

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: P545693

Luminaire Tested: **FMR-12-2-LD4-2LO-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: P545693
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-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

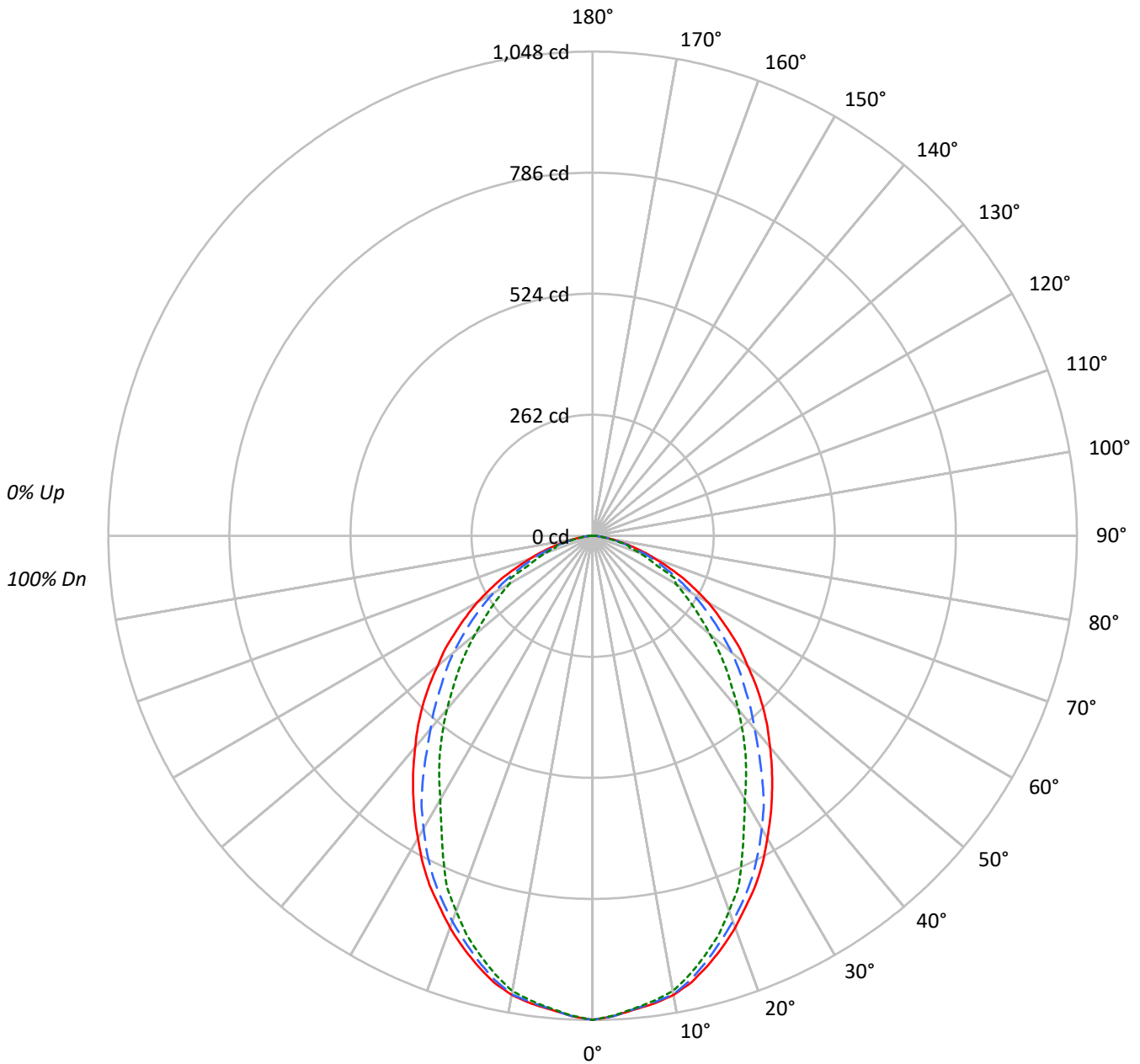
Lumens per Lamp: N/A
Luminaire Lumens: 2057.0 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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									
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°	5639	5639	5639
5°	5562	5556	5549
10°	5514	5508	5468
15°	5366	5312	5238
20°	5168	5085	4947
25°	4956	4848	4546
30°	4698	4547	4095
35°	4449	4202	3788
40°	4196	3830	3447
45°	3956	3541	3116
50°	3661	3286	2779
55°	3387	2978	2489
60°	3103	2660	2229
65°	2730	2329	1975
70°	2249	2039	1677
75°	1788	1562	1637
80°	1203	1125	1051
85°	747	895	1050



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.5	4.7
10°-20°	267.7	13.0
20°-30°	370.6	18.0
30°-40°	395.2	19.2
40°-50°	360.5	17.5
50°-60°	282.4	13.7
60°-70°	184.1	8.9
70°-80°	81.5	4.0
80°-90°	17.5	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°	735.8	35.8
0°-40°	1131.0	55.0
0°-60°	1773.9	86.2
0°-90°	2057.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2057.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1030	1028	1028	1027	1027	98
15°	963	963	953	944	940	271
25°	835	830	816	787	766	383
35°	677	672	640	591	577	423
45°	520	509	465	426	409	400
55°	361	350	317	280	265	324
65°	214	202	183	186	155	211
75°	86	80	75	72	79	92
85°	12	13	14	16	17	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1047.8	1047.8	1047.8	1047.8	1047.8
2.5°	1040.5	1040.5	1040.5	1039.3	1039.3
5°	1029.6	1028.4	1028.4	1027.2	1027.2
7.5°	1021.2	1019.9	1018.7	1017.5	1015.1
10°	1009.0	1009.0	1007.8	1001.8	1000.6
12.5°	989.7	988.5	983.6	975.1	972.7
15°	963.0	963.0	953.3	943.6	940.0
17.5°	933.9	932.7	920.6	910.9	906.1
20°	902.4	900.0	887.9	872.2	863.7
22.5°	867.3	867.3	852.8	832.2	823.7
25°	834.6	829.8	816.4	787.4	765.6
27.5°	797.1	789.8	775.3	734.1	708.6
30°	755.9	752.2	731.6	678.3	659.0
32.5°	717.1	711.1	689.3	633.5	617.8
35°	677.1	672.3	639.6	591.1	576.6
37.5°	637.2	631.1	589.9	551.2	533.0
40°	597.2	589.9	545.1	510.0	490.6
42.5°	559.6	549.9	506.3	468.8	447.0
45°	519.7	508.8	465.2	426.4	409.4
47.5°	479.7	470.0	430.0	390.1	370.7
50°	437.3	428.8	392.5	352.5	331.9
52.5°	402.2	388.8	353.7	313.7	296.8
55°	361.0	350.1	317.4	279.8	265.3
57.5°	323.4	312.5	282.2	247.1	235.0
60°	288.3	272.6	247.1	216.8	207.1
62.5°	249.5	237.4	215.6	190.2	202.3
65°	214.4	202.3	182.9	186.5	155.1
67.5°	175.6	169.6	152.6	135.7	130.8
70°	142.9	135.7	129.6	111.4	106.6
72.5°	113.9	106.6	98.1	88.4	84.8
75°	86.0	79.9	75.1	71.5	78.7
77.5°	59.4	56.9	53.3	49.7	48.5
80°	38.8	37.6	36.3	35.1	33.9
82.5°	23.0	23.0	23.0	23.0	23.0
85°	12.1	13.3	14.5	15.7	17.0
87.5°	7.3	7.3	8.5	9.7	10.9
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)