

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: P546967

Luminaire Tested: **FMR-24-4-LD4-3HI-35-UNV-80-84-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: P546967
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-24-4-LD4-3HI-35-UNV-80-84-EDD
Description: 2X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

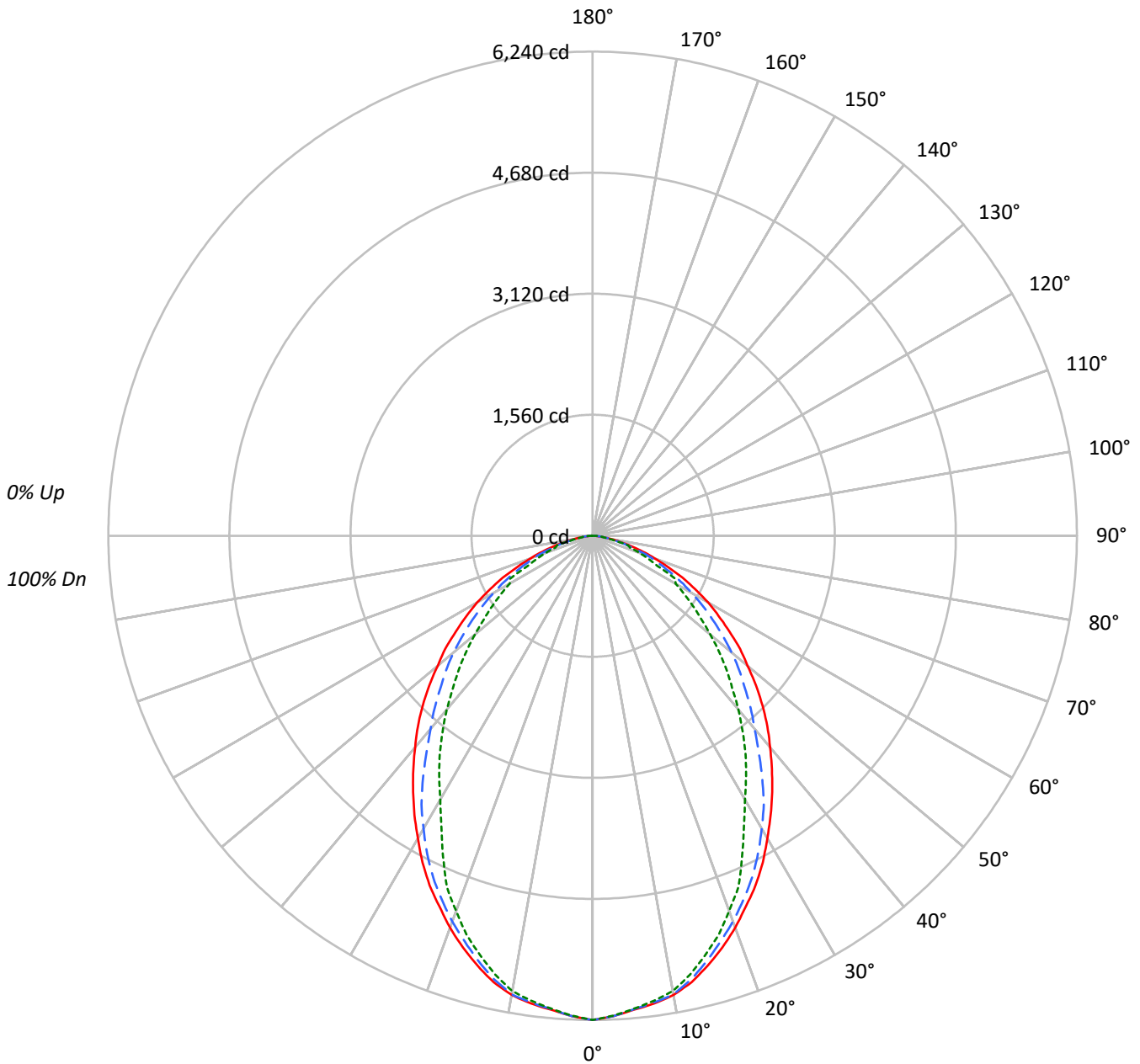
Lumens per Lamp: N/A
Luminaire Lumens: 12250.0 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	8396	8396	8396
5°	8282	8272	8262
10°	8210	8200	8141
15°	7989	7908	7798
20°	7695	7571	7365
25°	7379	7218	6769
30°	6994	6770	6097
35°	6624	6256	5640
40°	6247	5702	5132
45°	5889	5271	4640
50°	5451	4892	4137
55°	5043	4434	3706
60°	4620	3960	3320
65°	4065	3468	2940
70°	3349	3037	2497
75°	2663	2325	2438
80°	1788	1677	1565
85°	1113	1337	1559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	580.9	4.7
10°-20°	1594.1	13.0
20°-30°	2206.9	18.0
30°-40°	2353.2	19.2
40°-50°	2146.8	17.5
50°-60°	1681.9	13.7
60°-70°	1096.2	8.9
70°-80°	485.7	4.0
80°-90°	104.3	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°	4381.9	35.8
0°-40°	6735.2	55.0
0°-60°	10563.9	86.2
0°-90°	12250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12250.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6240	6240	6240	6240	6240	
5°	6132	6125	6125	6117	6117	582
15°	5735	5735	5677	5620	5598	1612
25°	4970	4942	4862	4689	4559	2282
35°	4032	4004	3809	3520	3434	2521
45°	3095	3030	2770	2539	2438	2384
55°	2150	2085	1890	1666	1580	1928
65°	1277	1205	1089	1111	923	1258
75°	512	476	447	426	469	549
85°	72	79	87	94	101	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6240.0	6240.0	6240.0	6240.0	6240.0
2.5°	6196.7	6196.7	6196.7	6189.5	6189.5
5°	6131.8	6124.6	6124.6	6117.4	6117.4
7.5°	6081.3	6074.1	6066.9	6059.6	6045.2
10°	6009.1	6009.1	6001.9	5965.9	5958.6
12.5°	5893.7	5886.5	5857.7	5807.2	5792.7
15°	5735.0	5735.0	5677.3	5619.6	5598.0
17.5°	5561.9	5554.7	5482.5	5424.8	5396.0
20°	5374.3	5359.9	5287.8	5194.0	5143.5
22.5°	5165.1	5165.1	5078.6	4955.9	4905.4
25°	4970.3	4941.5	4862.1	4689.0	4559.2
27.5°	4746.7	4703.4	4616.9	4371.6	4220.1
30°	4501.4	4479.8	4357.2	4039.8	3924.3
32.5°	4270.6	4234.5	4104.7	3772.8	3679.1
35°	4032.5	4003.7	3808.9	3520.4	3433.8
37.5°	3794.5	3758.4	3513.1	3282.3	3174.1
40°	3556.4	3513.1	3246.2	3037.0	2921.6
42.5°	3332.8	3275.1	3015.4	2791.8	2661.9
45°	3094.7	3029.8	2770.1	2539.3	2438.3
47.5°	2856.7	2799.0	2560.9	2322.9	2207.4
50°	2604.2	2553.7	2337.3	2099.2	1976.6
52.5°	2395.0	2315.6	2106.4	1868.4	1767.4
55°	2149.7	2084.8	1890.0	1666.4	1579.8
57.5°	1926.1	1861.2	1680.8	1471.6	1399.5
60°	1716.9	1623.1	1471.6	1291.3	1233.6
62.5°	1486.1	1413.9	1284.1	1132.6	1204.7
65°	1276.9	1204.7	1089.3	1110.9	923.4
67.5°	1046.0	1009.9	908.9	808.0	779.1
70°	851.2	808.0	771.9	663.7	634.8
72.5°	678.1	634.8	584.3	526.6	505.0
75°	512.2	476.1	447.3	425.6	468.9
77.5°	353.5	339.1	317.4	295.8	288.6
80°	230.8	223.6	216.4	209.2	202.0
82.5°	137.1	137.1	137.1	137.1	137.1
85°	72.1	79.4	86.6	93.8	101.0
87.5°	43.3	43.3	50.5	57.7	64.9
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)