

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: P589001

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589001
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-LD4-2HI-35-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

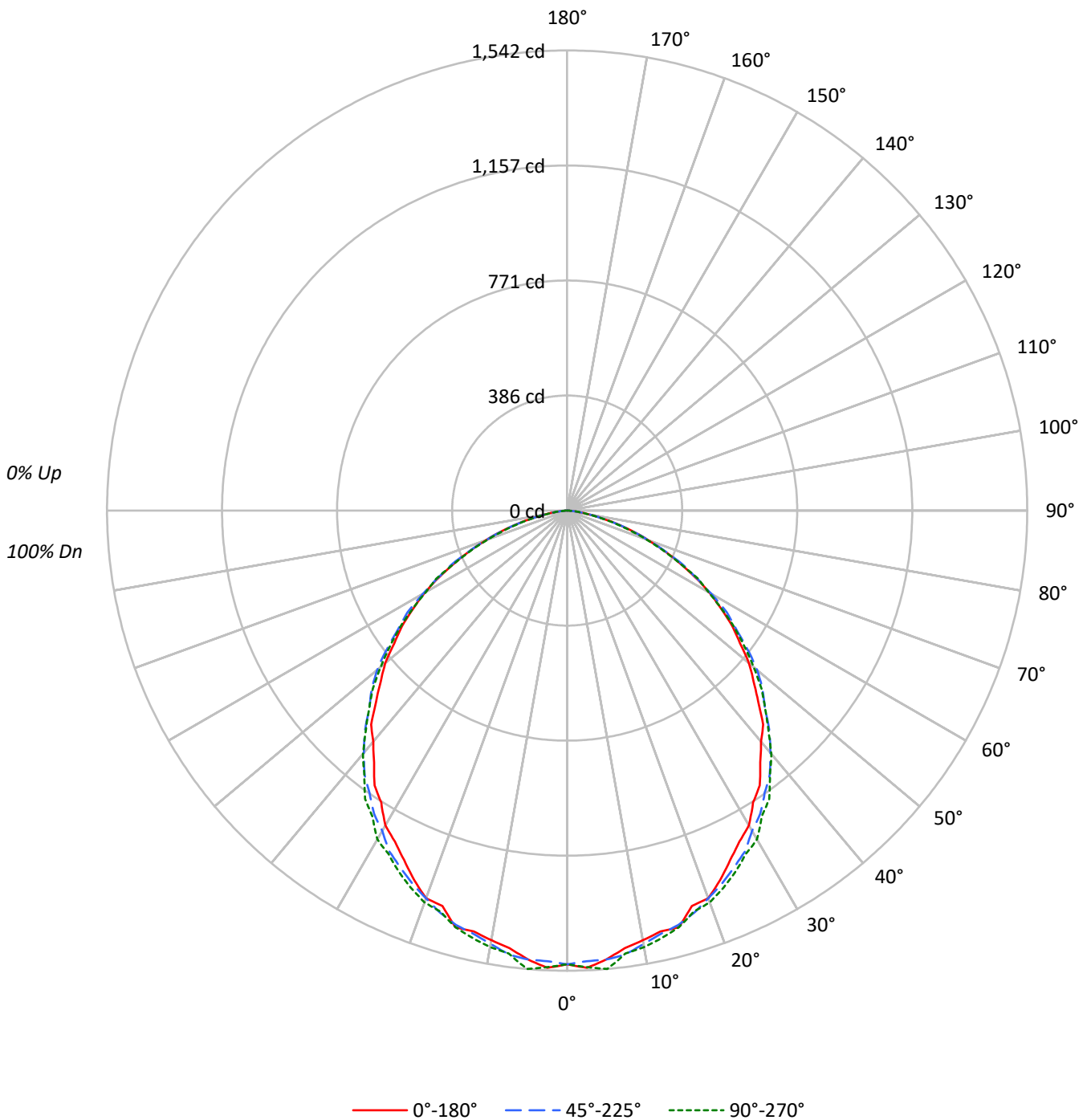
Lumens per Lamp: N/A
Luminaire Lumens: 3832.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4091	4091	4091
5°	4078	4079	4165
10°	3995	4030	4059
15°	4027	4005	4027
20°	3959	3959	4001
25°	3837	3921	3964
30°	3784	3851	3953
35°	3695	3792	3877
40°	3551	3723	3739
45°	3444	3567	3572
50°	3331	3481	3415
55°	3174	3235	3212
60°	2968	2997	2943
65°	2646	2714	2627
70°	2271	2279	2215
75°	1799	1795	1725
80°	1204	1172	1125
85°	655	648	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.0	3.7
10°-20°	405.3	10.6
20°-30°	607.3	15.8
30°-40°	719.7	18.8
40°-50°	721.1	18.8
50°-60°	612.1	16.0
60°-70°	412.7	10.8
70°-80°	181.3	4.7
80°-90°	29.5	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°	1155.6	30.2
0°-40°	1875.4	48.9
0°-60°	3208.5	83.7
0°-90°	3832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1520	1520	1520	1520	1520	
5°	1510	1506	1510	1506	1542	142
15°	1445	1429	1438	1445	1446	403
25°	1292	1299	1321	1338	1335	597
35°	1125	1128	1154	1181	1180	698
45°	905	922	937	961	939	700
55°	676	672	690	685	685	602
65°	416	410	426	410	413	413
75°	173	169	173	160	166	185
85°	21	21	21	20	20	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.4	1520.4	1520.4	1520.4	1520.4
2.5°	1533.6	1522.0	1511.2	1523.8	1531.4
5°	1509.6	1506.1	1510.2	1505.7	1542.0
7.5°	1478.6	1492.2	1500.0	1495.1	1497.3
10°	1462.1	1457.4	1474.9	1487.1	1485.3
12.5°	1444.5	1451.5	1452.5	1465.7	1466.8
15°	1445.4	1428.8	1437.6	1445.1	1445.6
17.5°	1389.3	1407.4	1413.5	1430.5	1409.3
20°	1382.4	1369.3	1382.4	1399.9	1397.2
22.5°	1340.2	1325.5	1353.8	1369.3	1368.3
25°	1292.3	1299.4	1320.6	1337.9	1335.1
27.5°	1250.3	1258.6	1288.8	1312.5	1297.2
30°	1217.9	1213.8	1239.3	1260.5	1272.3
32.5°	1160.0	1174.9	1204.8	1225.8	1214.6
35°	1124.9	1128.2	1154.3	1181.0	1180.2
37.5°	1063.4	1078.9	1115.6	1123.1	1116.2
40°	1011.0	1026.5	1059.7	1067.7	1064.4
42.5°	972.3	975.1	1003.5	1012.8	998.1
45°	905.0	921.9	937.2	961.3	938.6
47.5°	847.7	855.5	888.5	895.0	883.0
50°	795.7	798.4	831.6	823.5	815.7
52.5°	730.3	741.9	760.5	758.9	749.7
55°	676.5	672.0	689.6	684.9	684.7
57.5°	611.9	619.8	634.3	626.8	614.9
60°	551.4	551.6	556.9	548.5	546.9
62.5°	484.1	486.5	487.6	477.2	494.1
65°	415.6	410.1	426.2	409.9	412.6
67.5°	352.6	355.3	353.8	343.5	347.5
70°	288.6	292.1	289.6	278.0	281.5
72.5°	230.1	225.8	228.5	214.0	220.7
75°	173.0	169.4	172.6	160.4	165.9
77.5°	117.8	120.5	118.6	112.1	115.8
80°	77.7	75.6	75.6	71.9	72.6
82.5°	45.3	43.2	42.6	41.4	43.2
85°	21.2	20.6	21.0	20.4	19.6
87.5°	7.7	7.9	7.9	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)