

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: P588861

Luminaire Tested: **FMR-24-2-LD4-1LO-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588861
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-LD4-1LO-50-UNV-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

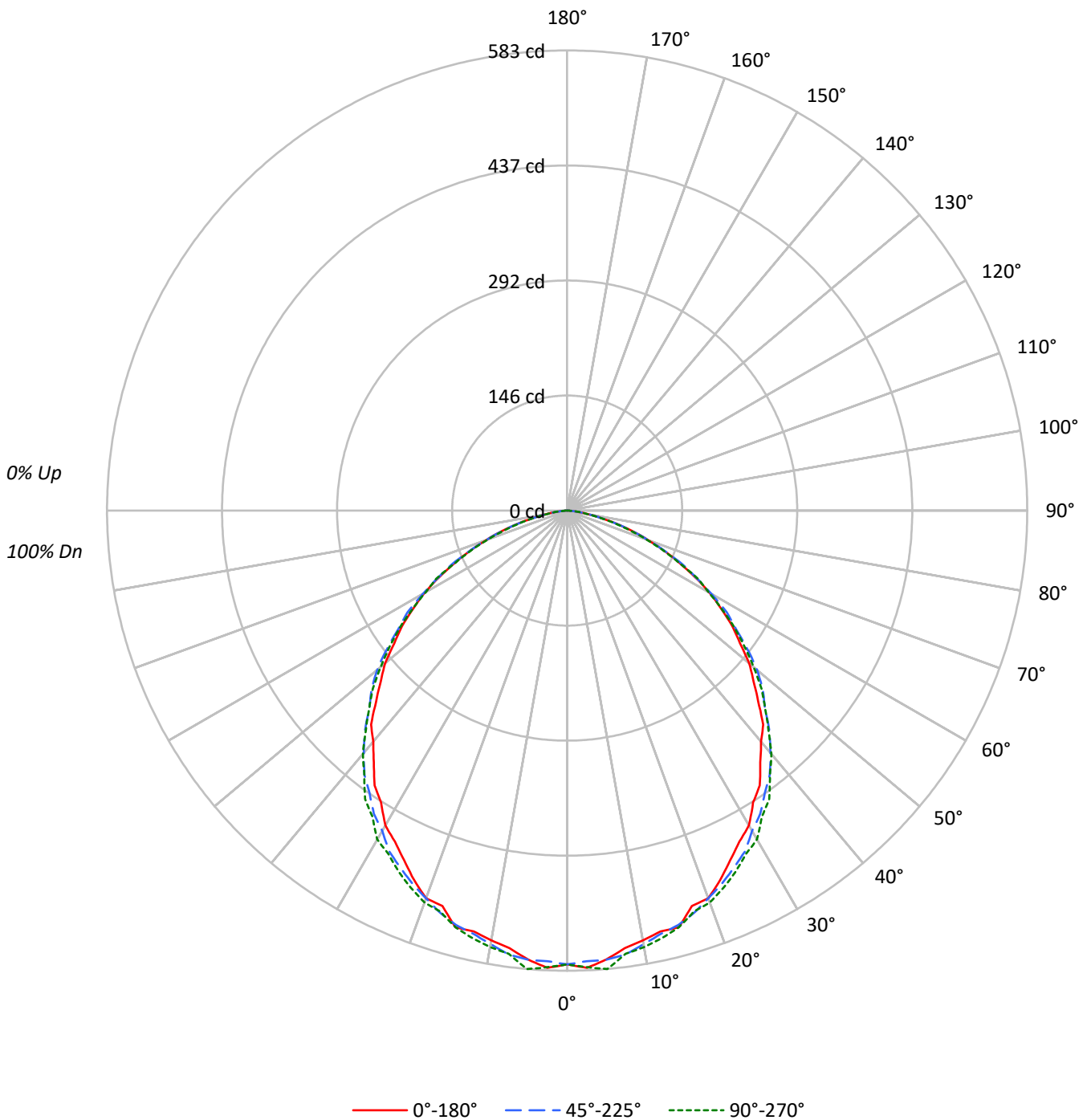
Lumens per Lamp: N/A
Luminaire Lumens: 1449.0 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1547	1547	1547
5°	1542	1543	1575
10°	1511	1524	1535
15°	1523	1514	1523
20°	1497	1497	1513
25°	1451	1483	1499
30°	1431	1456	1495
35°	1397	1434	1466
40°	1343	1408	1414
45°	1302	1349	1351
50°	1260	1316	1291
55°	1200	1224	1215
60°	1122	1133	1113
65°	1000	1026	993
70°	858	862	837
75°	680	678	652
80°	456	443	426
85°	247	244	228



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	3.7
10°-20°	153.3	10.6
20°-30°	229.6	15.8
30°-40°	272.2	18.8
40°-50°	272.7	18.8
50°-60°	231.4	16.0
60°-70°	156.0	10.8
70°-80°	68.6	4.7
80°-90°	11.1	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°	437.0	30.2
0°-40°	709.1	48.9
0°-60°	1213.3	83.7
0°-90°	1449.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	575	575	575	575	575	
5°	571	570	571	569	583	54
15°	547	540	544	546	547	152
25°	489	491	499	506	505	226
35°	425	427	436	447	446	264
45°	342	349	354	364	355	265
55°	256	254	261	259	259	228
65°	157	155	161	155	156	156
75°	65	64	65	61	63	70
85°	8	8	8	8	7	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	574.9	574.9	574.9	574.9	574.9
2.5°	579.9	575.5	571.4	576.2	579.1
5°	570.8	569.5	571.1	569.4	583.1
7.5°	559.1	564.2	567.2	565.4	566.2
10°	552.9	551.1	557.7	562.3	561.6
12.5°	546.2	548.9	549.2	554.2	554.7
15°	546.6	540.3	543.6	546.4	546.6
17.5°	525.3	532.2	534.5	540.9	532.9
20°	522.7	517.8	522.7	529.3	528.3
22.5°	506.8	501.2	511.9	517.8	517.4
25°	488.7	491.3	499.4	505.9	504.9
27.5°	472.8	475.9	487.3	496.3	490.5
30°	460.5	459.0	468.6	476.6	481.1
32.5°	438.6	444.3	455.6	463.5	459.3
35°	425.3	426.6	436.5	446.6	446.3
37.5°	402.1	408.0	421.9	424.7	422.1
40°	382.3	388.2	400.7	403.7	402.5
42.5°	367.7	368.7	379.5	383.0	377.4
45°	342.2	348.6	354.4	363.5	354.9
47.5°	320.5	323.5	336.0	338.4	333.9
50°	300.9	301.9	314.4	311.4	308.4
52.5°	276.1	280.5	287.6	287.0	283.5
55°	255.8	254.1	260.8	259.0	258.9
57.5°	231.4	234.4	239.8	237.0	232.5
60°	208.5	208.6	210.6	207.4	206.8
62.5°	183.1	183.9	184.4	180.5	186.8
65°	157.1	155.1	161.2	155.0	156.0
67.5°	133.3	134.4	133.8	129.9	131.4
70°	109.1	110.5	109.5	105.1	106.4
72.5°	87.0	85.4	86.4	80.9	83.4
75°	65.4	64.1	65.2	60.6	62.7
77.5°	44.5	45.6	44.8	42.4	43.8
80°	29.4	28.6	28.6	27.2	27.5
82.5°	17.1	16.3	16.1	15.7	16.3
85°	8.0	7.8	7.9	7.7	7.4
87.5°	2.9	3.0	3.0	2.8	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)