

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: P588783

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-93-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588783
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-93-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

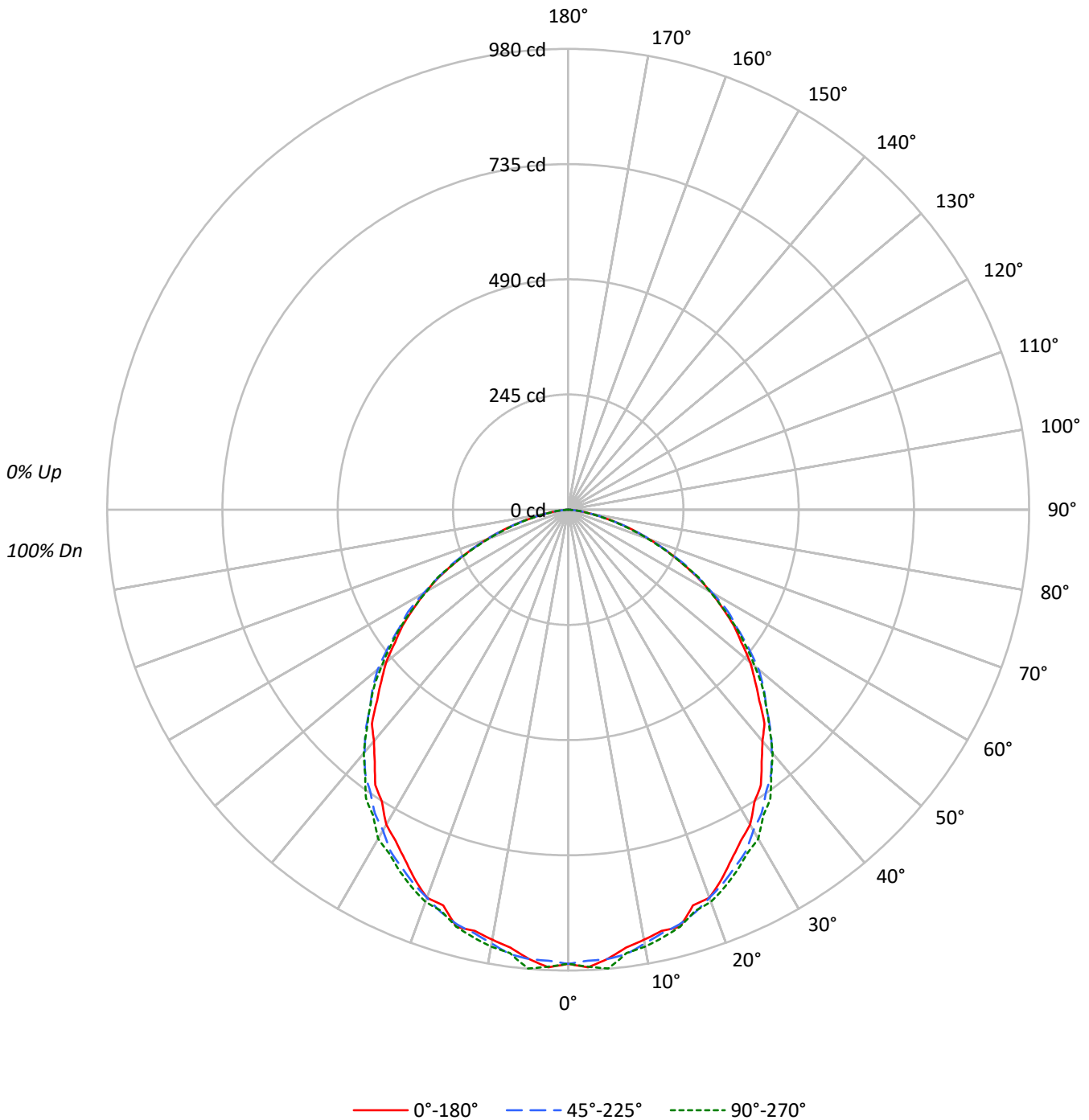
Lumens per Lamp: N/A
Luminaire Lumens: 2434.0 lumens
Efficiency: N/A
Efficacy: 112.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					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°	2599	2599	2599
5°	2590	2591	2646
10°	2538	2560	2578
15°	2558	2544	2558
20°	2515	2515	2541
25°	2437	2491	2518
30°	2404	2446	2511
35°	2347	2409	2463
40°	2256	2364	2375
45°	2187	2265	2269
50°	2116	2211	2169
55°	2016	2055	2040
60°	1885	1904	1870
65°	1681	1724	1669
70°	1442	1447	1407
75°	1143	1140	1096
80°	766	744	714
85°	417	411	386



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	3.7
10°-20°	257.5	10.6
20°-30°	385.7	15.8
30°-40°	457.2	18.8
40°-50°	458.0	18.8
50°-60°	388.8	16.0
60°-70°	262.1	10.8
70°-80°	115.2	4.7
80°-90°	18.7	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°	734.0	30.2
0°-40°	1191.2	48.9
0°-60°	2038.0	83.7
0°-90°	2434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2434.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	959	957	959	956	980	90
15°	918	908	913	918	918	256
25°	821	825	839	850	848	379
35°	714	717	733	750	750	444
45°	575	586	595	611	596	445
55°	430	427	438	435	435	382
65°	264	260	271	260	262	263
75°	110	108	110	102	105	118
85°	14	13	13	13	12	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	965.7	965.7	965.7	965.7	965.7
2.5°	974.1	966.7	959.9	967.9	972.7
5°	958.9	956.6	959.3	956.4	979.5
7.5°	939.2	947.8	952.8	949.7	951.0
10°	928.7	925.7	936.8	944.6	943.4
12.5°	917.5	922.0	922.6	931.0	931.7
15°	918.1	907.5	913.1	917.9	918.2
17.5°	882.5	893.9	897.8	908.6	895.2
20°	878.1	869.7	878.1	889.2	887.4
22.5°	851.3	841.9	859.9	869.7	869.1
25°	820.9	825.3	838.8	849.8	848.0
27.5°	794.2	799.4	818.6	833.7	824.0
30°	773.6	771.0	787.2	800.7	808.1
32.5°	736.8	746.3	765.2	778.6	771.5
35°	714.5	716.6	733.2	750.2	749.7
37.5°	675.5	685.3	708.6	713.4	709.0
40°	642.2	652.0	673.1	678.2	676.1
42.5°	617.6	619.4	637.4	643.3	633.9
45°	574.8	585.6	595.3	610.6	596.2
47.5°	538.4	543.4	564.4	568.5	560.9
50°	505.4	507.1	528.2	523.1	518.1
52.5°	463.9	471.2	483.1	482.1	476.2
55°	429.7	426.8	438.0	435.1	434.9
57.5°	388.7	393.7	402.9	398.1	390.5
60°	350.3	350.4	353.8	348.4	347.4
62.5°	307.5	309.0	309.7	303.1	313.9
65°	264.0	260.5	270.7	260.4	262.1
67.5°	223.9	225.7	224.7	218.2	220.7
70°	183.3	185.5	183.9	176.6	178.8
72.5°	146.1	143.4	145.1	135.9	140.2
75°	109.9	107.6	109.6	101.9	105.4
77.5°	74.8	76.6	75.3	71.2	73.6
80°	49.4	48.0	48.0	45.6	46.1
82.5°	28.8	27.4	27.1	26.3	27.4
85°	13.5	13.1	13.3	13.0	12.5
87.5°	4.9	5.0	5.0	4.7	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)