

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: P588839

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-82-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588839
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-82-86-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

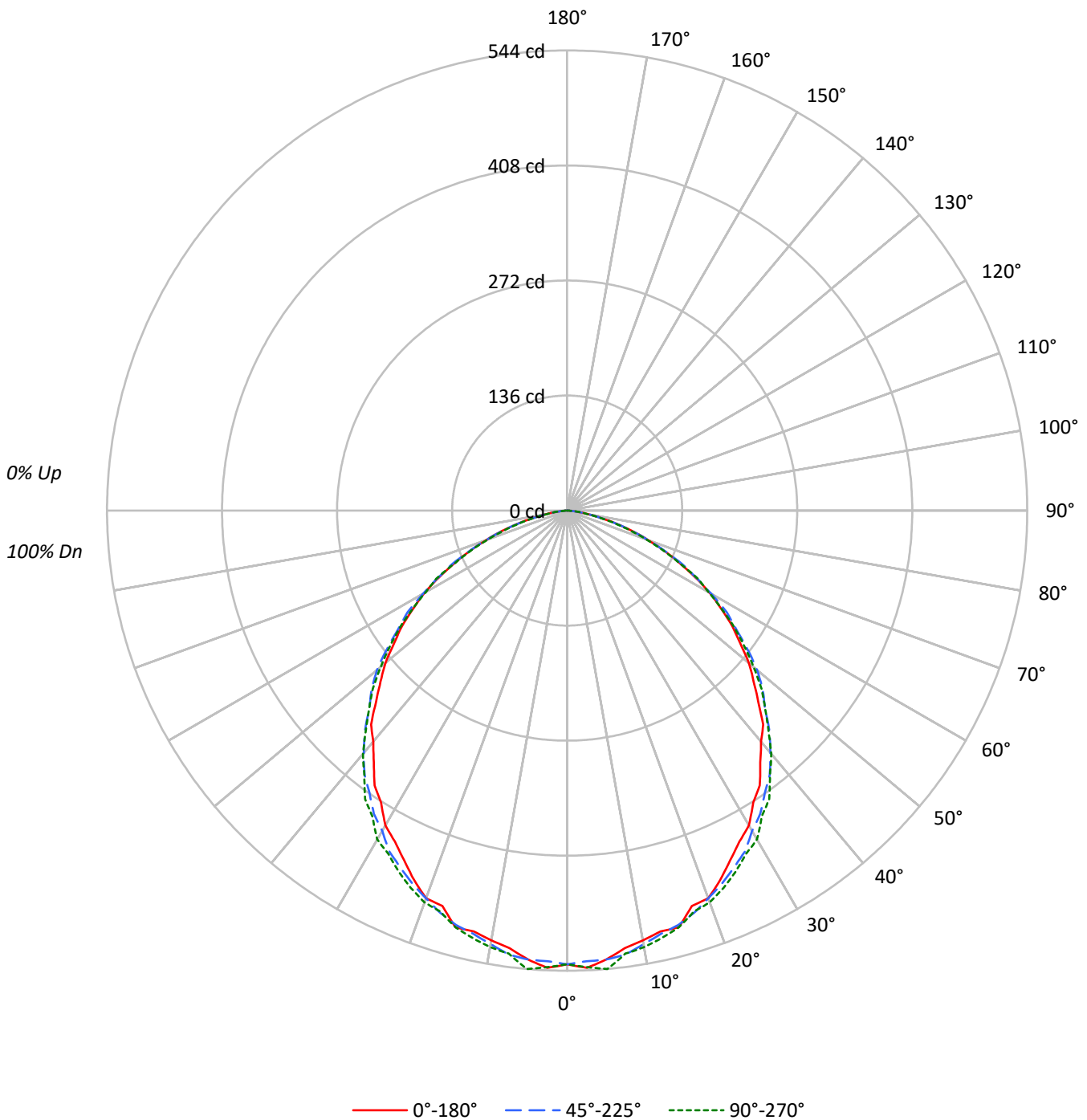
Lumens per Lamp: N/A
Luminaire Lumens: 1352.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	1443	1443	1443
5°	1439	1439	1470
10°	1410	1422	1432
15°	1421	1413	1421
20°	1397	1397	1412
25°	1354	1383	1399
30°	1335	1359	1395
35°	1304	1338	1368
40°	1253	1313	1319
45°	1215	1259	1260
50°	1175	1228	1205
55°	1120	1141	1133
60°	1047	1058	1039
65°	933	958	927
70°	801	804	781
75°	634	633	608
80°	425	414	397
85°	232	228	213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.5	3.7
10°-20°	143.0	10.6
20°-30°	214.3	15.8
30°-40°	253.9	18.8
40°-50°	254.4	18.8
50°-60°	216.0	16.0
60°-70°	145.6	10.8
70°-80°	64.0	4.7
80°-90°	10.4	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°	407.7	30.2
0°-40°	661.7	48.9
0°-60°	1132.0	83.7
0°-90°	1352.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1352.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	533	531	533	531	544	50
15°	510	504	507	510	510	142
25°	456	458	466	472	471	211
35°	397	398	407	417	416	246
45°	319	325	331	339	331	247
55°	239	237	243	242	242	212
65°	147	145	150	145	146	146
75°	61	60	61	57	58	65
85°	8	7	7	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.4	536.4	536.4	536.4	536.4
2.5°	541.1	537.0	533.2	537.6	540.3
5°	532.6	531.4	532.8	531.2	544.1
7.5°	521.7	526.5	529.2	527.5	528.3
10°	515.9	514.2	520.4	524.7	524.0
12.5°	509.6	512.1	512.5	517.1	517.5
15°	510.0	504.1	507.2	509.8	510.1
17.5°	490.2	496.5	498.7	504.7	497.2
20°	487.7	483.1	487.7	493.9	492.9
22.5°	472.9	467.7	477.6	483.1	482.8
25°	456.0	458.4	465.9	472.0	471.1
27.5°	441.1	444.0	454.7	463.1	457.7
30°	429.7	428.3	437.3	444.7	448.9
32.5°	409.3	414.5	425.1	432.5	428.5
35°	396.9	398.1	407.3	416.7	416.4
37.5°	375.2	380.7	393.6	396.3	393.8
40°	356.7	362.2	373.9	376.7	375.5
42.5°	343.1	344.0	354.1	357.3	352.1
45°	319.3	325.3	330.7	339.2	331.1
47.5°	299.1	301.8	313.5	315.8	311.5
50°	280.7	281.7	293.4	290.6	287.8
52.5°	257.7	261.7	268.3	267.8	264.5
55°	238.7	237.1	243.3	241.7	241.6
57.5°	215.9	218.7	223.8	221.2	216.9
60°	194.6	194.6	196.5	193.5	193.0
62.5°	170.8	171.6	172.0	168.4	174.3
65°	146.6	144.7	150.4	144.6	145.6
67.5°	124.4	125.4	124.8	121.2	122.6
70°	101.8	103.1	102.2	98.1	99.3
72.5°	81.2	79.7	80.6	75.5	77.9
75°	61.0	59.8	60.9	56.6	58.5
77.5°	41.6	42.5	41.8	39.5	40.9
80°	27.4	26.7	26.7	25.4	25.6
82.5°	16.0	15.2	15.0	14.6	15.2
85°	7.5	7.3	7.4	7.2	6.9
87.5°	2.7	2.8	2.8	2.6	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)