

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: P544960

Luminaire Tested: **FMR-12-1-LD4-2HI-35-UNV-81-85-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: P544960
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-81-85-EDD
Description: 1X1 FMR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

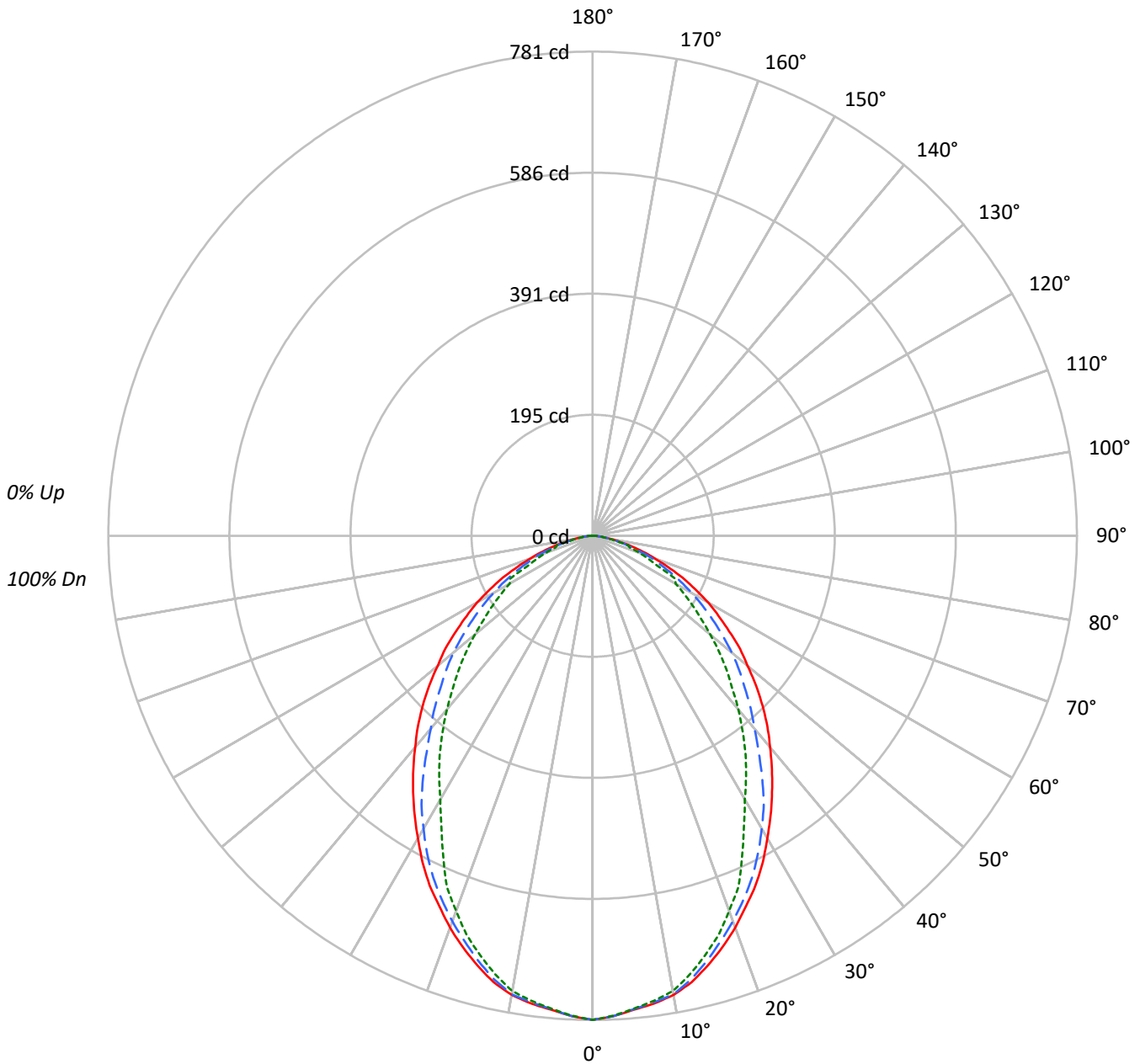
Lumens per Lamp: N/A
Luminaire Lumens: 1533.0 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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: P544960

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-81-85-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P544960

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-81-85-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20	
RC	80				70				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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75				75
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44				44
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8406	8406	8406
5°	8291	8281	8271
10°	8219	8209	8150
15°	7998	7918	7806
20°	7704	7580	7373
25°	7387	7227	6776
30°	7001	6778	6104
35°	6631	6264	5646
40°	6254	5708	5137
45°	5896	5278	4644
50°	5457	4898	4143
55°	5048	4438	3710
60°	4626	3965	3324
65°	4070	3472	2944
70°	3352	3040	2499
75°	2666	2329	2441
80°	1791	1680	1568
85°	1112	1334	1556



TEST NUMBER: P544960

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-81-85-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	4.7
10°-20°	199.5	13.0
20°-30°	276.2	18.0
30°-40°	294.5	19.2
40°-50°	268.7	17.5
50°-60°	210.5	13.7
60°-70°	137.2	8.9
70°-80°	60.8	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°	548.4	35.8
0°-40°	842.9	55.0
0°-60°	1322.0	86.2
0°-90°	1533.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1533.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	767	766	766	766	766	73
15°	718	718	710	703	700	202
25°	622	618	608	587	570	286
35°	505	501	477	440	430	315
45°	387	379	347	318	305	298
55°	269	261	236	208	198	241
65°	160	151	136	139	116	157
75°	64	60	56	53	59	69
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



TEST NUMBER: P544960

CATALOG NUMBER: FMR-12-1-LD4-2HI-35-UNV-81-85-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	780.9	780.9	780.9	780.9	780.9
2.5°	775.5	775.5	775.5	774.6	774.6
5°	767.3	766.4	766.4	765.5	765.5
7.5°	761.0	760.1	759.2	758.3	756.5
10°	752.0	752.0	751.1	746.6	745.7
12.5°	737.6	736.7	733.0	726.7	724.9
15°	717.7	717.7	710.5	703.3	700.5
17.5°	696.0	695.1	686.1	678.9	675.3
20°	672.6	670.8	661.7	650.0	643.7
22.5°	646.4	646.4	635.5	620.2	613.9
25°	622.0	618.4	608.5	586.8	570.5
27.5°	594.0	588.6	577.8	547.1	528.1
30°	563.3	560.6	545.3	505.5	491.1
32.5°	534.4	529.9	513.7	472.1	460.4
35°	504.6	501.0	476.7	440.5	429.7
37.5°	474.9	470.3	439.6	410.8	397.2
40°	445.1	439.6	406.2	380.1	365.6
42.5°	417.1	409.9	377.4	349.4	333.1
45°	387.3	379.2	346.7	317.8	305.1
47.5°	357.5	350.3	320.5	290.7	276.2
50°	325.9	319.6	292.5	262.7	247.4
52.5°	299.7	289.8	263.6	233.8	221.2
55°	269.0	260.9	236.5	208.5	197.7
57.5°	241.0	232.9	210.3	184.2	175.1
60°	214.9	203.1	184.2	161.6	154.4
62.5°	186.0	176.9	160.7	141.7	150.8
65°	159.8	150.8	136.3	139.0	115.6
67.5°	130.9	126.4	113.7	101.1	97.5
70°	106.5	101.1	96.6	83.1	79.4
72.5°	84.9	79.4	73.1	65.9	63.2
75°	64.1	59.6	56.0	53.3	58.7
77.5°	44.2	42.4	39.7	37.0	36.1
80°	28.9	28.0	27.1	26.2	25.3
82.5°	17.2	17.2	17.2	17.2	17.2
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)