

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: P545309

Luminaire Tested: **FMR-12-2-LD4-1HI-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: P545309
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-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

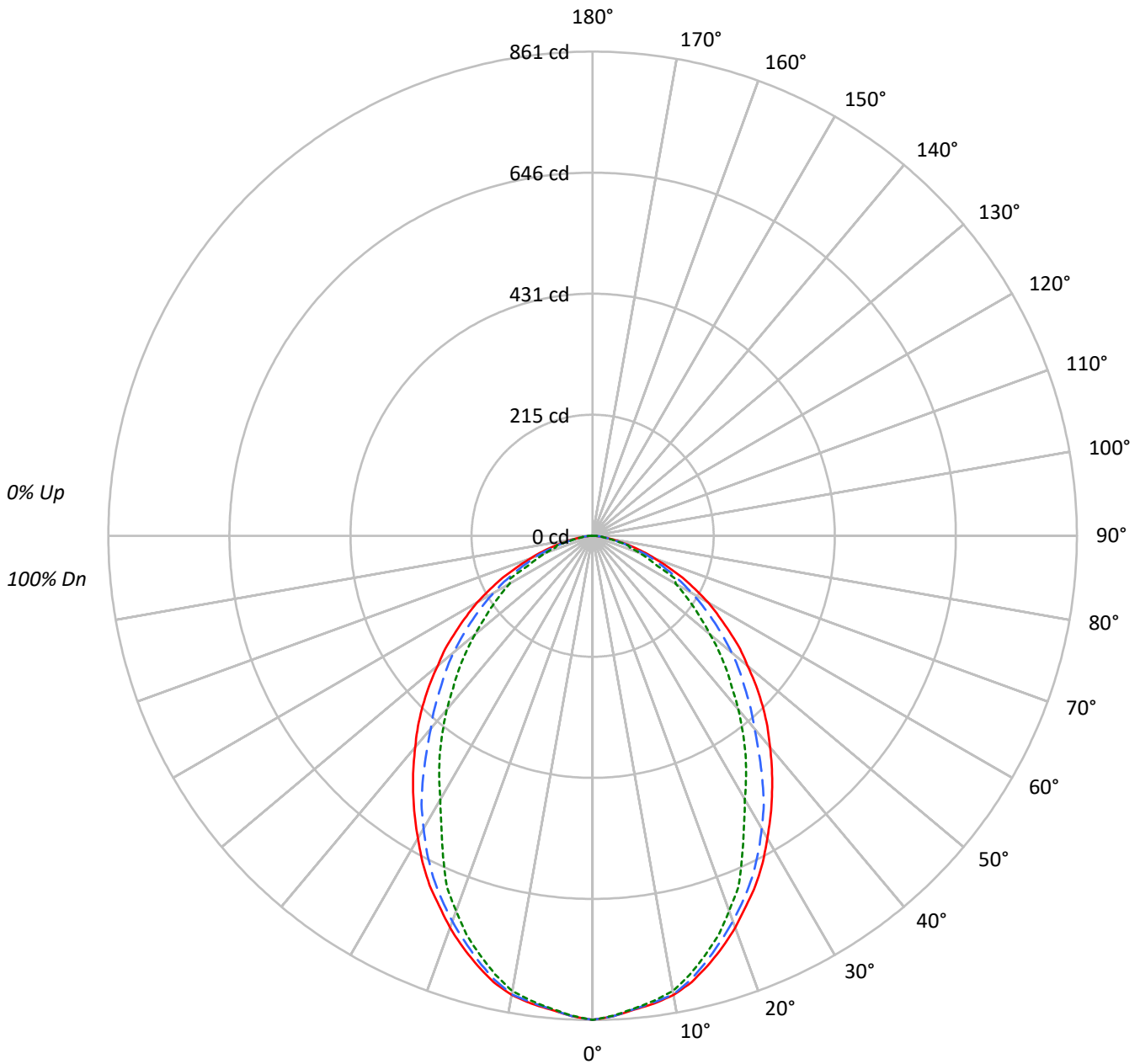
Lumens per Lamp: N/A
Luminaire Lumens: 1690.0 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	4633	4633	4633
5°	4570	4565	4559
10°	4530	4525	4492
15°	4408	4364	4303
20°	4246	4178	4064
25°	4072	3983	3735
30°	3859	3736	3365
35°	3655	3453	3112
40°	3447	3146	2832
45°	3249	2909	2560
50°	3008	2700	2283
55°	2783	2446	2046
60°	2550	2185	1832
65°	2244	1914	1622
70°	1847	1676	1378
75°	1470	1283	1345
80°	986	927	865
85°	618	735	858



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	4.7
10°-20°	219.9	13.0
20°-30°	304.5	18.0
30°-40°	324.7	19.2
40°-50°	296.2	17.5
50°-60°	232.0	13.7
60°-70°	151.2	8.9
70°-80°	67.0	4.0
80°-90°	14.4	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°	604.5	35.8
0°-40°	929.2	55.0
0°-60°	1457.4	86.2
0°-90°	1690.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1690.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	846	845	845	844	844	80
15°	791	791	783	775	772	222
25°	686	682	671	647	629	315
35°	556	552	526	486	474	348
45°	427	418	382	350	336	329
55°	297	288	261	230	218	266
65°	176	166	150	153	127	174
75°	71	66	62	59	65	76
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	860.9	860.9	860.9	860.9	860.9
2.5°	854.9	854.9	854.9	853.9	853.9
5°	845.9	844.9	844.9	843.9	843.9
7.5°	839.0	838.0	837.0	836.0	834.0
10°	829.0	829.0	828.0	823.0	822.0
12.5°	813.1	812.1	808.1	801.2	799.2
15°	791.2	791.2	783.2	775.3	772.3
17.5°	767.3	766.3	756.4	748.4	744.4
20°	741.4	739.4	729.5	716.6	709.6
22.5°	712.6	712.6	700.6	683.7	676.7
25°	685.7	681.7	670.8	646.9	629.0
27.5°	654.9	648.9	636.9	603.1	582.2
30°	621.0	618.0	601.1	557.3	541.4
32.5°	589.2	584.2	566.3	520.5	507.6
35°	556.3	552.3	525.5	485.7	473.7
37.5°	523.5	518.5	484.7	452.8	437.9
40°	490.6	484.7	447.8	419.0	403.1
42.5°	459.8	451.8	416.0	385.1	367.2
45°	426.9	418.0	382.2	350.3	336.4
47.5°	394.1	386.1	353.3	320.5	304.5
50°	359.3	352.3	322.5	289.6	272.7
52.5°	330.4	319.5	290.6	257.8	243.8
55°	296.6	287.6	260.7	229.9	218.0
57.5°	265.7	256.8	231.9	203.0	193.1
60°	236.9	223.9	203.0	178.1	170.2
62.5°	205.0	195.1	177.1	156.2	166.2
65°	176.2	166.2	150.3	153.3	127.4
67.5°	144.3	139.3	125.4	111.5	107.5
70°	117.4	111.5	106.5	91.6	87.6
72.5°	93.6	87.6	80.6	72.7	69.7
75°	70.7	65.7	61.7	58.7	64.7
77.5°	48.8	46.8	43.8	40.8	39.8
80°	31.8	30.9	29.9	28.9	27.9
82.5°	18.9	18.9	18.9	18.9	18.9
85°	10.0	10.9	11.9	12.9	13.9
87.5°	6.0	6.0	7.0	8.0	9.0
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)