

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: P589278

Luminaire Tested: **FMR-24-2-LD4-3HI-35-UNV-81-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589278
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-81-85-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

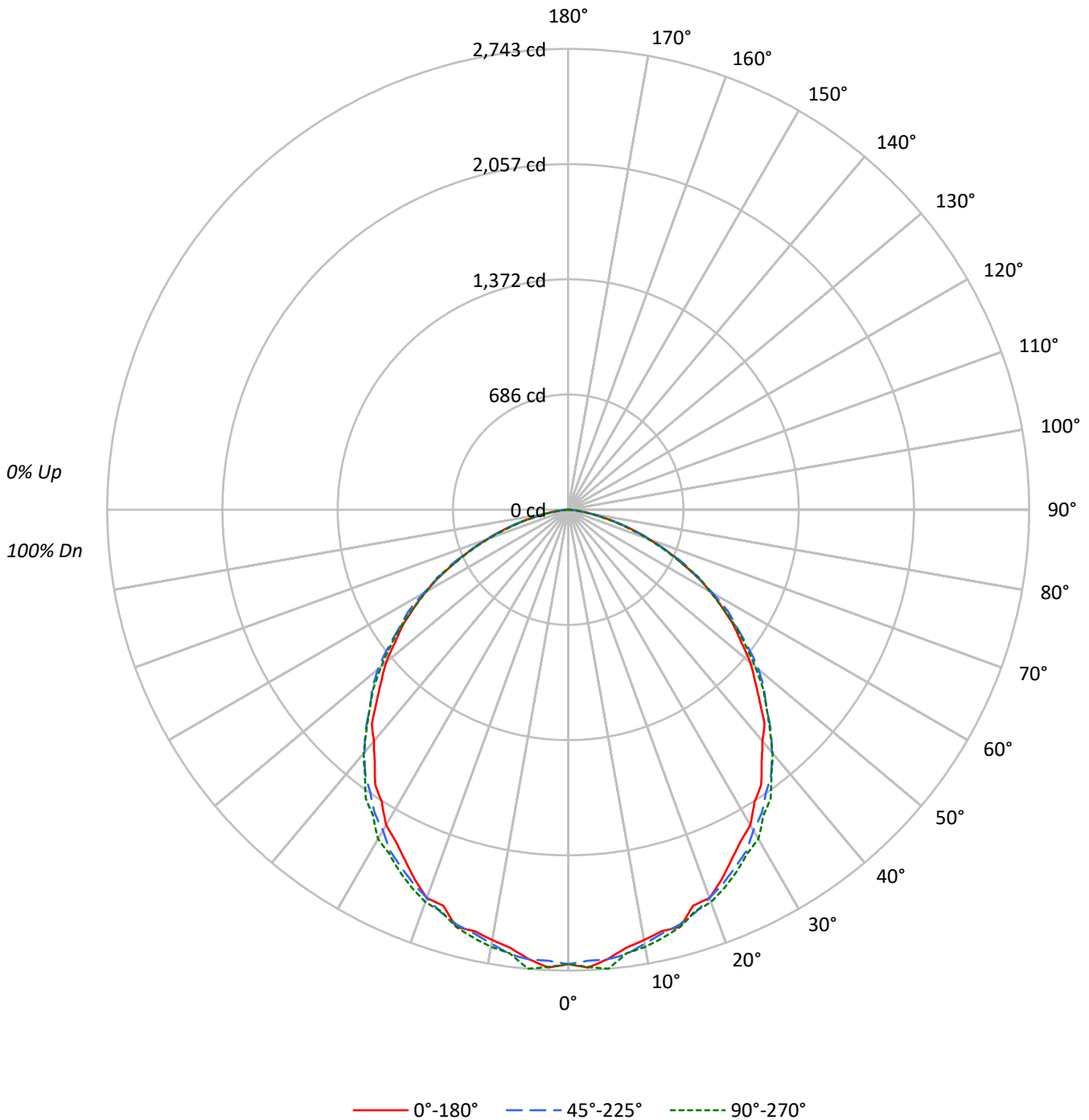
Lumens per Lamp: N/A
Luminaire Lumens: 6816.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P589278

CATALOG NUMBER: FMR-24-2-LD4-3HI-35-UNV-81-85-EDD

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°	7277	7277	7277
5°	7253	7256	7409
10°	7106	7168	7219
15°	7163	7124	7164
20°	7042	7042	7117
25°	6825	6974	7051
30°	6731	6850	7032
35°	6573	6745	6896
40°	6317	6621	6651
45°	6126	6344	6353
50°	5925	6192	6074
55°	5645	5755	5714
60°	5279	5331	5236
65°	4707	4827	4674
70°	4039	4052	3939
75°	3198	3191	3068
80°	2143	2083	2002
85°	1164	1155	1078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.4	3.7
10°-20°	721.0	10.6
20°-30°	1080.2	15.8
30°-40°	1280.2	18.8
40°-50°	1282.6	18.8
50°-60°	1088.7	16.0
60°-70°	734.0	10.8
70°-80°	322.5	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°	2055.5	30.2
0°-40°	3335.8	48.9
0°-60°	5707.0	83.7
0°-90°	6816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6816.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2704	2704	2704	2704	2704	
5°	2685	2679	2686	2678	2743	253
15°	2571	2541	2557	2570	2571	716
25°	2299	2311	2349	2380	2375	1063
35°	2001	2007	2053	2101	2099	1242
45°	1610	1640	1667	1710	1669	1245
55°	1203	1195	1227	1218	1218	1070
65°	739	729	758	729	734	735
75°	308	301	307	285	295	330
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°	2704.4	2704.4	2704.4	2704.4	2704.4
2.5°	2727.8	2707.2	2688.0	2710.4	2724.0
5°	2685.2	2678.9	2686.3	2678.2	2742.8
7.5°	2630.0	2654.1	2668.1	2659.4	2663.2
10°	2600.7	2592.3	2623.4	2645.1	2641.9
12.5°	2569.3	2581.9	2583.6	2607.0	2609.1
15°	2571.0	2541.3	2557.1	2570.3	2571.4
17.5°	2471.2	2503.3	2514.1	2544.5	2506.8
20°	2458.9	2435.5	2458.9	2490.0	2485.1
22.5°	2383.9	2357.7	2408.0	2435.5	2433.8
25°	2298.7	2311.2	2348.9	2379.7	2374.8
27.5°	2223.9	2238.6	2292.4	2334.6	2307.4
30°	2166.3	2159.0	2204.4	2242.1	2263.1
32.5°	2063.3	2089.9	2142.9	2180.3	2160.4
35°	2000.8	2006.8	2053.2	2100.7	2099.3
37.5°	1891.5	1919.1	1984.4	1997.7	1985.5
40°	1798.3	1825.9	1884.9	1899.2	1893.3
42.5°	1729.5	1734.4	1785.0	1801.4	1775.2
45°	1609.7	1639.8	1667.0	1709.9	1669.4
47.5°	1507.8	1521.7	1580.4	1591.9	1570.6
50°	1415.2	1420.1	1479.1	1464.8	1450.9
52.5°	1299.0	1319.6	1352.7	1349.9	1333.5
55°	1203.3	1195.3	1226.7	1218.3	1217.9
57.5°	1088.4	1102.4	1128.2	1114.9	1093.6
60°	980.9	981.2	990.6	975.6	972.8
62.5°	861.1	865.3	867.4	848.9	878.9
65°	739.2	729.4	758.1	729.1	734.0
67.5°	627.1	632.0	629.2	611.1	618.1
70°	513.3	519.6	515.0	494.4	500.7
72.5°	409.2	401.6	406.4	380.6	392.5
75°	307.6	301.3	306.9	285.3	295.1
77.5°	209.5	214.4	210.9	199.4	206.0
80°	138.3	134.4	134.4	127.8	129.2
82.5°	80.7	76.8	75.8	73.7	76.8
85°	37.7	36.7	37.4	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)