

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: P589350

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589350
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-LD4-3HI-50-UNV-82-85-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

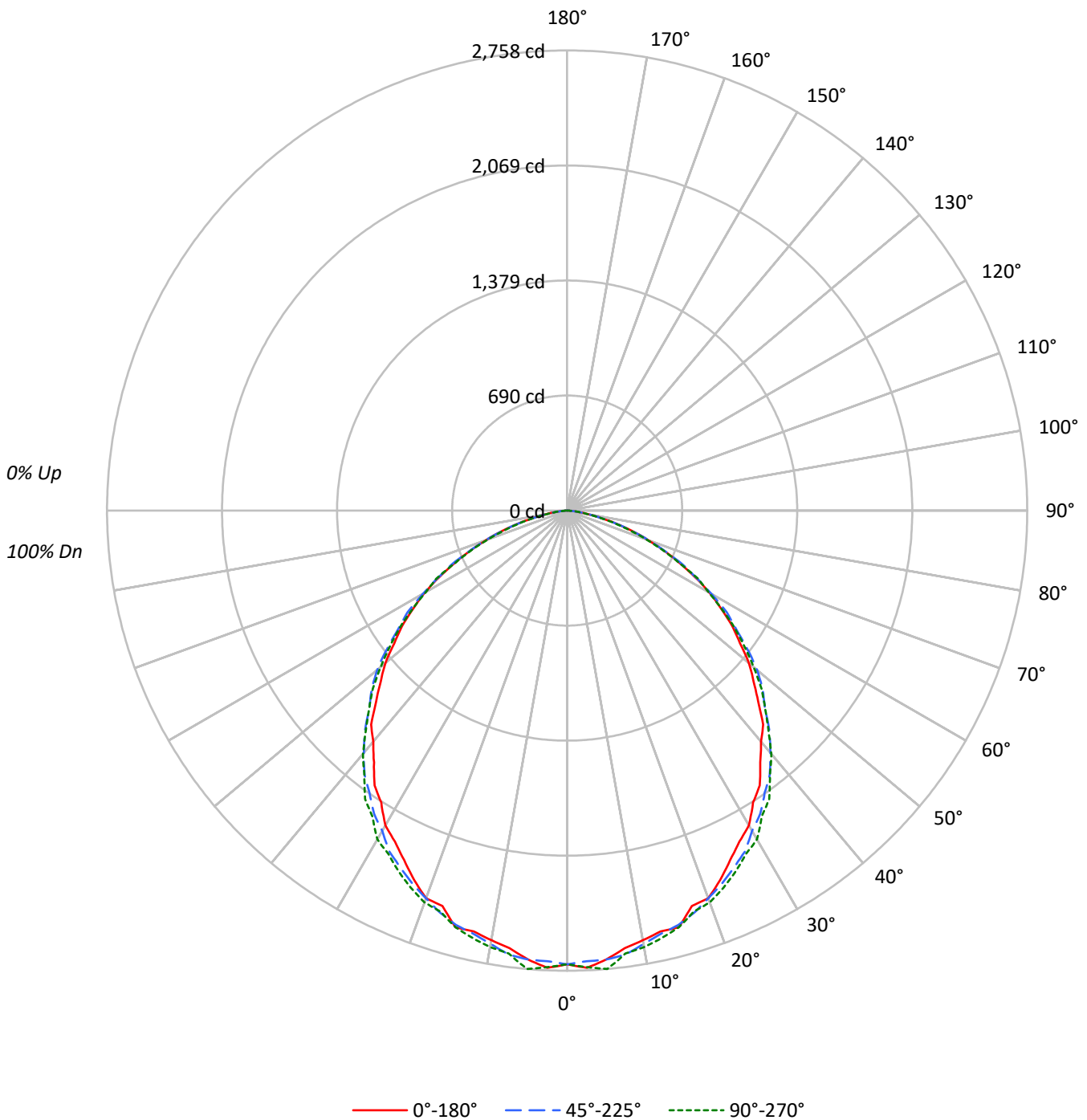
Lumens per Lamp: N/A
Luminaire Lumens: 6854.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	7318	7318	7318
5°	7294	7297	7450
10°	7146	7208	7259
15°	7203	7163	7204
20°	7081	7081	7156
25°	6863	7013	7090
30°	6769	6888	7071
35°	6610	6782	6935
40°	6352	6658	6688
45°	6160	6379	6388
50°	5958	6227	6108
55°	5677	5787	5746
60°	5308	5362	5265
65°	4733	4854	4700
70°	4061	4075	3961
75°	3216	3209	3085
80°	2154	2095	2013
85°	1170	1161	1084



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.8	3.7
10°-20°	725.0	10.6
20°-30°	1086.2	15.8
30°-40°	1287.4	18.8
40°-50°	1289.7	18.8
50°-60°	1094.8	16.0
60°-70°	738.1	10.8
70°-80°	324.3	4.7
80°-90°	52.7	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°	2067.0	30.2
0°-40°	3354.4	48.9
0°-60°	5738.9	83.7
0°-90°	6854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2720	2720	2720	2720	2720	
5°	2700	2694	2701	2693	2758	255
15°	2585	2556	2571	2585	2586	720
25°	2312	2324	2362	2393	2388	1069
35°	2012	2018	2065	2112	2111	1249
45°	1619	1649	1676	1720	1679	1252
55°	1210	1202	1234	1225	1225	1076
65°	743	734	762	733	738	739
75°	309	303	309	287	297	332
85°	38	37	38	36	35	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2719.5	2719.5	2719.5	2719.5	2719.5
2.5°	2743.0	2722.3	2703.0	2725.5	2739.2
5°	2700.2	2693.9	2701.2	2693.2	2758.1
7.5°	2644.7	2668.9	2683.0	2674.2	2678.1
10°	2615.2	2606.8	2638.0	2659.8	2656.6
12.5°	2583.6	2596.2	2598.0	2621.5	2623.6
15°	2585.4	2555.5	2571.3	2584.7	2585.7
17.5°	2484.9	2517.2	2528.1	2558.7	2520.8
20°	2472.7	2449.1	2472.7	2503.9	2499.0
22.5°	2397.2	2370.8	2421.4	2449.1	2447.4
25°	2311.5	2324.1	2362.0	2392.9	2388.0
27.5°	2236.3	2251.1	2305.2	2347.6	2320.3
30°	2178.4	2171.0	2216.7	2254.6	2275.7
32.5°	2074.8	2101.5	2154.9	2192.4	2172.4
35°	2012.0	2017.9	2064.6	2112.4	2111.0
37.5°	1902.1	1929.8	1995.5	2008.8	1996.5
40°	1808.3	1836.1	1895.4	1909.8	1903.8
42.5°	1739.1	1744.1	1795.0	1811.5	1785.1
45°	1618.7	1648.9	1676.3	1719.5	1678.7
47.5°	1516.2	1530.2	1589.2	1600.8	1579.4
50°	1423.1	1428.0	1487.4	1473.0	1458.9
52.5°	1306.2	1326.9	1360.3	1357.5	1341.0
55°	1210.0	1201.9	1233.5	1225.1	1224.7
57.5°	1094.5	1108.5	1134.5	1121.2	1099.7
60°	986.3	986.7	996.2	981.1	978.2
62.5°	865.9	870.1	872.2	853.6	883.8
65°	743.3	733.5	762.3	733.2	738.1
67.5°	630.6	635.5	632.7	614.5	621.5
70°	516.2	522.5	517.9	497.2	503.5
72.5°	411.5	403.8	408.7	382.7	394.7
75°	309.3	303.0	308.6	286.9	296.7
77.5°	210.7	215.6	212.1	200.5	207.2
80°	139.0	135.2	135.2	128.5	129.9
82.5°	81.1	77.2	76.2	74.1	77.2
85°	37.9	36.9	37.6	36.5	35.1
87.5°	13.7	14.0	14.0	13.3	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)