

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: P588851

Luminaire Tested: **FMR-24-2-LD4-1LO-40-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588851
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

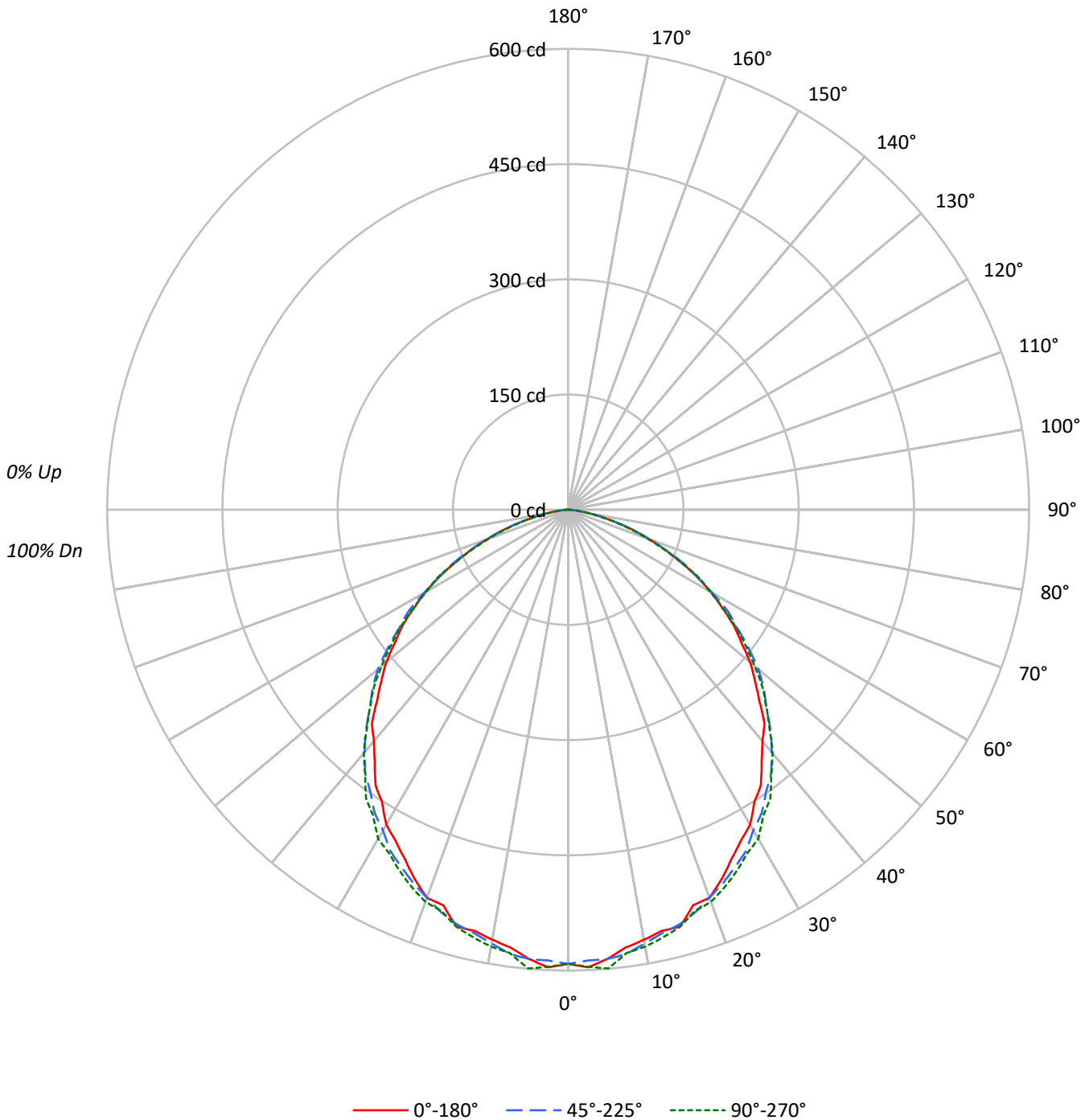
Lumens per Lamp: N/A
Luminaire Lumens: 1490.0 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): NR
Input Current (A_{in}): 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°	1591	1591	1591
5°	1586	1586	1620
10°	1553	1567	1578
15°	1566	1557	1566
20°	1539	1539	1556
25°	1492	1525	1541
30°	1472	1497	1537
35°	1437	1474	1508
40°	1381	1447	1454
45°	1339	1387	1389
50°	1295	1353	1328
55°	1234	1258	1249
60°	1154	1166	1145
65°	1029	1055	1022
70°	883	886	862
75°	699	698	671
80°	468	456	437
85°	253	253	235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	3.7
10°-20°	157.6	10.6
20°-30°	236.1	15.8
30°-40°	279.9	18.8
40°-50°	280.4	18.8
50°-60°	238.0	16.0
60°-70°	160.5	10.8
70°-80°	70.5	4.7
80°-90°	11.5	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°	449.3	30.2
0°-40°	729.2	48.9
0°-60°	1247.6	83.7
0°-90°	1490.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1490.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	591	591	591	591	591	
5°	587	586	587	586	600	55
15°	562	556	559	562	562	157
25°	502	505	514	520	519	232
35°	437	439	449	459	459	272
45°	352	358	364	374	365	272
55°	263	261	268	266	266	234
65°	162	160	166	159	160	161
75°	67	66	67	62	64	72
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	591.2	591.2	591.2	591.2	591.2
2.5°	596.3	591.8	587.6	592.5	595.5
5°	587.0	585.6	587.2	585.5	599.6
7.5°	574.9	580.2	583.3	581.3	582.2
10°	568.5	566.7	573.5	578.2	577.5
12.5°	561.7	564.4	564.8	569.9	570.4
15°	562.0	555.5	559.0	561.9	562.1
17.5°	540.2	547.2	549.6	556.2	548.0
20°	537.5	532.4	537.5	544.3	543.3
22.5°	521.1	515.4	526.4	532.4	532.0
25°	502.5	505.2	513.5	520.2	519.1
27.5°	486.2	489.4	501.1	510.4	504.4
30°	473.6	472.0	481.9	490.1	494.7
32.5°	451.0	456.8	468.5	476.6	472.3
35°	437.4	438.7	448.8	459.2	458.9
37.5°	413.5	419.5	433.8	436.7	434.0
40°	393.1	399.1	412.0	415.2	413.9
42.5°	378.1	379.1	390.2	393.8	388.1
45°	351.9	358.5	364.4	373.8	364.9
47.5°	329.6	332.7	345.5	348.0	343.3
50°	309.4	310.4	323.3	320.2	317.2
52.5°	284.0	288.5	295.7	295.1	291.5
55°	263.0	261.3	268.2	266.3	266.2
57.5°	237.9	241.0	246.6	243.7	239.1
60°	214.4	214.5	216.6	213.3	212.7
62.5°	188.2	189.2	189.6	185.6	192.1
65°	161.6	159.5	165.7	159.4	160.5
67.5°	137.1	138.2	137.6	133.6	135.1
70°	112.2	113.6	112.6	108.1	109.5
72.5°	89.5	87.8	88.9	83.2	85.8
75°	67.2	65.9	67.1	62.4	64.5
77.5°	45.8	46.9	46.1	43.6	45.0
80°	30.2	29.4	29.4	27.9	28.2
82.5°	17.6	16.8	16.6	16.1	16.8
85°	8.2	8.0	8.2	7.9	7.6
87.5°	3.0	3.1	3.1	2.9	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)