

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: P589450

Luminaire Tested: **FMR-24-2-LD4-3LO-50-UNV-82-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589450
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-LD4-3LO-50-UNV-82-94-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

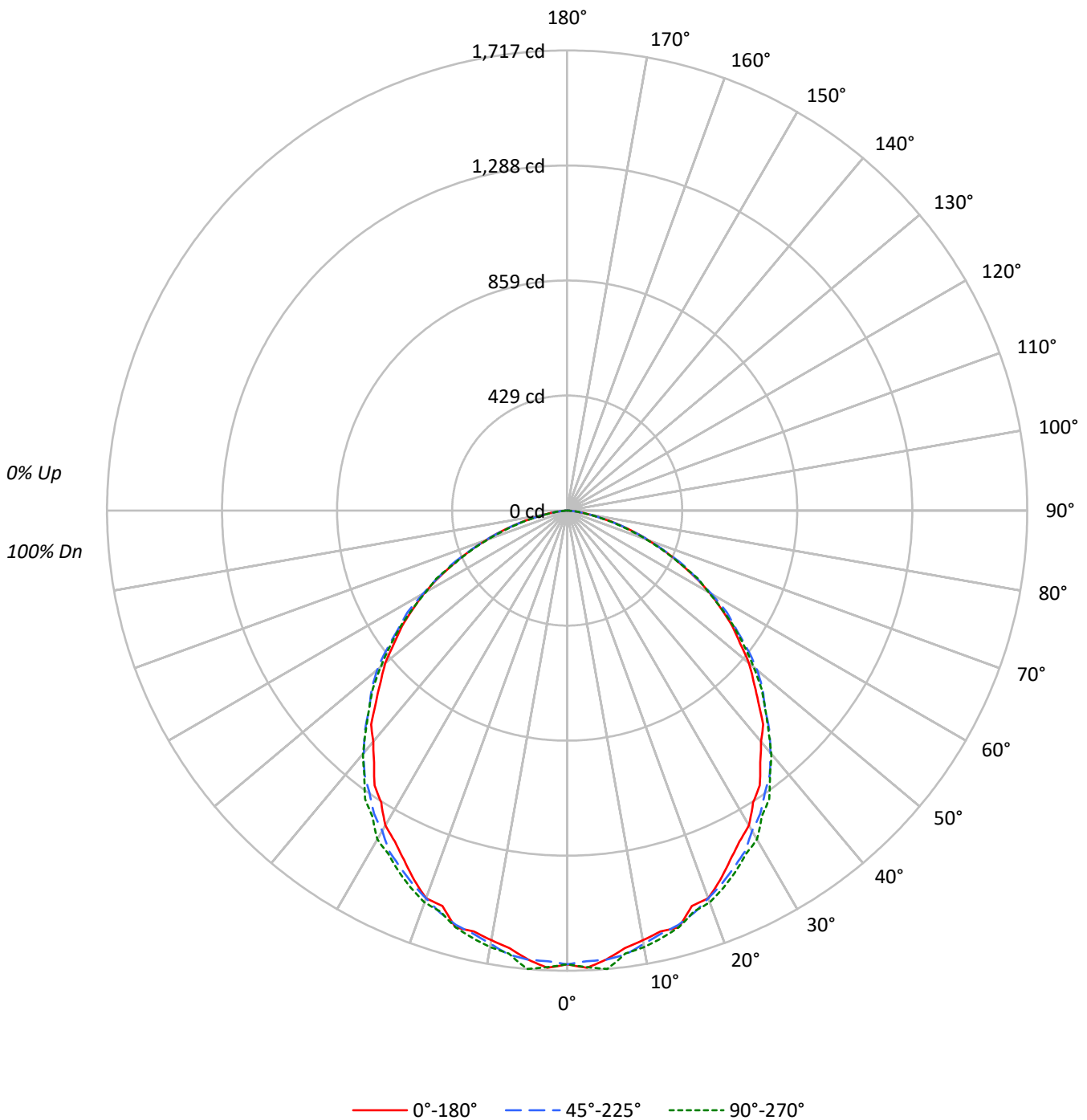
Lumens per Lamp: N/A
Luminaire Lumens: 4267.0 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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	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					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°	4556	4556	4556
5°	4541	4543	4638
10°	4449	4488	4519
15°	4484	4460	4485
20°	4408	4408	4455
25°	4273	4366	4414
30°	4214	4288	4402
35°	4115	4223	4317
40°	3955	4145	4163
45°	3835	3972	3977
50°	3709	3877	3803
55°	3534	3603	3577
60°	3305	3338	3278
65°	2947	3022	2926
70°	2528	2537	2467
75°	2002	1997	1920
80°	1342	1305	1254
85°	729	722	676



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	3.7
10°-20°	451.3	10.6
20°-30°	676.2	15.8
30°-40°	801.5	18.8
40°-50°	802.9	18.8
50°-60°	681.6	16.0
60°-70°	459.5	10.8
70°-80°	201.9	4.7
80°-90°	32.8	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°	1286.8	30.2
0°-40°	2088.3	48.9
0°-60°	3572.8	83.7
0°-90°	4267.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4267.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1693	1693	1693	1693	1693	
5°	1681	1677	1682	1677	1717	158
15°	1610	1591	1601	1609	1610	448
25°	1439	1447	1470	1490	1487	665
35°	1253	1256	1285	1315	1314	778
45°	1008	1026	1044	1070	1045	780
55°	753	748	768	763	762	670
65°	463	457	475	456	460	460
75°	193	189	192	179	185	206
85°	24	23	23	23	22	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1693.0	1693.0	1693.0	1693.0	1693.0
2.5°	1707.7	1694.8	1682.8	1696.8	1705.3
5°	1681.0	1677.1	1681.7	1676.6	1717.1
7.5°	1646.5	1661.6	1670.3	1664.8	1667.2
10°	1628.1	1622.9	1642.3	1655.9	1653.9
12.5°	1608.4	1616.3	1617.4	1632.0	1633.4
15°	1609.5	1591.0	1600.8	1609.1	1609.8
17.5°	1547.0	1567.1	1573.9	1592.9	1569.3
20°	1539.4	1524.7	1539.4	1558.8	1555.8
22.5°	1492.4	1476.0	1507.4	1524.7	1523.6
25°	1439.0	1446.9	1470.5	1489.7	1486.7
27.5°	1392.2	1401.4	1435.1	1461.5	1444.5
30°	1356.2	1351.6	1380.0	1403.6	1416.7
32.5°	1291.7	1308.3	1341.5	1364.9	1352.5
35°	1252.6	1256.3	1285.4	1315.1	1314.2
37.5°	1184.1	1201.4	1242.3	1250.6	1242.9
40°	1125.8	1143.0	1180.0	1189.0	1185.2
42.5°	1082.7	1085.8	1117.5	1127.7	1111.3
45°	1007.7	1026.5	1043.6	1070.5	1045.1
47.5°	943.9	952.6	989.4	996.6	983.3
50°	886.0	889.0	926.0	917.0	908.3
52.5°	813.2	826.1	846.8	845.1	834.8
55°	753.3	748.3	767.9	762.7	762.5
57.5°	681.4	690.1	706.3	698.0	684.6
60°	614.0	614.3	620.2	610.8	609.0
62.5°	539.1	541.7	543.0	531.4	550.2
65°	462.8	456.7	474.6	456.4	459.5
67.5°	392.6	395.7	393.9	382.5	386.9
70°	321.3	325.3	322.4	309.5	313.5
72.5°	256.2	251.4	254.4	238.3	245.7
75°	192.6	188.6	192.1	178.6	184.7
77.5°	131.2	134.2	132.0	124.8	129.0
80°	86.6	84.2	84.2	80.0	80.9
82.5°	50.5	48.1	47.4	46.1	48.1
85°	23.6	23.0	23.4	22.7	21.9
87.5°	8.5	8.7	8.7	8.3	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)