

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: P544787

Luminaire Tested: **FMR-12-1-LD4-1LO-35-UNV-93-88-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: P544787
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-LD4-1LO-35-UNV-93-88-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

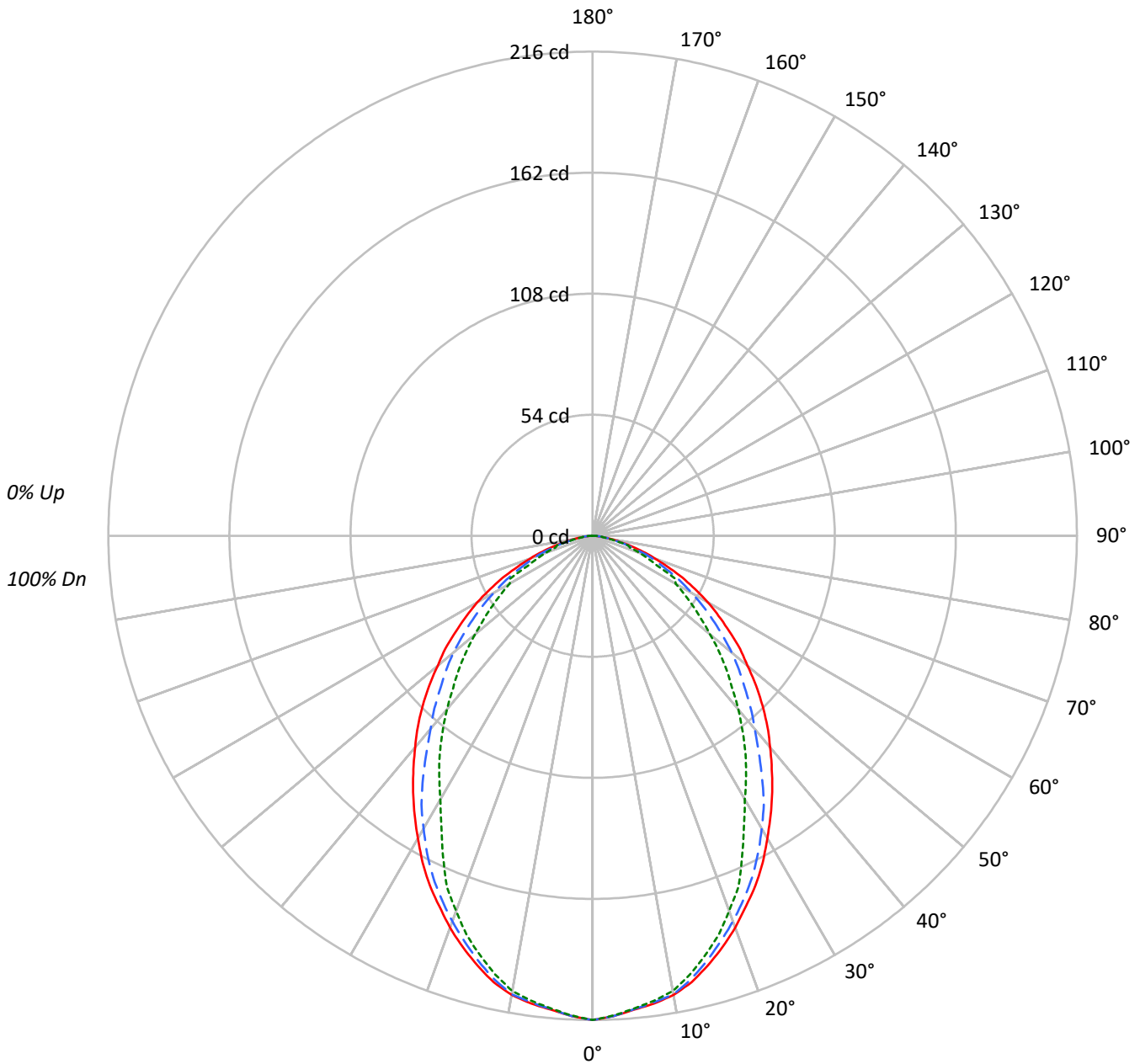
Lumens per Lamp: N/A
Luminaire Lumens: 424.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 5.8
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: P544787

CATALOG NUMBER: FMR-12-1-LD4-1LO-35-UNV-93-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544787

CATALOG NUMBER: FMR-12-1-LD4-1LO-35-UNV-93-88-EDD

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	39	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°	2325	2325	2325
5°	2293	2291	2287
10°	2273	2270	2254
15°	2212	2190	2160
20°	2131	2096	2039
25°	2043	1999	1874
30°	1936	1874	1688
35°	1834	1732	1562
40°	1730	1579	1421
45°	1630	1460	1285
50°	1509	1355	1145
55°	1396	1227	1027
60°	1279	1096	919
65°	1126	960	815
70°	928	840	692
75°	736	645	674
80°	496	465	434
85°	309	371	432



TEST NUMBER: P544787

CATALOG NUMBER: FMR-12-1-LD4-1LO-35-UNV-93-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.1	4.7
10°-20°	55.2	13.0
20°-30°	76.4	18.0
30°-40°	81.5	19.2
40°-50°	74.3	17.5
50°-60°	58.2	13.7
60°-70°	37.9	9.0
70°-80°	16.8	4.0
80°-90°	3.6	0.8
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°	151.7	35.8
0°-40°	233.1	55.0
0°-60°	365.6	86.2
0°-90°	424.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	424.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	216	216	216	216	216	
5°	212	212	212	212	212	20
15°	198	198	196	194	194	56
25°	172	171	168	162	158	79
35°	140	139	132	122	119	87
45°	107	105	96	88	84	83
55°	74	72	65	58	55	67
65°	44	42	38	38	32	44
75°	18	16	16	15	16	19
85°	2	3	3	3	4	3
90°	0	0	0	0	0	



TEST NUMBER: P544787

CATALOG NUMBER: FMR-12-1-LD4-1LO-35-UNV-93-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	216.0	216.0	216.0	216.0	216.0
2.5°	214.5	214.5	214.5	214.2	214.2
5°	212.2	212.0	212.0	211.7	211.7
7.5°	210.5	210.2	210.0	209.7	209.2
10°	208.0	208.0	207.7	206.5	206.2
12.5°	204.0	203.7	202.7	201.0	200.5
15°	198.5	198.5	196.5	194.5	193.8
17.5°	192.5	192.3	189.8	187.8	186.8
20°	186.0	185.5	183.0	179.8	178.0
22.5°	178.8	178.8	175.8	171.5	169.8
25°	172.0	171.0	168.3	162.3	157.8
27.5°	164.3	162.8	159.8	151.3	146.1
30°	155.8	155.1	150.8	139.8	135.8
32.5°	147.8	146.6	142.1	130.6	127.3
35°	139.6	138.6	131.8	121.8	118.9
37.5°	131.3	130.1	121.6	113.6	109.9
40°	123.1	121.6	112.4	105.1	101.1
42.5°	115.4	113.4	104.4	96.6	92.1
45°	107.1	104.9	95.9	87.9	84.4
47.5°	98.9	96.9	88.6	80.4	76.4
50°	90.1	88.4	80.9	72.7	68.4
52.5°	82.9	80.1	72.9	64.7	61.2
55°	74.4	72.2	65.4	57.7	54.7
57.5°	66.7	64.4	58.2	50.9	48.4
60°	59.4	56.2	50.9	44.7	42.7
62.5°	51.4	48.9	44.4	39.2	41.7
65°	44.2	41.7	37.7	38.5	32.0
67.5°	36.2	35.0	31.5	28.0	27.0
70°	29.5	28.0	26.7	23.0	22.0
72.5°	23.5	22.0	20.2	18.2	17.5
75°	17.7	16.5	15.5	14.7	16.2
77.5°	12.2	11.7	11.0	10.2	10.0
80°	8.0	7.7	7.5	7.2	7.0
82.5°	4.7	4.7	4.7	4.7	4.7
85°	2.5	2.7	3.0	3.2	3.5
87.5°	1.5	1.5	1.7	2.0	2.2
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)