

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: P588816

Luminaire Tested: **FMR-24-2-LD4-1LO-35-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588816
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-35-UNV-93-87-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

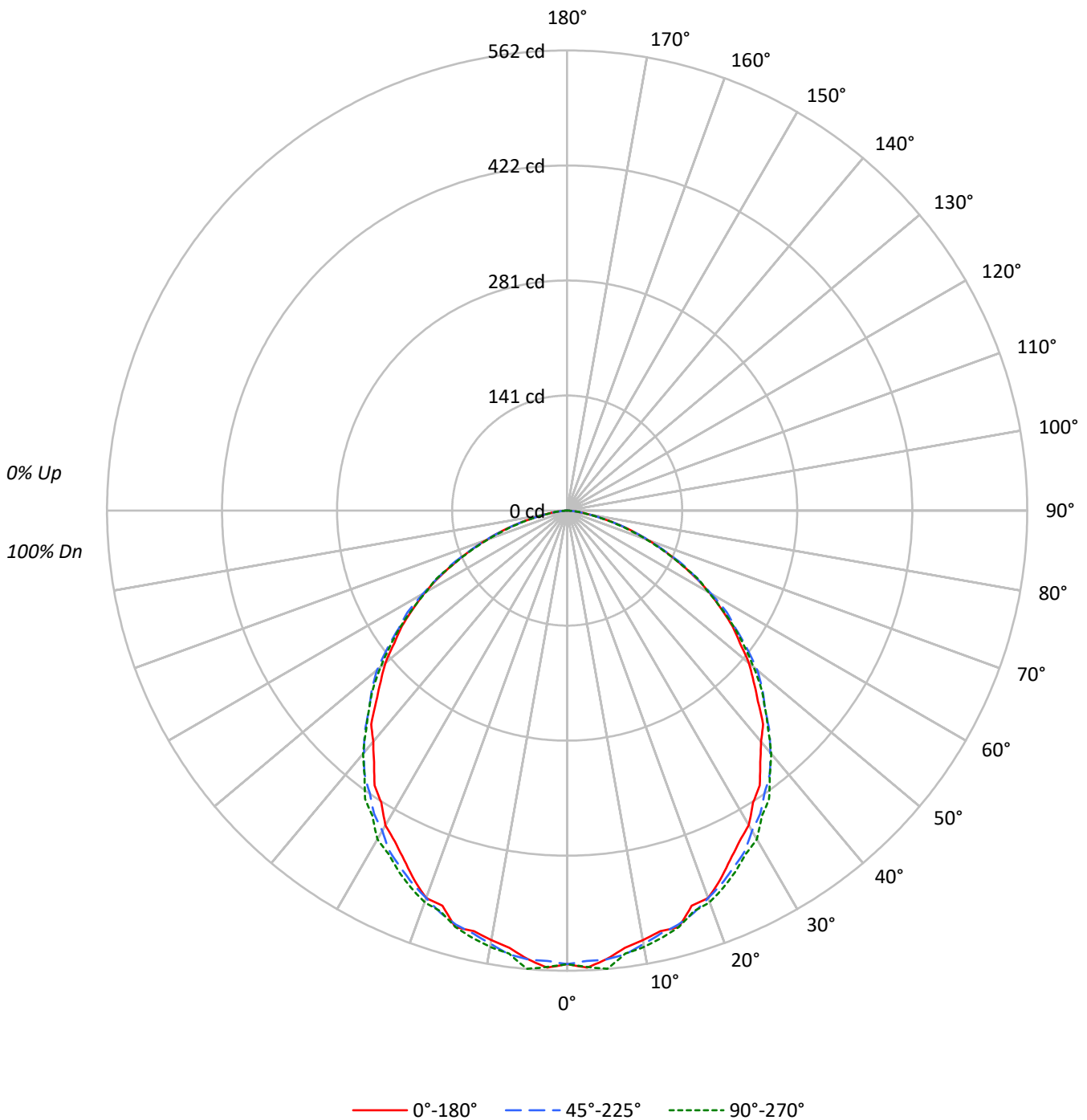
Lumens per Lamp: N/A
Luminaire Lumens: 1396.0 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1491	1491	1491
5°	1486	1486	1518
10°	1456	1468	1479
15°	1467	1459	1467
20°	1442	1442	1458
25°	1398	1428	1444
30°	1379	1403	1440
35°	1346	1381	1413
40°	1294	1356	1362
45°	1255	1299	1301
50°	1214	1268	1244
55°	1156	1179	1171
60°	1081	1092	1072
65°	964	989	957
70°	827	830	807
75°	655	654	628
80°	439	426	411
85°	238	238	222



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	3.7
10°-20°	147.7	10.6
20°-30°	221.2	15.8
30°-40°	262.2	18.8
40°-50°	262.7	18.8
50°-60°	223.0	16.0
60°-70°	150.3	10.8
70°-80°	66.0	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°	421.0	30.2
0°-40°	683.2	48.9
0°-60°	1168.9	83.7
0°-90°	1396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	554	554	554	554	554	
5°	550	549	550	548	562	52
15°	527	520	524	526	527	147
25°	471	473	481	487	486	218
35°	410	411	420	430	430	254
45°	330	336	341	350	342	255
55°	246	245	251	250	250	219
65°	151	149	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°	553.9	553.9	553.9	553.9	553.9
2.5°	558.7	554.5	550.5	555.1	557.9
5°	550.0	548.7	550.2	548.5	561.8
7.5°	538.7	543.6	546.5	544.7	545.5
10°	532.7	530.9	537.3	541.7	541.1
12.5°	526.2	528.8	529.2	533.9	534.4
15°	526.6	520.5	523.7	526.4	526.6
17.5°	506.1	512.7	514.9	521.1	513.4
20°	503.6	498.8	503.6	510.0	509.0
22.5°	488.2	482.9	493.2	498.8	498.5
25°	470.8	473.4	481.1	487.4	486.4
27.5°	455.5	458.5	469.5	478.2	472.6
30°	443.7	442.2	451.5	459.2	463.5
32.5°	422.6	428.0	438.9	446.6	442.5
35°	409.8	411.0	420.5	430.2	430.0
37.5°	387.4	393.1	406.4	409.1	406.6
40°	368.3	374.0	386.0	389.0	387.8
42.5°	354.2	355.2	365.6	369.0	363.6
45°	329.7	335.8	341.4	350.2	341.9
47.5°	308.8	311.7	323.7	326.0	321.7
50°	289.9	290.9	302.9	300.0	297.2
52.5°	266.0	270.3	277.1	276.5	273.1
55°	246.4	244.8	251.2	249.5	249.5
57.5°	222.9	225.8	231.1	228.4	224.0
60°	200.9	201.0	202.9	199.8	199.2
62.5°	176.4	177.2	177.6	173.9	180.0
65°	151.4	149.4	155.3	149.3	150.3
67.5°	128.4	129.4	128.9	125.2	126.6
70°	105.1	106.4	105.5	101.3	102.6
72.5°	83.8	82.2	83.2	78.0	80.4
75°	63.0	61.7	62.9	58.4	60.4
77.5°	42.9	43.9	43.2	40.8	42.2
80°	28.3	27.5	27.5	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)