

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: P589776

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-93-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589776
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-93-87-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

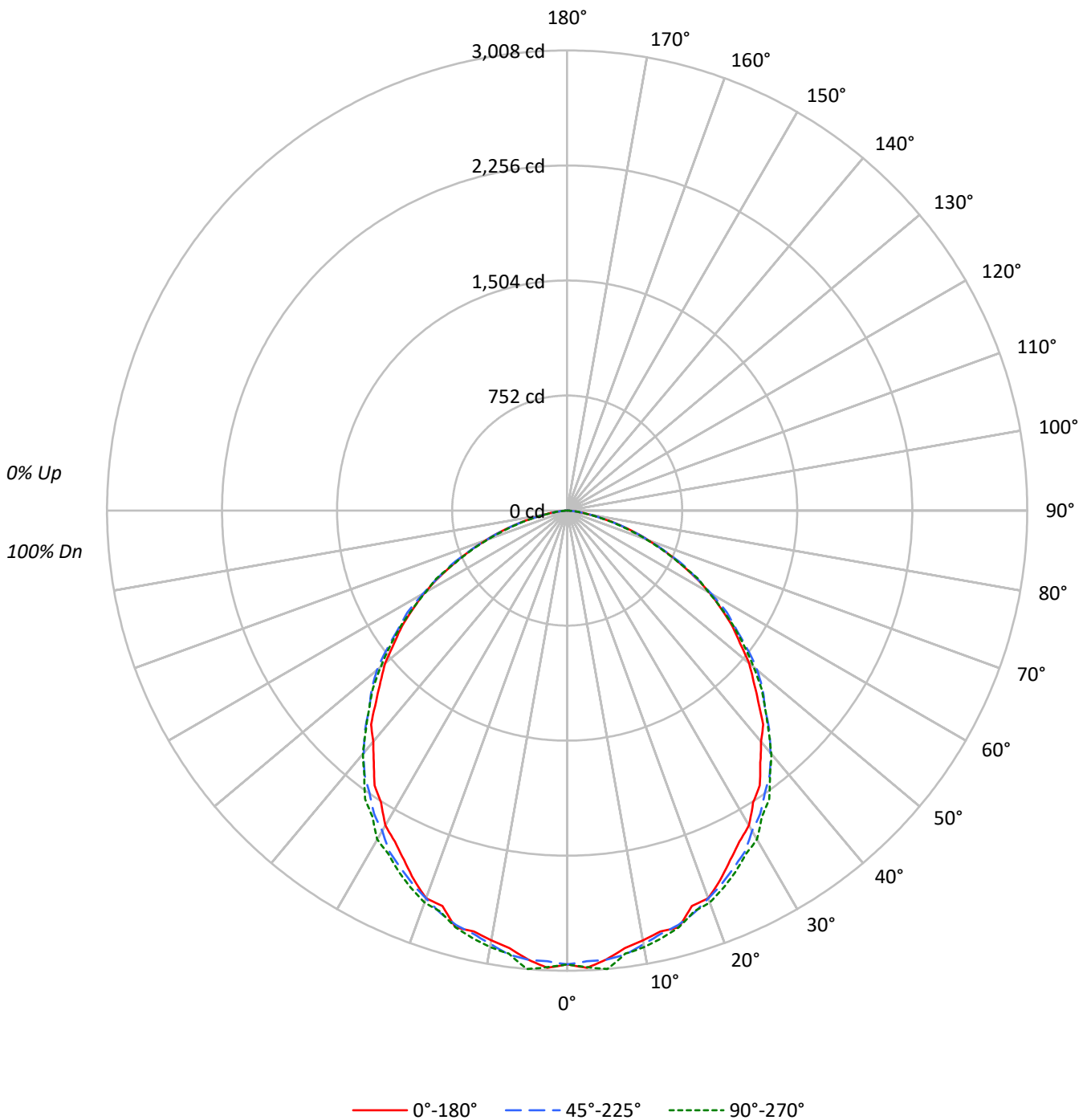
Lumens per Lamp: N/A
Luminaire Lumens: 7476.0 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7982	7982	7982
5°	7956	7959	8126
10°	7794	7862	7918
15°	7856	7814	7857
20°	7723	7723	7806
25°	7486	7650	7734
30°	7383	7513	7713
35°	7209	7398	7564
40°	6929	7262	7295
45°	6719	6958	6968
50°	6499	6792	6662
55°	6192	6313	6267
60°	5790	5848	5743
65°	5163	5294	5126
70°	4430	4445	4321
75°	3508	3501	3365
80°	2351	2286	2196
85°	1278	1266	1183



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.0	3.7
10°-20°	790.8	10.6
20°-30°	1184.8	15.8
30°-40°	1404.2	18.8
40°-50°	1406.8	18.8
50°-60°	1194.1	16.0
60°-70°	805.1	10.8
70°-80°	353.8	4.7
80°-90°	57.5	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°	2254.6	30.2
0°-40°	3658.8	48.9
0°-60°	6259.7	83.7
0°-90°	7476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2966	2966	2966	2966	2966	
5°	2945	2938	2946	2938	3008	278
15°	2820	2787	2805	2819	2820	786
25°	2521	2535	2576	2610	2605	1166
35°	2195	2201	2252	2304	2303	1363
45°	1766	1798	1828	1876	1831	1366
55°	1320	1311	1346	1336	1336	1174
65°	811	800	832	800	805	806
75°	337	330	337	313	324	362
85°	41	40	41	40	38	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2966.3	2966.3	2966.3	2966.3	2966.3
2.5°	2991.9	2969.4	2948.3	2972.8	2987.7
5°	2945.2	2938.3	2946.4	2937.6	3008.4
7.5°	2884.7	2911.1	2926.5	2916.9	2921.1
10°	2852.5	2843.3	2877.4	2901.2	2897.7
12.5°	2818.1	2831.9	2833.8	2859.4	2861.7
15°	2820.0	2787.4	2804.7	2819.2	2820.4
17.5°	2710.4	2745.7	2757.6	2790.9	2749.5
20°	2697.0	2671.4	2697.0	2731.1	2725.8
22.5°	2614.7	2586.0	2641.1	2671.4	2669.5
25°	2521.2	2535.0	2576.4	2610.1	2604.7
27.5°	2439.3	2455.4	2514.4	2560.7	2530.8
30°	2376.1	2368.1	2417.8	2459.2	2482.2
32.5°	2263.1	2292.2	2350.4	2391.4	2369.6
35°	2194.6	2201.1	2252.0	2304.1	2302.6
37.5°	2074.7	2104.9	2176.6	2191.1	2177.7
40°	1972.4	2002.7	2067.4	2083.1	2076.6
42.5°	1897.0	1902.3	1957.9	1975.9	1947.1
45°	1765.6	1798.5	1828.4	1875.5	1831.1
47.5°	1653.8	1669.1	1733.4	1746.1	1722.7
50°	1552.3	1557.6	1622.4	1606.7	1591.3
52.5°	1424.7	1447.3	1483.7	1480.7	1462.7
55°	1319.8	1311.0	1345.5	1336.3	1335.9
57.5°	1193.8	1209.1	1237.5	1222.9	1199.5
60°	1075.8	1076.2	1086.6	1070.1	1067.0
62.5°	944.5	949.1	951.4	931.1	964.0
65°	810.8	800.1	831.5	799.7	805.1
67.5°	687.9	693.2	690.2	670.2	677.9
70°	563.0	569.9	564.9	542.3	549.2
72.5°	448.9	440.4	445.8	417.5	430.5
75°	337.4	330.5	336.7	312.9	323.6
77.5°	229.8	235.2	231.3	218.7	226.0
80°	151.7	147.5	147.5	140.2	141.7
82.5°	88.5	84.3	83.1	80.8	84.3
85°	41.4	40.2	41.0	39.8	38.3
87.5°	14.9	15.3	15.3	14.6	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)