

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: P589195

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-82-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589195
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-35-UNV-82-96-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

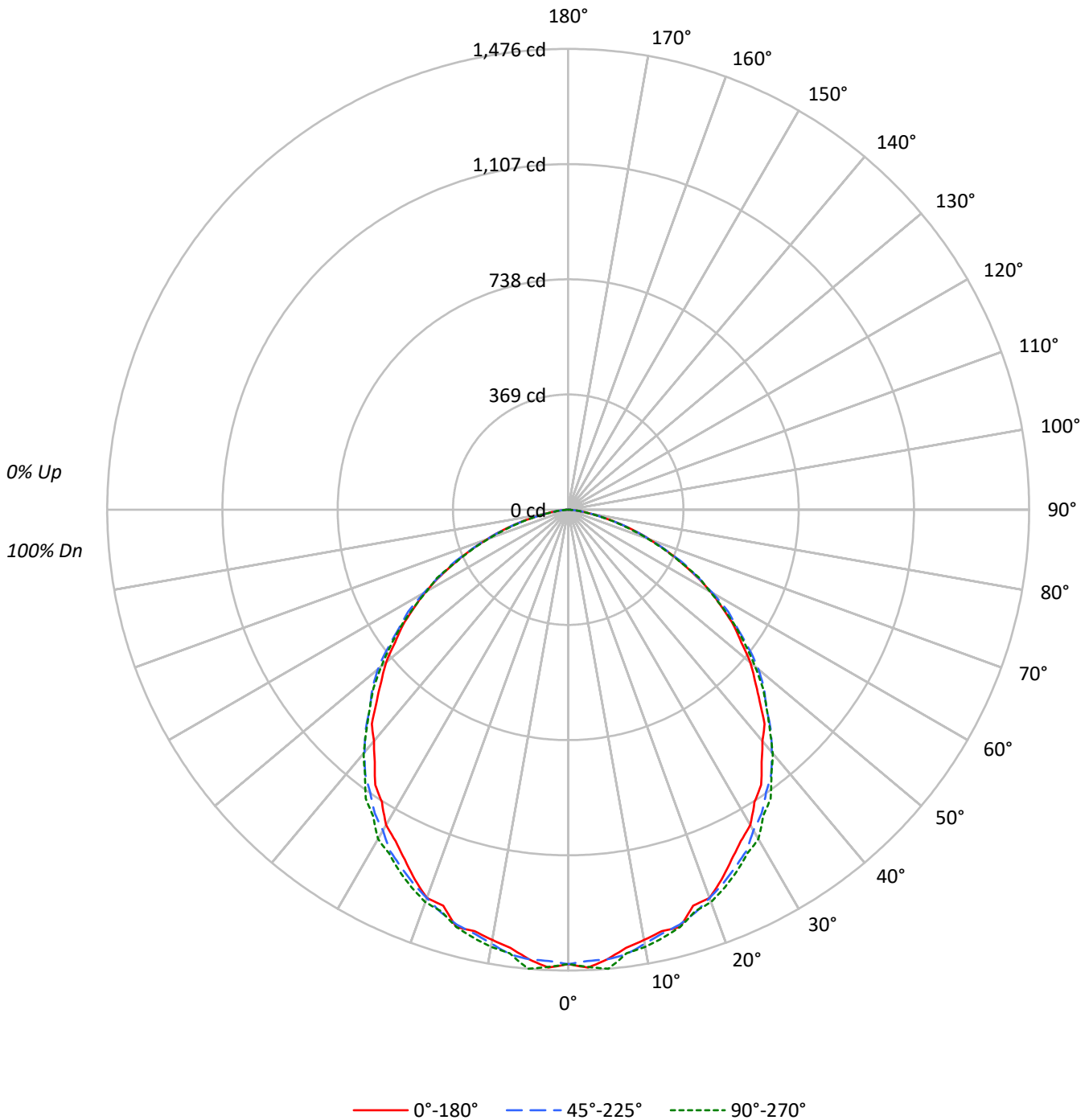
Lumens per Lamp: N/A
Luminaire Lumens: 3668.0 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3916	3916	3916
5°	3903	3905	3987
10°	3824	3858	3885
15°	3855	3834	3855
20°	3790	3790	3830
25°	3673	3753	3795
30°	3622	3686	3784
35°	3537	3630	3711
40°	3399	3563	3579
45°	3297	3414	3419
50°	3188	3332	3269
55°	3038	3097	3075
60°	2841	2869	2817
65°	2533	2598	2515
70°	2173	2181	2120
75°	1721	1718	1651
80°	1153	1120	1077
85°	627	621	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.9	3.7
10°-20°	388.0	10.6
20°-30°	581.3	15.8
30°-40°	688.9	18.8
40°-50°	690.2	18.8
50°-60°	585.9	16.0
60°-70°	395.0	10.8
70°-80°	173.6	4.7
80°-90°	28.2	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°	1106.2	30.2
0°-40°	1795.1	48.9
0°-60°	3071.2	83.7
0°-90°	3668.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3668.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1455	1455	1455	1455	1455	
5°	1445	1442	1446	1441	1476	136
15°	1384	1368	1376	1383	1384	385
25°	1237	1244	1264	1281	1278	572
35°	1077	1080	1105	1130	1130	669
45°	866	882	897	920	898	670
55°	648	643	660	656	655	576
65°	398	392	408	392	395	396
75°	166	162	165	154	159	177
85°	20	20	20	20	19	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1455.4	1455.4	1455.4	1455.4	1455.4
2.5°	1468.0	1456.9	1446.5	1458.6	1465.9
5°	1445.0	1441.7	1445.6	1441.3	1476.0
7.5°	1415.3	1428.3	1435.8	1431.1	1433.2
10°	1399.6	1395.1	1411.8	1423.4	1421.7
12.5°	1382.6	1389.4	1390.4	1402.9	1404.1
15°	1383.6	1367.6	1376.1	1383.2	1383.8
17.5°	1329.8	1347.1	1353.0	1369.3	1349.0
20°	1323.3	1310.7	1323.3	1340.0	1337.4
22.5°	1282.9	1268.8	1295.8	1310.7	1309.7
25°	1237.0	1243.8	1264.1	1280.6	1278.0
27.5°	1196.8	1204.7	1233.6	1256.4	1241.7
30°	1165.8	1161.9	1186.3	1206.6	1217.9
32.5°	1110.4	1124.6	1153.2	1173.3	1162.6
35°	1076.7	1079.9	1104.9	1130.5	1129.7
37.5°	1017.9	1032.8	1067.9	1075.0	1068.5
40°	967.7	982.6	1014.3	1022.0	1018.9
42.5°	930.7	933.4	960.6	969.4	955.3
45°	866.3	882.4	897.1	920.2	898.4
47.5°	811.4	818.9	850.5	856.7	845.2
50°	761.6	764.2	796.0	788.3	780.8
52.5°	699.0	710.1	728.0	726.5	717.6
55°	647.5	643.2	660.1	655.6	655.4
57.5°	585.7	593.2	607.1	600.0	588.5
60°	527.8	528.0	533.1	525.0	523.5
62.5°	463.4	465.6	466.8	456.8	473.0
65°	397.8	392.5	408.0	392.4	395.0
67.5°	337.5	340.1	338.6	328.8	332.6
70°	276.2	279.6	277.2	266.1	269.5
72.5°	220.2	216.1	218.7	204.8	211.2
75°	165.5	162.2	165.2	153.5	158.8
77.5°	112.7	115.4	113.5	107.3	110.9
80°	74.4	72.3	72.3	68.8	69.5
82.5°	43.4	41.3	40.8	39.6	41.3
85°	20.3	19.7	20.1	19.5	18.8
87.5°	7.3	7.5	7.5	7.1	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)