

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: P589779

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589779
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-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

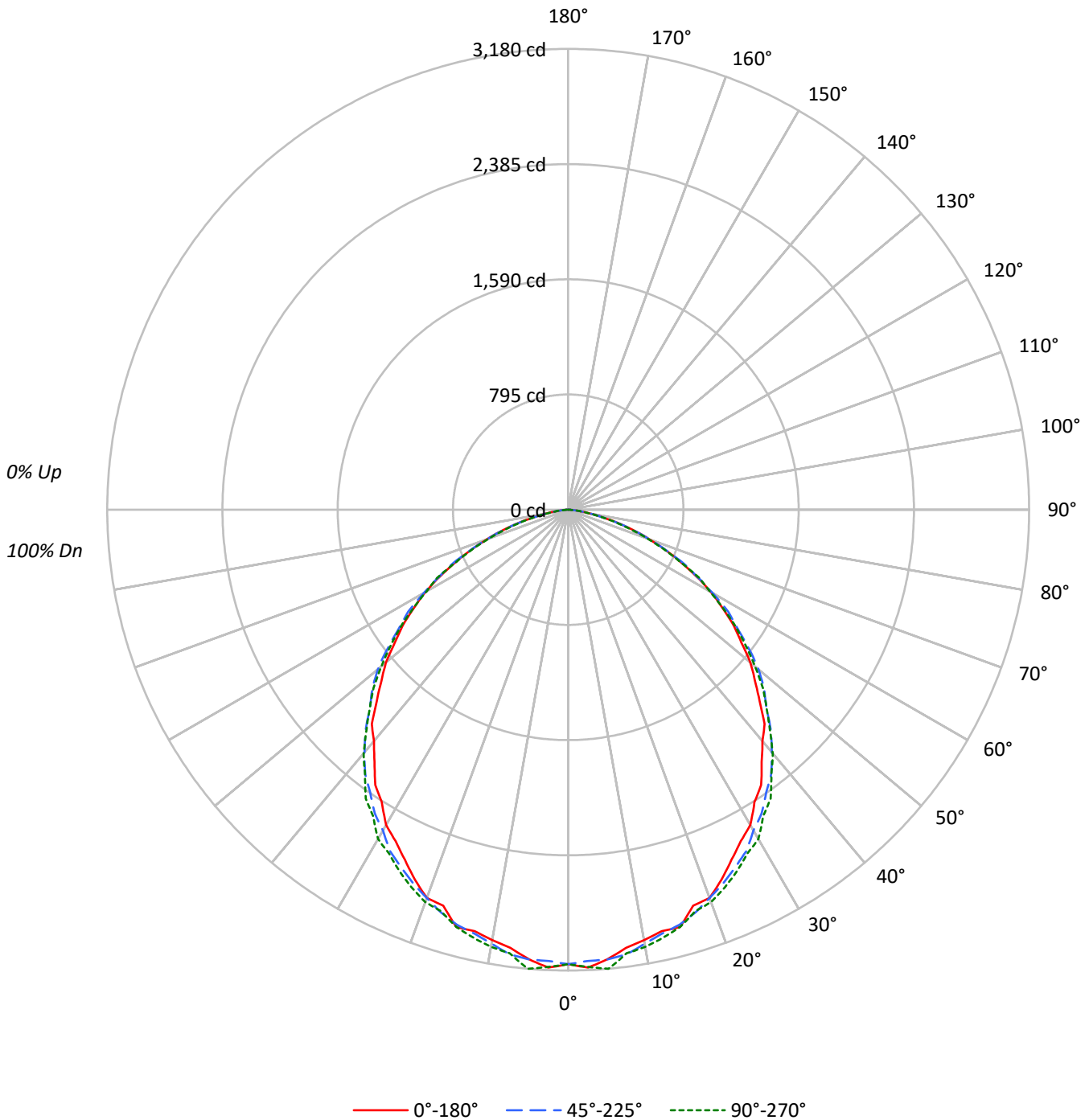
Lumens per Lamp: N/A
Luminaire Lumens: 7903.0 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589779

CATALOG NUMBER: FMR-24-2-LD4-4STD-35-UNV-93-96-EDD

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°	8438	8438	8438
5°	8410	8414	8591
10°	8240	8312	8370
15°	8305	8260	8306
20°	8165	8165	8252
25°	7914	8087	8176
30°	7805	7942	8153
35°	7621	7820	7996
40°	7325	7677	7711
45°	7103	7355	7367
50°	6869	7180	7042
55°	6546	6673	6625
60°	6121	6182	6071
65°	5457	5597	5419
70°	4683	4699	4568
75°	3709	3700	3557
80°	2484	2416	2321
85°	1349	1337	1250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.0	3.7
10°-20°	836.0	10.6
20°-30°	1252.4	15.8
30°-40°	1484.4	18.8
40°-50°	1487.1	18.8
50°-60°	1262.3	16.0
60°-70°	851.1	10.8
70°-80°	374.0	4.7
80°-90°	60.8	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°	2383.4	30.2
0°-40°	3867.8	48.9
0°-60°	6617.2	83.7
0°-90°	7903.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7903.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3136	3136	3136	3136	3136	
5°	3113	3106	3115	3105	3180	294
15°	2981	2947	2965	2980	2982	831
25°	2665	2680	2724	2759	2754	1232
35°	2320	2327	2381	2436	2434	1440
45°	1866	1901	1933	1983	1936	1444
55°	1395	1386	1422	1413	1412	1241
65°	857	846	879	845	851	852
75°	357	349	356	331	342	382
85°	44	42	43	42	40	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3135.7	3135.7	3135.7	3135.7	3135.7
2.5°	3162.8	3138.9	3116.7	3142.6	3158.4
5°	3113.4	3106.2	3114.7	3105.3	3180.2
7.5°	3049.5	3077.4	3093.6	3083.5	3087.9
10°	3015.5	3005.7	3041.8	3066.9	3063.2
12.5°	2979.0	2993.6	2995.6	3022.8	3025.2
15°	2981.1	2946.6	2964.9	2980.2	2981.5
17.5°	2865.3	2902.5	2915.1	2950.3	2906.6
20°	2851.1	2824.0	2851.1	2887.1	2881.5
22.5°	2764.0	2733.7	2792.0	2824.0	2821.9
25°	2665.3	2679.8	2723.6	2759.2	2753.5
27.5°	2578.6	2595.6	2658.0	2707.0	2675.4
30°	2511.8	2503.3	2555.9	2599.7	2624.0
32.5°	2392.4	2423.1	2484.7	2528.0	2504.9
35°	2319.9	2326.8	2380.6	2435.7	2434.1
37.5°	2193.2	2225.2	2300.9	2316.3	2302.1
40°	2085.1	2117.1	2185.5	2202.1	2195.2
42.5°	2005.3	2011.0	2069.7	2088.7	2058.4
45°	1866.4	1901.3	1932.8	1982.6	1935.7
47.5°	1748.2	1764.4	1832.4	1845.8	1821.1
50°	1640.9	1646.6	1715.0	1698.4	1682.2
52.5°	1506.1	1530.0	1568.5	1565.2	1546.2
55°	1395.2	1385.9	1422.3	1412.6	1412.2
57.5°	1262.0	1278.2	1308.1	1292.7	1268.0
60°	1137.3	1137.7	1148.6	1131.2	1128.0
62.5°	998.4	1003.3	1005.7	984.2	1019.1
65°	857.1	845.8	879.0	845.4	851.0
67.5°	727.1	732.8	729.6	708.5	716.6
70°	595.2	602.4	597.2	573.3	580.6
72.5°	474.5	465.6	471.3	441.3	455.1
75°	356.7	349.4	355.9	330.8	342.1
77.5°	242.9	248.6	244.5	231.2	238.9
80°	160.3	155.9	155.9	148.2	149.8
82.5°	93.5	89.1	87.9	85.4	89.1
85°	43.7	42.5	43.3	42.1	40.5
87.5°	15.8	16.2	16.2	15.4	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)