

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: P544989

Luminaire Tested: **FMR-12-1-LD4-2HI-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: P544989
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-12-1-LD4-2HI-40-UNV-80-96-EDD
Description: 1X1 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

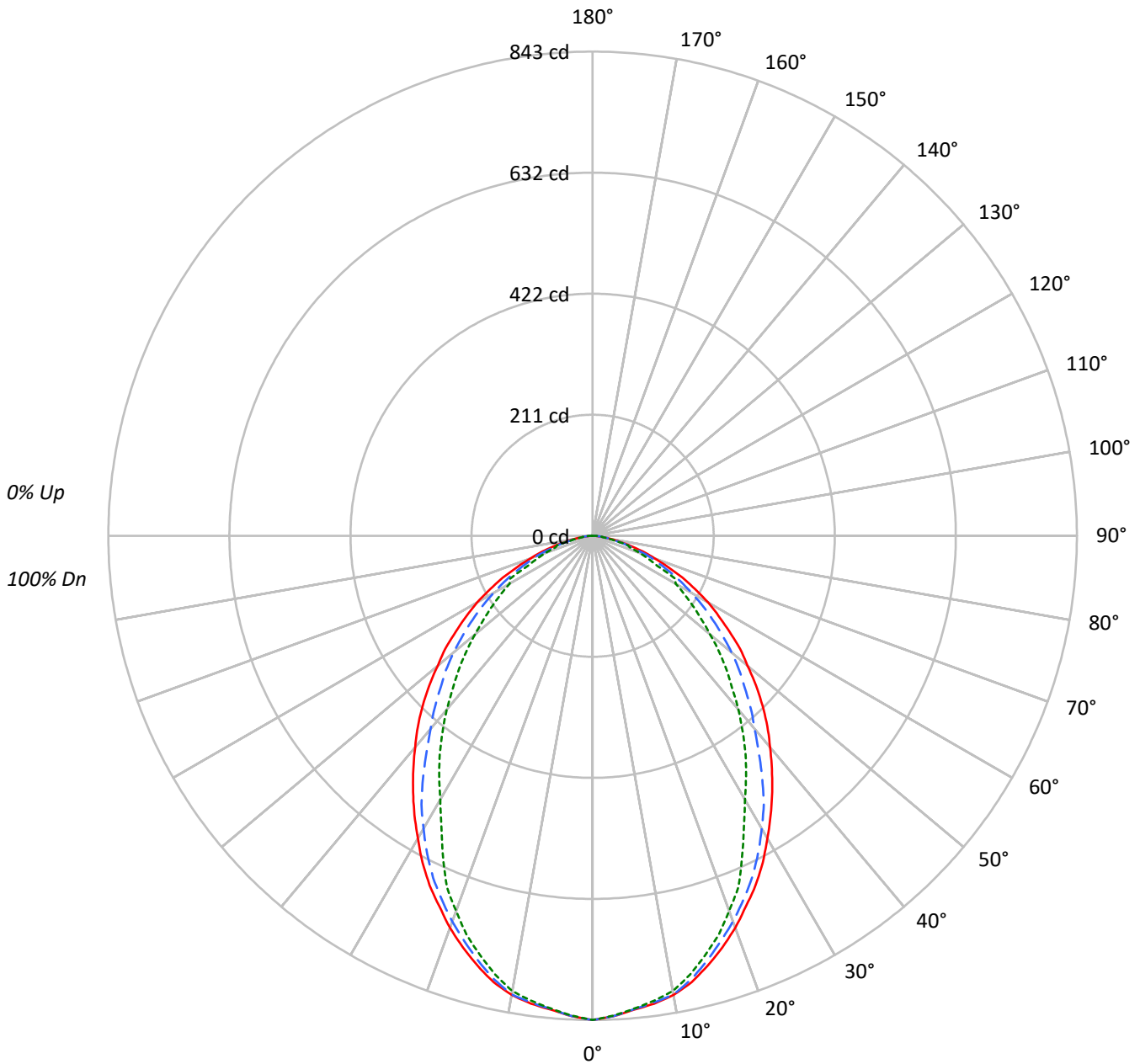
Lumens per Lamp: N/A
Luminaire Lumens: 1655.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P544989

CATALOG NUMBER: FMR-12-1-LD4-2HI-40-UNV-80-96-EDD

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°	9074	9074	9074
5°	8951	8940	8930
10°	8873	8863	8799
15°	8634	8547	8428
20°	8317	8183	7960
25°	7975	7802	7316
30°	7559	7317	6590
35°	7159	6762	6096
40°	6752	6163	5546
45°	6365	5696	5014
50°	5891	5288	4471
55°	5450	4791	4005
60°	4994	4280	3589
65°	4394	3749	3176
70°	3619	3282	2700
75°	2878	2512	2633
80°	1934	1810	1692
85°	1198	1445	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	4.7
10°-20°	215.4	13.0
20°-30°	298.2	18.0
30°-40°	317.9	19.2
40°-50°	290.0	17.5
50°-60°	227.2	13.7
60°-70°	148.1	8.9
70°-80°	65.6	4.0
80°-90°	14.1	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°	592.0	35.8
0°-40°	909.9	55.0
0°-60°	1427.2	86.2
0°-90°	1655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	828	827	827	826	826	79
15°	775	775	767	759	756	218
25°	672	668	657	634	616	308
35°	545	541	515	476	464	341
45°	418	409	374	343	329	322
55°	290	282	255	225	213	260
65°	172	163	147	150	125	170
75°	69	64	60	58	63	74
85°	10	11	12	13	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	843.0	843.0	843.0	843.0	843.0
2.5°	837.2	837.2	837.2	836.2	836.2
5°	828.4	827.4	827.4	826.5	826.5
7.5°	821.6	820.6	819.6	818.7	816.7
10°	811.8	811.8	810.9	806.0	805.0
12.5°	796.3	795.3	791.4	784.6	782.6
15°	774.8	774.8	767.0	759.2	756.3
17.5°	751.4	750.4	740.7	732.9	729.0
20°	726.1	724.1	714.4	701.7	694.9
22.5°	697.8	697.8	686.1	669.6	662.7
25°	671.5	667.6	656.9	633.5	616.0
27.5°	641.3	635.4	623.7	590.6	570.1
30°	608.2	605.2	588.7	545.8	530.2
32.5°	577.0	572.1	554.6	509.7	497.0
35°	544.8	540.9	514.6	475.6	463.9
37.5°	512.6	507.8	474.6	443.4	428.8
40°	480.5	474.6	438.6	410.3	394.7
42.5°	450.3	442.5	407.4	377.2	359.6
45°	418.1	409.3	374.2	343.1	329.4
47.5°	385.9	378.1	346.0	313.8	298.2
50°	351.8	345.0	315.8	283.6	267.0
52.5°	323.6	312.8	284.6	252.4	238.8
55°	290.4	281.7	255.3	225.1	213.4
57.5°	260.2	251.4	227.1	198.8	189.1
60°	232.0	219.3	198.8	174.5	166.7
62.5°	200.8	191.0	173.5	153.0	162.8
65°	172.5	162.8	147.2	150.1	124.7
67.5°	141.3	136.4	122.8	109.2	105.3
70°	115.0	109.2	104.3	89.7	85.8
72.5°	91.6	85.8	78.9	71.1	68.2
75°	69.2	64.3	60.4	57.5	63.3
77.5°	47.8	45.8	42.9	40.0	39.0
80°	31.2	30.2	29.2	28.3	27.3
82.5°	18.5	18.5	18.5	18.5	18.5
85°	9.7	10.7	11.7	12.7	13.6
87.5°	5.8	5.8	6.8	7.8	8.8
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)