

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: P589142

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-80-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589142
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

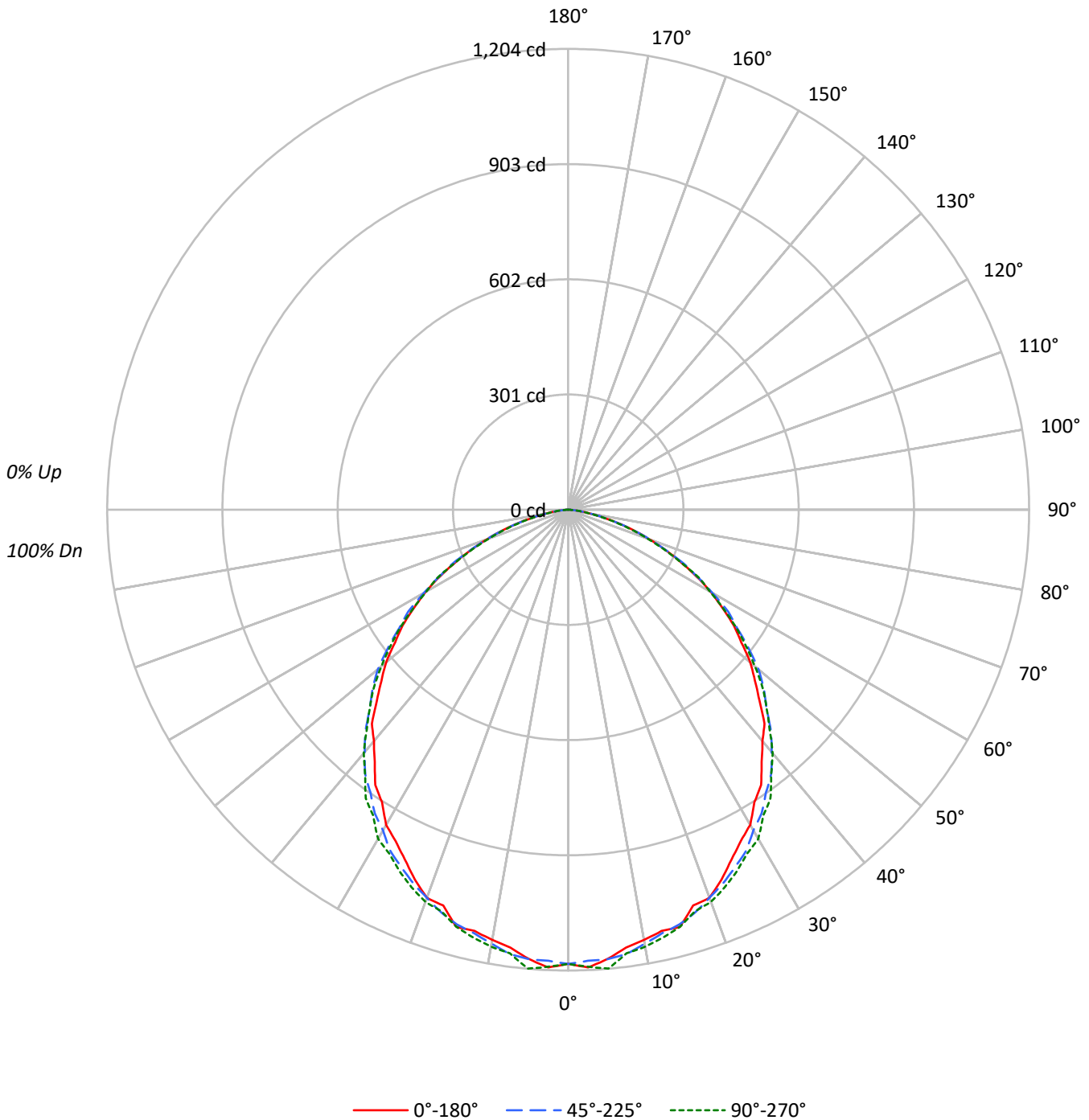
Lumens per Lamp: N/A
Luminaire Lumens: 2991.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	3194	3194	3194
5°	3183	3184	3251
10°	3118	3146	3168
15°	3143	3126	3144
20°	3090	3090	3123
25°	2995	3061	3094
30°	2954	3006	3086
35°	2884	2960	3026
40°	2772	2905	2918
45°	2688	2784	2788
50°	2600	2717	2665
55°	2477	2525	2508
60°	2316	2340	2298
65°	2066	2118	2051
70°	1772	1778	1729
75°	1404	1400	1346
80°	941	914	879
85°	509	506	472



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	3.7
10°-20°	316.4	10.6
20°-30°	474.0	15.8
30°-40°	561.8	18.8
40°-50°	562.8	18.8
50°-60°	477.7	16.0
60°-70°	322.1	10.8
70°-80°	141.5	4.7
80°-90°	23.0	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°	902.0	30.2
0°-40°	1463.8	48.9
0°-60°	2504.4	83.7
0°-90°	2991.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2991.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1178	1176	1179	1175	1204	111
15°	1128	1115	1122	1128	1128	314
25°	1009	1014	1031	1044	1042	466
35°	878	881	901	922	921	545
45°	706	720	732	750	733	546
55°	528	524	538	535	534	470
65°	324	320	333	320	322	323
75°	135	132	135	125	130	145
85°	16	16	16	16	15	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1186.8	1186.8	1186.8	1186.8	1186.8
2.5°	1197.0	1188.0	1179.6	1189.4	1195.3
5°	1178.3	1175.6	1178.8	1175.3	1203.6
7.5°	1154.1	1164.7	1170.8	1167.0	1168.7
10°	1141.2	1137.6	1151.2	1160.7	1159.3
12.5°	1127.5	1133.0	1133.7	1144.0	1144.9
15°	1128.2	1115.2	1122.1	1127.9	1128.4
17.5°	1084.4	1098.5	1103.2	1116.6	1100.0
20°	1079.0	1068.8	1079.0	1092.7	1090.5
22.5°	1046.1	1034.6	1056.7	1068.8	1068.0
25°	1008.7	1014.2	1030.8	1044.3	1042.1
27.5°	975.9	982.3	1005.9	1024.5	1012.5
30°	950.6	947.4	967.3	983.9	993.1
32.5°	905.4	917.1	940.4	956.8	948.0
35°	878.0	880.6	901.0	921.8	921.2
37.5°	830.0	842.1	870.8	876.6	871.3
40°	789.1	801.2	827.1	833.4	830.8
42.5°	758.9	761.1	783.3	790.5	779.0
45°	706.4	719.6	731.5	750.4	732.6
47.5°	661.6	667.8	693.5	698.6	689.2
50°	621.0	623.2	649.1	642.8	636.7
52.5°	570.0	579.0	593.6	592.4	585.2
55°	528.0	524.5	538.3	534.6	534.5
57.5°	477.6	483.7	495.1	489.3	479.9
60°	430.4	430.6	434.7	428.1	426.9
62.5°	377.9	379.7	380.6	372.5	385.7
65°	324.4	320.1	332.7	319.9	322.1
67.5°	275.2	277.3	276.1	268.1	271.2
70°	225.2	228.0	226.0	217.0	219.7
72.5°	179.6	176.2	178.4	167.0	172.2
75°	135.0	132.2	134.7	125.2	129.5
77.5°	91.9	94.1	92.5	87.5	90.4
80°	60.7	59.0	59.0	56.1	56.7
82.5°	35.4	33.7	33.3	32.3	33.7
85°	16.5	16.1	16.4	15.9	15.3
87.5°	6.0	6.1	6.1	5.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)