

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: P546364

Luminaire Tested: **FMR-12-4-LD4-2STD-50-UNV-80-94-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: P546364
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-12-4-LD4-2STD-50-UNV-80-94-EDD
Description: 1X4 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

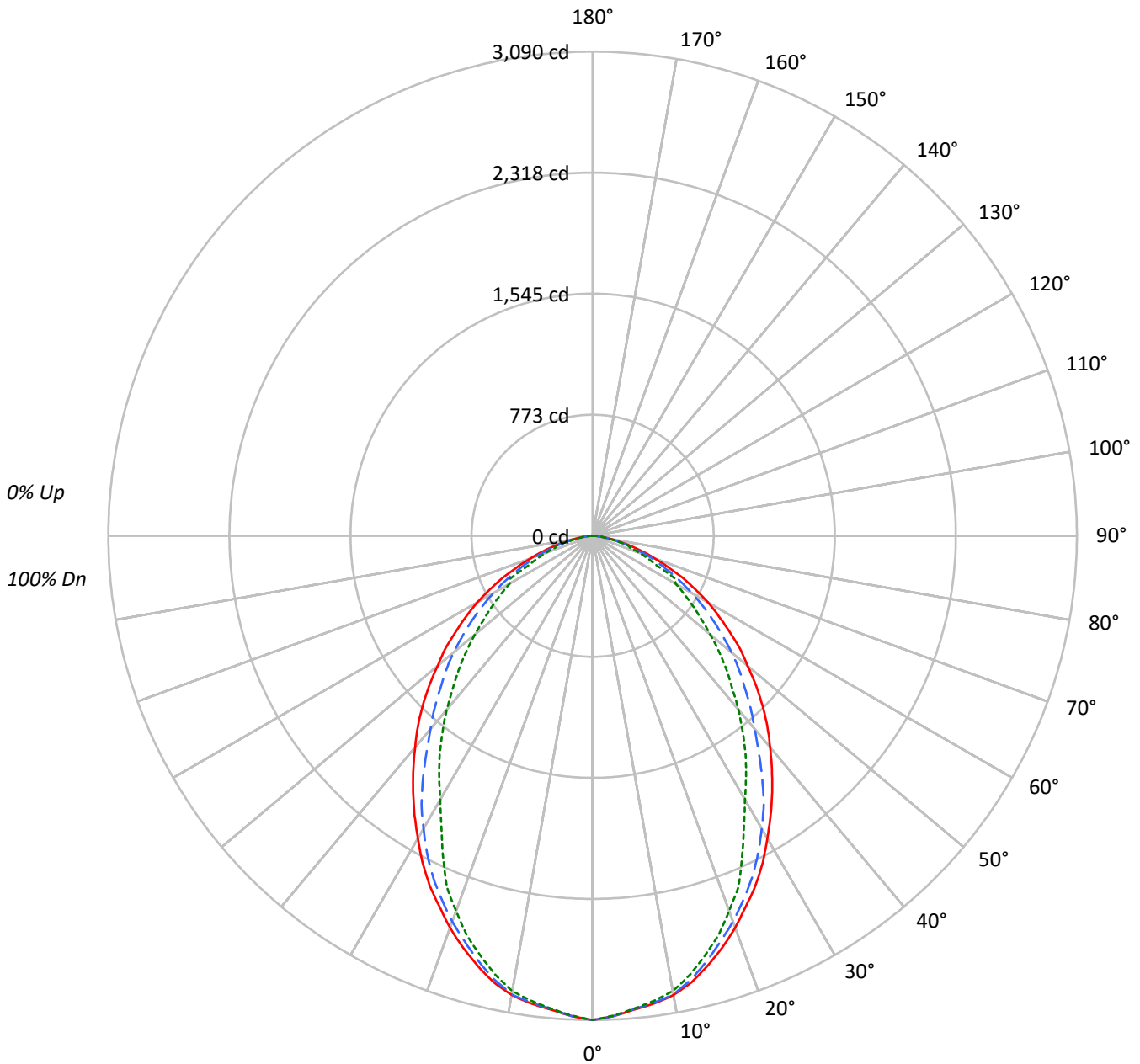
Lumens per Lamp: N/A
Luminaire Lumens: 6066.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8315	8315	8315
5°	8202	8192	8183
10°	8131	8121	8062
15°	7912	7832	7723
20°	7621	7498	7294
25°	7308	7149	6703
30°	6926	6704	6038
35°	6560	6196	5586
40°	6186	5647	5082
45°	5832	5220	4595
50°	5399	4845	4098
55°	4994	4391	3670
60°	4576	3922	3287
65°	4026	3435	2911
70°	3316	3007	2474
75°	2637	2303	2414
80°	1771	1661	1550
85°	1102	1325	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.6	4.7
10°-20°	789.4	13.0
20°-30°	1092.8	18.0
30°-40°	1165.3	19.2
40°-50°	1063.1	17.5
50°-60°	832.8	13.7
60°-70°	542.8	8.9
70°-80°	240.5	4.0
80°-90°	51.6	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°	2169.9	35.8
0°-40°	3335.2	55.0
0°-60°	5231.1	86.2
0°-90°	6066.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6066.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3090	3090	3090	3090	3090	
5°	3036	3033	3033	3029	3029	288
15°	2840	2840	2811	2783	2772	798
25°	2461	2447	2408	2322	2258	1130
35°	1997	1983	1886	1743	1700	1248
45°	1532	1500	1372	1257	1207	1180
55°	1064	1032	936	825	782	955
65°	632	597	539	550	457	623
75°	254	236	222	211	232	272
85°	36	39	43	46	50	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3089.9	3089.9	3089.9	3089.9	3089.9
2.5°	3068.5	3068.5	3068.5	3064.9	3064.9
5°	3036.4	3032.8	3032.8	3029.2	3029.2
7.5°	3011.4	3007.8	3004.2	3000.6	2993.5
10°	2975.6	2975.6	2972.1	2954.2	2950.6
12.5°	2918.5	2914.9	2900.6	2875.6	2868.5
15°	2839.9	2839.9	2811.3	2782.7	2772.0
17.5°	2754.2	2750.6	2714.9	2686.3	2672.0
20°	2661.3	2654.1	2618.4	2572.0	2547.0
22.5°	2557.7	2557.7	2514.8	2454.1	2429.1
25°	2461.2	2446.9	2407.7	2321.9	2257.6
27.5°	2350.5	2329.1	2286.2	2164.7	2089.7
30°	2229.0	2218.3	2157.6	2000.4	1943.3
32.5°	2114.7	2096.9	2032.6	1868.3	1821.8
35°	1996.9	1982.6	1886.1	1743.2	1700.4
37.5°	1879.0	1861.1	1739.7	1625.3	1571.8
40°	1761.1	1739.7	1607.5	1503.9	1446.7
42.5°	1650.3	1621.8	1493.2	1382.4	1318.1
45°	1532.5	1500.3	1371.7	1257.4	1207.4
47.5°	1414.6	1386.0	1268.1	1150.2	1093.1
50°	1289.6	1264.6	1157.4	1039.5	978.8
52.5°	1186.0	1146.7	1043.1	925.2	875.2
55°	1064.5	1032.4	935.9	825.2	782.3
57.5°	953.8	921.6	832.3	728.7	693.0
60°	850.2	803.7	728.7	639.4	610.8
62.5°	735.9	700.1	635.8	560.8	596.6
65°	632.3	596.6	539.4	550.1	457.2
67.5°	518.0	500.1	450.1	400.1	385.8
70°	421.5	400.1	382.2	328.6	314.4
72.5°	335.8	314.4	289.3	260.8	250.1
75°	253.6	235.8	221.5	210.8	232.2
77.5°	175.0	167.9	157.2	146.5	142.9
80°	114.3	110.7	107.2	103.6	100.0
82.5°	67.9	67.9	67.9	67.9	67.9
85°	35.7	39.3	42.9	46.4	50.0
87.5°	21.4	21.4	25.0	28.6	32.1
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)