

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: P545270

Luminaire Tested: **FMR-12-2-LD4-1HI-35-UNV-93-97-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: P545270
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-35-UNV-93-97-EDD
Description: 1X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

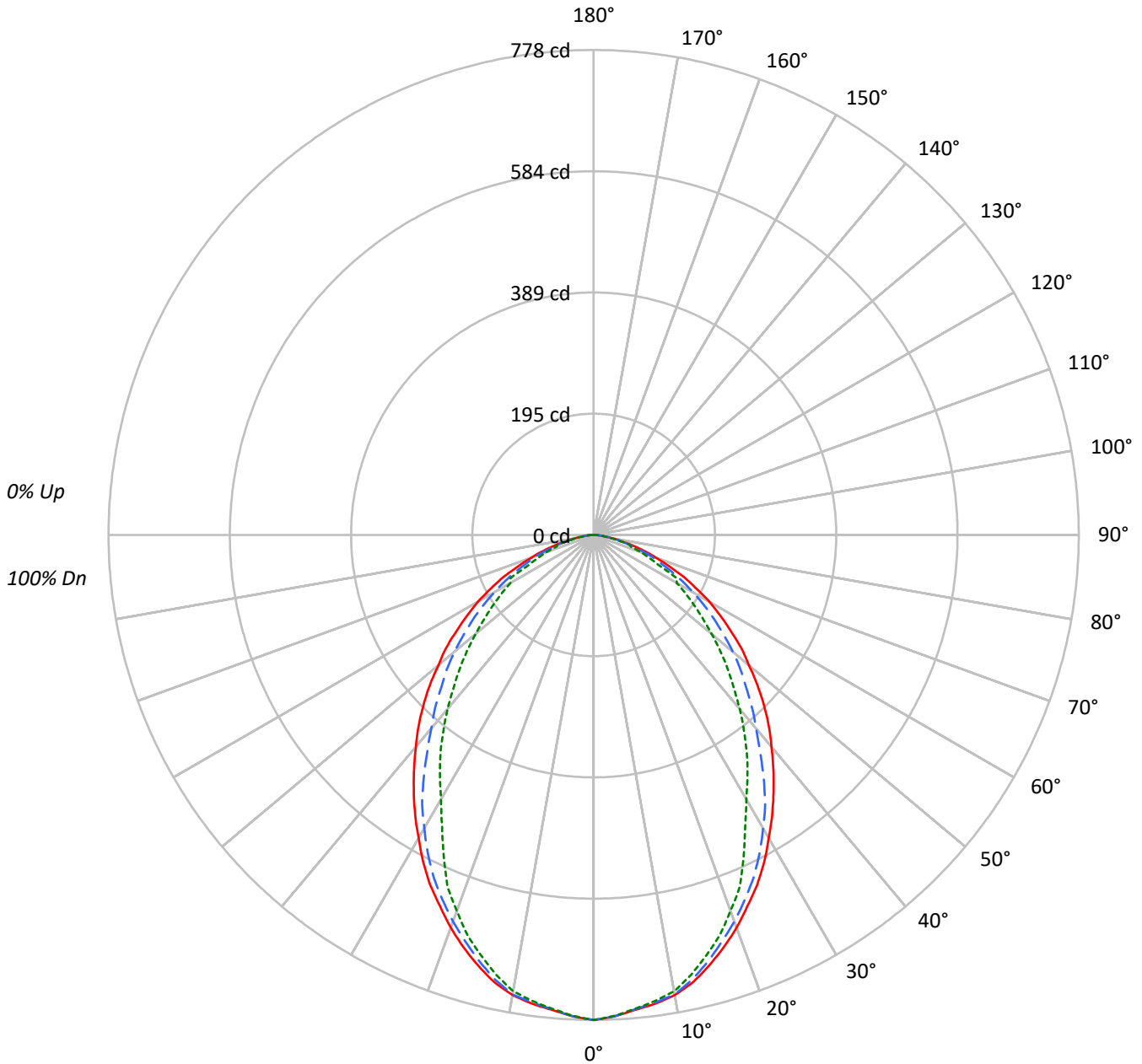
Lumens per Lamp: N/A
Luminaire Lumens: 1528.0 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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°	4189	4189	4189
5°	4132	4127	4122
10°	4096	4091	4062
15°	3986	3946	3891
20°	3840	3778	3675
25°	3682	3602	3377
30°	3489	3378	3042
35°	3305	3121	2814
40°	3117	2845	2560
45°	2938	2630	2315
50°	2719	2441	2065
55°	2516	2213	1849
60°	2306	1976	1657
65°	2029	1731	1467
70°	1671	1515	1246
75°	1329	1160	1216
80°	893	837	781
85°	556	667	778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	4.7
10°-20°	198.9	13.0
20°-30°	275.3	18.0
30°-40°	293.5	19.2
40°-50°	267.8	17.5
50°-60°	209.8	13.7
60°-70°	136.8	8.9
70°-80°	60.6	4.0
80°-90°	13.0	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°	546.6	35.8
0°-40°	840.1	55.0
0°-60°	1317.7	86.2
0°-90°	1528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1528.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	765	764	764	763	763	73
15°	715	715	708	701	698	201
25°	620	616	606	585	569	285
35°	503	499	475	439	428	314
45°	386	378	346	317	304	297
55°	268	260	236	208	197	241
65°	159	150	136	139	115	157
75°	64	59	56	53	58	68
85°	9	10	11	12	13	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	778.3	778.3	778.3	778.3	778.3
2.5°	772.9	772.9	772.9	772.0	772.0
5°	764.8	763.9	763.9	763.0	763.0
7.5°	758.5	757.6	756.7	755.8	754.0
10°	749.5	749.5	748.6	744.1	743.2
12.5°	735.2	734.3	730.7	724.4	722.6
15°	715.4	715.4	708.2	701.0	698.3
17.5°	693.8	692.9	683.9	676.7	673.1
20°	670.4	668.6	659.6	647.9	641.6
22.5°	644.3	644.3	633.5	618.2	611.9
25°	620.0	616.4	606.5	584.9	568.7
27.5°	592.1	586.7	575.9	545.3	526.4
30°	561.5	558.8	543.5	503.9	489.5
32.5°	532.7	528.2	512.0	470.6	458.9
35°	503.0	499.4	475.1	439.1	428.3
37.5°	473.3	468.8	438.2	409.4	395.9
40°	443.6	438.2	404.9	378.8	364.4
42.5°	415.7	408.5	376.1	348.2	332.0
45°	386.0	377.9	345.5	316.7	304.1
47.5°	356.3	349.1	319.4	289.7	275.3
50°	324.8	318.5	291.5	261.8	246.6
52.5°	298.7	288.8	262.7	233.1	220.5
55°	268.1	260.0	235.8	207.9	197.1
57.5°	240.3	232.2	209.7	183.6	174.6
60°	214.2	202.5	183.6	161.1	153.9
62.5°	185.4	176.4	160.2	141.3	150.3
65°	159.3	150.3	135.9	138.6	115.2
67.5°	130.5	126.0	113.4	100.8	97.2
70°	106.2	100.8	96.3	82.8	79.2
72.5°	84.6	79.2	72.9	65.7	63.0
75°	63.9	59.4	55.8	53.1	58.5
77.5°	44.1	42.3	39.6	36.9	36.0
80°	28.8	27.9	27.0	26.1	25.2
82.5°	17.1	17.1	17.1	17.1	17.1
85°	9.0	9.9	10.8	11.7	12.6
87.5°	5.4	5.4	6.3	7.2	8.1
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)