

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: P589166

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-93-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589166
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-93-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

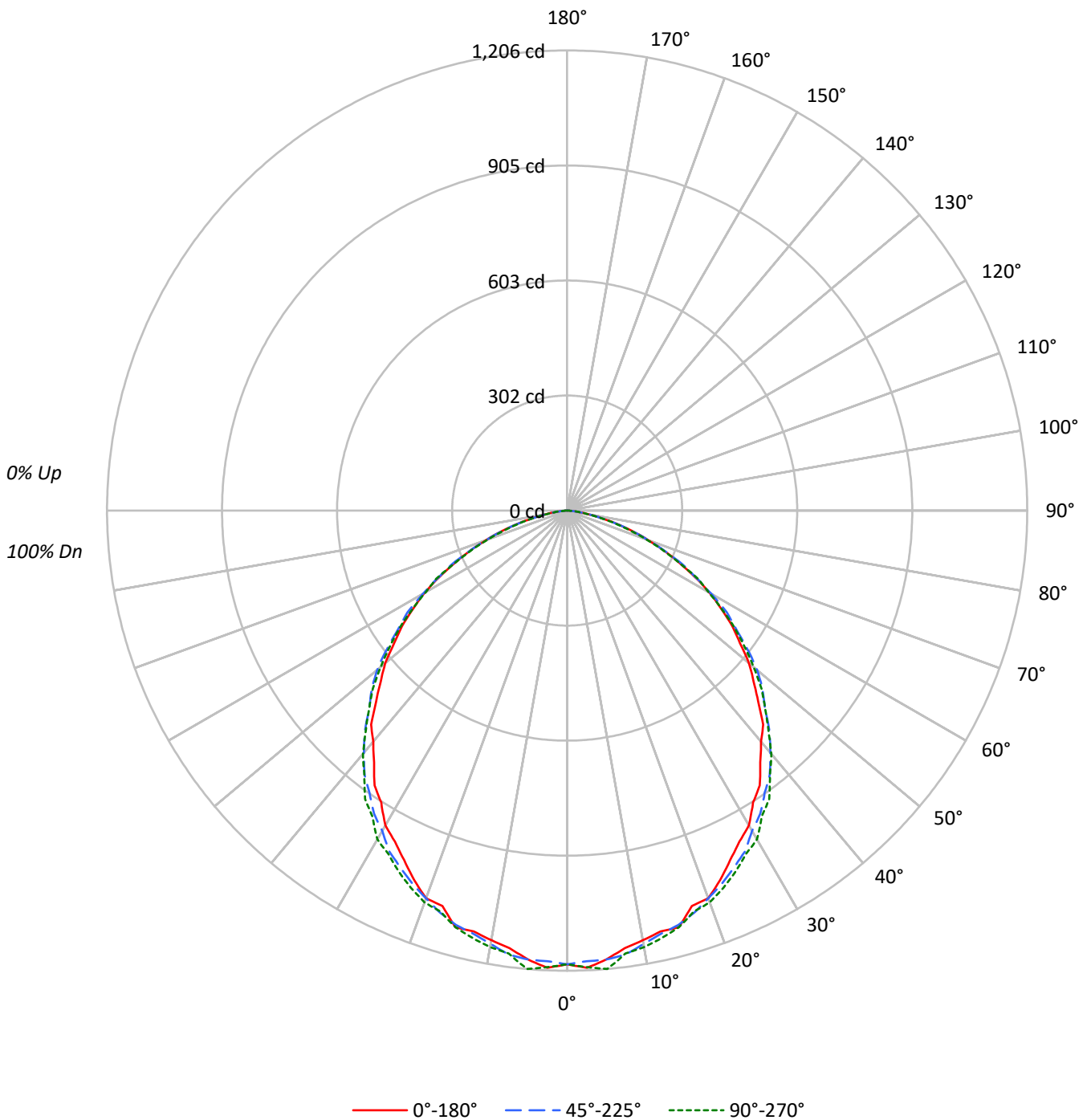
Lumens per Lamp: N/A
Luminaire Lumens: 2997.0 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3200	3200	3200
5°	3189	3191	3258
10°	3125	3152	3174
15°	3149	3132	3150
20°	3096	3096	3129
25°	3001	3067	3100
30°	2960	3012	3092
35°	2890	2966	3032
40°	2778	2911	2924
45°	2694	2790	2794
50°	2605	2723	2671
55°	2482	2531	2512
60°	2321	2344	2302
65°	2069	2122	2055
70°	1776	1782	1733
75°	1407	1404	1349
80°	942	916	880
85°	513	506	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	3.7
10°-20°	317.0	10.6
20°-30°	475.0	15.8
30°-40°	562.9	18.8
40°-50°	564.0	18.8
50°-60°	478.7	16.0
60°-70°	322.7	10.8
70°-80°	141.8	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°	903.8	30.2
0°-40°	1466.7	48.9
0°-60°	2509.4	83.7
0°-90°	2997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1181	1178	1181	1178	1206	111
15°	1130	1117	1124	1130	1131	315
25°	1011	1016	1033	1046	1044	467
35°	880	882	903	924	923	546
45°	708	721	733	752	734	548
55°	529	526	539	536	536	471
65°	325	321	333	321	323	323
75°	135	132	135	125	130	145
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°	1189.1	1189.1	1189.1	1189.1	1189.1
2.5°	1199.4	1190.4	1181.9	1191.7	1197.7
5°	1180.7	1177.9	1181.2	1177.6	1206.0
7.5°	1156.4	1167.0	1173.2	1169.3	1171.0
10°	1143.5	1139.8	1153.5	1163.0	1161.7
12.5°	1129.7	1135.2	1136.0	1146.3	1147.2
15°	1130.5	1117.4	1124.3	1130.2	1130.6
17.5°	1086.6	1100.7	1105.5	1118.8	1102.2
20°	1081.2	1070.9	1081.2	1094.9	1092.7
22.5°	1048.2	1036.7	1058.8	1070.9	1070.1
25°	1010.7	1016.3	1032.8	1046.3	1044.2
27.5°	977.9	984.3	1008.0	1026.5	1014.6
30°	952.5	949.3	969.3	985.9	995.1
32.5°	907.2	918.9	942.2	958.7	949.9
35°	879.8	882.4	902.8	923.7	923.1
37.5°	831.7	843.8	872.5	878.4	873.0
40°	790.7	802.8	828.8	835.1	832.5
42.5°	760.5	762.6	784.9	792.1	780.6
45°	707.8	721.0	733.0	751.9	734.1
47.5°	663.0	669.1	694.9	700.0	690.6
50°	622.3	624.4	650.4	644.1	637.9
52.5°	571.2	580.2	594.8	593.6	586.4
55°	529.1	525.6	539.4	535.7	535.5
57.5°	478.6	484.7	496.1	490.2	480.9
60°	431.3	431.4	435.6	429.0	427.8
62.5°	378.6	380.5	381.4	373.2	386.4
65°	325.0	320.7	333.3	320.6	322.7
67.5°	275.8	277.9	276.7	268.7	271.8
70°	225.7	228.5	226.5	217.4	220.2
72.5°	179.9	176.6	178.7	167.4	172.6
75°	135.3	132.5	135.0	125.4	129.7
77.5°	92.1	94.3	92.7	87.7	90.6
80°	60.8	59.1	59.1	56.2	56.8
82.5°	35.5	33.8	33.3	32.4	33.8
85°	16.6	16.1	16.4	16.0	15.4
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)