

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: P545277

Luminaire Tested: **FMR-12-2-LD4-1HI-40-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: P545277
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-80-96-EDD
Description: 1X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

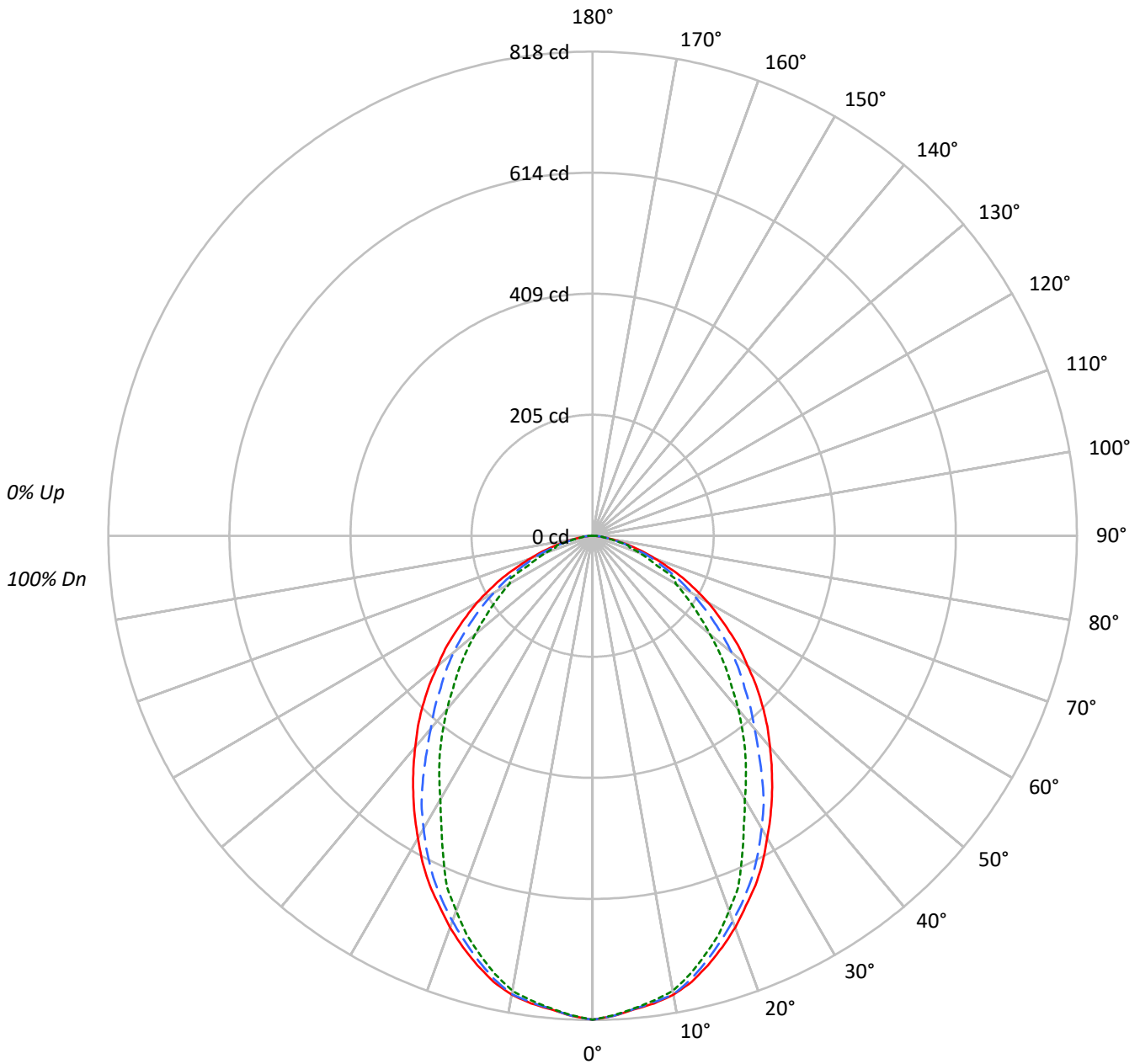
Lumens per Lamp: N/A
Luminaire Lumens: 1605.0 lumens
Efficiency: N/A
Efficacy: 74.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (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°	4400	4400	4400
5°	4340	4335	4330
10°	4303	4298	4267
15°	4187	4144	4086
20°	4033	3968	3860
25°	3867	3783	3547
30°	3665	3548	3196
35°	3471	3279	2956
40°	3274	2988	2689
45°	3086	2762	2432
50°	2857	2564	2169
55°	2643	2323	1942
60°	2421	2075	1739
65°	2131	1817	1541
70°	1755	1591	1309
75°	1395	1219	1277
80°	936	880	821
85°	587	698	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	4.7
10°-20°	208.9	13.0
20°-30°	289.2	18.0
30°-40°	308.3	19.2
40°-50°	281.3	17.5
50°-60°	220.4	13.7
60°-70°	143.6	8.9
70°-80°	63.6	4.0
80°-90°	13.7	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°	574.1	35.8
0°-40°	882.4	55.0
0°-60°	1384.1	86.2
0°-90°	1605.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1605.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	818	818	818	818	818	
5°	803	802	802	802	802	76
15°	751	751	744	736	733	211
25°	651	647	637	614	597	299
35°	528	525	499	461	450	330
45°	406	397	363	333	320	312
55°	282	273	248	218	207	253
65°	167	158	143	146	121	165
75°	67	62	59	56	61	72
85°	10	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°	817.6	817.6	817.6	817.6	817.6
2.5°	811.9	811.9	811.9	810.9	810.9
5°	803.4	802.4	802.4	801.5	801.5
7.5°	796.8	795.8	794.9	793.9	792.0
10°	787.3	787.3	786.4	781.6	780.7
12.5°	772.2	771.3	767.5	760.9	759.0
15°	751.4	751.4	743.8	736.3	733.4
17.5°	728.7	727.8	718.3	710.8	707.0
20°	704.1	702.3	692.8	680.5	673.9
22.5°	676.7	676.7	665.4	649.3	642.7
25°	651.2	647.4	637.0	614.4	597.3
27.5°	621.9	616.2	604.9	572.8	552.9
30°	589.8	586.9	570.9	529.3	514.2
32.5°	559.5	554.8	537.8	494.3	482.0
35°	528.3	524.6	499.0	461.2	449.9
37.5°	497.2	492.4	460.3	430.0	415.9
40°	466.0	460.3	425.3	397.9	382.8
42.5°	436.7	429.1	395.1	365.8	348.8
45°	405.5	397.0	362.9	332.7	319.5
47.5°	374.3	366.7	335.5	304.3	289.2
50°	341.2	334.6	306.2	275.0	259.0
52.5°	313.8	303.4	276.0	244.8	231.6
55°	281.7	273.2	247.6	218.3	207.0
57.5°	252.4	243.9	220.2	192.8	183.4
60°	224.9	212.7	192.8	169.2	161.6
62.5°	194.7	185.3	168.2	148.4	157.8
65°	167.3	157.8	142.7	145.6	121.0
67.5°	137.0	132.3	119.1	105.9	102.1
70°	111.5	105.9	101.1	87.0	83.2
72.5°	88.8	83.2	76.6	69.0	66.2
75°	67.1	62.4	58.6	55.8	61.4
77.5°	46.3	44.4	41.6	38.8	37.8
80°	30.2	29.3	28.4	27.4	26.5
82.5°	18.0	18.0	18.0	18.0	18.0
85°	9.5	10.4	11.3	12.3	13.2
87.5°	5.7	5.7	6.6	7.6	8.5
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)