

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: P589780

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-93-97-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589780
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-LD4-4STD-35-UNV-93-97-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

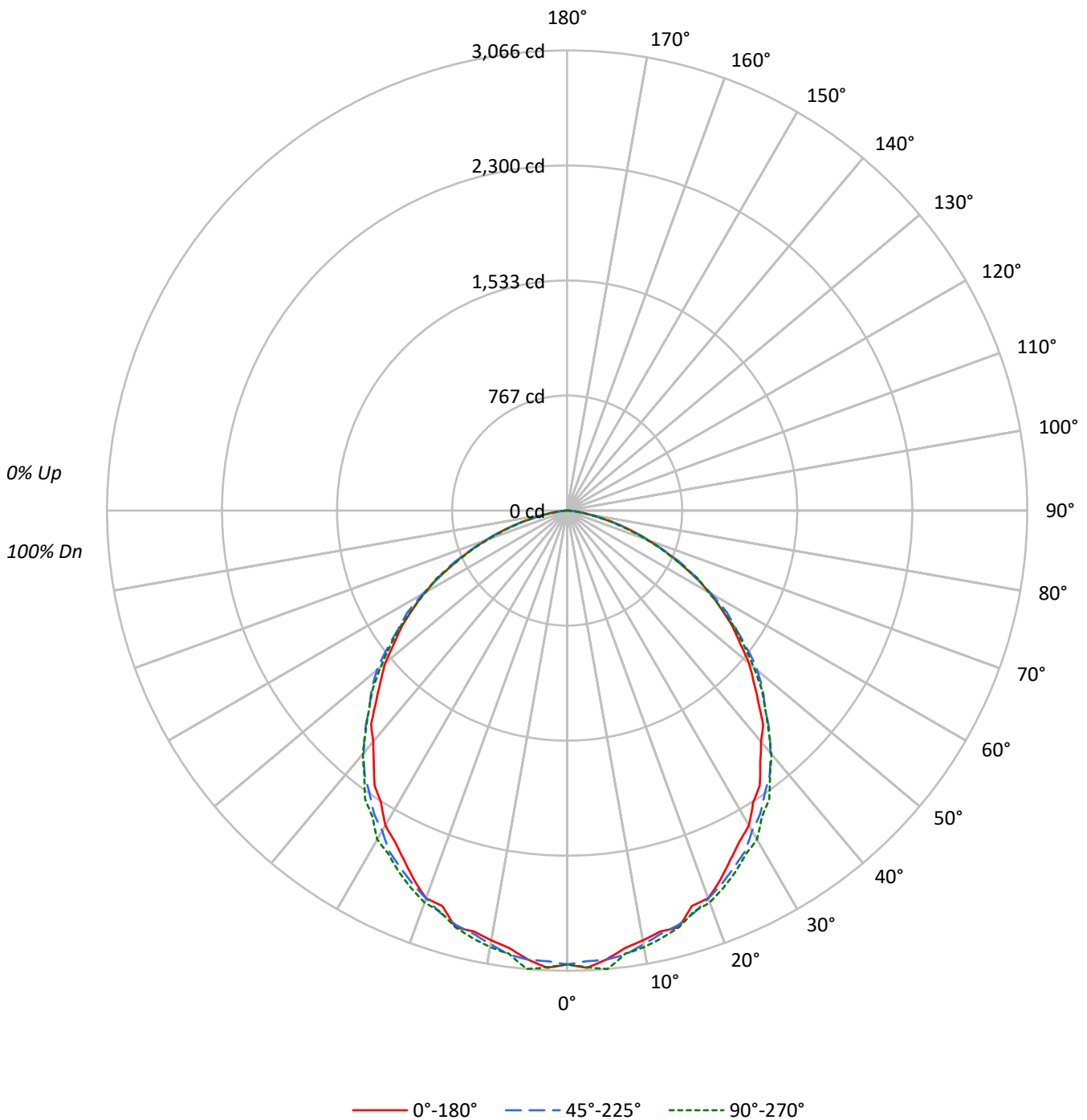
Lumens per Lamp: N/A
Luminaire Lumens: 7620.0 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8136	8136	8136
5°	8109	8112	8283
10°	7945	8014	8070
15°	8008	7964	8009
20°	7872	7872	7956
25°	7630	7797	7883
30°	7526	7658	7861
35°	7348	7541	7710
40°	7062	7402	7435
45°	6849	7092	7103
50°	6624	6923	6790
55°	6311	6434	6388
60°	5902	5961	5853
65°	5262	5396	5225
70°	4515	4530	4404
75°	3576	3567	3430
80°	2396	2329	2238
85°	1303	1291	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.4	3.7
10°-20°	806.0	10.6
20°-30°	1207.6	15.8
30°-40°	1431.2	18.8
40°-50°	1433.9	18.8
50°-60°	1217.1	16.0
60°-70°	820.6	10.8
70°-80°	360.6	4.7
80°-90°	58.6	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°	2298.0	30.2
0°-40°	3729.2	48.9
0°-60°	6380.3	83.7
0°-90°	7620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3023	3023	3023	3023	3023	
5°	3002	2995	3003	2994	3066	283
15°	2874	2841	2859	2874	2875	801
25°	2570	2584	2626	2660	2655	1188
35°	2237	2244	2295	2348	2347	1389
45°	1800	1833	1864	1912	1866	1392
55°	1345	1336	1371	1362	1362	1197
65°	826	816	848	815	821	822
75°	344	337	343	319	330	369
85°	42	41	42	41	39	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3023.4	3023.4	3023.4	3023.4	3023.4
2.5°	3049.6	3026.5	3005.1	3030.1	3045.3
5°	3002.0	2994.9	3003.1	2994.1	3066.4
7.5°	2940.3	2967.2	2982.8	2973.1	2977.4
10°	2907.5	2898.1	2932.9	2957.1	2953.5
12.5°	2872.3	2886.4	2888.4	2914.5	2916.9
15°	2874.3	2841.1	2858.7	2873.5	2874.7
17.5°	2762.7	2798.6	2810.7	2844.6	2802.5
20°	2749.0	2722.8	2749.0	2783.7	2778.3
22.5°	2665.1	2635.8	2692.0	2722.8	2720.9
25°	2569.8	2583.9	2626.0	2660.4	2654.9
27.5°	2486.3	2502.7	2562.8	2610.0	2579.6
30°	2421.9	2413.7	2464.4	2506.6	2530.0
32.5°	2306.7	2336.4	2395.7	2437.5	2415.2
35°	2236.8	2243.5	2295.4	2348.5	2346.9
37.5°	2114.6	2145.5	2218.5	2233.3	2219.6
40°	2010.4	2041.3	2107.2	2123.2	2116.6
42.5°	1933.5	1939.0	1995.6	2013.9	1984.6
45°	1799.6	1833.2	1863.6	1911.6	1866.4
47.5°	1685.6	1701.2	1766.8	1779.7	1755.9
50°	1582.2	1587.6	1653.6	1637.6	1622.0
52.5°	1452.2	1475.2	1512.3	1509.2	1490.8
55°	1345.2	1336.2	1371.4	1362.0	1361.6
57.5°	1216.8	1232.4	1261.3	1246.5	1222.6
60°	1096.6	1096.9	1107.5	1090.7	1087.6
62.5°	962.7	967.3	969.7	949.0	982.6
65°	826.4	815.5	847.5	815.1	820.6
67.5°	701.1	706.6	703.4	683.1	691.0
70°	573.8	580.9	575.8	552.8	559.8
72.5°	457.5	448.9	454.4	425.5	438.8
75°	343.9	336.9	343.1	318.9	329.9
77.5°	234.2	239.7	235.8	222.9	230.3
80°	154.6	150.3	150.3	142.9	144.4
82.5°	90.2	85.9	84.7	82.4	85.9
85°	42.2	41.0	41.8	40.6	39.0
87.5°	15.2	15.6	15.6	14.8	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)