

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: P589233

Luminaire Tested: **FMR-24-2-LD4-2STD-40-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589233
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-LD4-2STD-40-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

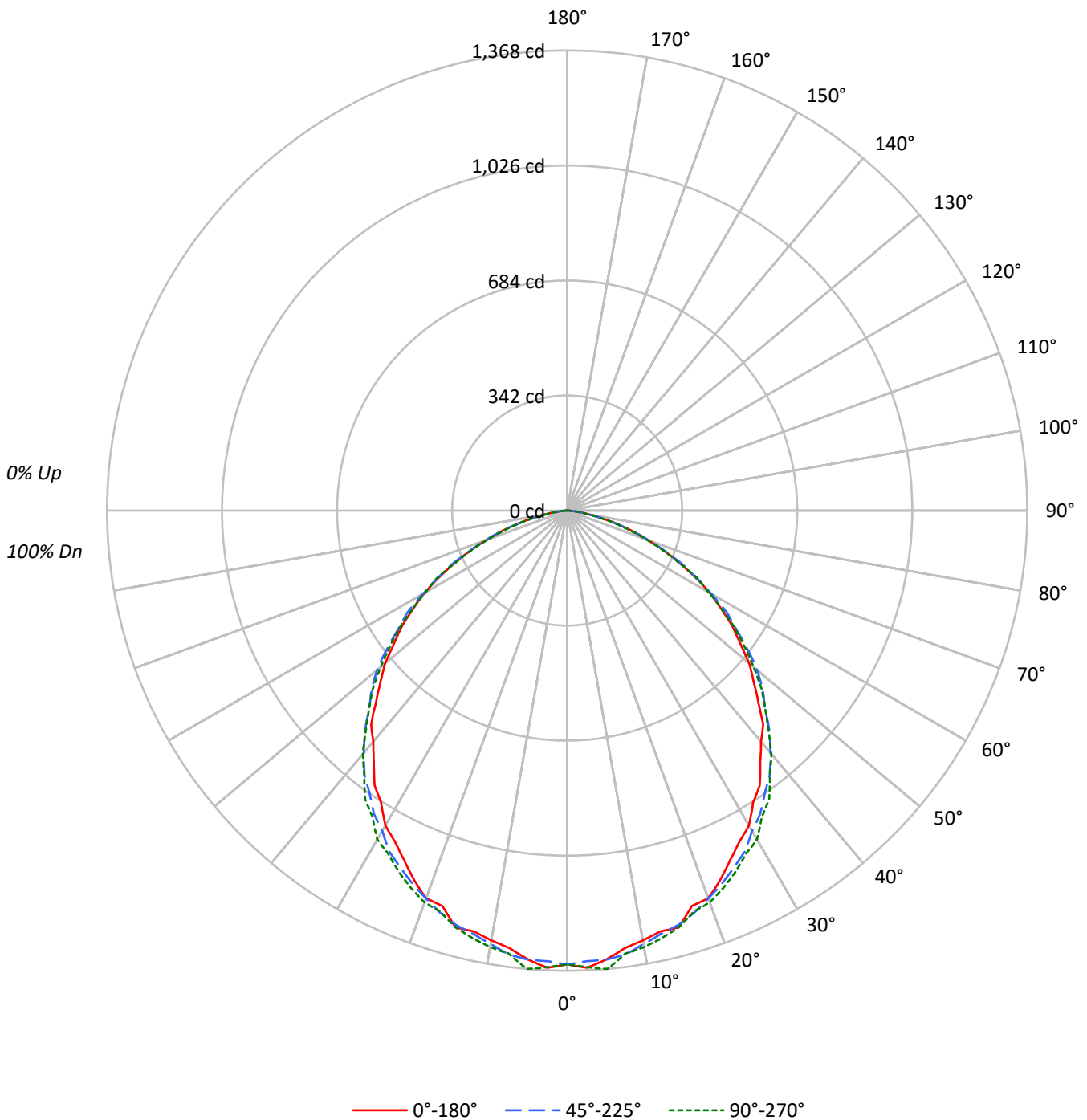
Lumens per Lamp: N/A
Luminaire Lumens: 3400.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3630	3630	3630
5°	3618	3620	3696
10°	3545	3576	3601
15°	3573	3553	3573
20°	3513	3513	3550
25°	3404	3479	3517
30°	3358	3417	3508
35°	3279	3365	3440
40°	3151	3303	3318
45°	3056	3164	3169
50°	2956	3089	3030
55°	2816	2871	2850
60°	2633	2660	2612
65°	2348	2408	2331
70°	2014	2021	1965
75°	1596	1592	1530
80°	1069	1040	998
85°	580	574	537



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.9	3.7
10°-20°	359.6	10.6
20°-30°	538.8	15.8
30°-40°	638.6	18.8
40°-50°	639.8	18.8
50°-60°	543.1	16.0
60°-70°	366.1	10.8
70°-80°	160.9	4.7
80°-90°	26.1	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°	1025.4	30.2
0°-40°	1664.0	48.9
0°-60°	2846.8	83.7
0°-90°	3400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3400.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1340	1336	1340	1336	1368	126
15°	1282	1268	1276	1282	1283	357
25°	1147	1153	1172	1187	1185	530
35°	998	1001	1024	1048	1047	620
45°	803	818	832	853	833	621
55°	600	596	612	608	608	534
65°	369	364	378	364	366	367
75°	154	150	153	142	147	164
85°	19	18	19	18	17	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1349.0	1349.0	1349.0	1349.0	1349.0
2.5°	1360.7	1350.4	1340.8	1352.0	1358.8
5°	1339.5	1336.3	1340.0	1336.0	1368.2
7.5°	1311.9	1324.0	1330.9	1326.6	1328.5
10°	1297.3	1293.1	1308.6	1319.4	1317.9
12.5°	1281.6	1287.9	1288.8	1300.4	1301.5
15°	1282.5	1267.7	1275.5	1282.1	1282.7
17.5°	1232.7	1248.7	1254.1	1269.3	1250.4
20°	1226.6	1214.9	1226.6	1242.1	1239.6
22.5°	1189.1	1176.1	1201.2	1214.9	1214.0
25°	1146.6	1152.9	1171.7	1187.0	1184.6
27.5°	1109.4	1116.7	1143.5	1164.6	1151.0
30°	1080.6	1077.0	1099.6	1118.4	1128.9
32.5°	1029.2	1042.5	1069.0	1087.6	1077.7
35°	998.1	1001.0	1024.2	1047.9	1047.2
37.5°	943.5	957.3	989.9	996.5	990.4
40°	897.0	910.8	940.2	947.4	944.4
42.5°	862.7	865.2	890.4	898.6	885.5
45°	803.0	818.0	831.5	853.0	832.8
47.5°	752.1	759.1	788.3	794.1	783.5
50°	706.0	708.4	737.8	730.7	723.7
52.5°	648.0	658.2	674.8	673.4	665.2
55°	600.2	596.2	611.9	607.7	607.5
57.5°	542.9	549.9	562.8	556.2	545.5
60°	489.3	489.4	494.2	486.7	485.3
62.5°	429.5	431.6	432.7	423.4	438.4
65°	368.7	363.9	378.1	363.7	366.1
67.5°	312.8	315.3	313.9	304.8	308.3
70°	256.0	259.2	256.9	246.6	249.8
72.5°	204.1	200.3	202.7	189.9	195.8
75°	153.5	150.3	153.1	142.3	147.2
77.5°	104.5	106.9	105.2	99.5	102.8
80°	69.0	67.1	67.1	63.8	64.4
82.5°	40.2	38.3	37.8	36.8	38.3
85°	18.8	18.3	18.6	18.1	17.4
87.5°	6.8	7.0	7.0	6.6	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)