

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: P588786

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-93-94-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMR-24-2-LD4-1HI-50-UNV-93-94-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

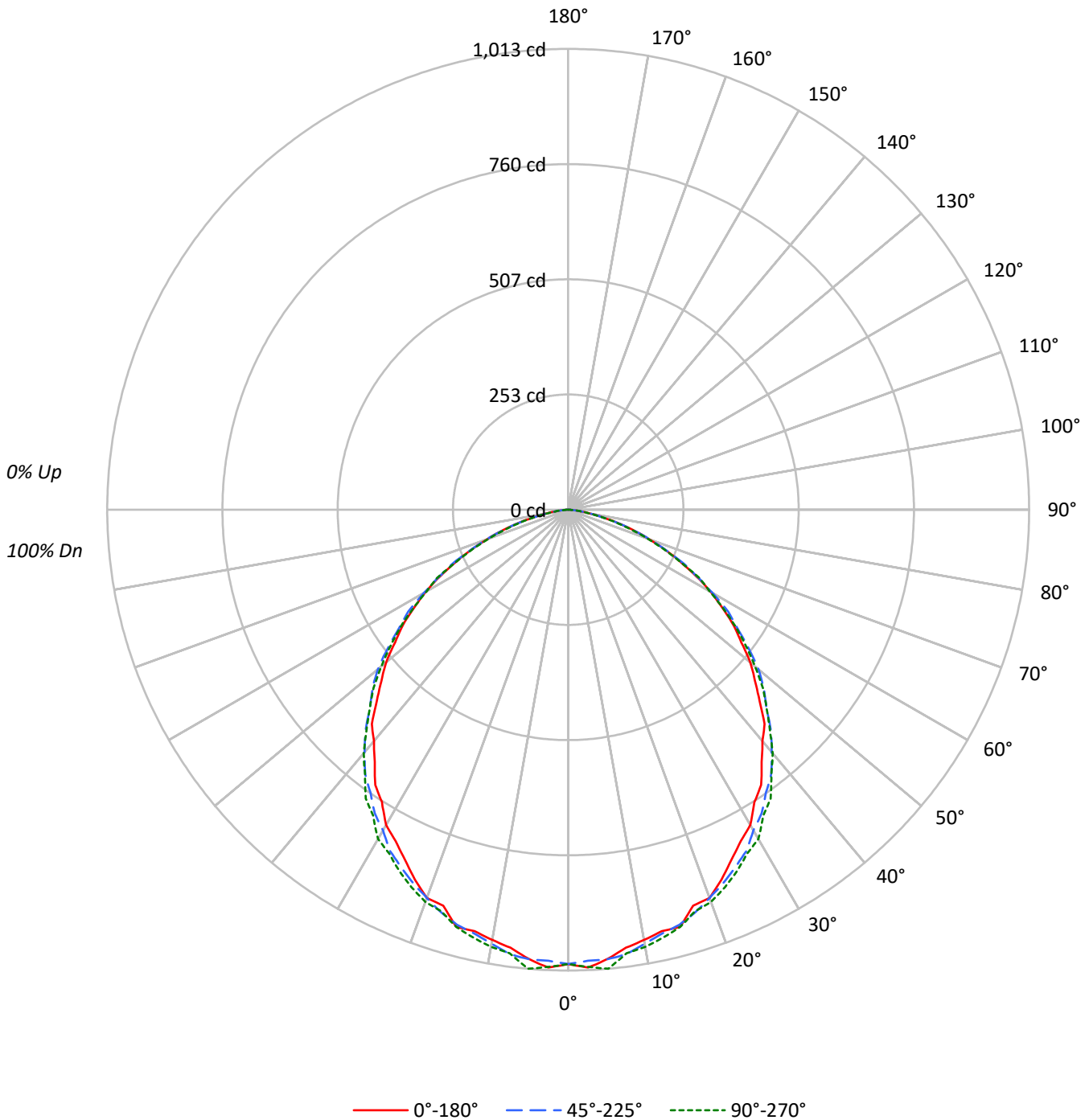
Lumens per Lamp: N/A
Luminaire Lumens: 2517.0 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2687	2687	2687
5°	2679	2680	2736
10°	2624	2647	2666
15°	2645	2631	2645
20°	2600	2600	2628
25°	2520	2575	2604
30°	2486	2529	2597
35°	2427	2491	2547
40°	2333	2445	2456
45°	2262	2343	2346
50°	2188	2287	2243
55°	2084	2125	2110
60°	1949	1969	1933
65°	1738	1782	1726
70°	1491	1496	1455
75°	1181	1178	1133
80°	792	769	739
85°	429	426	398



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	3.7
10°-20°	266.2	10.6
20°-30°	398.9	15.8
30°-40°	472.8	18.8
40°-50°	473.6	18.8
50°-60°	402.0	16.0
60°-70°	271.1	10.8
70°-80°	119.1	4.7
80°-90°	19.4	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°	759.1	30.2
0°-40°	1231.8	48.9
0°-60°	2107.5	83.7
0°-90°	2517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2517.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	999	999	999	999	999	
5°	992	989	992	989	1013	93
15°	949	938	944	949	950	265
25°	849	854	867	879	877	392
35°	739	741	758	776	775	459
45°	594	606	616	631	616	460
55°	444	441	453	450	450	395
65°	273	269	280	269	271	271
75°	114	111	113	105	109	122
85°	14	14	14	13	13	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	998.7	998.7	998.7	998.7	998.7
2.5°	1007.3	999.7	992.6	1000.9	1005.9
5°	991.6	989.3	992.0	989.0	1012.9
7.5°	971.2	980.1	985.3	982.0	983.5
10°	960.4	957.3	968.8	976.8	975.6
12.5°	948.8	953.4	954.1	962.7	963.5
15°	949.4	938.5	944.3	949.2	949.6
17.5°	912.5	924.4	928.4	939.6	925.7
20°	908.0	899.4	908.0	919.5	917.7
22.5°	880.3	870.6	889.2	899.4	898.7
25°	848.8	853.5	867.4	878.8	877.0
27.5°	821.3	826.7	846.5	862.1	852.1
30°	800.0	797.3	814.0	828.0	835.7
32.5°	761.9	771.7	791.3	805.1	797.8
35°	738.9	741.0	758.2	775.7	775.2
37.5°	698.5	708.7	732.8	737.7	733.2
40°	664.1	674.3	696.0	701.3	699.1
42.5°	638.7	640.5	659.2	665.2	655.6
45°	594.4	605.5	615.6	631.4	616.5
47.5°	556.8	561.9	583.6	587.9	580.0
50°	522.6	524.4	546.2	540.9	535.8
52.5°	479.7	487.3	499.5	498.5	492.4
55°	444.3	441.4	453.0	449.9	449.8
57.5°	401.9	407.1	416.6	411.7	403.9
60°	362.2	362.3	365.8	360.3	359.2
62.5°	318.0	319.5	320.3	313.5	324.6
65°	273.0	269.4	279.9	269.2	271.0
67.5°	231.6	233.4	232.4	225.7	228.2
70°	189.5	191.9	190.2	182.6	184.9
72.5°	151.1	148.3	150.1	140.6	144.9
75°	113.6	111.3	113.3	105.3	109.0
77.5°	77.4	79.2	77.9	73.6	76.1
80°	51.1	49.6	49.6	47.2	47.7
82.5°	29.8	28.4	28.0	27.2	28.4
85°	13.9	13.5	13.8	13.4	12.9
87.5°	5.0	5.2	5.2	4.9	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)