

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: P589285

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-82-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589285
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-35-UNV-82-84-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

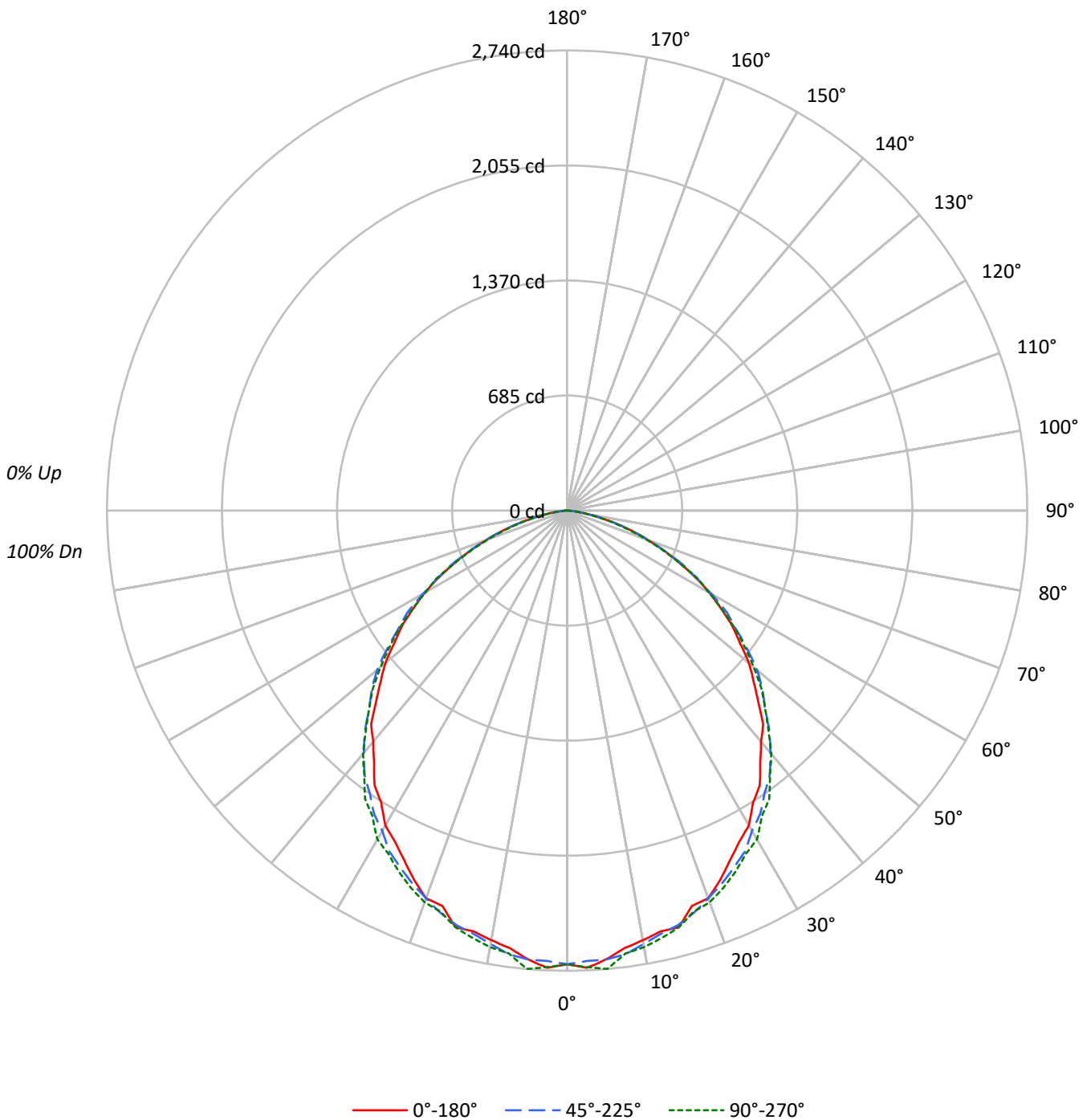
Lumens per Lamp: N/A
Luminaire Lumens: 6808.1 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	7269	7269	7269
5°	7245	7248	7400
10°	7098	7160	7210
15°	7154	7115	7155
20°	7033	7033	7108
25°	6817	6966	7043
30°	6724	6842	7024
35°	6565	6737	6888
40°	6310	6614	6643
45°	6119	6336	6346
50°	5918	6185	6067
55°	5639	5748	5707
60°	5273	5325	5230
65°	4702	4821	4668
70°	4034	4047	3935
75°	3195	3188	3064
80°	2140	2081	1999
85°	1164	1152	1078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.1	3.7
10°-20°	720.1	10.6
20°-30°	1078.9	15.8
30°-40°	1278.7	18.8
40°-50°	1281.1	18.8
50°-60°	1087.4	16.0
60°-70°	733.2	10.8
70°-80°	322.2	4.7
80°-90°	52.4	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°	2053.1	30.2
0°-40°	3331.9	48.9
0°-60°	5700.4	83.7
0°-90°	6808.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6808.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2701	2701	2701	2701	2701	
5°	2682	2676	2683	2675	2740	253
15°	2568	2538	2554	2567	2568	715
25°	2296	2308	2346	2377	2372	1061
35°	1998	2004	2051	2098	2097	1241
45°	1608	1638	1665	1708	1668	1244
55°	1202	1194	1225	1217	1216	1069
65°	738	729	757	728	733	734
75°	307	301	307	285	295	329
85°	38	37	37	36	35	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2701.2	2701.2	2701.2	2701.2	2701.2
2.5°	2724.6	2704.0	2684.9	2707.2	2720.8
5°	2682.1	2675.8	2683.1	2675.1	2739.6
7.5°	2627.0	2651.0	2665.0	2656.3	2660.1
10°	2597.7	2589.3	2620.3	2642.0	2638.8
12.5°	2566.3	2578.8	2580.6	2603.9	2606.0
15°	2568.0	2538.4	2554.1	2567.3	2568.4
17.5°	2468.3	2500.3	2511.2	2541.5	2503.8
20°	2456.1	2432.7	2456.1	2487.1	2482.2
22.5°	2381.1	2354.9	2405.1	2432.7	2430.9
25°	2296.0	2308.5	2346.2	2376.9	2372.0
27.5°	2221.3	2236.0	2289.7	2331.9	2304.7
30°	2163.8	2156.5	2201.8	2239.5	2260.4
32.5°	2060.9	2087.4	2140.4	2177.7	2157.9
35°	1998.5	2004.4	2050.8	2098.2	2096.8
37.5°	1889.3	1916.9	1982.1	1995.3	1983.1
40°	1796.2	1823.7	1882.7	1897.0	1891.0
42.5°	1727.5	1732.4	1782.9	1799.3	1773.2
45°	1607.8	1637.8	1665.0	1707.9	1667.5
47.5°	1506.0	1520.0	1578.5	1590.1	1568.8
50°	1413.6	1418.5	1477.4	1463.1	1449.1
52.5°	1297.4	1318.0	1351.1	1348.4	1332.0
55°	1201.9	1193.8	1225.2	1216.9	1216.5
57.5°	1087.1	1101.1	1126.9	1113.6	1092.4
60°	979.7	980.1	989.5	974.5	971.7
62.5°	860.1	864.3	866.4	847.9	877.9
65°	738.4	728.6	757.2	728.2	733.1
67.5°	626.4	631.3	628.5	610.4	617.3
70°	512.7	519.0	514.4	493.9	500.1
72.5°	408.8	401.1	406.0	380.2	392.0
75°	307.3	301.0	306.6	284.9	294.7
77.5°	209.3	214.1	210.7	199.1	205.8
80°	138.1	134.3	134.3	127.7	129.0
82.5°	80.6	76.7	75.7	73.6	76.7
85°	37.7	36.6	37.3	36.3	34.9
87.5°	13.6	14.0	14.0	13.3	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)