

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: P589257

Luminaire Tested: **FMR-24-2-LD4-2STD-50-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589257
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-LD4-2STD-50-UNV-82-88-EDD
Description: 2X2 FMR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

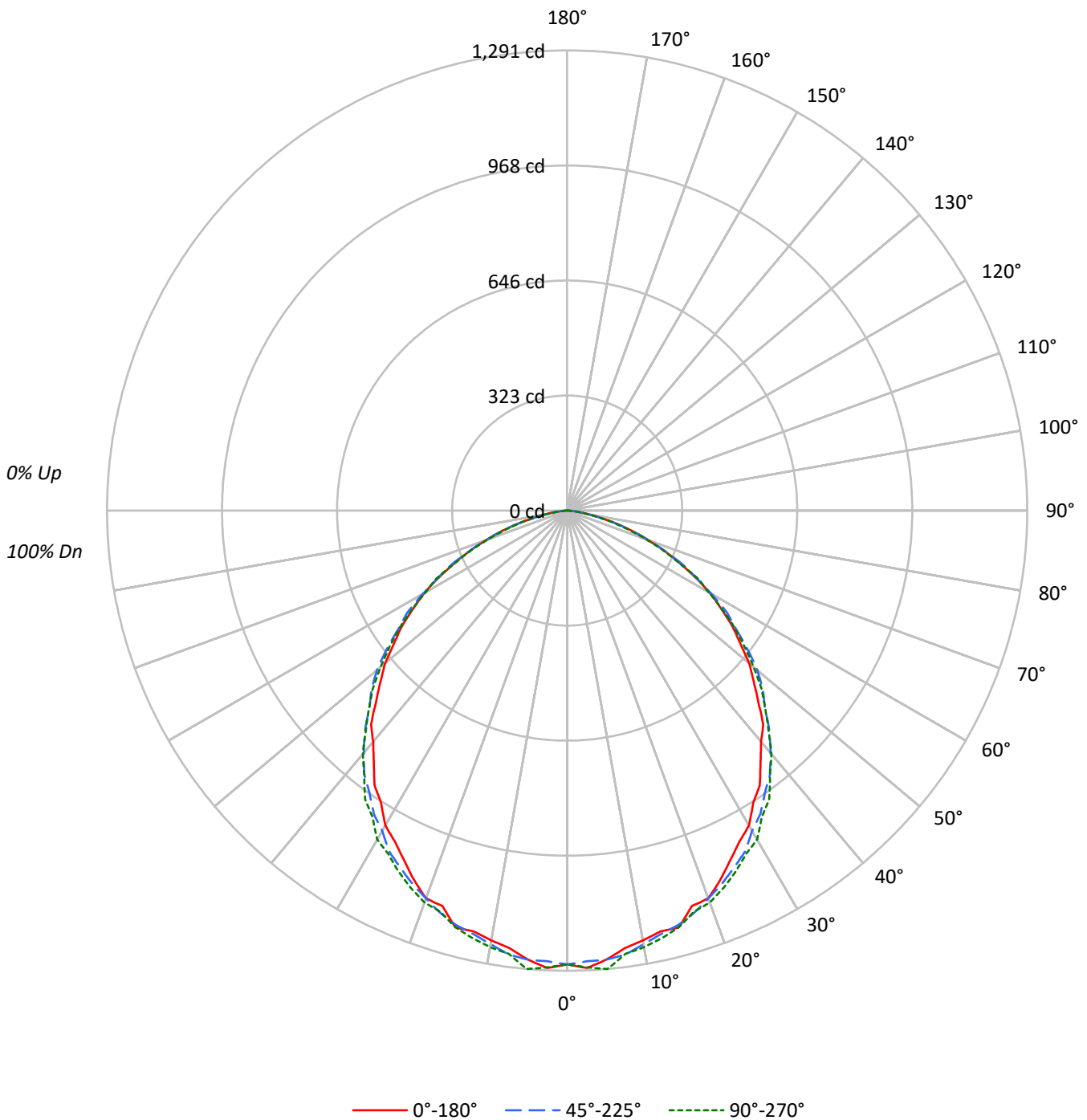
Lumens per Lamp: N/A
Luminaire Lumens: 3209.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3426	3426	3426
5°	3415	3416	3488
10°	3346	3375	3399
15°	3372	3354	3373
20°	3315	3315	3351
25°	3213	3284	3320
30°	3169	3225	3311
35°	3095	3176	3247
40°	2974	3117	3131
45°	2884	2987	2991
50°	2789	2915	2860
55°	2658	2709	2690
60°	2485	2510	2465
65°	2216	2273	2201
70°	1902	1908	1854
75°	1506	1502	1444
80°	1009	981	942
85°	550	543	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.8	3.7
10°-20°	339.4	10.6
20°-30°	508.6	15.8
30°-40°	602.7	18.8
40°-50°	603.9	18.8
50°-60°	512.6	16.0
60°-70°	345.6	10.8
70°-80°	151.9	4.7
80°-90°	24.7	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°	967.8	30.2
0°-40°	1570.5	48.9
0°-60°	2686.9	83.7
0°-90°	3209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1273	1273	1273	1273	1273	
5°	1264	1261	1265	1261	1291	119
15°	1210	1196	1204	1210	1211	337
25°	1082	1088	1106	1120	1118	500
35°	942	945	967	989	988	585
45°	758	772	785	805	786	586
55°	566	563	578	574	573	504
65°	348	343	357	343	346	346
75°	145	142	144	134	139	155
85°	18	17	18	17	16	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1273.3	1273.3	1273.3	1273.3	1273.3
2.5°	1284.3	1274.6	1265.5	1276.0	1282.5
5°	1264.2	1261.2	1264.7	1260.9	1291.3
7.5°	1238.2	1249.6	1256.2	1252.0	1253.9
10°	1224.4	1220.5	1235.1	1245.3	1243.8
12.5°	1209.6	1215.5	1216.4	1227.4	1228.4
15°	1210.5	1196.5	1203.9	1210.1	1210.6
17.5°	1163.4	1178.6	1183.7	1198.0	1180.2
20°	1157.7	1146.7	1157.7	1172.3	1170.0
22.5°	1122.3	1110.0	1133.7	1146.7	1145.8
25°	1082.2	1088.1	1105.9	1120.4	1118.1
27.5°	1047.0	1053.9	1079.3	1099.2	1086.3
30°	1019.9	1016.5	1037.8	1055.6	1065.5
32.5°	971.4	983.9	1008.9	1026.5	1017.1
35°	942.0	944.8	966.7	989.0	988.4
37.5°	890.5	903.5	934.3	940.5	934.8
40°	846.6	859.6	887.4	894.2	891.4
42.5°	814.3	816.6	840.4	848.1	835.8
45°	757.9	772.0	784.8	805.0	786.0
47.5°	709.9	716.4	744.1	749.5	739.5
50°	666.3	668.6	696.4	689.6	683.1
52.5°	611.6	621.3	636.9	635.6	627.8
55°	566.5	562.7	577.5	573.6	573.4
57.5°	512.4	519.0	531.2	524.9	514.9
60°	461.8	462.0	466.4	459.3	458.0
62.5°	405.4	407.4	408.4	399.6	413.8
65°	348.0	343.4	356.9	343.3	345.6
67.5°	295.3	297.6	296.2	287.7	291.0
70°	241.7	244.6	242.5	232.8	235.7
72.5°	192.7	189.1	191.4	179.2	184.8
75°	144.8	141.9	144.5	134.3	138.9
77.5°	98.6	100.9	99.3	93.9	97.0
80°	65.1	63.3	63.3	60.2	60.8
82.5°	38.0	36.2	35.7	34.7	36.2
85°	17.8	17.3	17.6	17.1	16.4
87.5°	6.4	6.6	6.6	6.2	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)