

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: P589094

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

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589094
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-LD4-2LO-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

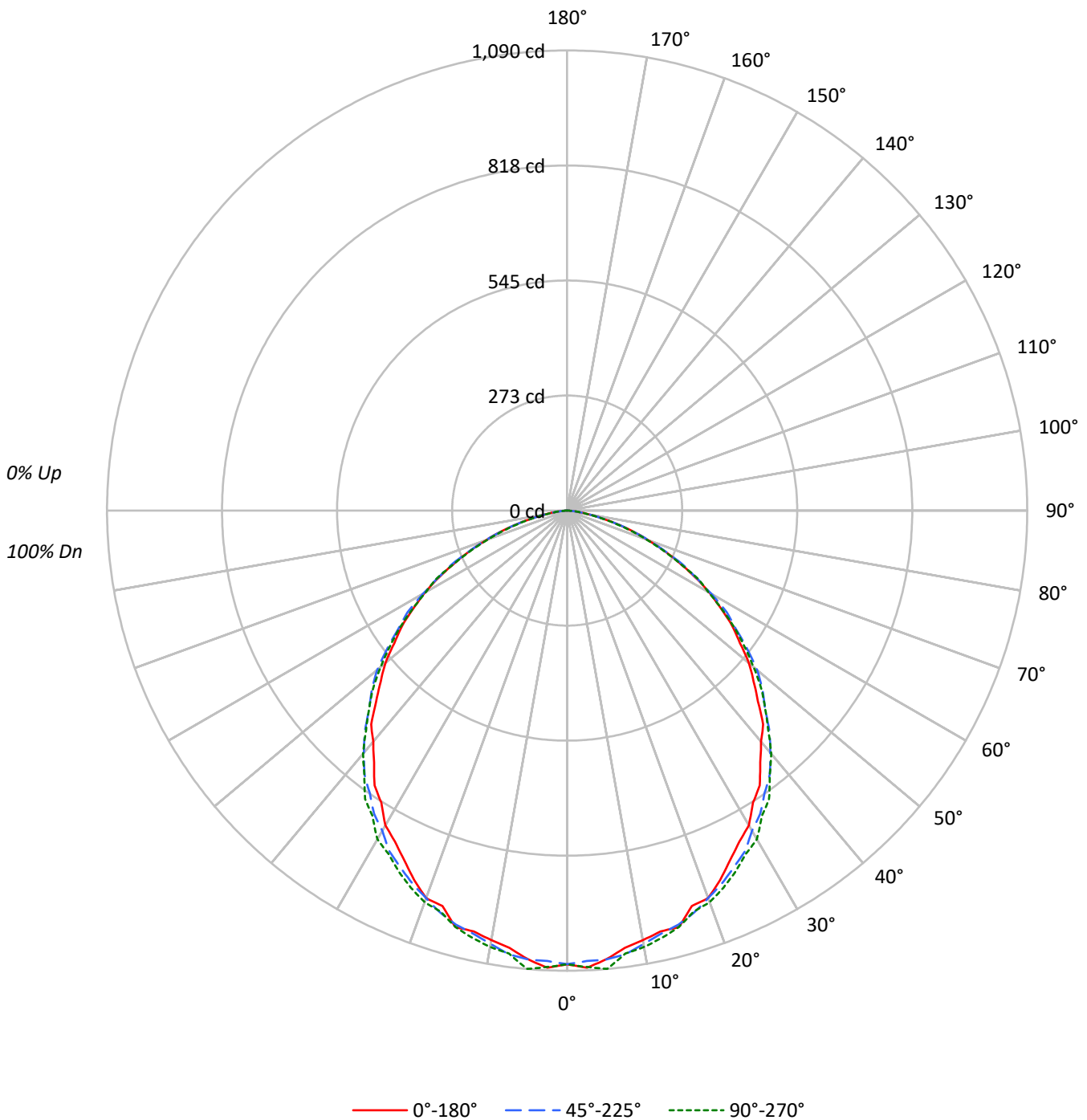
Lumens per Lamp: N/A
Luminaire Lumens: 2708.0 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	2891	2891	2891
5°	2882	2883	2944
10°	2823	2848	2868
15°	2846	2830	2846
20°	2798	2798	2827
25°	2712	2771	2801
30°	2674	2721	2794
35°	2611	2680	2740
40°	2510	2631	2642
45°	2434	2520	2524
50°	2354	2460	2413
55°	2243	2287	2270
60°	2097	2118	2080
65°	1870	1918	1857
70°	1604	1610	1565
75°	1271	1267	1219
80°	851	828	795
85°	463	457	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.1	3.7
10°-20°	286.4	10.6
20°-30°	429.2	15.8
30°-40°	508.6	18.8
40°-50°	509.6	18.8
50°-60°	432.5	16.0
60°-70°	291.6	10.8
70°-80°	128.1	4.7
80°-90°	20.8	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°	816.7	30.2
0°-40°	1325.3	48.9
0°-60°	2267.4	83.7
0°-90°	2708.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2708.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1074	1074	1074	1074	1074	
5°	1067	1064	1067	1064	1090	101
15°	1022	1010	1016	1021	1022	285
25°	913	918	933	945	944	422
35°	795	797	816	835	834	494
45°	640	652	662	679	663	495
55°	478	475	487	484	484	425
65°	294	290	301	290	292	292
75°	122	120	122	113	117	131
85°	15	15	15	14	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1074.5	1074.5	1074.5	1074.5	1074.5
2.5°	1083.8	1075.6	1067.9	1076.8	1082.2
5°	1066.8	1064.3	1067.3	1064.1	1089.7
7.5°	1044.9	1054.5	1060.0	1056.6	1058.1
10°	1033.3	1029.9	1042.3	1050.9	1049.6
12.5°	1020.8	1025.8	1026.5	1035.8	1036.6
15°	1021.5	1009.7	1015.9	1021.2	1021.6
17.5°	981.8	994.6	998.9	1010.9	995.9
20°	976.9	967.6	976.9	989.3	987.3
22.5°	947.1	936.7	956.7	967.6	967.0
25°	913.3	918.3	933.2	945.4	943.5
27.5°	883.6	889.4	910.8	927.6	916.7
30°	860.7	857.8	875.8	890.8	899.1
32.5°	819.8	830.3	851.4	866.2	858.3
35°	794.9	797.3	815.7	834.6	834.0
37.5°	751.5	762.5	788.4	793.7	788.8
40°	714.5	725.4	748.9	754.6	752.2
42.5°	687.1	689.1	709.2	715.7	705.3
45°	639.5	651.5	662.3	679.4	663.3
47.5°	599.0	604.6	627.9	632.5	624.0
50°	562.3	564.2	587.7	582.0	576.4
52.5°	516.1	524.3	537.4	536.3	529.8
55°	478.1	474.9	487.4	484.0	483.9
57.5°	432.4	438.0	448.2	443.0	434.5
60°	389.7	389.8	393.6	387.6	386.5
62.5°	342.1	343.8	344.6	337.3	349.2
65°	293.7	289.8	301.2	289.7	291.6
67.5°	249.2	251.1	250.0	242.8	245.6
70°	203.9	206.4	204.6	196.4	198.9
72.5°	162.6	159.5	161.5	151.2	155.9
75°	122.2	119.7	121.9	113.3	117.2
77.5°	83.2	85.2	83.8	79.2	81.9
80°	54.9	53.4	53.4	50.8	51.3
82.5°	32.0	30.5	30.1	29.3	30.5
85°	15.0	14.6	14.8	14.4	13.9
87.5°	5.4	5.5	5.5	5.3	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)