

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: P544980

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-93-94-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: P544980
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-35-UNV-93-94-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

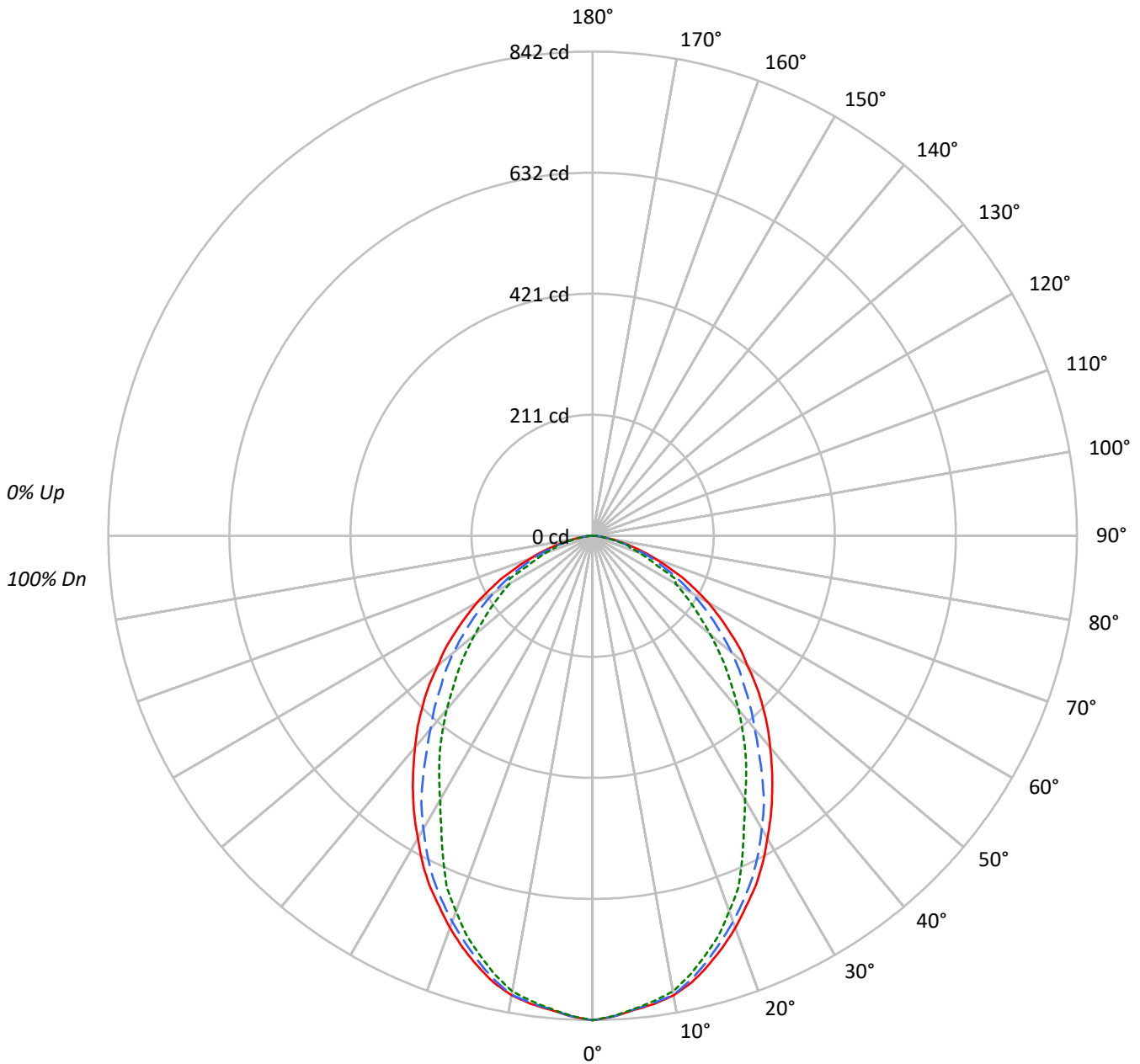
Lumens per Lamp: N/A
Luminaire Lumens: 1654.0 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (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°	9069	9069	9069
5°	8945	8935	8925
10°	8869	8858	8793
15°	8629	8543	8422
20°	8312	8179	7955
25°	7970	7797	7311
30°	7554	7312	6586
35°	7155	6758	6092
40°	6747	6159	5543
45°	6361	5693	5011
50°	5888	5285	4469
55°	5448	4789	4003
60°	4990	4278	3587
65°	4391	3747	3176
70°	3616	3279	2697
75°	2878	2512	2633
80°	1934	1810	1692
85°	1198	1445	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	4.7
10°-20°	215.2	13.0
20°-30°	298.0	18.0
30°-40°	317.7	19.2
40°-50°	289.9	17.5
50°-60°	227.1	13.7
60°-70°	148.0	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°	591.7	35.8
0°-40°	909.4	55.0
0°-60°	1426.4	86.2
0°-90°	1654.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	828	827	827	826	826	79
15°	774	774	767	759	756	218
25°	671	667	656	633	616	308
35°	544	541	514	475	464	340
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°	842.5	842.5	842.5	842.5	842.5
2.5°	836.7	836.7	836.7	835.7	835.7
5°	827.9	826.9	826.9	826.0	826.0
7.5°	821.1	820.1	819.1	818.2	816.2
10°	811.4	811.4	810.4	805.5	804.5
12.5°	795.8	794.8	790.9	784.1	782.1
15°	774.3	774.3	766.6	758.8	755.8
17.5°	751.0	750.0	740.3	732.5	728.6
20°	725.6	723.7	714.0	701.3	694.5
22.5°	697.4	697.4	685.7	669.2	662.3
25°	671.1	667.2	656.5	633.1	615.6
27.5°	640.9	635.1	623.4	590.3	569.8
30°	607.8	604.9	588.3	545.5	529.9
32.5°	576.6	571.7	554.2	509.4	496.7
35°	544.5	540.6	514.3	475.3	463.6
37.5°	512.3	507.5	474.3	443.2	428.6
40°	480.2	474.3	438.3	410.1	394.5
42.5°	450.0	442.2	407.1	376.9	359.4
45°	417.9	409.1	374.0	342.9	329.2
47.5°	385.7	377.9	345.8	313.6	298.0
50°	351.6	344.8	315.6	283.4	266.9
52.5°	323.4	312.7	284.4	252.3	238.6
55°	290.3	281.5	255.2	225.0	213.3
57.5°	260.1	251.3	226.9	198.7	189.0
60°	231.8	219.2	198.7	174.3	166.6
62.5°	200.6	190.9	173.4	152.9	162.7
65°	172.4	162.7	147.1	150.0	124.7
67.5°	141.2	136.4	122.7	109.1	105.2
70°	114.9	109.1	104.2	89.6	85.7
72.5°	91.6	85.7	78.9	71.1	68.2
75°	69.2	64.3	60.4	57.5	63.3
77.5°	47.7	45.8	42.9	39.9	39.0
80°	31.2	30.2	29.2	28.2	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)