

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: P589283

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589283
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

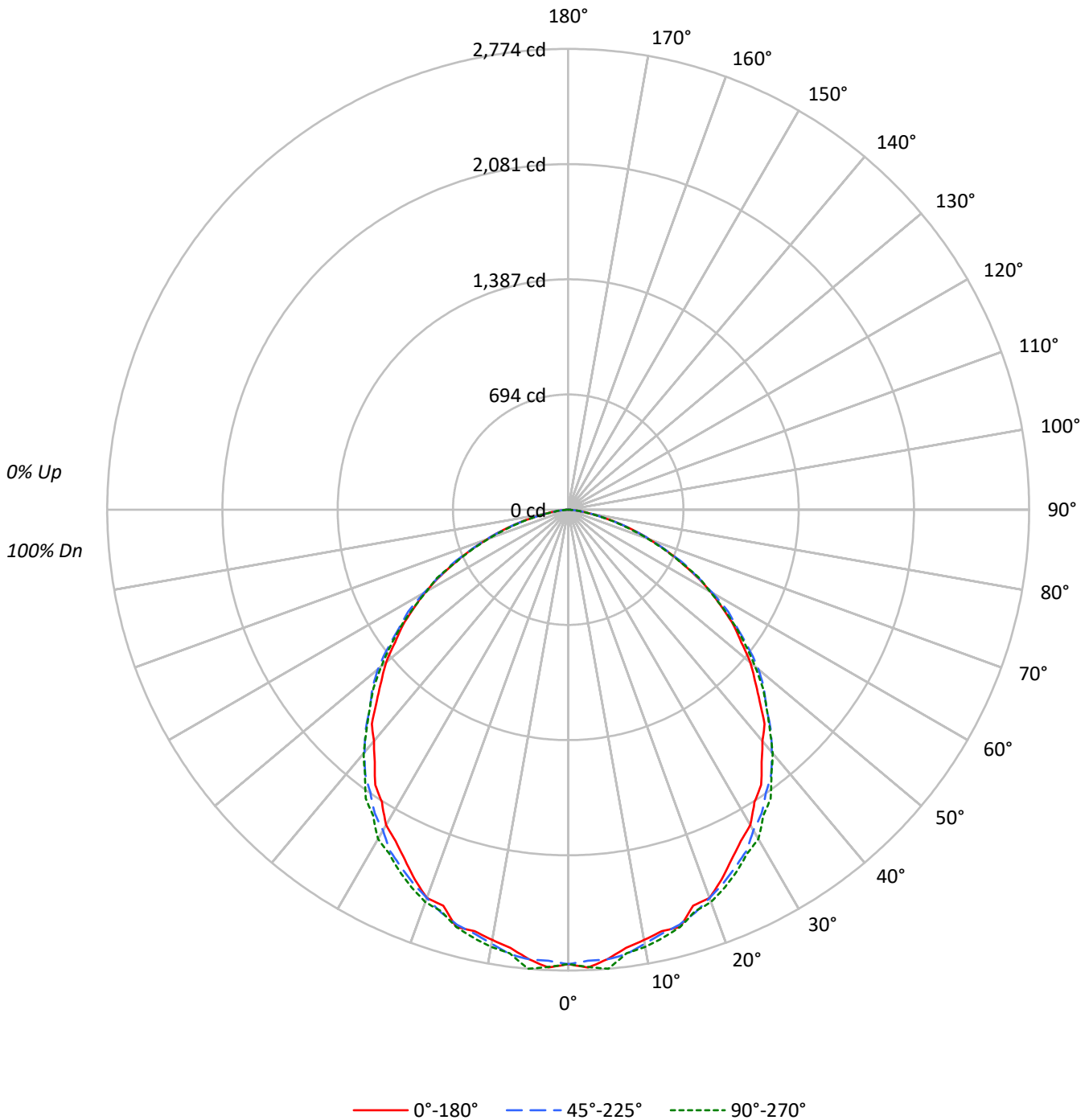
Lumens per Lamp: N/A
Luminaire Lumens: 6893.0 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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				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°	7360	7360	7360
5°	7335	7338	7493
10°	7187	7249	7301
15°	7244	7204	7244
20°	7121	7121	7197
25°	6902	7053	7131
30°	6807	6927	7111
35°	6647	6821	6974
40°	6388	6696	6726
45°	6195	6416	6425
50°	5992	6262	6142
55°	5709	5820	5779
60°	5338	5392	5295
65°	4760	4881	4727
70°	4084	4098	3984
75°	3235	3227	3103
80°	2166	2108	2025
85°	1176	1167	1090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.3	3.7
10°-20°	729.1	10.6
20°-30°	1092.4	15.8
30°-40°	1294.7	18.8
40°-50°	1297.1	18.8
50°-60°	1101.0	16.0
60°-70°	742.3	10.8
70°-80°	326.2	4.7
80°-90°	53.0	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°	2078.8	30.2
0°-40°	3373.4	48.9
0°-60°	5771.5	83.7
0°-90°	6893.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2735	2735	2735	2735	2735	
5°	2716	2709	2717	2708	2774	256
15°	2600	2570	2586	2599	2600	724
25°	2325	2337	2376	2407	2402	1075
35°	2023	2029	2076	2124	2123	1256
45°	1628	1658	1686	1729	1688	1259
55°	1217	1209	1240	1232	1232	1082
65°	748	738	767	737	742	743
75°	311	305	310	288	298	333
85°	38	37	38	37	35	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2735.0	2735.0	2735.0	2735.0	2735.0
2.5°	2758.6	2737.8	2718.4	2741.0	2754.7
5°	2715.5	2709.2	2716.6	2708.5	2773.8
7.5°	2659.8	2684.1	2698.2	2689.4	2693.3
10°	2630.1	2621.6	2653.0	2674.9	2671.8
12.5°	2598.3	2611.0	2612.8	2636.4	2638.6
15°	2600.1	2570.1	2585.9	2599.4	2600.4
17.5°	2499.1	2531.6	2542.5	2573.2	2535.1
20°	2486.7	2463.1	2486.7	2518.1	2513.2
22.5°	2410.8	2384.3	2435.2	2463.1	2461.3
25°	2324.6	2337.3	2375.5	2406.6	2401.6
27.5°	2249.1	2263.9	2318.3	2361.0	2333.5
30°	2190.8	2183.4	2229.3	2267.4	2288.6
32.5°	2086.6	2113.5	2167.1	2204.9	2184.8
35°	2023.4	2029.4	2076.4	2124.4	2123.0
37.5°	1912.9	1940.8	2006.8	2020.2	2007.9
40°	1818.6	1846.5	1906.2	1920.7	1914.7
42.5°	1749.0	1754.0	1805.2	1821.8	1795.3
45°	1627.9	1658.3	1685.8	1729.3	1688.3
47.5°	1524.8	1538.9	1598.3	1609.9	1588.4
50°	1431.2	1436.2	1495.8	1481.4	1467.2
52.5°	1313.6	1334.5	1368.0	1365.2	1348.6
55°	1216.9	1208.8	1240.5	1232.1	1231.7
57.5°	1100.7	1114.8	1141.0	1127.5	1106.0
60°	991.9	992.3	1001.8	986.6	983.8
62.5°	870.8	875.0	877.2	858.5	888.8
65°	747.6	737.7	766.6	737.3	742.3
67.5°	634.2	639.2	636.3	618.0	625.0
70°	519.1	525.5	520.9	500.0	506.4
72.5°	413.9	406.1	411.0	384.9	396.9
75°	311.1	304.7	310.4	288.5	298.4
77.5°	211.9	216.8	213.3	201.6	208.3
80°	139.8	136.0	136.0	129.2	130.7
82.5°	81.6	77.7	76.6	74.5	77.7
85°	38.1	37.1	37.8	36.7	35.3
87.5°	13.8	14.1	14.1	13.4	12.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)