

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: P545272

Luminaire Tested: **FMR-12-2-LD4-1HI-40-UNV-80-85-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: P545272
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-LD4-1HI-40-UNV-80-85-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

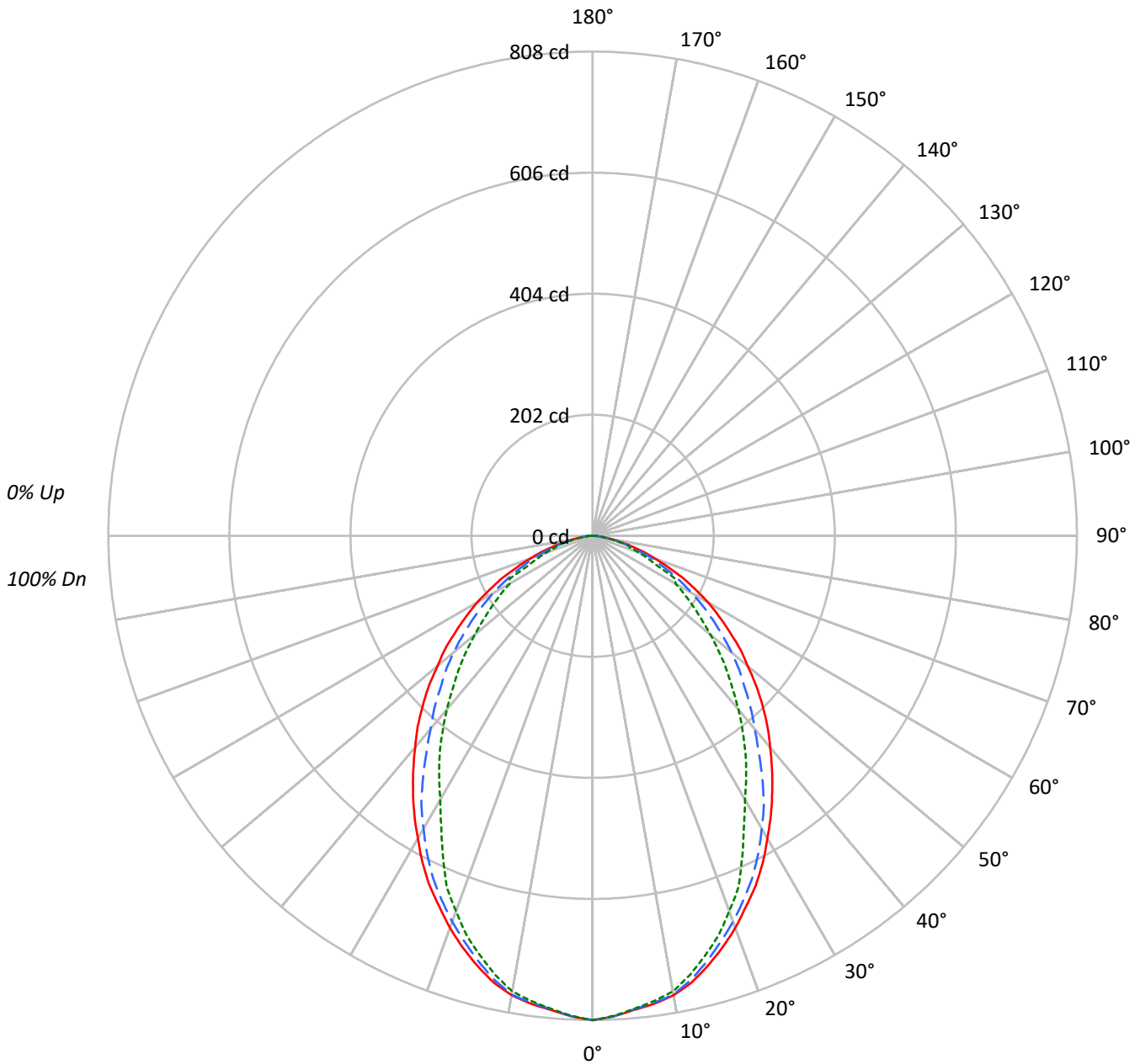
Lumens per Lamp: N/A
Luminaire Lumens: 1587.0 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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									
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°	4351	4351	4351
5°	4292	4286	4281
10°	4254	4250	4218
15°	4140	4098	4041
20°	3987	3923	3816
25°	3824	3741	3507
30°	3624	3508	3159
35°	3432	3242	2923
40°	3237	2955	2659
45°	3051	2732	2404
50°	2825	2535	2144
55°	2613	2298	1921
60°	2394	2053	1720
65°	2106	1797	1523
70°	1736	1574	1293
75°	1381	1204	1262
80°	927	868	812
85°	574	692	809



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	4.7
10°-20°	206.5	13.0
20°-30°	285.9	18.0
30°-40°	304.9	19.2
40°-50°	278.1	17.5
50°-60°	217.9	13.7
60°-70°	142.0	8.9
70°-80°	62.9	4.0
80°-90°	13.5	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°	567.7	35.8
0°-40°	872.5	55.0
0°-60°	1368.6	86.2
0°-90°	1587.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1587.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	808	808	808	808	808	
5°	794	793	793	792	792	75
15°	743	743	736	728	725	209
25°	644	640	630	608	591	296
35°	522	519	493	456	445	327
45°	401	392	359	329	316	309
55°	278	270	245	216	205	250
65°	165	156	141	144	120	163
75°	66	62	58	55	61	71
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.4	808.4	808.4	808.4	808.4
2.5°	802.8	802.8	802.8	801.9	801.9
5°	794.4	793.4	793.4	792.5	792.5
7.5°	787.8	786.9	786.0	785.0	783.2
10°	778.5	778.5	777.6	772.9	771.9
12.5°	763.5	762.6	758.9	752.3	750.5
15°	743.0	743.0	735.5	728.0	725.2
17.5°	720.5	719.6	710.3	702.8	699.1
20°	696.2	694.4	685.0	672.9	666.3
22.5°	669.1	669.1	657.9	642.0	635.5
25°	643.9	640.2	629.9	607.5	590.6
27.5°	614.9	609.3	598.1	566.3	546.7
30°	583.2	580.4	564.5	523.4	508.4
32.5°	553.3	548.6	531.8	488.8	476.6
35°	522.4	518.7	493.4	456.1	444.9
37.5°	491.6	486.9	455.1	425.2	411.2
40°	460.7	455.1	420.6	393.5	378.5
42.5°	431.8	424.3	390.6	361.7	344.9
45°	400.9	392.5	358.9	329.0	315.9
47.5°	370.1	362.6	331.8	300.9	286.0
50°	337.4	330.8	302.8	272.0	256.1
52.5°	310.3	300.0	272.9	242.1	229.0
55°	278.5	270.1	244.9	215.9	204.7
57.5°	249.5	241.1	217.8	190.7	181.3
60°	222.4	210.3	190.7	167.3	159.8
62.5°	192.5	183.2	166.4	146.7	156.1
65°	165.4	156.1	141.1	143.9	119.6
67.5°	135.5	130.8	117.8	104.7	100.9
70°	110.3	104.7	100.0	86.0	82.2
72.5°	87.8	82.2	75.7	68.2	65.4
75°	66.4	61.7	57.9	55.1	60.7
77.5°	45.8	43.9	41.1	38.3	37.4
80°	29.9	29.0	28.0	27.1	26.2
82.5°	17.8	17.8	17.8	17.8	17.8
85°	9.3	10.3	11.2	12.1	13.1
87.5°	5.6	5.6	6.5	7.5	8.4
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)