

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: P588830

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588830
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-40-UNV-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

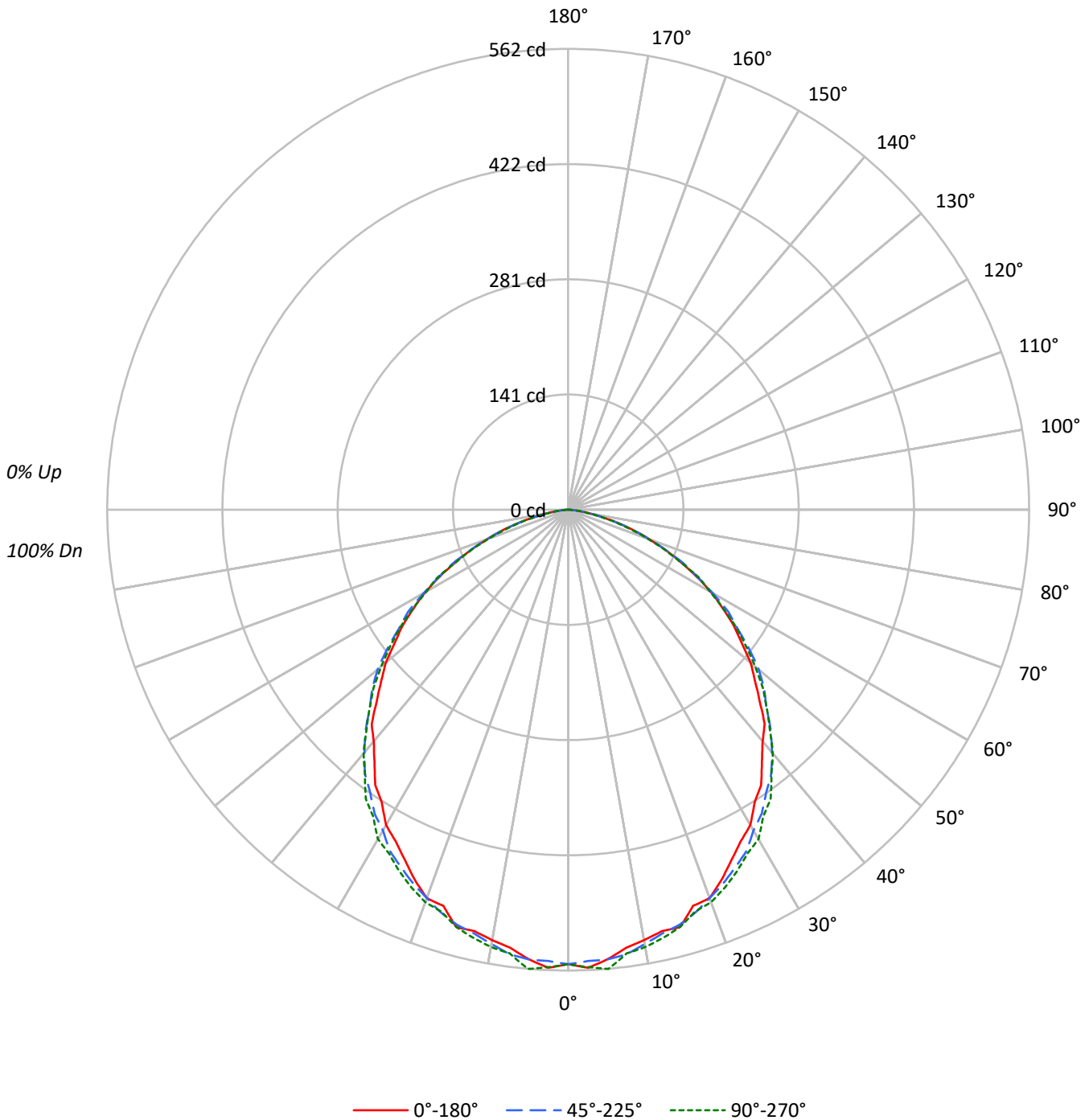
Lumens per Lamp: N/A
Luminaire Lumens: 1397.0 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1492	1492	1492
5°	1487	1487	1519
10°	1456	1469	1480
15°	1468	1460	1468
20°	1443	1443	1458
25°	1399	1429	1445
30°	1380	1404	1441
35°	1347	1382	1414
40°	1295	1357	1363
45°	1255	1300	1302
50°	1214	1269	1245
55°	1157	1179	1171
60°	1082	1093	1073
65°	965	989	958
70°	828	831	807
75°	656	654	629
80°	439	428	411
85°	238	238	222



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	3.7
10°-20°	147.8	10.6
20°-30°	221.4	15.8
30°-40°	262.4	18.8
40°-50°	262.9	18.8
50°-60°	223.1	16.0
60°-70°	150.4	10.8
70°-80°	66.1	4.7
80°-90°	10.7	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°	421.3	30.2
0°-40°	683.7	48.9
0°-60°	1169.7	83.7
0°-90°	1397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	550	549	551	549	562	52
15°	527	521	524	527	527	147
25°	471	474	481	488	487	218
35°	410	411	421	431	430	255
45°	330	336	342	350	342	255
55°	247	245	251	250	250	219
65°	152	150	155	149	150	151
75°	63	62	63	58	60	68
85°	8	8	8	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.3	554.3	554.3	554.3	554.3
2.5°	559.1	554.9	550.9	555.5	558.3
5°	550.4	549.1	550.6	548.9	562.2
7.5°	539.1	544.0	546.9	545.1	545.8
10°	533.0	531.3	537.7	542.1	541.5
12.5°	526.6	529.2	529.5	534.3	534.8
15°	527.0	520.9	524.1	526.8	527.0
17.5°	506.5	513.1	515.3	521.5	513.8
20°	504.0	499.2	504.0	510.4	509.3
22.5°	488.6	483.2	493.5	499.2	498.8
25°	471.1	473.7	481.4	487.7	486.7
27.5°	455.8	458.8	469.8	478.5	472.9
30°	444.0	442.5	451.8	459.5	463.8
32.5°	422.9	428.3	439.2	446.9	442.8
35°	410.1	411.3	420.8	430.6	430.3
37.5°	387.7	393.3	406.7	409.4	406.9
40°	368.6	374.2	386.3	389.3	388.0
42.5°	354.5	355.5	365.9	369.2	363.9
45°	329.9	336.1	341.7	350.5	342.2
47.5°	309.0	311.9	323.9	326.3	321.9
50°	290.1	291.1	303.2	300.2	297.4
52.5°	266.2	270.5	277.3	276.7	273.3
55°	246.6	245.0	251.4	249.7	249.6
57.5°	223.1	225.9	231.2	228.5	224.2
60°	201.0	201.1	203.0	200.0	199.4
62.5°	176.5	177.3	177.8	174.0	180.1
65°	151.5	149.5	155.4	149.4	150.4
67.5°	128.5	129.5	129.0	125.2	126.7
70°	105.2	106.5	105.6	101.3	102.6
72.5°	83.9	82.3	83.3	78.0	80.4
75°	63.1	61.8	62.9	58.5	60.5
77.5°	42.9	43.9	43.2	40.9	42.2
80°	28.3	27.6	27.6	26.2	26.5
82.5°	16.5	15.7	15.5	15.1	15.7
85°	7.7	7.5	7.7	7.4	7.2
87.5°	2.8	2.9	2.9	2.7	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)