

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: P589114

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-80-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589114
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-80-94-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

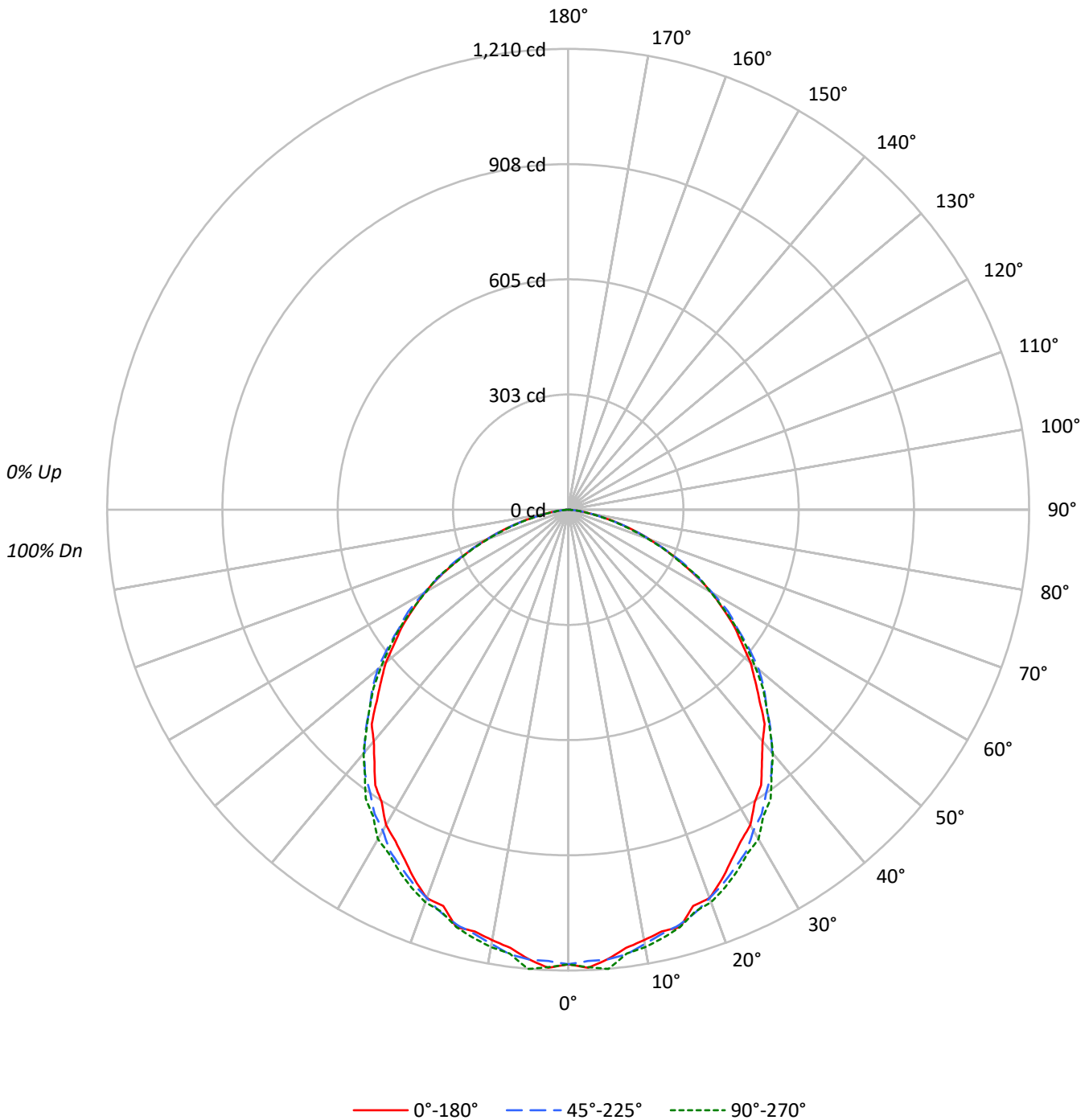
Lumens per Lamp: N/A
Luminaire Lumens: 3008.0 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3212	3212	3212
5°	3201	3202	3270
10°	3136	3163	3186
15°	3161	3144	3161
20°	3108	3108	3141
25°	3012	3078	3112
30°	2971	3023	3103
35°	2901	2977	3043
40°	2788	2922	2935
45°	2704	2800	2804
50°	2615	2733	2681
55°	2491	2540	2522
60°	2330	2353	2310
65°	2077	2130	2062
70°	1782	1788	1739
75°	1412	1409	1354
80°	945	919	883
85°	513	509	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	3.7
10°-20°	318.2	10.6
20°-30°	476.7	15.8
30°-40°	565.0	18.8
40°-50°	566.0	18.8
50°-60°	480.5	16.0
60°-70°	323.9	10.8
70°-80°	142.3	4.7
80°-90°	23.1	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°	907.1	30.2
0°-40°	1472.1	48.9
0°-60°	2518.6	83.7
0°-90°	3008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1194	1194	1194	1194	1194	
5°	1185	1182	1186	1182	1210	112
15°	1135	1122	1128	1134	1135	316
25°	1014	1020	1037	1050	1048	469
35°	883	886	906	927	926	548
45°	710	724	736	755	737	550
55°	531	528	541	538	538	472
65°	326	322	334	322	324	324
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°	1193.5	1193.5	1193.5	1193.5	1193.5
2.5°	1203.8	1194.7	1186.3	1196.1	1202.1
5°	1185.0	1182.2	1185.5	1181.9	1210.4
7.5°	1160.7	1171.3	1177.5	1173.6	1175.3
10°	1147.7	1144.0	1157.7	1167.3	1165.9
12.5°	1133.9	1139.4	1140.2	1150.5	1151.4
15°	1134.6	1121.5	1128.5	1134.3	1134.8
17.5°	1090.6	1104.7	1109.5	1122.9	1106.3
20°	1085.2	1074.8	1085.2	1098.9	1096.7
22.5°	1052.0	1040.5	1062.7	1074.8	1074.1
25°	1014.4	1020.0	1036.6	1050.2	1048.0
27.5°	981.5	987.9	1011.7	1030.3	1018.3
30°	956.0	952.8	972.8	989.5	998.7
32.5°	910.6	922.3	945.7	962.2	953.4
35°	883.0	885.6	906.1	927.1	926.4
37.5°	834.8	846.9	875.7	881.6	876.2
40°	793.6	805.8	831.8	838.1	835.5
42.5°	763.3	765.4	787.8	795.0	783.4
45°	710.4	723.6	735.7	754.6	736.7
47.5°	665.4	671.6	697.5	702.5	693.1
50°	624.6	626.7	652.8	646.4	640.3
52.5°	573.2	582.3	597.0	595.7	588.5
55°	531.0	527.5	541.4	537.7	537.5
57.5°	480.3	486.5	497.9	492.0	482.6
60°	432.9	433.0	437.2	430.6	429.3
62.5°	380.0	381.9	382.8	374.6	387.9
65°	326.2	321.9	334.5	321.8	323.9
67.5°	276.8	278.9	277.7	269.7	272.8
70°	226.5	229.3	227.3	218.2	221.0
72.5°	180.6	177.2	179.4	168.0	173.2
75°	135.8	133.0	135.5	125.9	130.2
77.5°	92.5	94.6	93.1	88.0	90.9
80°	61.0	59.3	59.3	56.4	57.0
82.5°	35.6	33.9	33.4	32.5	33.9
85°	16.6	16.2	16.5	16.0	15.4
87.5°	6.0	6.2	6.2	5.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)