

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: P545628

Luminaire Tested: **FMR-12-2-LD4-2LO-35-UNV-80-94-EDD**

Issue Date: 6/15/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P545628
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 6/15/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-12-2-LD4-2LO-35-UNV-80-94-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

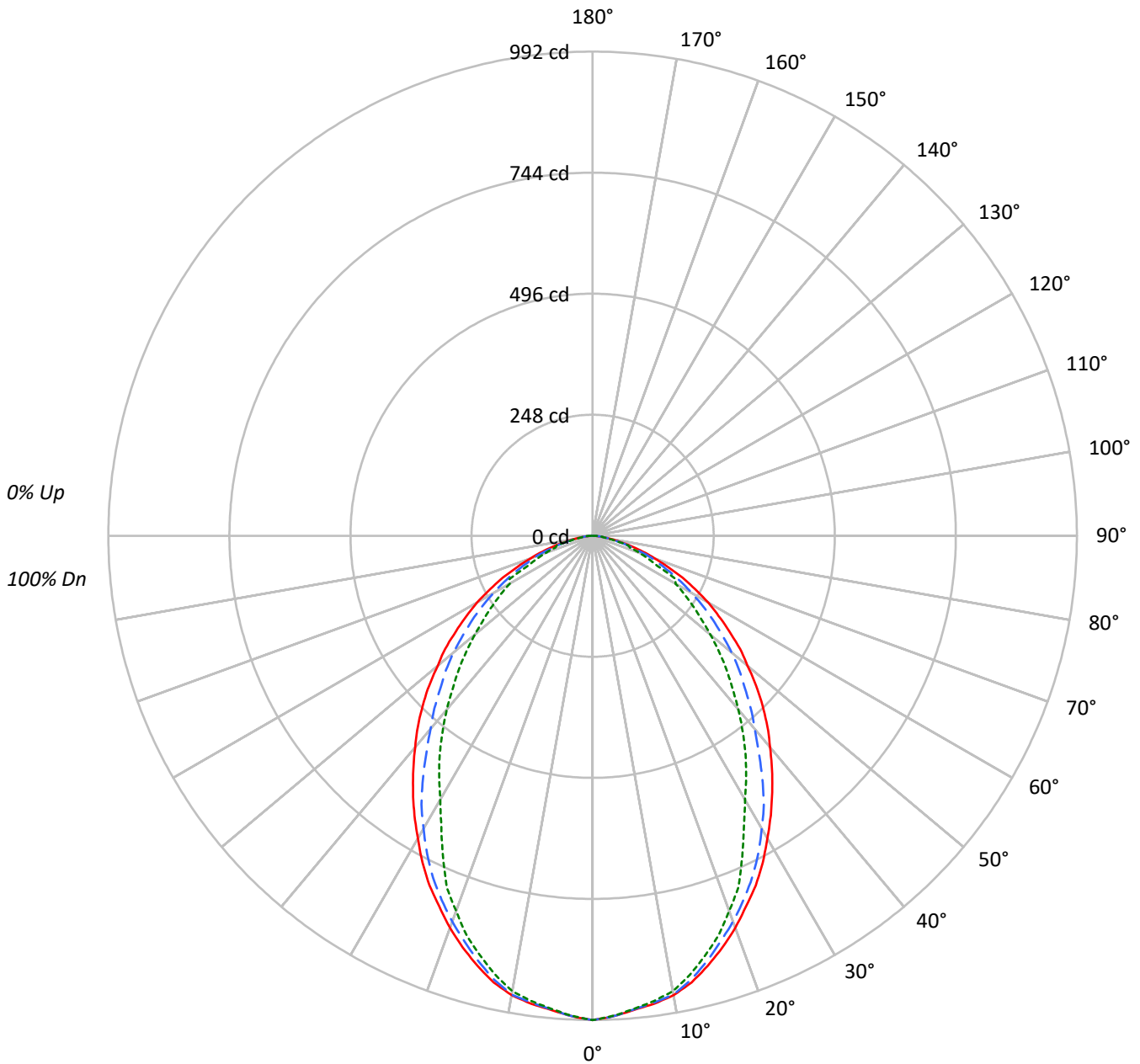
Lumens per Lamp: N/A
Luminaire Lumens: 1948.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87								
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75								
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65								
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56								
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50								
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44								
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40								
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36								
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33								
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5341	5341	5341
5°	5268	5262	5256
10°	5222	5216	5178
15°	5081	5030	4960
20°	4895	4816	4684
25°	4694	4592	4305
30°	4448	4306	3878
35°	4213	3980	3587
40°	3973	3627	3264
45°	3745	3353	2951
50°	3467	3112	2632
55°	3208	2821	2357
60°	2939	2519	2112
65°	2585	2206	1869
70°	2131	1931	1588
75°	1693	1478	1551
80°	1137	1066	995
85°	710	852	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.4	4.7
10°-20°	253.5	13.0
20°-30°	351.0	18.0
30°-40°	374.2	19.2
40°-50°	341.4	17.5
50°-60°	267.5	13.7
60°-70°	174.3	8.9
70°-80°	77.2	4.0
80°-90°	16.6	0.9
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°	696.8	35.8
0°-40°	1071.0	55.0
0°-60°	1679.9	86.2
0°-90°	1948.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1948.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	975	974	974	973	973	93
15°	912	912	903	894	890	256
25°	790	786	773	746	725	363
35°	641	637	606	560	546	401
45°	492	482	440	404	388	379
55°	342	332	301	265	251	307
65°	203	192	173	177	147	200
75°	81	76	71	68	75	87
85°	12	13	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	992.3	992.3	992.3	992.3	992.3
2.5°	985.4	985.4	985.4	984.3	984.3
5°	975.1	973.9	973.9	972.8	972.8
7.5°	967.0	965.9	964.8	963.6	961.3
10°	955.6	955.6	954.4	948.7	947.5
12.5°	937.2	936.1	931.5	923.5	921.2
15°	912.0	912.0	902.8	893.6	890.2
17.5°	884.5	883.3	871.8	862.7	858.1
20°	854.6	852.3	840.9	825.9	817.9
22.5°	821.4	821.4	807.6	788.1	780.1
25°	790.4	785.8	773.2	745.6	725.0
27.5°	754.8	747.9	734.2	695.2	671.1
30°	715.8	712.4	692.9	642.4	624.0
32.5°	679.1	673.4	652.7	600.0	585.0
35°	641.3	636.7	605.7	559.8	546.0
37.5°	603.4	597.7	558.7	522.0	504.7
40°	565.5	558.7	516.2	483.0	464.6
42.5°	530.0	520.8	479.5	443.9	423.3
45°	492.1	481.8	440.5	403.8	387.7
47.5°	454.3	445.1	407.2	369.4	351.0
50°	414.1	406.1	371.7	333.8	314.3
52.5°	380.9	368.2	335.0	297.1	281.1
55°	341.9	331.5	300.6	265.0	251.2
57.5°	306.3	296.0	267.3	234.0	222.5
60°	273.0	258.1	234.0	205.3	196.2
62.5°	236.3	224.8	204.2	180.1	191.6
65°	203.0	191.6	173.2	176.7	146.8
67.5°	166.3	160.6	144.5	128.5	123.9
70°	135.4	128.5	122.7	105.5	100.9
72.5°	107.8	100.9	92.9	83.7	80.3
75°	81.4	75.7	71.1	67.7	74.6
77.5°	56.2	53.9	50.5	47.0	45.9
80°	36.7	35.6	34.4	33.3	32.1
82.5°	21.8	21.8	21.8	21.8	21.8
85°	11.5	12.6	13.8	14.9	16.1
87.5°	6.9	6.9	8.0	9.2	10.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)