

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: P589167

Luminaire Tested: **FMR-24-2-LD4-2LO-50-UNV-93-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589167
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-LD4-2LO-50-UNV-93-86-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

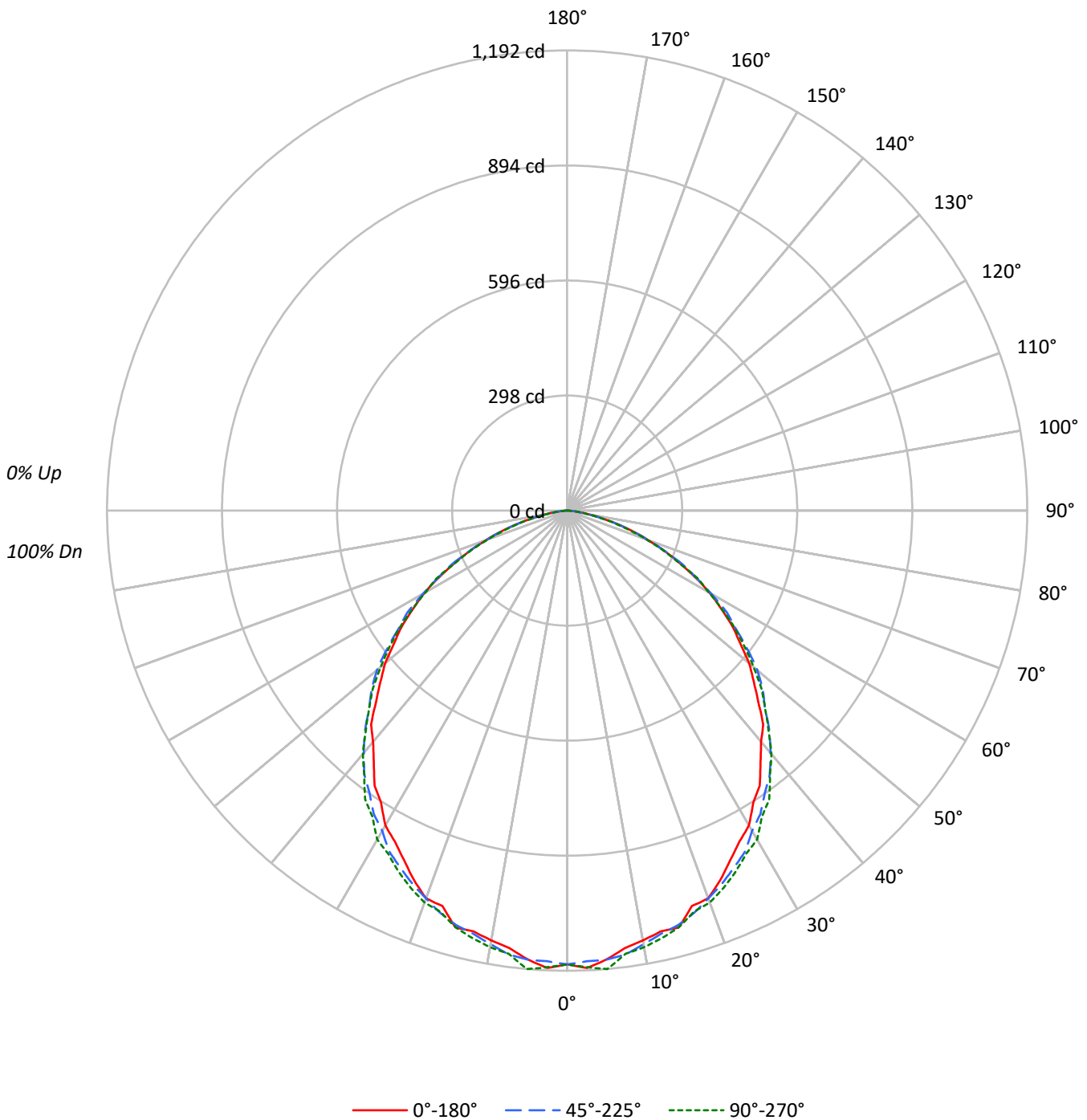
Lumens per Lamp: N/A
Luminaire Lumens: 2963.0 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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	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°	3164	3164	3164
5°	3153	3155	3221
10°	3089	3116	3138
15°	3114	3097	3114
20°	3061	3061	3094
25°	2967	3032	3065
30°	2926	2978	3057
35°	2857	2932	2998
40°	2746	2878	2891
45°	2663	2758	2762
50°	2575	2692	2640
55°	2454	2502	2484
60°	2295	2317	2276
65°	2046	2098	2032
70°	1755	1762	1713
75°	1390	1387	1334
80°	931	905	871
85°	506	500	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.6	3.7
10°-20°	313.4	10.6
20°-30°	469.6	15.8
30°-40°	556.5	18.8
40°-50°	557.6	18.8
50°-60°	473.3	16.0
60°-70°	319.1	10.8
70°-80°	140.2	4.7
80°-90°	22.8	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°	893.6	30.2
0°-40°	1450.1	48.9
0°-60°	2480.9	83.7
0°-90°	2963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1167	1165	1168	1164	1192	110
15°	1118	1105	1112	1117	1118	311
25°	999	1005	1021	1034	1032	462
35°	870	872	892	913	913	540
45°	700	713	725	743	726	541
55°	523	520	533	530	530	465
65°	321	317	330	317	319	320
75°	134	131	133	124	128	143
85°	16	16	16	16	15	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1175.6	1175.6	1175.6	1175.6	1175.6
2.5°	1185.8	1176.9	1168.5	1178.2	1184.1
5°	1167.3	1164.6	1167.8	1164.3	1192.3
7.5°	1143.3	1153.8	1159.9	1156.1	1157.7
10°	1130.6	1126.9	1140.4	1149.8	1148.5
12.5°	1116.9	1122.4	1123.1	1133.3	1134.2
15°	1117.7	1104.8	1111.6	1117.4	1117.8
17.5°	1074.2	1088.2	1092.9	1106.1	1089.7
20°	1068.9	1058.8	1068.9	1082.4	1080.3
22.5°	1036.3	1024.9	1046.8	1058.8	1058.0
25°	999.3	1004.7	1021.1	1034.5	1032.4
27.5°	966.8	973.2	996.5	1014.9	1003.1
30°	941.7	938.5	958.3	974.7	983.8
32.5°	897.0	908.5	931.6	947.8	939.1
35°	869.8	872.4	892.5	913.2	912.6
37.5°	822.3	834.3	862.6	868.4	863.1
40°	781.7	793.7	819.4	825.6	823.0
42.5°	751.8	754.0	776.0	783.1	771.7
45°	699.8	712.8	724.7	743.3	725.7
47.5°	655.4	661.5	687.0	692.0	682.8
50°	615.2	617.3	643.0	636.8	630.7
52.5°	564.7	573.6	588.0	586.8	579.7
55°	523.1	519.6	533.3	529.6	529.5
57.5°	473.1	479.2	490.4	484.7	475.4
60°	426.4	426.5	430.6	424.1	422.9
62.5°	374.3	376.1	377.1	369.0	382.1
65°	321.3	317.1	329.5	316.9	319.1
67.5°	272.6	274.7	273.5	265.6	268.7
70°	223.1	225.9	223.9	214.9	217.7
72.5°	177.9	174.6	176.7	165.5	170.6
75°	133.7	131.0	133.4	124.0	128.3
77.5°	91.1	93.2	91.7	86.7	89.6
80°	60.1	58.4	58.4	55.6	56.2
82.5°	35.1	33.4	32.9	32.0	33.4
85°	16.4	15.9	16.2	15.8	15.2
87.5°	5.9	6.1	6.1	5.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)