

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: P588781

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588781
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-50-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

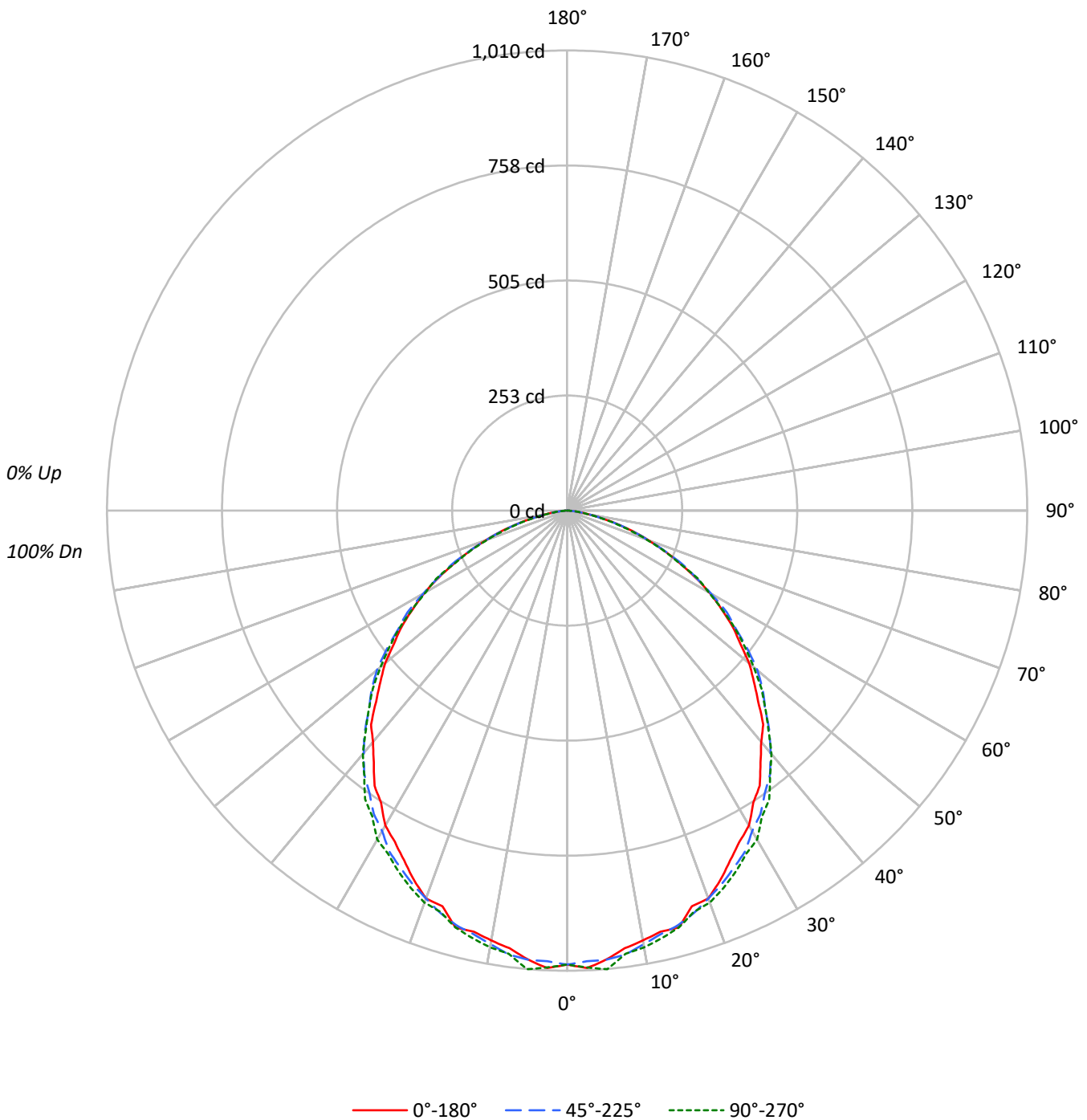
Lumens per Lamp: N/A
Luminaire Lumens: 2511.0 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2681	2681	2681
5°	2672	2673	2730
10°	2618	2641	2660
15°	2639	2624	2639
20°	2594	2594	2622
25°	2514	2569	2598
30°	2480	2523	2591
35°	2421	2485	2541
40°	2327	2439	2450
45°	2257	2337	2340
50°	2183	2281	2238
55°	2080	2120	2105
60°	1945	1964	1929
65°	1734	1778	1722
70°	1488	1493	1452
75°	1178	1176	1130
80°	789	767	738
85°	429	426	398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	3.7
10°-20°	265.6	10.6
20°-30°	397.9	15.8
30°-40°	471.6	18.8
40°-50°	472.5	18.8
50°-60°	401.1	16.0
60°-70°	270.4	10.8
70°-80°	118.8	4.7
80°-90°	19.3	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°	757.3	30.2
0°-40°	1228.9	48.9
0°-60°	2102.5	83.7
0°-90°	2511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2511.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	996	996	996	996	996	
5°	989	987	990	987	1010	93
15°	947	936	942	947	947	264
25°	847	852	865	877	875	391
35°	737	739	756	774	773	458
45°	593	604	614	630	615	459
55°	443	440	452	449	449	394
65°	272	269	279	269	270	271
75°	113	111	113	105	109	121
85°	14	14	14	13	13	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	996.3	996.3	996.3	996.3	996.3
2.5°	1004.9	997.3	990.3	998.5	1003.5
5°	989.2	986.9	989.6	986.7	1010.5
7.5°	968.9	977.8	982.9	979.7	981.1
10°	958.1	955.0	966.5	974.4	973.3
12.5°	946.5	951.1	951.8	960.4	961.2
15°	947.2	936.2	942.0	946.9	947.3
17.5°	910.4	922.2	926.2	937.4	923.5
20°	905.9	897.3	905.9	917.3	915.5
22.5°	878.2	868.6	887.1	897.3	896.6
25°	846.8	851.5	865.3	876.7	874.9
27.5°	819.3	824.7	844.5	860.1	850.0
30°	798.1	795.4	812.1	826.0	833.7
32.5°	760.1	769.9	789.5	803.2	795.9
35°	737.1	739.3	756.4	773.9	773.4
37.5°	696.8	707.0	731.0	735.9	731.4
40°	662.5	672.6	694.4	699.7	697.5
42.5°	637.1	638.9	657.6	663.6	654.0
45°	593.0	604.1	614.1	629.9	615.0
47.5°	555.5	560.6	582.2	586.5	578.6
50°	521.4	523.2	544.9	539.6	534.5
52.5°	478.5	486.1	498.3	497.3	491.3
55°	443.3	440.3	451.9	448.8	448.7
57.5°	401.0	406.1	415.6	410.7	402.9
60°	361.3	361.5	364.9	359.4	358.4
62.5°	317.2	318.8	319.5	312.7	323.8
65°	272.3	268.7	279.3	268.6	270.4
67.5°	231.0	232.8	231.8	225.1	227.7
70°	189.1	191.4	189.7	182.2	184.5
72.5°	150.8	147.9	149.7	140.2	144.6
75°	113.3	111.0	113.1	105.1	108.7
77.5°	77.2	79.0	77.7	73.5	75.9
80°	50.9	49.5	49.5	47.1	47.6
82.5°	29.7	28.3	27.9	27.1	28.3
85°	13.9	13.5	13.8	13.4	12.9
87.5°	5.0	5.1	5.1	4.9	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)