

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: P589766

Luminaire Tested: **FMR-24-2-LD4-4STD-35-UNV-82-85-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589766
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-LD4-4STD-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

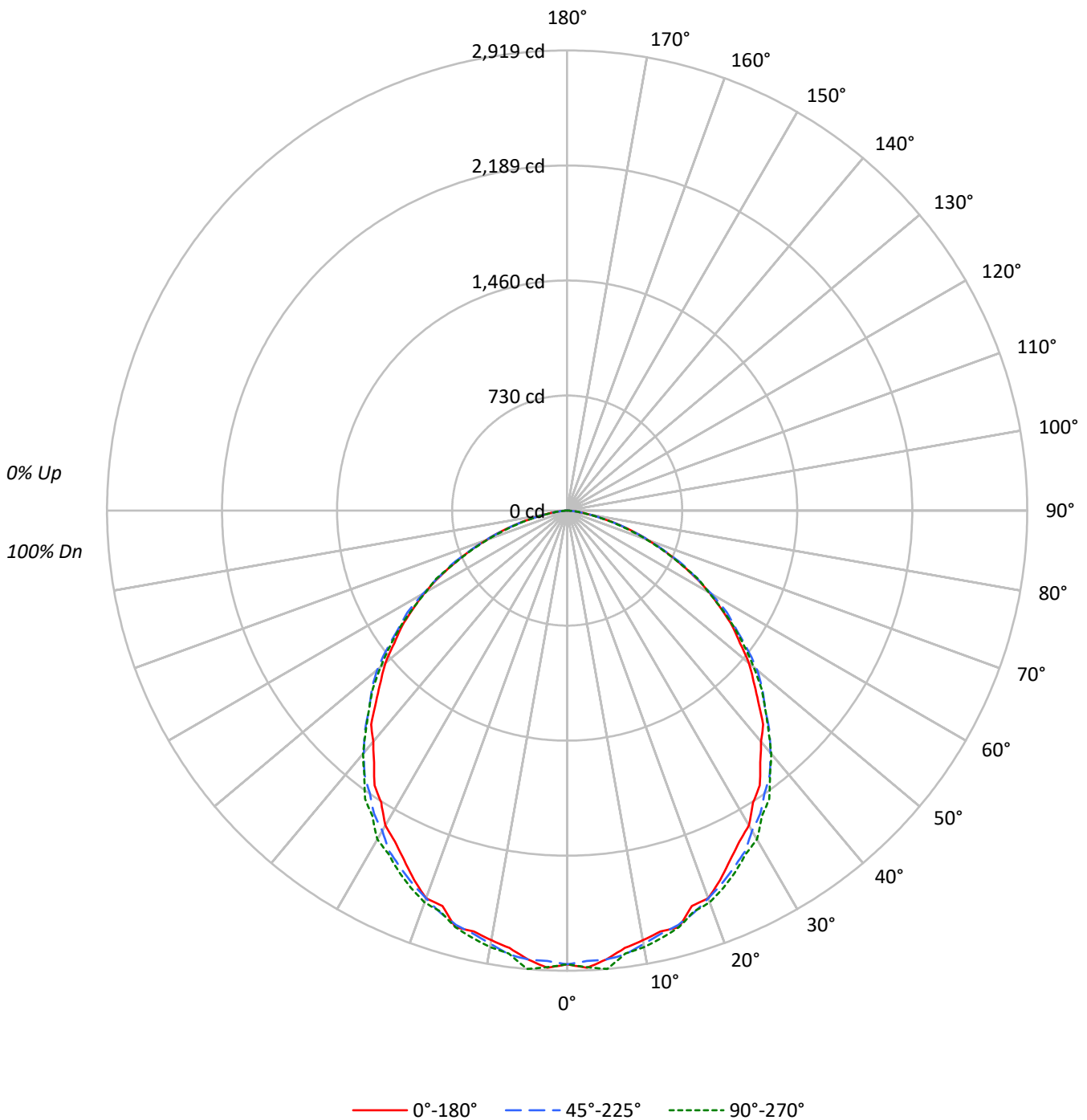
Lumens per Lamp: N/A
Luminaire Lumens: 7253.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7744	7744	7744
5°	7719	7722	7884
10°	7562	7628	7682
15°	7622	7580	7623
20°	7493	7493	7573
25°	7263	7421	7503
30°	7163	7289	7483
35°	6994	7177	7339
40°	6722	7046	7077
45°	6519	6751	6761
50°	6305	6589	6463
55°	6007	6124	6080
60°	5617	5673	5571
65°	5009	5137	4973
70°	4297	4312	4192
75°	3404	3396	3265
80°	2280	2218	2131
85°	1238	1229	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.7	3.7
10°-20°	767.2	10.6
20°-30°	1149.4	15.8
30°-40°	1362.3	18.8
40°-50°	1364.8	18.8
50°-60°	1158.5	16.0
60°-70°	781.1	10.8
70°-80°	343.2	4.7
80°-90°	55.8	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°	2187.3	30.2
0°-40°	3549.6	48.9
0°-60°	6072.9	83.7
0°-90°	7253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7253.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2878	2878	2878	2878	2878	
5°	2857	2851	2858	2850	2919	269
15°	2736	2704	2721	2735	2736	762
25°	2446	2459	2500	2532	2527	1131
35°	2129	2135	2185	2235	2234	1322
45°	1713	1745	1774	1820	1776	1325
55°	1280	1272	1305	1296	1296	1139
65°	787	776	807	776	781	782
75°	327	321	327	304	314	351
85°	40	39	40	39	37	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2877.8	2877.8	2877.8	2877.8	2877.8
2.5°	2902.7	2880.8	2860.3	2884.1	2898.6
5°	2857.4	2850.7	2858.5	2849.9	2918.7
7.5°	2798.7	2824.3	2839.2	2829.9	2834.0
10°	2767.5	2758.5	2791.6	2814.6	2811.3
12.5°	2734.0	2747.4	2749.2	2774.1	2776.4
15°	2735.9	2704.3	2721.0	2735.1	2736.2
17.5°	2629.6	2663.8	2675.3	2707.6	2667.5
20°	2616.6	2591.7	2616.6	2649.7	2644.5
22.5°	2536.7	2508.8	2562.3	2591.7	2589.8
25°	2446.0	2459.4	2499.5	2532.2	2527.0
27.5°	2366.5	2382.1	2439.4	2484.3	2455.3
30°	2305.2	2297.4	2345.7	2385.8	2408.1
32.5°	2195.6	2223.8	2280.3	2320.1	2298.9
35°	2129.1	2135.4	2184.8	2235.4	2233.9
37.5°	2012.8	2042.1	2111.6	2125.8	2112.7
40°	1913.6	1942.9	2005.7	2021.0	2014.7
42.5°	1840.4	1845.6	1899.5	1916.9	1889.1
45°	1712.9	1744.9	1773.9	1819.6	1776.5
47.5°	1604.4	1619.3	1681.7	1694.0	1671.3
50°	1506.0	1511.2	1574.0	1558.7	1543.9
52.5°	1382.2	1404.2	1439.5	1436.5	1419.0
55°	1280.4	1271.9	1305.3	1296.4	1296.0
57.5°	1158.2	1173.0	1200.5	1186.4	1163.8
60°	1043.7	1044.1	1054.1	1038.2	1035.2
62.5°	916.3	920.7	923.0	903.3	935.2
65°	786.6	776.2	806.7	775.8	781.0
67.5°	667.3	672.5	669.6	650.2	657.7
70°	546.2	552.9	548.1	526.1	532.8
72.5°	435.5	427.3	432.5	405.0	417.6
75°	327.4	320.7	326.6	303.6	314.0
77.5°	222.9	228.1	224.4	212.2	219.2
80°	147.1	143.1	143.1	136.0	137.5
82.5°	85.8	81.7	80.6	78.4	81.7
85°	40.1	39.0	39.8	38.6	37.2
87.5°	14.5	14.9	14.9	14.1	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)