

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: P589133

Luminaire Tested: **FMR-24-2-LD4-2LO-40-UNV-93-84-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589133
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-40-UNV-93-84-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

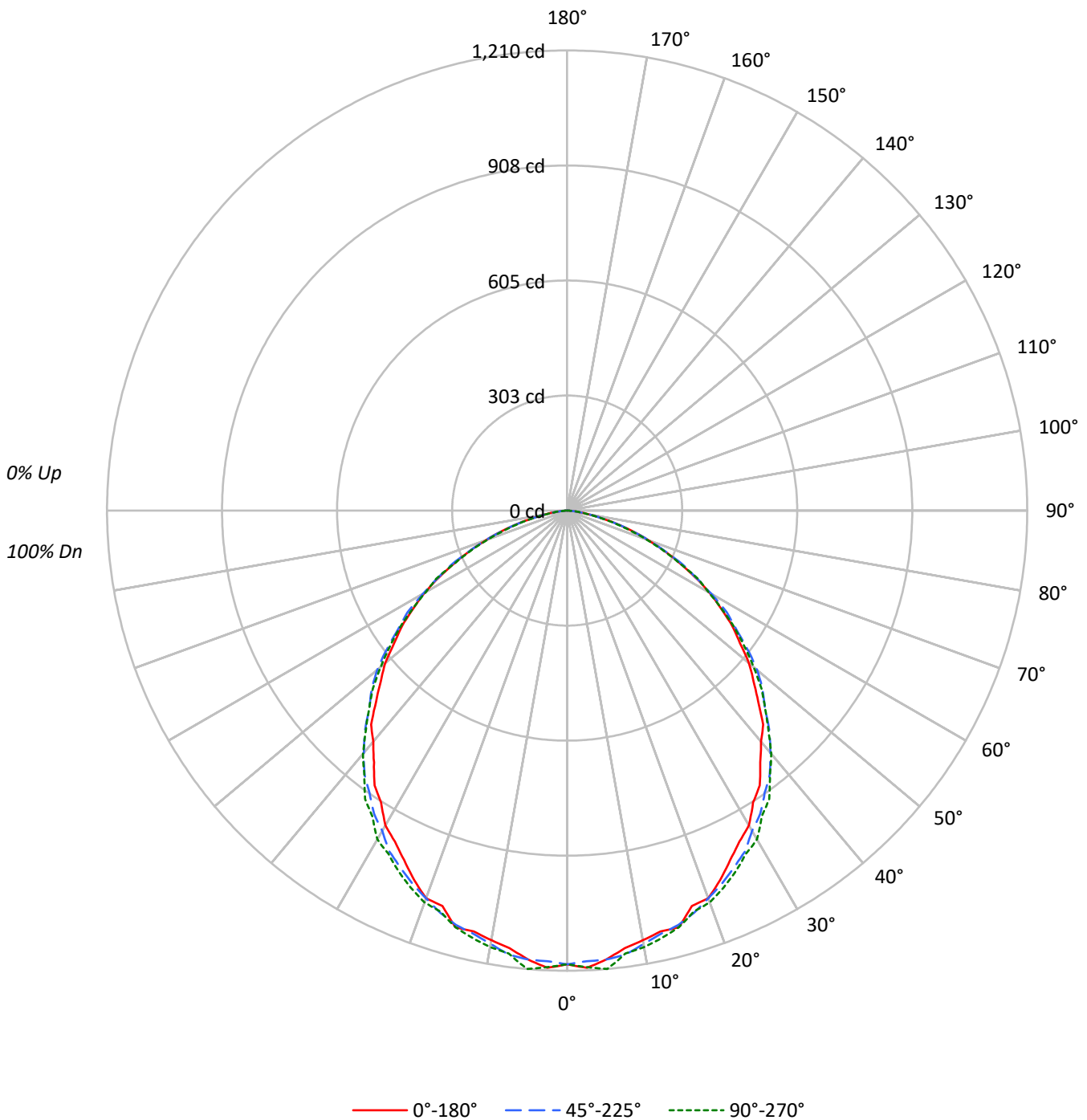
Lumens per Lamp: N/A
Luminaire Lumens: 3007.0 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3211	3211	3211
5°	3200	3201	3269
10°	3135	3163	3185
15°	3160	3143	3160
20°	3107	3107	3140
25°	3011	3077	3111
30°	2970	3022	3102
35°	2900	2976	3042
40°	2787	2921	2934
45°	2703	2799	2803
50°	2614	2732	2680
55°	2490	2539	2521
60°	2329	2352	2310
65°	2076	2129	2062
70°	1782	1788	1738
75°	1411	1408	1354
80°	945	919	883
85°	513	509	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.2	3.7
10°-20°	318.1	10.6
20°-30°	476.5	15.8
30°-40°	564.8	18.8
40°-50°	565.8	18.8
50°-60°	480.3	16.0
60°-70°	323.8	10.8
70°-80°	142.3	4.7
80°-90°	23.1	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°	906.8	30.2
0°-40°	1471.6	48.9
0°-60°	2517.8	83.7
0°-90°	3007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1193	1193	1193	1193	1193	
5°	1185	1182	1185	1182	1210	112
15°	1134	1121	1128	1134	1134	316
25°	1014	1020	1036	1050	1048	469
35°	883	885	906	927	926	548
45°	710	723	735	754	736	549
55°	531	527	541	538	537	472
65°	326	322	334	322	324	324
75°	136	133	135	126	130	145
85°	17	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°	1193.1	1193.1	1193.1	1193.1	1193.1
2.5°	1203.4	1194.3	1185.9	1195.7	1201.7
5°	1184.6	1181.9	1185.1	1181.5	1210.0
7.5°	1160.3	1170.9	1177.1	1173.2	1174.9
10°	1147.3	1143.7	1157.4	1166.9	1165.5
12.5°	1133.5	1139.0	1139.8	1150.1	1151.0
15°	1134.3	1121.2	1128.1	1133.9	1134.4
17.5°	1090.2	1104.4	1109.1	1122.5	1105.9
20°	1084.8	1074.5	1084.8	1098.5	1096.4
22.5°	1051.7	1040.1	1062.3	1074.5	1073.7
25°	1014.1	1019.6	1036.3	1049.8	1047.7
27.5°	981.1	987.6	1011.3	1030.0	1017.9
30°	955.7	952.5	972.5	989.1	998.4
32.5°	910.3	922.0	945.4	961.9	953.1
35°	882.7	885.3	905.8	926.8	926.1
37.5°	834.5	846.6	875.5	881.3	875.9
40°	793.3	805.5	831.6	837.9	835.2
42.5°	763.0	765.2	787.5	794.7	783.2
45°	710.2	723.4	735.4	754.4	736.5
47.5°	665.2	671.3	697.2	702.3	692.9
50°	624.4	626.5	652.5	646.2	640.1
52.5°	573.1	582.1	596.8	595.5	588.3
55°	530.8	527.3	541.2	537.5	537.3
57.5°	480.2	486.3	497.7	491.9	482.5
60°	432.7	432.9	437.0	430.4	429.2
62.5°	379.9	381.7	382.7	374.5	387.7
65°	326.1	321.8	334.4	321.7	323.8
67.5°	276.7	278.8	277.6	269.6	272.7
70°	226.5	229.2	227.2	218.1	220.9
72.5°	180.5	177.2	179.3	167.9	173.1
75°	135.7	132.9	135.4	125.9	130.2
77.5°	92.4	94.6	93.0	88.0	90.9
80°	61.0	59.3	59.3	56.4	57.0
82.5°	35.6	33.9	33.4	32.5	33.9
85°	16.6	16.2	16.5	16.0	15.4
87.5°	6.0	6.2	6.2	5.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)