

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: P545216

Luminaire Tested: **FMR-12-1-LD4-2STD-50-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: P545216
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-LD4-2STD-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

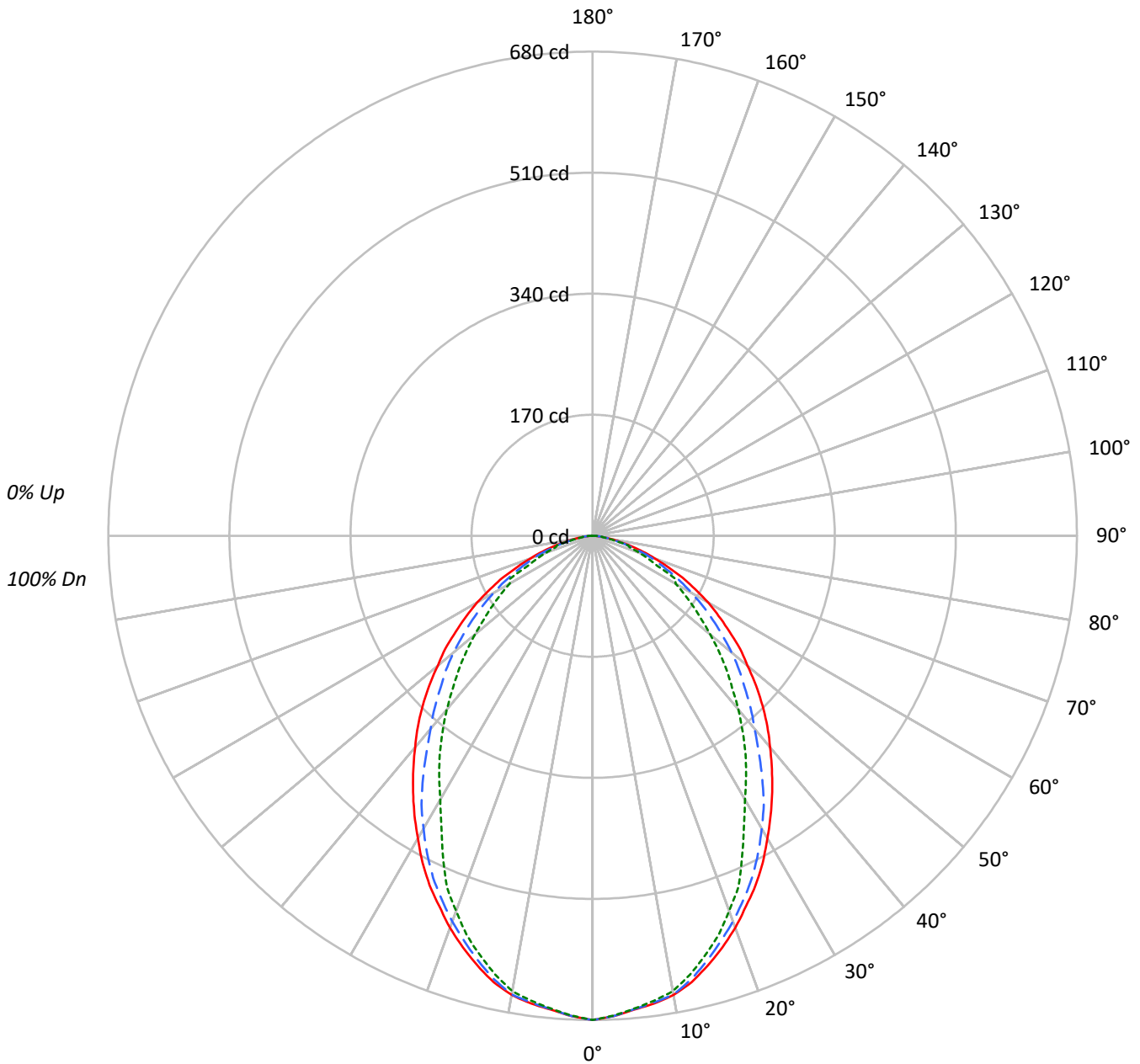
Lumens per Lamp: N/A
Luminaire Lumens: 1335.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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					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								
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°	7319	7319	7319
5°	7220	7212	7204
10°	7158	7149	7098
15°	6965	6895	6799
20°	6709	6601	6420
25°	6434	6293	5902
30°	6098	5901	5316
35°	5775	5455	4917
40°	5446	4971	4474
45°	5135	4596	4045
50°	4752	4265	3607
55°	4397	3866	3232
60°	4028	3453	2893
65°	3545	3023	2562
70°	2921	2647	2178
75°	2321	2025	2125
80°	1562	1463	1364
85°	976	1161	1359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	4.7
10°-20°	173.7	13.0
20°-30°	240.5	18.0
30°-40°	256.5	19.2
40°-50°	234.0	17.5
50°-60°	183.3	13.7
60°-70°	119.5	8.9
70°-80°	52.9	4.0
80°-90°	11.3	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°	477.5	35.8
0°-40°	734.0	55.0
0°-60°	1151.3	86.2
0°-90°	1335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1335.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	668	668	668	667	667	63
15°	625	625	619	612	610	176
25°	542	538	530	511	497	249
35°	440	436	415	384	374	275
45°	337	330	302	277	266	260
55°	234	227	206	182	172	210
65°	139	131	119	121	101	137
75°	56	52	49	46	51	60
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.0	680.0	680.0	680.0	680.0
2.5°	675.3	675.3	675.3	674.5	674.5
5°	668.2	667.5	667.5	666.7	666.7
7.5°	662.7	661.9	661.2	660.4	658.8
10°	654.9	654.9	654.1	650.2	649.4
12.5°	642.3	641.5	638.4	632.9	631.3
15°	625.0	625.0	618.7	612.4	610.1
17.5°	606.1	605.3	597.5	591.2	588.1
20°	585.7	584.1	576.3	566.0	560.5
22.5°	562.9	562.9	553.5	540.1	534.6
25°	541.7	538.5	529.9	511.0	496.9
27.5°	517.3	512.6	503.1	476.4	459.9
30°	490.6	488.2	474.8	440.3	427.7
32.5°	465.4	461.5	447.3	411.2	400.9
35°	439.5	436.3	415.1	383.6	374.2
37.5°	413.5	409.6	382.9	357.7	345.9
40°	387.6	382.9	353.8	331.0	318.4
42.5°	363.2	356.9	328.6	304.2	290.1
45°	337.3	330.2	301.9	276.7	265.7
47.5°	311.3	305.0	279.1	253.1	240.6
50°	283.8	278.3	254.7	228.8	215.4
52.5°	261.0	252.4	229.6	203.6	192.6
55°	234.3	227.2	206.0	181.6	172.2
57.5°	209.9	202.8	183.2	160.4	152.5
60°	187.1	176.9	160.4	140.7	134.4
62.5°	161.9	154.1	139.9	123.4	131.3
65°	139.2	131.3	118.7	121.1	100.6
67.5°	114.0	110.1	99.1	88.1	84.9
70°	92.8	88.1	84.1	72.3	69.2
72.5°	73.9	69.2	63.7	57.4	55.0
75°	55.8	51.9	48.7	46.4	51.1
77.5°	38.5	36.9	34.6	32.2	31.4
80°	25.2	24.4	23.6	22.8	22.0
82.5°	14.9	14.9	14.9	14.9	14.9
85°	7.9	8.6	9.4	10.2	11.0
87.5°	4.7	4.7	5.5	6.3	7.1
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)