

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: P589832

Luminaire Tested: **FMR-24-2-LD4-4STD-50-UNV-82-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589832
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-50-UNV-82-87-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

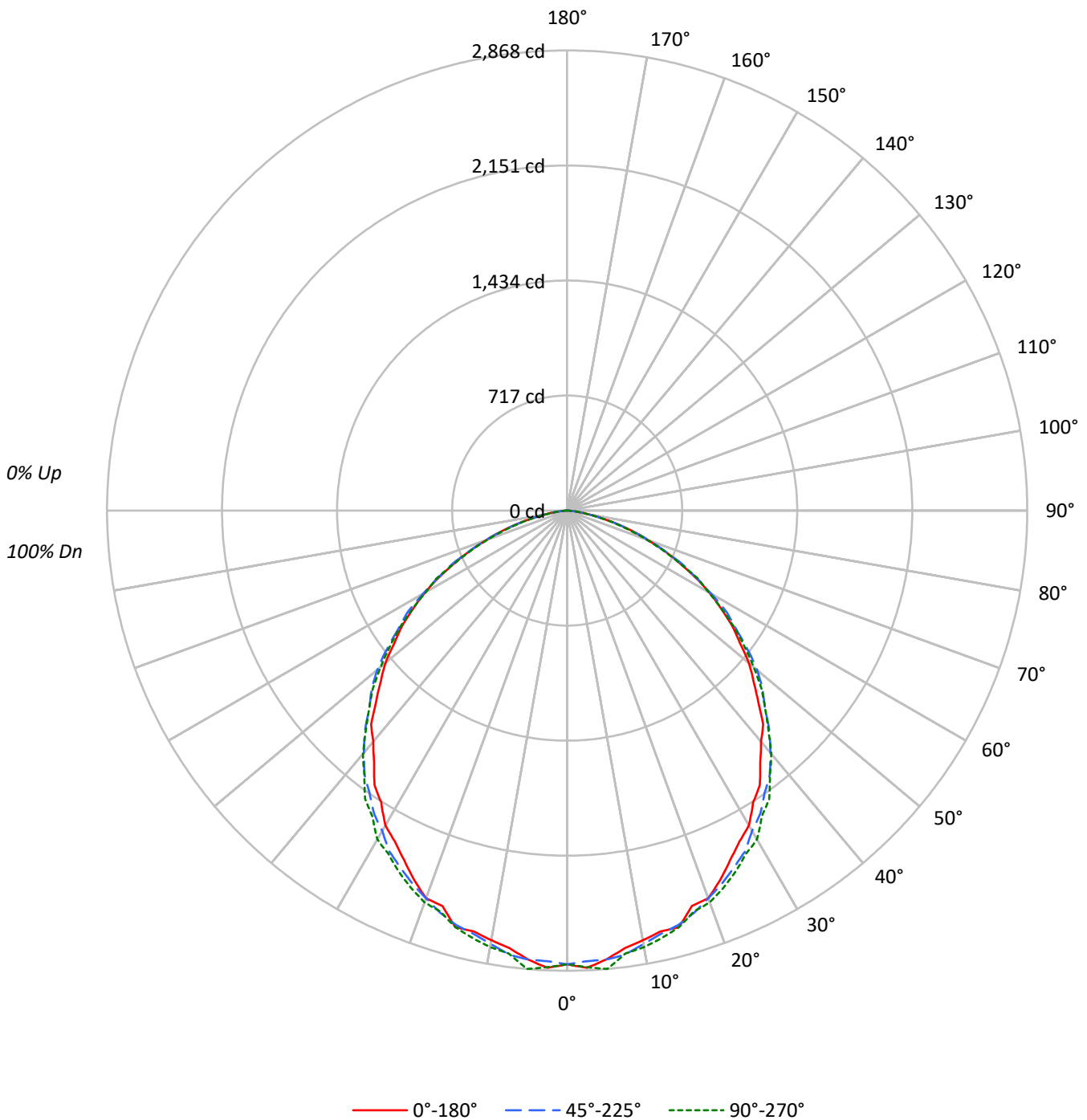
Lumens per Lamp: N/A
Luminaire Lumens: 7127.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P589832

CATALOG NUMBER: FMR-24-2-LD4-4STD-50-UNV-82-87-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°	7610	7610	7610
5°	7584	7587	7747
10°	7431	7495	7549
15°	7489	7449	7490
20°	7363	7363	7441
25°	7137	7293	7373
30°	7039	7162	7353
35°	6873	7053	7211
40°	6605	6923	6954
45°	6406	6634	6643
50°	6195	6475	6351
55°	5903	6017	5975
60°	5520	5575	5475
65°	4921	5047	4887
70°	4223	4237	4120
75°	3345	3336	3208
80°	2241	2179	2094
85°	1216	1207	1127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.0	3.7
10°-20°	753.9	10.6
20°-30°	1129.5	15.8
30°-40°	1338.6	18.8
40°-50°	1341.1	18.8
50°-60°	1138.4	16.0
60°-70°	767.5	10.8
70°-80°	337.2	4.7
80°-90°	54.8	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°	2149.3	30.2
0°-40°	3488.0	48.9
0°-60°	5967.5	83.7
0°-90°	7127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7127.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2828	2828	2828	2828	2828	
5°	2808	2801	2809	2800	2868	265
15°	2688	2657	2674	2688	2689	749
25°	2404	2417	2456	2488	2483	1111
35°	2092	2098	2147	2196	2195	1299
45°	1683	1715	1743	1788	1746	1302
55°	1258	1250	1283	1274	1274	1119
65°	773	763	793	762	768	769
75°	322	315	321	298	308	345
85°	39	38	39	38	36	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2827.8	2827.8	2827.8	2827.8	2827.8
2.5°	2852.3	2830.7	2810.7	2834.0	2848.3
5°	2807.7	2801.2	2808.8	2800.4	2868.0
7.5°	2750.0	2775.2	2789.8	2780.7	2784.7
10°	2719.4	2710.6	2743.1	2765.7	2762.5
12.5°	2686.5	2699.7	2701.5	2725.9	2728.1
15°	2688.3	2657.3	2673.7	2687.6	2688.7
17.5°	2583.9	2617.5	2628.8	2660.6	2621.2
20°	2571.1	2546.7	2571.1	2603.6	2598.5
22.5°	2492.6	2465.3	2517.8	2546.7	2544.8
25°	2403.6	2416.7	2456.1	2488.3	2483.1
27.5°	2325.4	2340.8	2397.0	2441.2	2412.7
30°	2265.2	2257.5	2305.0	2344.4	2366.3
32.5°	2157.5	2185.2	2240.7	2279.8	2259.0
35°	2092.1	2098.3	2146.9	2196.5	2195.1
37.5°	1977.8	2006.7	2074.9	2088.8	2076.0
40°	1880.3	1909.2	1970.9	1985.9	1979.7
42.5°	1808.4	1813.5	1866.5	1883.6	1856.2
45°	1683.2	1714.6	1743.1	1788.0	1745.6
47.5°	1576.6	1591.2	1652.5	1664.6	1642.3
50°	1479.8	1484.9	1546.6	1531.7	1517.1
52.5°	1358.2	1379.8	1414.5	1411.5	1394.4
55°	1258.2	1249.8	1282.6	1273.9	1273.5
57.5°	1138.1	1152.7	1179.7	1165.8	1143.5
60°	1025.6	1026.0	1035.8	1020.1	1017.2
62.5°	900.4	904.8	906.9	887.6	919.0
65°	772.9	762.7	792.7	762.4	767.5
67.5°	655.7	660.9	657.9	639.0	646.3
70°	536.7	543.3	538.5	517.0	523.6
72.5°	427.9	419.9	425.0	398.0	410.4
75°	321.7	315.1	320.9	298.3	308.5
77.5°	219.1	224.2	220.5	208.5	215.4
80°	144.6	140.6	140.6	133.6	135.1
82.5°	84.3	80.3	79.2	77.0	80.3
85°	39.4	38.3	39.1	38.0	36.5
87.5°	14.2	14.6	14.6	13.9	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)