

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: P588739

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-81-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588739
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-LD4-1HI-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

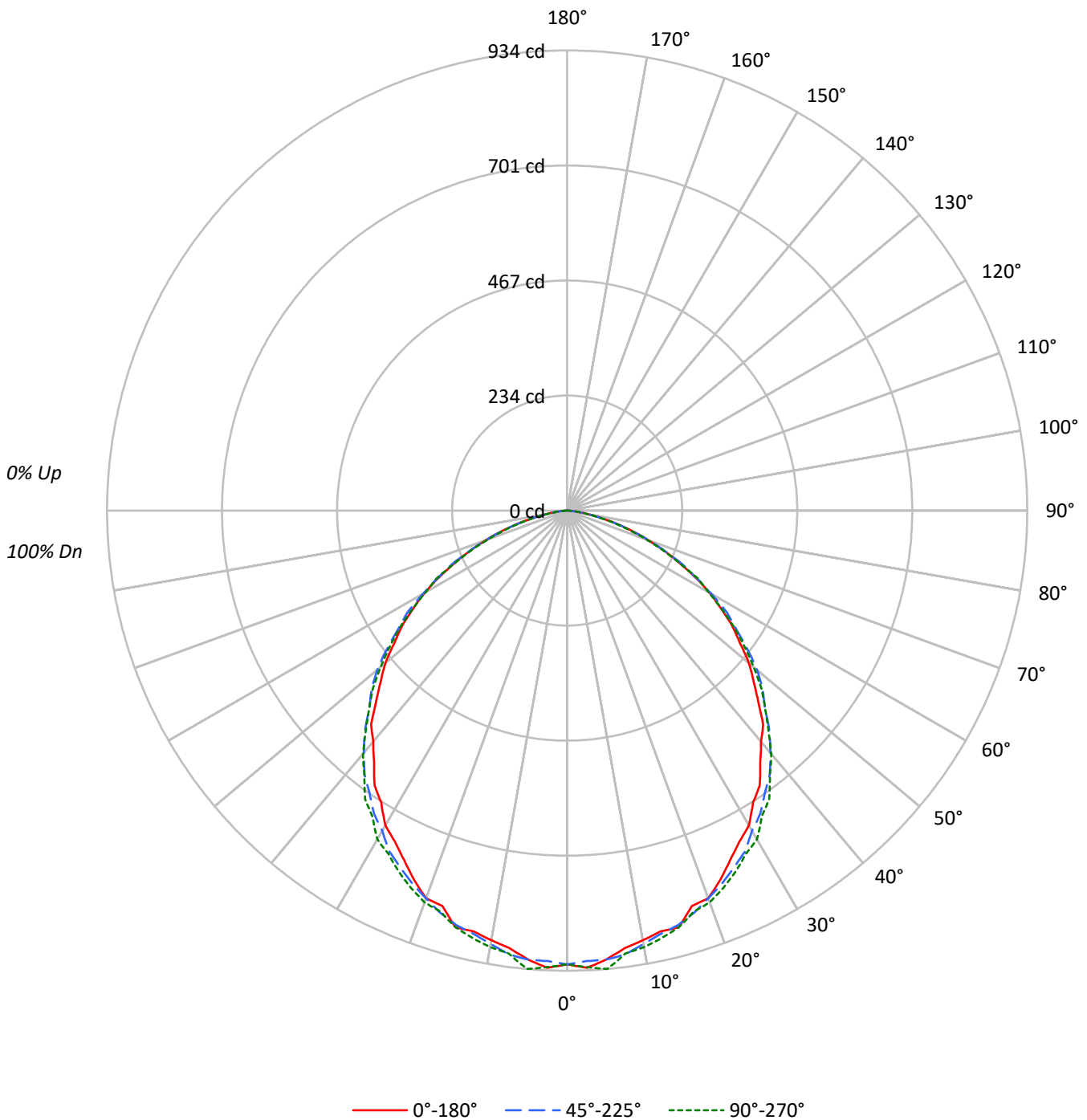
Lumens per Lamp: N/A
Luminaire Lumens: 2321.0 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	2478	2478	2478
5°	2470	2471	2523
10°	2420	2441	2458
15°	2439	2426	2439
20°	2398	2398	2423
25°	2324	2375	2401
30°	2292	2332	2394
35°	2238	2297	2349
40°	2151	2255	2265
45°	2086	2160	2163
50°	2017	2109	2068
55°	1922	1960	1946
60°	1798	1815	1783
65°	1603	1643	1591
70°	1375	1380	1341
75°	1090	1087	1045
80°	730	710	682
85°	395	392	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	3.7
10°-20°	245.5	10.6
20°-30°	367.8	15.8
30°-40°	435.9	18.8
40°-50°	436.7	18.8
50°-60°	370.7	16.0
60°-70°	249.9	10.8
70°-80°	109.8	4.7
80°-90°	17.9	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°	700.0	30.2
0°-40°	1135.9	48.9
0°-60°	1943.4	83.7
0°-90°	2321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	914	912	915	912	934	86
15°	876	865	871	875	876	244
25°	783	787	800	810	809	362
35°	681	683	699	715	715	423
45°	548	558	568	582	568	424
55°	410	407	418	415	415	364
65°	252	248	258	248	250	250
75°	105	103	104	97	100	112
85°	13	12	13	12	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	920.9	920.9	920.9	920.9	920.9
2.5°	928.9	921.9	915.3	922.9	927.6
5°	914.4	912.2	914.7	912.0	934.0
7.5°	895.6	903.8	908.5	905.6	906.9
10°	885.6	882.7	893.3	900.7	899.6
12.5°	874.9	879.2	879.8	887.7	888.5
15°	875.5	865.4	870.7	875.3	875.6
17.5°	841.5	852.4	856.1	866.5	853.6
20°	837.3	829.4	837.3	847.9	846.2
22.5°	811.8	802.8	820.0	829.4	828.8
25°	782.7	787.0	799.9	810.3	808.7
27.5°	757.3	762.3	780.6	795.0	785.7
30°	737.7	735.2	750.6	763.5	770.6
32.5°	702.6	711.6	729.7	742.4	735.7
35°	681.3	683.3	699.2	715.3	714.9
37.5°	644.1	653.5	675.7	680.3	676.1
40°	612.4	621.8	641.8	646.7	644.7
42.5°	588.9	590.6	607.8	613.4	604.5
45°	548.1	558.4	567.6	582.3	568.5
47.5°	513.4	518.2	538.2	542.1	534.8
50°	481.9	483.6	503.7	498.8	494.0
52.5°	442.3	449.3	460.6	459.7	454.1
55°	409.7	407.0	417.7	414.9	414.7
57.5°	370.6	375.4	384.2	379.7	372.4
60°	334.0	334.1	337.3	332.2	331.3
62.5°	293.2	294.6	295.4	289.1	299.3
65°	251.7	248.4	258.1	248.3	249.9
67.5°	213.6	215.2	214.3	208.1	210.5
70°	174.8	176.9	175.4	168.4	170.5
72.5°	139.4	136.7	138.4	129.6	133.6
75°	104.8	102.6	104.5	97.1	100.5
77.5°	71.3	73.0	71.8	67.9	70.2
80°	47.1	45.8	45.8	43.5	44.0
82.5°	27.5	26.2	25.8	25.1	26.2
85°	12.8	12.5	12.7	12.4	11.9
87.5°	4.6	4.8	4.8	4.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)