

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: P589315

Luminaire Tested: **FMR-24-2-LD4-3HI-40-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589315
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-LD4-3HI-40-UNV-81-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR
TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

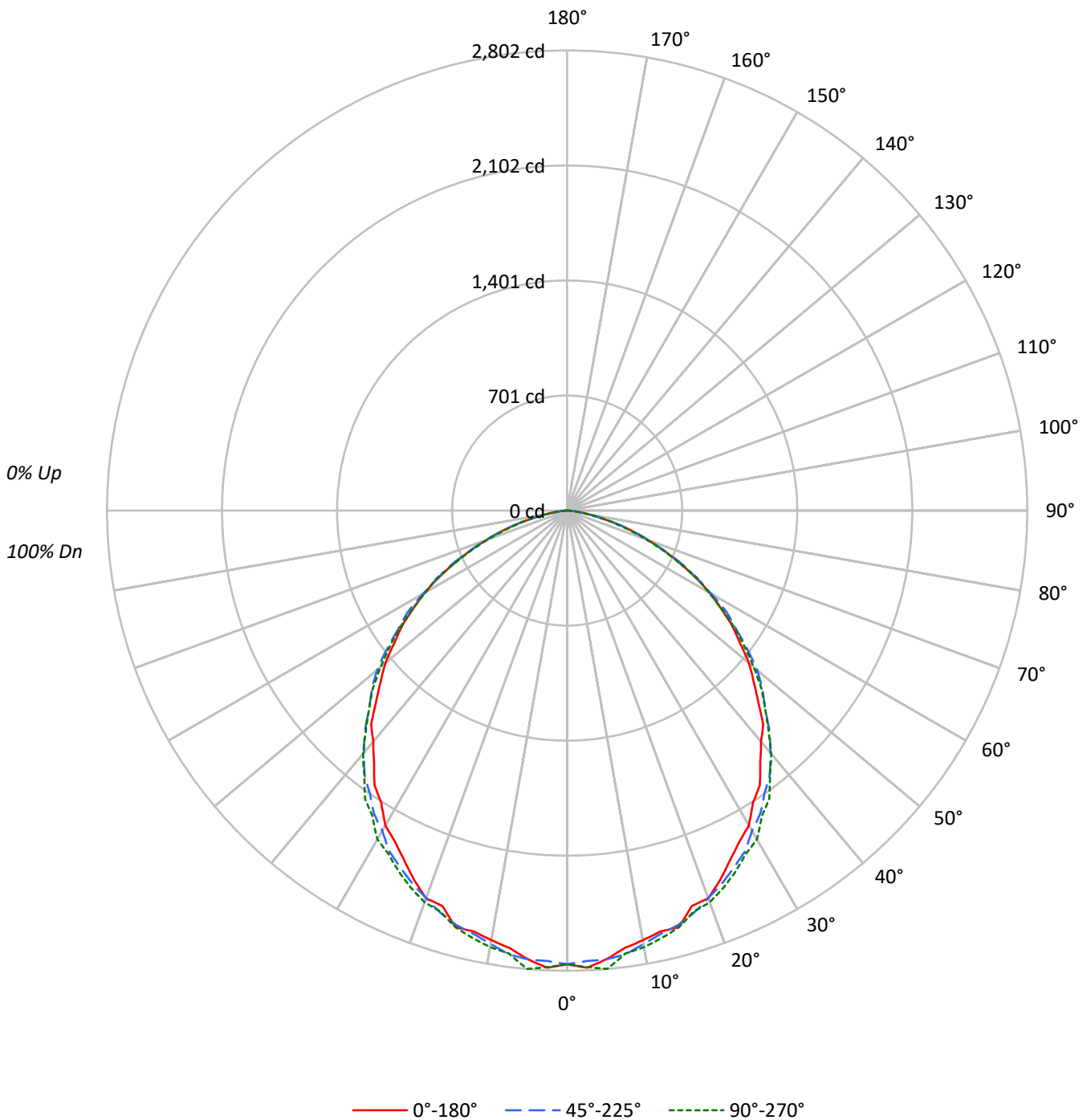
Lumens per Lamp: N/A
Luminaire Lumens: 6962.0 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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																		
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	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									100																			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86									86																			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73									73																			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62									62																			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53									53																			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46									46																			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41									41																			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36									36																			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32									32																			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29									29																			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26									26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7433	7433	7433
5°	7409	7412	7568
10°	7259	7322	7374
15°	7316	7276	7317
20°	7192	7192	7269
25°	6971	7124	7202
30°	6875	6996	7182
35°	6714	6889	7044
40°	6452	6763	6793
45°	6257	6480	6489
50°	6052	6325	6204
55°	5766	5879	5836
60°	5392	5445	5348
65°	4808	4930	4774
70°	4125	4139	4024
75°	3267	3260	3134
80°	2188	2128	2046
85°	1189	1179	1102



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.8	3.7
10°-20°	736.4	10.6
20°-30°	1103.3	15.8
30°-40°	1307.6	18.8
40°-50°	1310.1	18.8
50°-60°	1112.0	16.0
60°-70°	749.7	10.8
70°-80°	329.4	4.7
80°-90°	53.5	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°	2099.6	30.2
0°-40°	3407.2	48.9
0°-60°	5829.3	83.7
0°-90°	6962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6962.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2762	2762	2762	2762	2762	
5°	2743	2736	2744	2736	2802	259
15°	2626	2596	2612	2625	2626	732
25°	2348	2361	2399	2431	2426	1085
35°	2044	2050	2097	2146	2144	1269
45°	1644	1675	1703	1747	1705	1272
55°	1229	1221	1253	1244	1244	1093
65°	755	745	774	745	750	751
75°	314	308	314	291	301	337
85°	38	37	38	37	36	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2762.3	2762.3	2762.3	2762.3	2762.3
2.5°	2786.2	2765.2	2745.6	2768.4	2782.3
5°	2742.7	2736.3	2743.8	2735.6	2801.6
7.5°	2686.4	2711.0	2725.3	2716.3	2720.3
10°	2656.4	2647.9	2679.6	2701.7	2698.5
12.5°	2624.3	2637.2	2638.9	2662.8	2665.0
15°	2626.1	2595.8	2611.8	2625.4	2626.5
17.5°	2524.1	2556.9	2568.0	2599.0	2560.5
20°	2511.6	2487.7	2511.6	2543.4	2538.4
22.5°	2434.9	2408.2	2459.5	2487.7	2485.9
25°	2347.9	2360.7	2399.3	2430.7	2425.7
27.5°	2271.6	2286.6	2341.5	2384.6	2356.8
30°	2212.7	2205.2	2251.6	2290.1	2311.5
32.5°	2107.5	2134.6	2188.8	2227.0	2206.7
35°	2043.7	2049.7	2097.2	2145.7	2144.3
37.5°	1932.0	1960.2	2026.9	2040.5	2028.0
40°	1836.8	1865.0	1925.3	1939.9	1933.8
42.5°	1766.5	1771.5	1823.3	1840.0	1813.3
45°	1644.2	1674.9	1702.7	1746.6	1705.2
47.5°	1540.1	1554.3	1614.3	1626.0	1604.3
50°	1445.6	1450.5	1510.8	1496.2	1481.9
52.5°	1326.8	1347.8	1381.7	1378.9	1362.1
55°	1229.1	1220.9	1253.0	1244.4	1244.0
57.5°	1111.7	1126.0	1152.4	1138.8	1117.1
60°	1001.9	1002.2	1011.8	996.5	993.7
62.5°	879.5	883.8	885.9	867.0	897.7
65°	755.1	745.1	774.3	744.7	749.7
67.5°	640.6	645.6	642.7	624.2	631.3
70°	524.3	530.7	526.1	505.0	511.5
72.5°	418.0	410.2	415.2	388.8	400.9
75°	314.2	307.8	313.5	291.4	301.4
77.5°	214.0	219.0	215.4	203.7	210.4
80°	141.2	137.3	137.3	130.5	132.0
82.5°	82.4	78.5	77.4	75.3	78.5
85°	38.5	37.4	38.2	37.1	35.7
87.5°	13.9	14.3	14.3	13.6	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)