

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: P545597

Luminaire Tested: **FMR-12-2-LD4-2HI-50-UNV-80-96-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: P545597
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-50-UNV-80-96-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

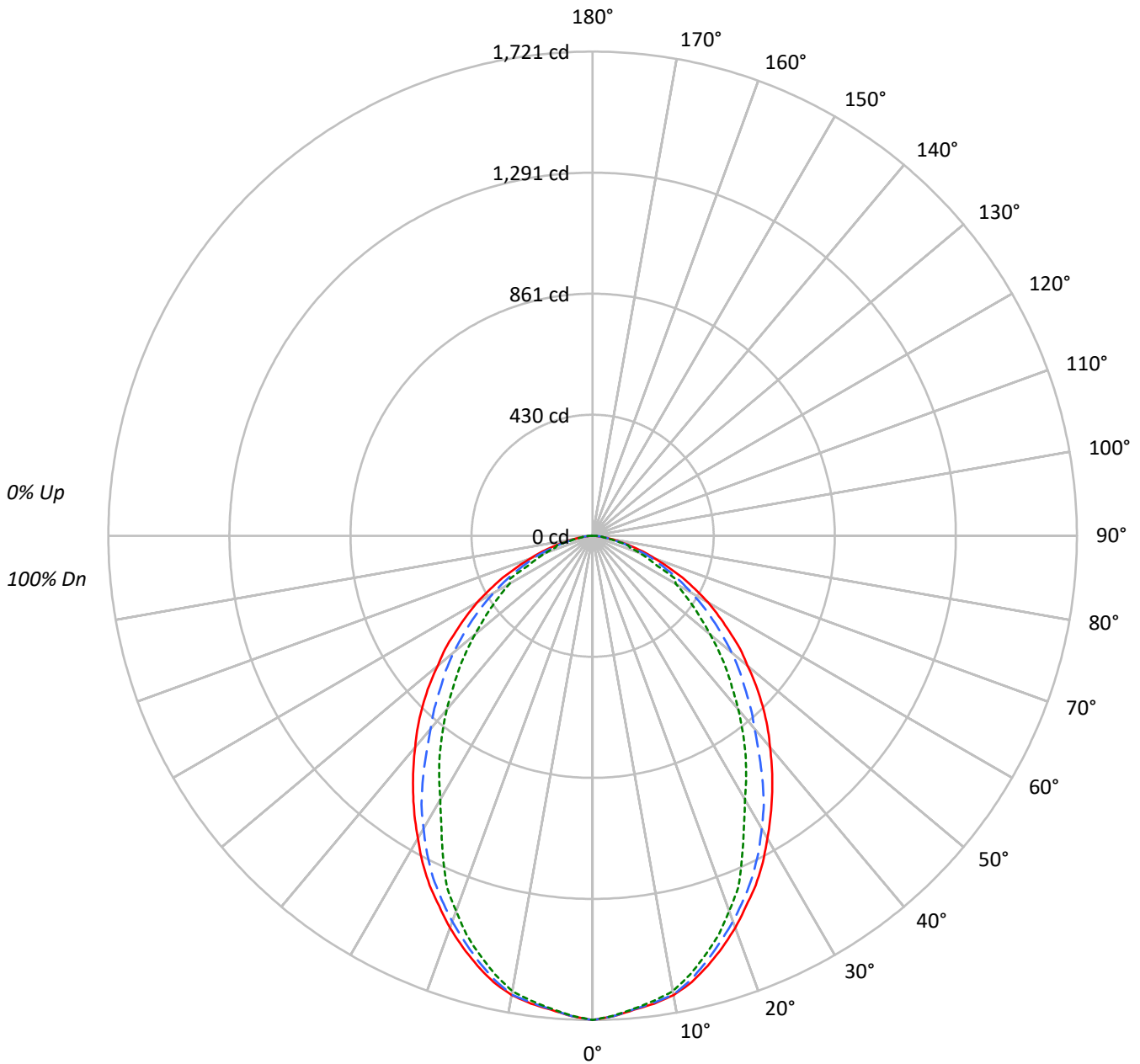
Lumens per Lamp: N/A
Luminaire Lumens: 3379.0 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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									
RC	80									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°	9263	9263	9263
5°	9138	9127	9116
10°	9058	9048	8982
15°	8814	8725	8603
20°	8490	8354	8126
25°	8141	7964	7468
30°	7717	7469	6727
35°	7308	6903	6223
40°	6892	6291	5662
45°	6497	5816	5119
50°	6014	5398	4565
55°	5564	4891	4089
60°	5098	4369	3663
65°	4485	3827	3244
70°	3695	3350	2755
75°	2938	2566	2689
80°	1974	1850	1726
85°	1229	1476	1723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.2	4.7
10°-20°	439.7	13.0
20°-30°	608.8	18.0
30°-40°	649.1	19.2
40°-50°	592.2	17.5
50°-60°	463.9	13.7
60°-70°	302.4	8.9
70°-80°	134.0	4.0
80°-90°	28.8	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°	1208.7	35.8
0°-40°	1857.8	55.0
0°-60°	2913.9	86.2
0°-90°	3379.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3379.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1721	1721	1721	1721	1721	
5°	1691	1689	1689	1687	1687	161
15°	1582	1582	1566	1550	1544	445
25°	1371	1363	1341	1293	1258	629
35°	1112	1104	1051	971	947	695
45°	854	836	764	700	673	658
55°	593	575	521	460	436	532
65°	352	332	300	306	255	347
75°	141	131	123	117	129	151
85°	20	22	24	26	28	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1721.2	1721.2	1721.2	1721.2	1721.2
2.5°	1709.3	1709.3	1709.3	1707.3	1707.3
5°	1691.4	1689.4	1689.4	1687.4	1687.4
7.5°	1677.4	1675.5	1673.5	1671.5	1667.5
10°	1657.5	1657.5	1655.6	1645.6	1643.6
12.5°	1625.7	1623.7	1615.8	1601.8	1597.8
15°	1581.9	1581.9	1566.0	1550.1	1544.1
17.5°	1534.2	1532.2	1512.3	1496.4	1488.4
20°	1482.4	1478.5	1458.6	1432.7	1418.8
22.5°	1424.7	1424.7	1400.9	1367.0	1353.1
25°	1371.0	1363.0	1341.2	1293.4	1257.6
27.5°	1309.3	1297.4	1273.5	1205.8	1164.1
30°	1241.7	1235.7	1201.9	1114.3	1082.5
32.5°	1178.0	1168.0	1132.2	1040.7	1014.8
35°	1112.3	1104.4	1050.6	971.0	947.2
37.5°	1046.7	1036.7	969.1	905.4	875.5
40°	981.0	969.1	895.4	837.7	805.9
42.5°	919.3	903.4	831.8	770.1	734.3
45°	853.6	835.7	764.1	700.4	672.6
47.5°	788.0	772.1	706.4	640.7	608.9
50°	718.3	704.4	644.7	579.0	545.2
52.5°	660.6	638.7	581.0	515.4	487.5
55°	593.0	575.1	521.3	459.7	435.8
57.5°	531.3	513.4	463.6	405.9	386.0
60°	473.6	447.7	405.9	356.2	340.3
62.5°	409.9	390.0	354.2	312.4	332.3
65°	352.2	332.3	300.5	306.4	254.7
67.5°	288.5	278.6	250.7	222.9	214.9
70°	234.8	222.9	212.9	183.1	175.1
72.5°	187.0	175.1	161.2	145.3	139.3
75°	141.3	131.3	123.4	117.4	129.3
77.5°	97.5	93.5	87.6	81.6	79.6
80°	63.7	61.7	59.7	57.7	55.7
82.5°	37.8	37.8	37.8	37.8	37.8
85°	19.9	21.9	23.9	25.9	27.9
87.5°	11.9	11.9	13.9	15.9	17.9
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)