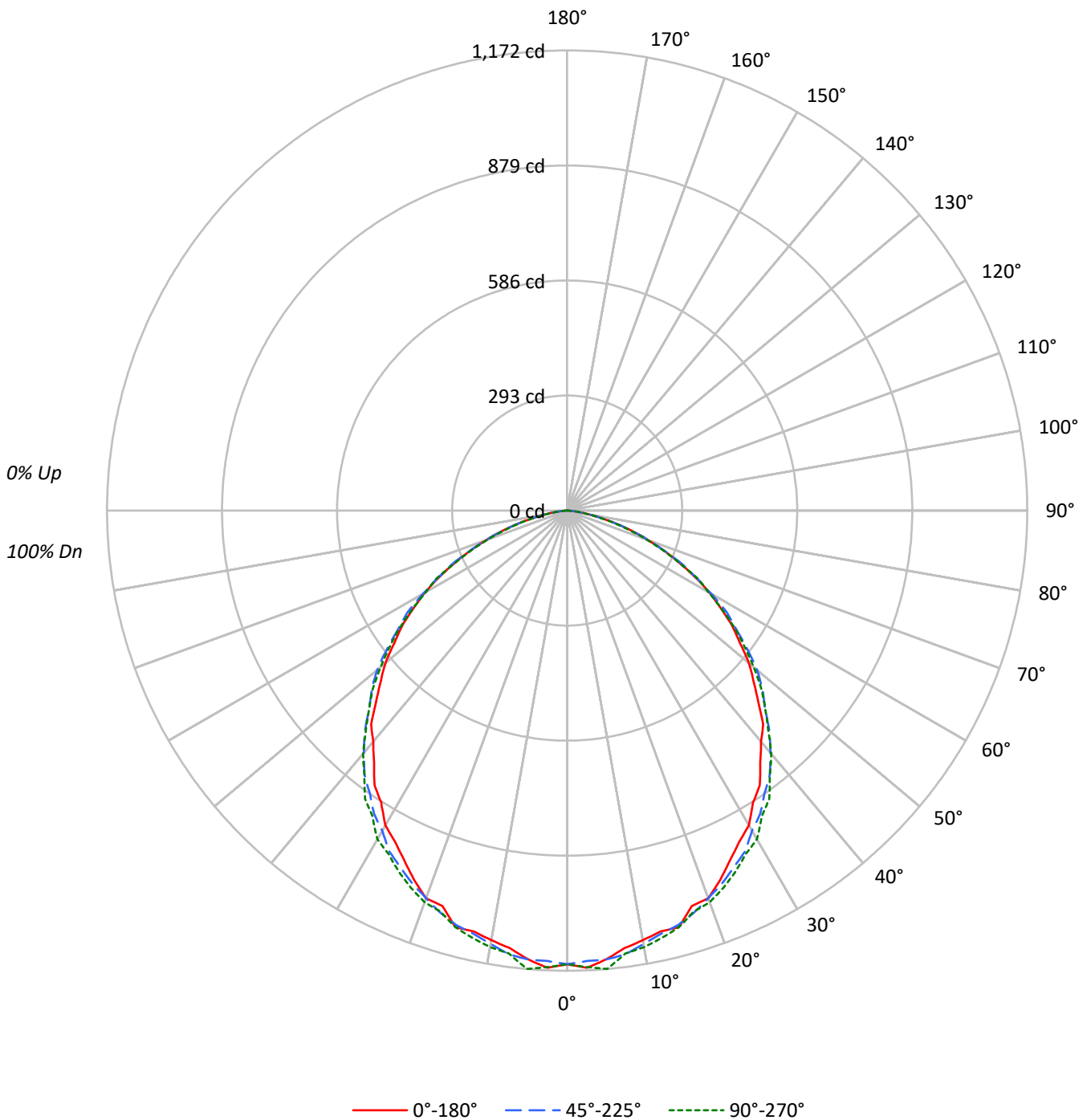
Lumens per Lamp: N/A
Luminaire Lumens: 2912.0 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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

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Luminous Intensity Polar Plot





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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°	3109	3109	3109
5°	3099	3100	3165
10°	3036	3063	3084
15°	3060	3044	3061
20°	3008	3008	3040
25°	2916	2980	3013
30°	2876	2926	3004
35°	2808	2882	2946
40°	2699	2829	2842
45°	2617	2710	2714
50°	2531	2645	2595
55°	2412	2459	2441
60°	2255	2278	2237
65°	2011	2062	1997
70°	1725	1731	1683
75°	1366	1363	1311
80°	916	890	855
85°	497	494	460



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	3.7
10°-20°	308.0	10.6
20°-30°	461.5	15.8
30°-40°	546.9	18.8
40°-50°	548.0	18.8
50°-60°	465.1	16.0
60°-70°	313.6	10.8
70°-80°	137.8	4.7
80°-90°	22.4	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°	878.2	30.2
0°-40°	1425.1	48.9
0°-60°	2438.2	83.7
0°-90°	2912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2912.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1147	1144	1148	1144	1172	108
15°	1098	1086	1092	1098	1099	306
25°	982	987	1004	1017	1015	454
35°	855	857	877	898	897	531
45°	688	701	712	730	713	532
55°	514	511	524	520	520	457
65°	316	312	324	312	314	314
75°	131	129	131	122	126	141
85°	16	16	16	16	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1155.4	1155.4	1155.4	1155.4	1155.4
2.5°	1165.4	1156.6	1148.4	1157.9	1163.8
5°	1147.2	1144.5	1147.7	1144.2	1171.8
7.5°	1123.6	1133.9	1139.9	1136.2	1137.8
10°	1111.1	1107.5	1120.8	1130.0	1128.7
12.5°	1097.7	1103.0	1103.8	1113.8	1114.7
15°	1098.4	1085.7	1092.5	1098.1	1098.6
17.5°	1055.8	1069.5	1074.1	1087.1	1071.0
20°	1050.5	1040.5	1050.5	1063.8	1061.7
22.5°	1018.5	1007.3	1028.8	1040.5	1039.8
25°	982.1	987.4	1003.5	1016.7	1014.6
27.5°	950.1	956.4	979.4	997.4	985.8
30°	925.5	922.4	941.8	957.9	966.8
32.5°	881.5	892.8	915.5	931.5	923.0
35°	854.8	857.3	877.2	897.5	896.9
37.5°	808.1	819.9	847.8	853.5	848.2
40°	768.3	780.1	805.3	811.4	808.9
42.5°	738.9	741.0	762.6	769.6	758.4
45°	687.7	700.6	712.2	730.5	713.2
47.5°	644.2	650.1	675.2	680.1	671.0
50°	604.6	606.7	631.9	625.8	619.8
52.5°	555.0	563.8	577.9	576.7	569.7
55°	514.1	510.6	524.1	520.5	520.3
57.5°	465.0	471.0	482.0	476.3	467.2
60°	419.0	419.2	423.2	416.8	415.6
62.5°	367.9	369.7	370.6	362.7	375.5
65°	315.8	311.6	323.9	311.5	313.6
67.5°	267.9	270.0	268.8	261.1	264.1
70°	219.3	222.0	220.0	211.2	213.9
72.5°	174.8	171.6	173.6	162.6	167.7
75°	131.4	128.7	131.1	121.9	126.1
77.5°	89.5	91.6	90.1	85.2	88.0
80°	59.1	57.4	57.4	54.6	55.2
82.5°	34.5	32.8	32.4	31.5	32.8
85°	16.1	15.7	16.0	15.5	14.9
87.5°	5.8	6.0	6.0	5.7	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)