

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: P589562

Luminaire Tested: **FMR-24-2-LD4-4HI-35-UNV-80-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589562
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-LD4-4HI-35-UNV-80-94-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

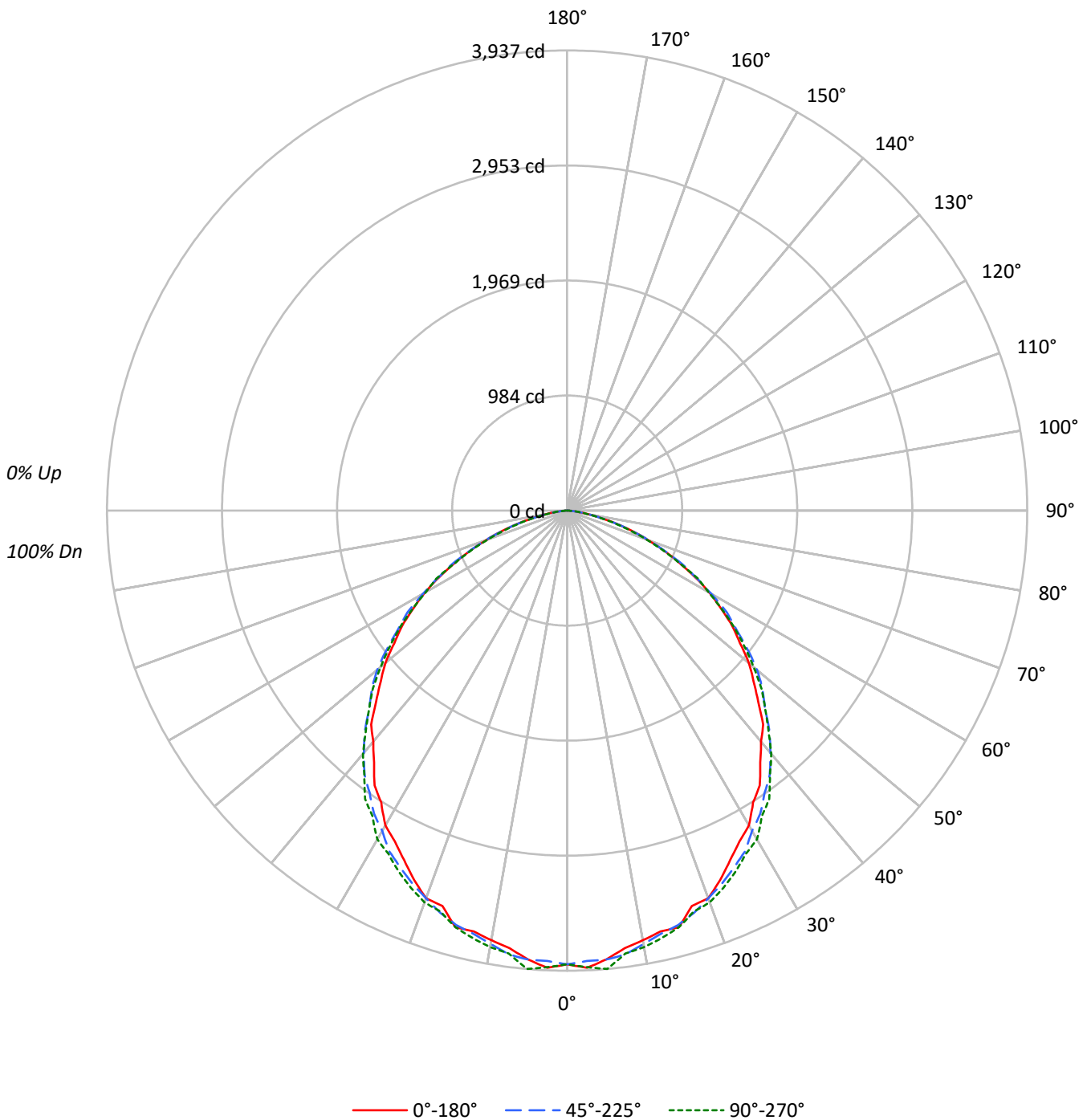
Lumens per Lamp: N/A
Luminaire Lumens: 9783.0 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (A_{in}): 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°	10445	10445	10445
5°	10411	10415	10634
10°	10200	10289	10361
15°	10281	10225	10282
20°	10107	10107	10214
25°	9796	10010	10120
30°	9661	9831	10093
35°	9434	9681	9898
40°	9067	9504	9546
45°	8793	9105	9119
50°	8504	8888	8718
55°	8103	8260	8201
60°	7577	7653	7515
65°	6756	6928	6708
70°	5796	5816	5655
75°	4590	4580	4403
80°	3076	2991	2873
85°	1670	1655	1547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.1	3.7
10°-20°	1034.8	10.6
20°-30°	1550.4	15.8
30°-40°	1837.5	18.8
40°-50°	1840.9	18.8
50°-60°	1562.6	16.0
60°-70°	1053.5	10.8
70°-80°	462.9	4.7
80°-90°	75.2	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°	2950.3	30.2
0°-40°	4787.8	48.9
0°-60°	8191.3	83.7
0°-90°	9783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9783.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3882	3882	3882	3882	3882	
5°	3854	3845	3856	3844	3937	363
15°	3690	3648	3670	3689	3691	1028
25°	3299	3317	3371	3416	3408	1525
35°	2872	2880	2947	3015	3013	1783
45°	2310	2354	2393	2454	2396	1787
55°	1727	1716	1761	1749	1748	1536
65°	1061	1047	1088	1046	1054	1055
75°	442	432	440	410	424	473
85°	54	53	54	52	50	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3881.6	3881.6	3881.6	3881.6	3881.6
2.5°	3915.2	3885.7	3858.1	3890.2	3909.7
5°	3854.1	3845.1	3855.6	3844.1	3936.8
7.5°	3774.9	3809.5	3829.5	3817.0	3822.5
10°	3732.8	3720.8	3765.4	3796.4	3791.9
12.5°	3687.7	3705.7	3708.2	3741.8	3744.8
15°	3690.2	3647.6	3670.1	3689.2	3690.7
17.5°	3546.9	3593.0	3608.5	3652.1	3598.0
20°	3529.3	3495.7	3529.3	3573.9	3566.9
22.5°	3421.6	3384.0	3456.1	3495.7	3493.2
25°	3299.3	3317.3	3371.4	3415.5	3408.5
27.5°	3192.0	3213.1	3290.3	3350.9	3311.8
30°	3109.3	3098.8	3164.0	3218.1	3248.2
32.5°	2961.5	2999.6	3075.7	3129.4	3100.8
35°	2871.8	2880.3	2946.9	3015.1	3013.1
37.5°	2714.9	2754.5	2848.2	2867.3	2849.7
40°	2581.1	2620.7	2705.4	2725.9	2717.4
42.5°	2482.3	2489.4	2562.0	2585.6	2548.0
45°	2310.4	2353.5	2392.6	2454.3	2396.1
47.5°	2164.1	2184.1	2268.3	2284.9	2254.3
50°	2031.3	2038.3	2123.0	2102.5	2082.4
52.5°	1864.4	1894.0	1941.6	1937.6	1914.0
55°	1727.1	1715.5	1760.6	1748.6	1748.1
57.5°	1562.2	1582.2	1619.3	1600.3	1569.7
60°	1407.8	1408.3	1421.9	1400.3	1396.3
62.5°	1235.9	1241.9	1244.9	1218.4	1261.5
65°	1061.0	1047.0	1088.1	1046.5	1053.5
67.5°	900.1	907.1	903.1	877.1	887.1
70°	736.7	745.8	739.2	709.7	718.7
72.5°	587.4	576.4	583.4	546.3	563.3
75°	441.5	432.5	440.5	409.5	423.5
77.5°	300.7	307.7	302.7	286.2	295.7
80°	198.5	193.0	193.0	183.4	185.4
82.5°	115.8	110.3	108.8	105.7	110.3
85°	54.1	52.6	53.6	52.1	50.1
87.5°	19.5	20.0	20.0	19.0	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)