

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: P589138

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589138
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-40-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

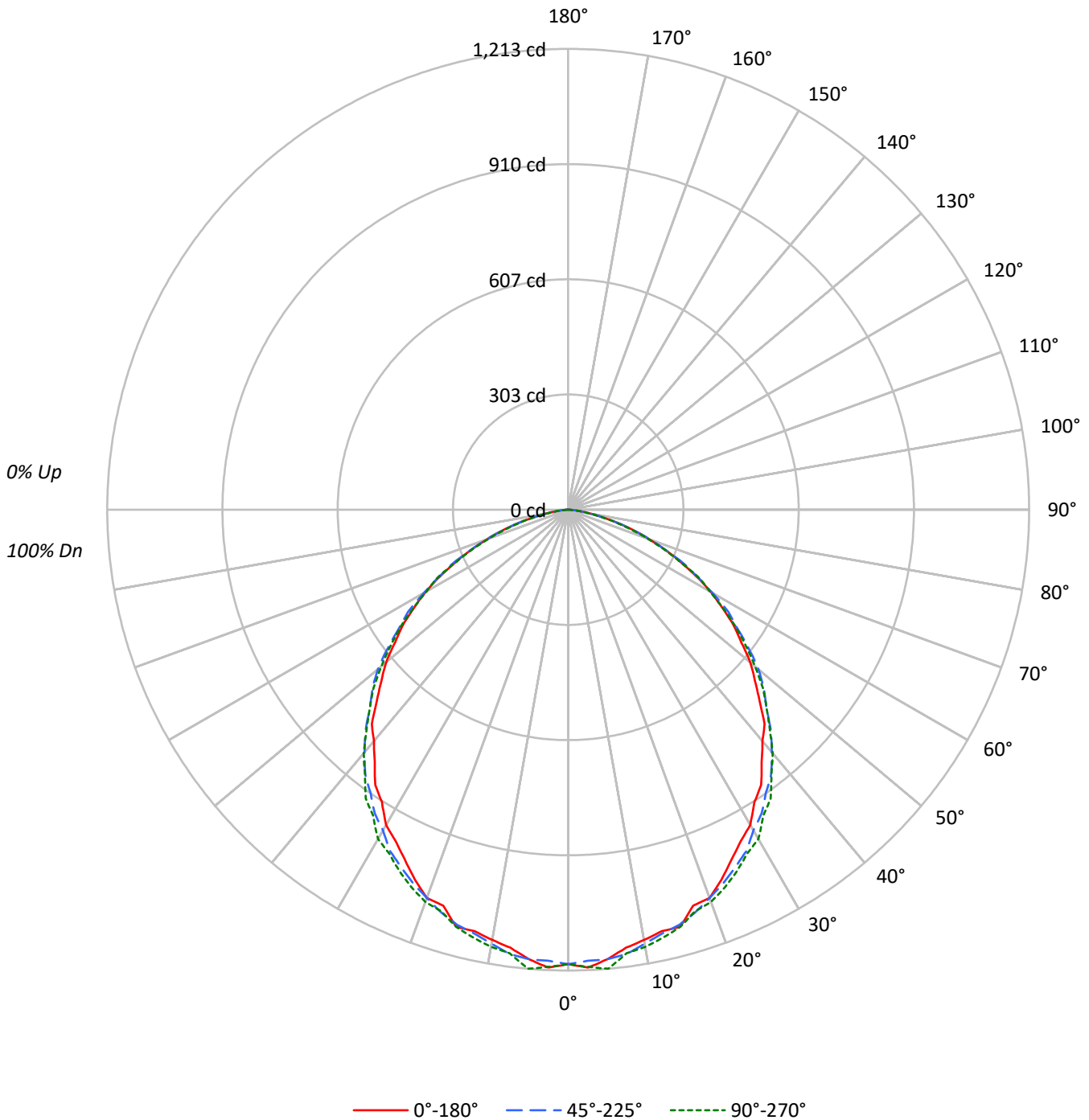
Lumens per Lamp: N/A
Luminaire Lumens: 3014.0 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	3218	3218	3218
5°	3207	3209	3276
10°	3142	3170	3192
15°	3167	3150	3168
20°	3114	3114	3147
25°	3018	3084	3118
30°	2976	3029	3109
35°	2906	2983	3050
40°	2793	2928	2941
45°	2709	2805	2809
50°	2620	2738	2686
55°	2496	2545	2527
60°	2334	2358	2315
65°	2082	2134	2067
70°	1786	1792	1742
75°	1414	1411	1357
80°	947	921	885
85°	516	509	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	3.7
10°-20°	318.8	10.6
20°-30°	477.6	15.8
30°-40°	566.1	18.8
40°-50°	567.1	18.8
50°-60°	481.4	16.0
60°-70°	324.6	10.8
70°-80°	142.6	4.7
80°-90°	23.2	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°	909.0	30.2
0°-40°	1475.1	48.9
0°-60°	2523.6	83.7
0°-90°	3014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3014.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1187	1185	1188	1184	1213	112
15°	1137	1124	1131	1137	1137	317
25°	1016	1022	1039	1052	1050	470
35°	885	887	908	929	928	549
45°	712	725	737	756	738	551
55°	532	528	542	539	539	473
65°	327	323	335	322	325	325
75°	136	133	136	126	130	146
85°	17	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°	1195.9	1195.9	1195.9	1195.9	1195.9
2.5°	1206.2	1197.1	1188.6	1198.5	1204.5
5°	1187.4	1184.6	1187.8	1184.3	1212.9
7.5°	1163.0	1173.6	1179.8	1176.0	1177.7
10°	1150.0	1146.3	1160.1	1169.6	1168.2
12.5°	1136.1	1141.7	1142.5	1152.8	1153.7
15°	1136.9	1123.8	1130.7	1136.6	1137.1
17.5°	1092.7	1106.9	1111.7	1125.2	1108.5
20°	1087.3	1077.0	1087.3	1101.1	1098.9
22.5°	1054.1	1042.6	1064.8	1077.0	1076.2
25°	1016.5	1022.0	1038.7	1052.3	1050.1
27.5°	983.4	989.9	1013.7	1032.4	1020.3
30°	957.9	954.7	974.8	991.4	1000.7
32.5°	912.4	924.1	947.6	964.1	955.3
35°	884.7	887.4	907.9	928.9	928.3
37.5°	836.4	848.6	877.5	883.4	878.0
40°	795.2	807.4	833.5	839.8	837.2
42.5°	764.8	766.9	789.3	796.6	785.0
45°	711.8	725.1	737.1	756.1	738.2
47.5°	666.7	672.9	698.8	703.9	694.5
50°	625.8	628.0	654.1	647.7	641.6
52.5°	574.4	583.5	598.2	596.9	589.7
55°	532.1	528.5	542.4	538.7	538.6
57.5°	481.3	487.5	498.9	493.0	483.6
60°	433.7	433.9	438.1	431.4	430.2
62.5°	380.8	382.6	383.5	375.4	388.6
65°	326.9	322.6	335.2	322.4	324.6
67.5°	277.3	279.5	278.2	270.2	273.3
70°	227.0	229.8	227.7	218.6	221.4
72.5°	181.0	177.6	179.7	168.3	173.6
75°	136.0	133.3	135.7	126.2	130.5
77.5°	92.6	94.8	93.3	88.2	91.1
80°	61.1	59.4	59.4	56.5	57.1
82.5°	35.7	34.0	33.5	32.6	34.0
85°	16.7	16.2	16.5	16.1	15.4
87.5°	6.0	6.2	6.2	5.9	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)