

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: P545515

Luminaire Tested: **FMR-12-2-LD4-1STD-50-UNV-82-88-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: P545515
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-LD4-1STD-50-UNV-82-88-EDD
Description: 1X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

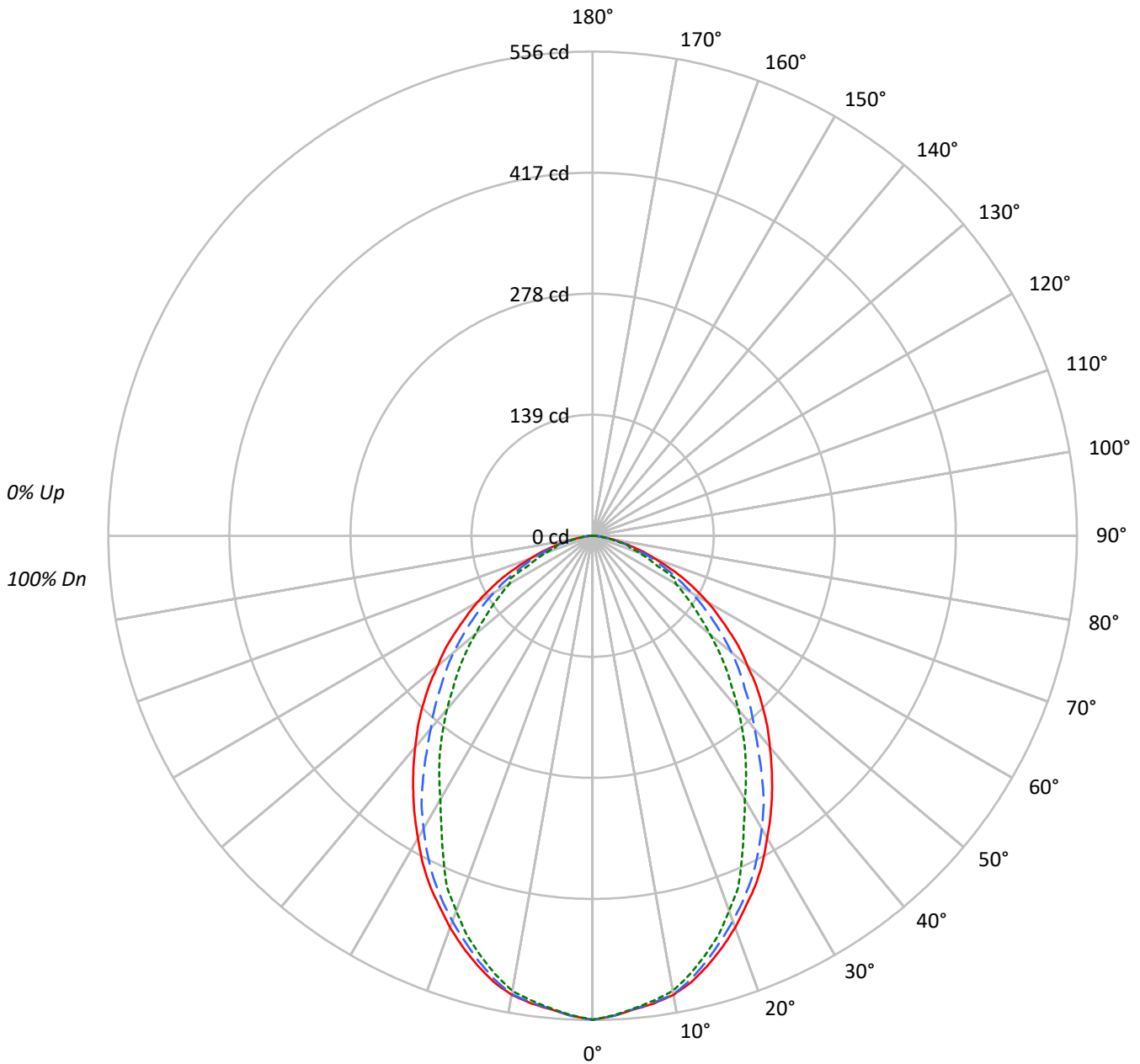
Lumens per Lamp: N/A
Luminaire Lumens: 1091.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	2991	2991	2991
5°	2950	2947	2943
10°	2925	2921	2900
15°	2846	2817	2778
20°	2741	2697	2624
25°	2629	2571	2411
30°	2491	2412	2172
35°	2359	2229	2009
40°	2225	2031	1828
45°	2098	1878	1653
50°	1942	1743	1474
55°	1797	1579	1320
60°	1646	1411	1183
65°	1448	1235	1047
70°	1193	1081	889
75°	948	828	869
80°	638	598	558
85°	395	475	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	4.7
10°-20°	142.0	13.0
20°-30°	196.6	18.0
30°-40°	209.6	19.2
40°-50°	191.2	17.5
50°-60°	149.8	13.7
60°-70°	97.6	8.9
70°-80°	43.2	4.0
80°-90°	9.3	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°	390.3	35.8
0°-40°	599.8	55.0
0°-60°	940.8	86.2
0°-90°	1091.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	546	546	546	545	545	52
15°	511	511	506	500	499	144
25°	443	440	433	418	406	203
35°	359	357	339	314	306	225
45°	276	270	247	226	217	212
55°	192	186	168	148	141	172
65°	114	107	97	99	82	112
75°	46	42	40	38	42	49
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	555.7	555.7	555.7	555.7	555.7
2.5°	551.9	551.9	551.9	551.2	551.2
5°	546.1	545.5	545.5	544.8	544.8
7.5°	541.6	541.0	540.3	539.7	538.4
10°	535.2	535.2	534.5	531.3	530.7
12.5°	524.9	524.3	521.7	517.2	515.9
15°	510.8	510.8	505.6	500.5	498.6
17.5°	495.3	494.7	488.3	483.1	480.6
20°	478.6	477.4	470.9	462.6	458.1
22.5°	460.0	460.0	452.3	441.4	436.9
25°	442.7	440.1	433.0	417.6	406.0
27.5°	422.7	418.9	411.2	389.3	375.8
30°	400.9	399.0	388.1	359.8	349.5
32.5°	380.3	377.1	365.6	336.0	327.7
35°	359.1	356.6	339.2	313.5	305.8
37.5°	337.9	334.7	312.9	292.3	282.7
40°	316.7	312.9	289.1	270.5	260.2
42.5°	296.8	291.7	268.6	248.6	237.1
45°	275.6	269.8	246.7	226.2	217.2
47.5°	254.4	249.3	228.1	206.9	196.6
50°	231.9	227.4	208.2	187.0	176.0
52.5°	213.3	206.2	187.6	166.4	157.4
55°	191.5	185.7	168.3	148.4	140.7
57.5°	171.5	165.8	149.7	131.1	124.6
60°	152.9	144.6	131.1	115.0	109.9
62.5°	132.3	125.9	114.4	100.9	107.3
65°	113.7	107.3	97.0	98.9	82.2
67.5°	93.2	89.9	81.0	72.0	69.4
70°	75.8	72.0	68.7	59.1	56.5
72.5°	60.4	56.5	52.0	46.9	45.0
75°	45.6	42.4	39.8	37.9	41.8
77.5°	31.5	30.2	28.3	26.3	25.7
80°	20.6	19.9	19.3	18.6	18.0
82.5°	12.2	12.2	12.2	12.2	12.2
85°	6.4	7.1	7.7	8.4	9.0
87.5°	3.9	3.9	4.5	5.1	5.8
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)