

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: P589341

Luminaire Tested: **FMR-24-2-LD4-3HI-50-UNV-81-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589341
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-81-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

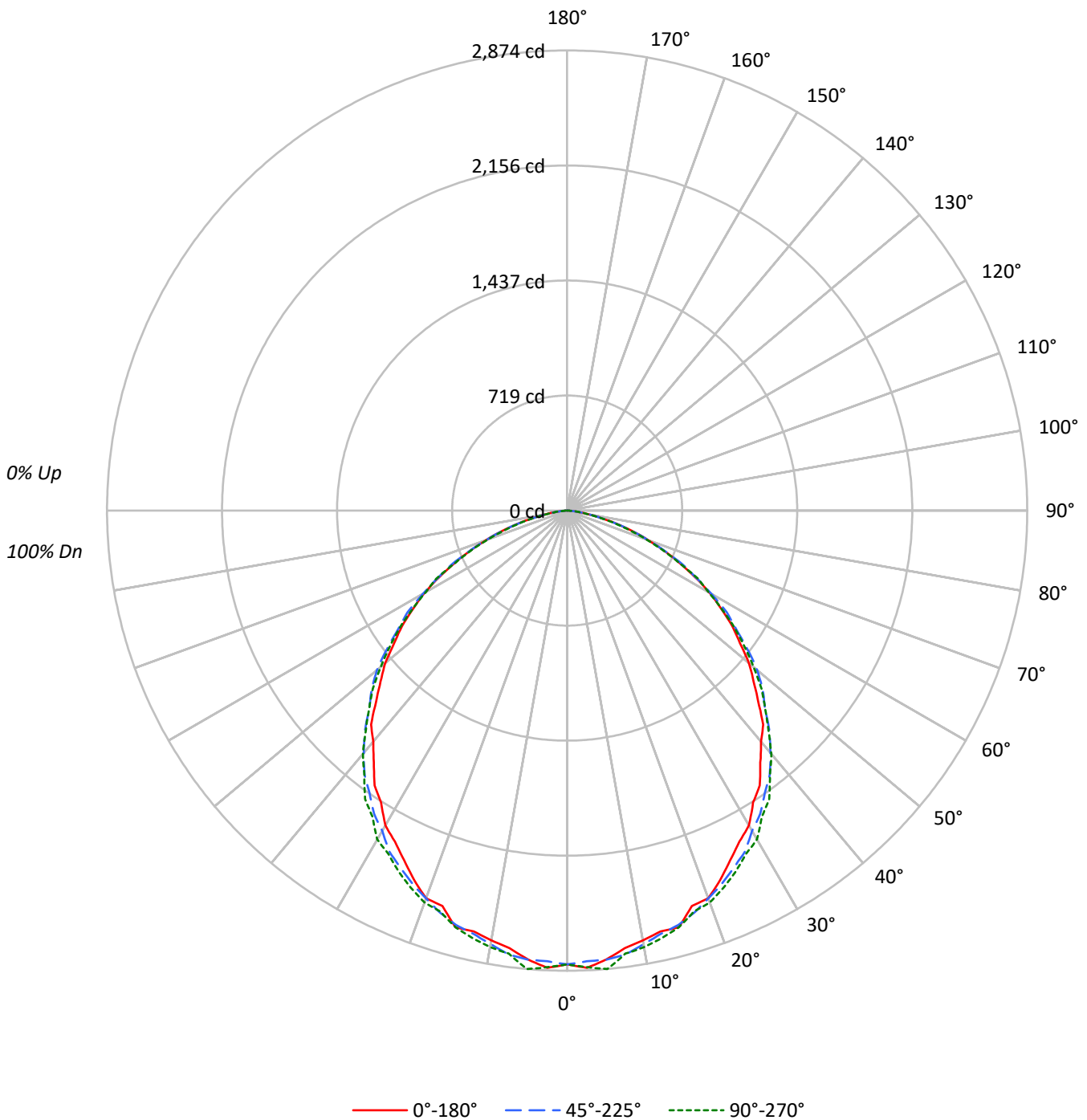
Lumens per Lamp: N/A
Luminaire Lumens: 7143.0 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	7627	7627	7627
5°	7601	7604	7764
10°	7447	7512	7565
15°	7506	7465	7507
20°	7379	7379	7458
25°	7152	7309	7389
30°	7054	7178	7369
35°	6888	7069	7227
40°	6620	6939	6970
45°	6420	6648	6658
50°	6209	6489	6365
55°	5916	6031	5988
60°	5532	5588	5487
65°	4933	5058	4898
70°	4232	4247	4128
75°	3352	3345	3215
80°	2245	2183	2098
85°	1220	1210	1130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.6	3.7
10°-20°	755.6	10.6
20°-30°	1132.0	15.8
30°-40°	1341.6	18.8
40°-50°	1344.1	18.8
50°-60°	1140.9	16.0
60°-70°	769.2	10.8
70°-80°	338.0	4.7
80°-90°	54.9	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°	2154.2	30.2
0°-40°	3495.8	48.9
0°-60°	5980.9	83.7
0°-90°	7143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2834	2834	2834	2834	2834	
5°	2814	2807	2815	2807	2874	265
15°	2694	2663	2680	2694	2695	751
25°	2409	2422	2462	2494	2489	1114
35°	2097	2103	2152	2202	2200	1302
45°	1687	1718	1747	1792	1750	1305
55°	1261	1253	1286	1277	1276	1122
65°	775	764	794	764	769	770
75°	322	316	322	299	309	346
85°	40	38	39	38	37	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2834.2	2834.2	2834.2	2834.2	2834.2
2.5°	2858.7	2837.1	2817.0	2840.4	2854.7
5°	2814.0	2807.4	2815.1	2806.7	2874.4
7.5°	2756.2	2781.5	2796.1	2787.0	2791.0
10°	2725.5	2716.7	2749.3	2772.0	2768.7
12.5°	2692.5	2705.7	2707.5	2732.1	2734.3
15°	2694.4	2663.3	2679.7	2693.6	2694.7
17.5°	2589.7	2623.4	2634.7	2666.6	2627.0
20°	2576.9	2552.4	2576.9	2609.5	2604.4
22.5°	2498.2	2470.8	2523.5	2552.4	2550.6
25°	2408.9	2422.1	2461.6	2493.8	2488.7
27.5°	2330.6	2346.0	2402.4	2446.6	2418.1
30°	2270.3	2262.6	2310.1	2349.7	2371.6
32.5°	2162.3	2190.1	2245.7	2284.9	2264.0
35°	2096.8	2103.0	2151.7	2201.5	2200.0
37.5°	1982.3	2011.2	2079.6	2093.5	2080.7
40°	1884.6	1913.5	1975.3	1990.3	1984.1
42.5°	1812.5	1817.6	1870.7	1887.9	1860.4
45°	1687.0	1718.4	1747.0	1792.0	1749.5
47.5°	1580.1	1594.7	1656.2	1668.3	1646.0
50°	1483.1	1488.3	1550.1	1535.1	1520.5
52.5°	1361.3	1382.9	1417.6	1414.7	1397.5
55°	1261.0	1252.6	1285.5	1276.7	1276.4
57.5°	1140.6	1155.3	1182.3	1168.4	1146.1
60°	1027.9	1028.3	1038.2	1022.4	1019.5
62.5°	902.4	906.8	909.0	889.6	921.1
65°	774.7	764.4	794.4	764.1	769.2
67.5°	657.2	662.3	659.4	640.4	647.7
70°	537.9	544.5	539.8	518.2	524.7
72.5°	428.9	420.8	425.9	398.9	411.3
75°	322.4	315.8	321.7	299.0	309.2
77.5°	219.6	224.7	221.0	208.9	215.9
80°	144.9	140.9	140.9	133.9	135.4
82.5°	84.5	80.5	79.4	77.2	80.5
85°	39.5	38.4	39.2	38.1	36.6
87.5°	14.3	14.6	14.6	13.9	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)