

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: P545527

Luminaire Tested: **FMR-12-2-LD4-2HI-35-UNV-80-84-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: P545527
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-LD4-2HI-35-UNV-80-84-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

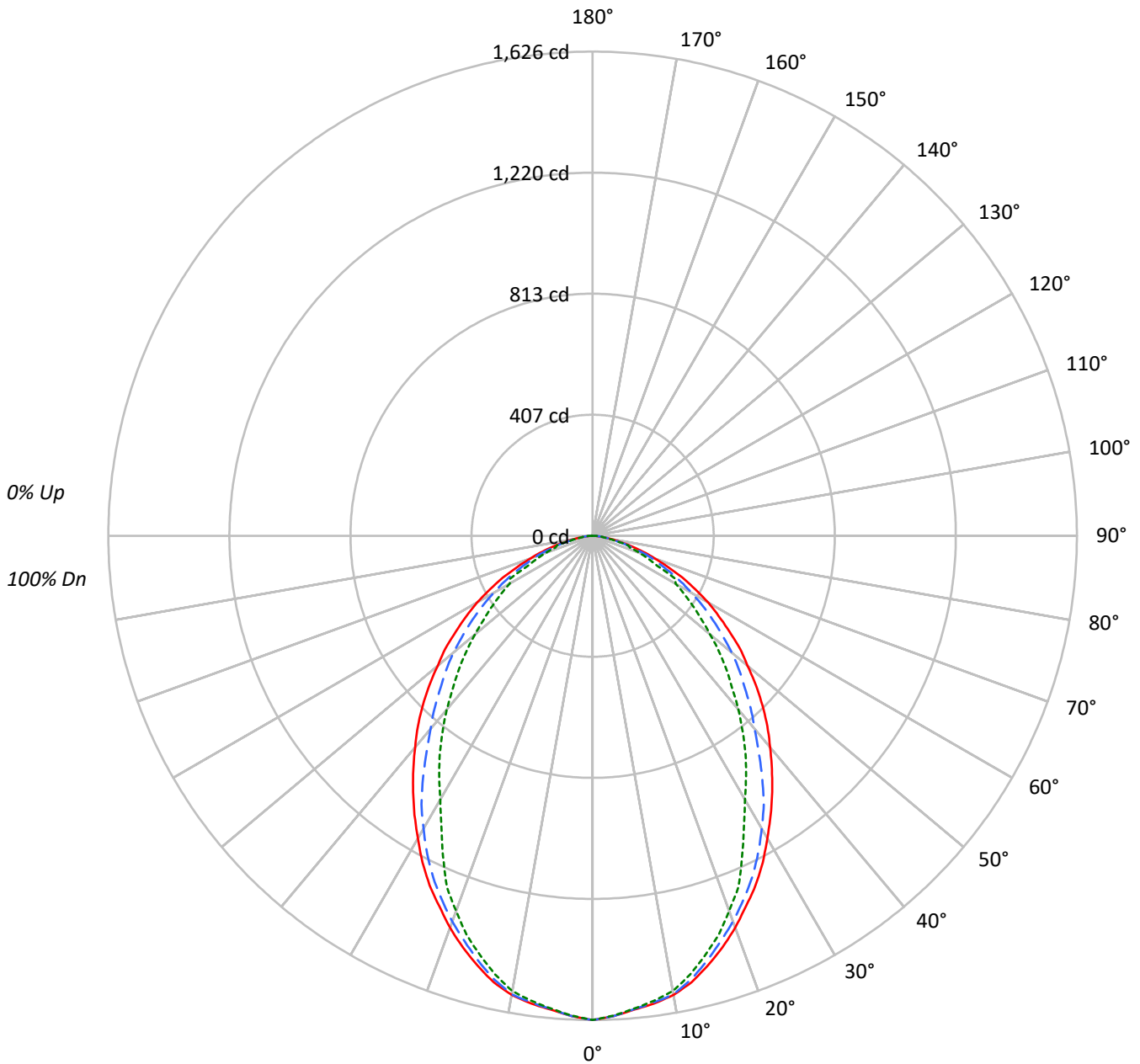
Lumens per Lamp: N/A
Luminaire Lumens: 3192.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8751	8751	8751
5°	8632	8622	8612
10°	8557	8547	8485
15°	8327	8242	8128
20°	8021	7891	7676
25°	7691	7523	7055
30°	7289	7056	6355
35°	6904	6521	5878
40°	6511	5943	5349
45°	6138	5494	4835
50°	5682	5099	4312
55°	5256	4621	3863
60°	4816	4128	3460
65°	4237	3614	3064
70°	3490	3164	2603
75°	2776	2423	2541
80°	1866	1748	1630
85°	1161	1396	1624



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.4	4.7
10°-20°	415.4	13.0
20°-30°	575.1	18.0
30°-40°	613.2	19.2
40°-50°	559.4	17.5
50°-60°	438.3	13.7
60°-70°	285.6	8.9
70°-80°	126.5	4.0
80°-90°	27.2	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°	1141.8	35.8
0°-40°	1755.0	55.0
0°-60°	2752.7	86.2
0°-90°	3192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1626	1626	1626	1626	1626	
5°	1598	1596	1596	1594	1594	152
15°	1494	1494	1479	1464	1459	420
25°	1295	1288	1267	1222	1188	595
35°	1051	1043	992	917	895	657
45°	806	790	722	662	635	621
55°	560	543	492	434	412	502
65°	333	314	284	290	241	328
75°	134	124	116	111	122	143
85°	19	21	23	24	26	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1626.0	1626.0	1626.0	1626.0	1626.0
2.5°	1614.7	1614.7	1614.7	1612.8	1612.8
5°	1597.8	1595.9	1595.9	1594.0	1594.0
7.5°	1584.6	1582.7	1580.8	1579.0	1575.2
10°	1565.8	1565.8	1563.9	1554.5	1552.7
12.5°	1535.7	1533.9	1526.3	1513.2	1509.4
15°	1494.4	1494.4	1479.3	1464.3	1458.7
17.5°	1449.3	1447.4	1428.6	1413.6	1406.0
20°	1400.4	1396.6	1377.8	1353.4	1340.2
22.5°	1345.9	1345.9	1323.3	1291.4	1278.2
25°	1295.1	1287.6	1266.9	1221.8	1188.0
27.5°	1236.9	1225.6	1203.0	1139.1	1099.6
30°	1172.9	1167.3	1135.4	1052.6	1022.6
32.5°	1112.8	1103.4	1069.6	983.1	958.7
35°	1050.8	1043.2	992.5	917.3	894.7
37.5°	988.7	979.3	915.4	855.3	827.1
40°	926.7	915.4	845.9	791.4	761.3
42.5°	868.4	853.4	785.7	727.5	693.6
45°	806.4	789.5	721.8	661.7	635.3
47.5°	744.4	729.3	667.3	605.3	575.2
50°	678.6	665.4	609.0	547.0	515.0
52.5°	624.1	603.4	548.9	486.8	460.5
55°	560.2	543.2	492.5	434.2	411.7
57.5°	501.9	485.0	438.0	383.5	364.7
60°	447.4	422.9	383.5	336.5	321.4
62.5°	387.2	368.4	334.6	295.1	313.9
65°	332.7	313.9	283.8	289.5	240.6
67.5°	272.6	263.2	236.8	210.5	203.0
70°	221.8	210.5	201.1	172.9	165.4
72.5°	176.7	165.4	152.3	137.2	131.6
75°	133.5	124.1	116.5	110.9	122.2
77.5°	92.1	88.3	82.7	77.1	75.2
80°	60.2	58.3	56.4	54.5	52.6
82.5°	35.7	35.7	35.7	35.7	35.7
85°	18.8	20.7	22.6	24.4	26.3
87.5°	11.3	11.3	13.2	15.0	16.9
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)