

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: P589193

Luminaire Tested: **FMR-24-2-LD4-2STD-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589193
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

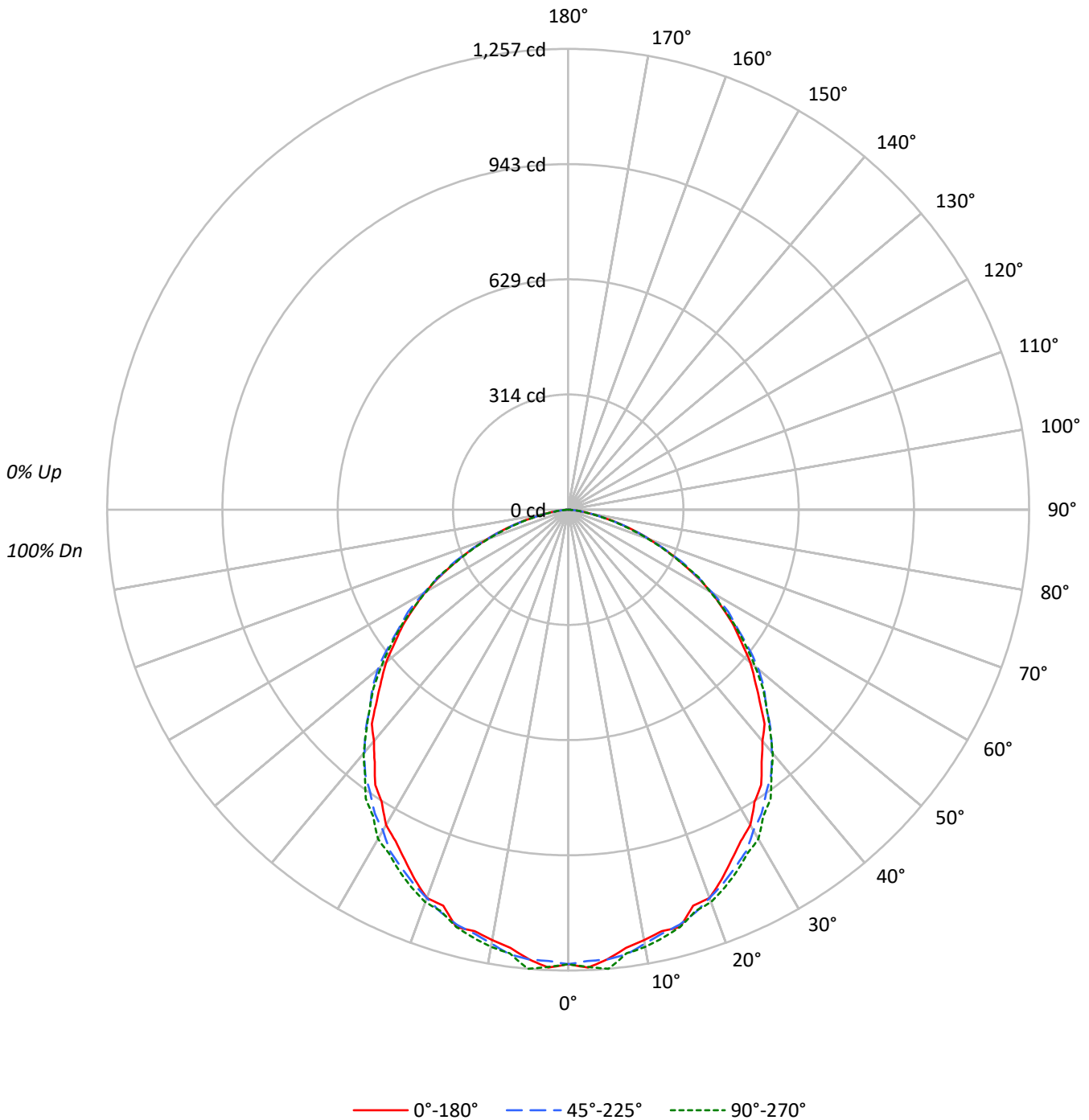
Lumens per Lamp: N/A
Luminaire Lumens: 3124.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3335	3335	3335
5°	3324	3326	3396
10°	3257	3286	3309
15°	3283	3265	3283
20°	3227	3227	3262
25°	3128	3197	3232
30°	3085	3139	3223
35°	3012	3091	3161
40°	2895	3035	3048
45°	2808	2907	2912
50°	2715	2838	2784
55°	2587	2638	2619
60°	2420	2443	2400
65°	2157	2213	2142
70°	1851	1858	1806
75°	1466	1463	1406
80°	982	955	917
85°	534	528	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.6	3.7
10°-20°	330.4	10.6
20°-30°	495.1	15.8
30°-40°	586.8	18.8
40°-50°	587.9	18.8
50°-60°	499.0	16.0
60°-70°	336.4	10.8
70°-80°	147.8	4.7
80°-90°	24.0	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°	942.1	30.2
0°-40°	1528.9	48.9
0°-60°	2615.7	83.7
0°-90°	3124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1240	1240	1240	1240	1240	
5°	1231	1228	1231	1228	1257	116
15°	1178	1165	1172	1178	1178	328
25°	1054	1059	1077	1091	1088	487
35°	917	920	941	963	962	569
45°	738	752	764	784	765	571
55°	552	548	562	558	558	491
65°	339	334	348	334	336	337
75°	141	138	141	131	135	151
85°	17	17	17	17	16	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.5	1239.5	1239.5	1239.5	1239.5
2.5°	1250.2	1240.8	1232.0	1242.2	1248.5
5°	1230.7	1227.8	1231.2	1227.5	1257.1
7.5°	1205.4	1216.5	1222.9	1218.9	1220.6
10°	1192.0	1188.2	1202.4	1212.3	1210.9
12.5°	1177.6	1183.3	1184.1	1194.9	1195.8
15°	1178.4	1164.8	1172.0	1178.1	1178.5
17.5°	1132.6	1147.3	1152.3	1166.2	1148.9
20°	1127.0	1116.3	1127.0	1141.3	1139.0
22.5°	1092.6	1080.6	1103.6	1116.3	1115.5
25°	1053.6	1059.3	1076.6	1090.7	1088.4
27.5°	1019.3	1026.0	1050.7	1070.0	1057.6
30°	992.9	989.5	1010.3	1027.6	1037.2
32.5°	945.7	957.9	982.2	999.3	990.2
35°	917.0	919.8	941.0	962.8	962.2
37.5°	866.9	879.6	909.5	915.6	910.0
40°	824.2	836.9	863.9	870.5	867.7
42.5°	792.7	794.9	818.1	825.7	813.7
45°	737.8	751.6	764.0	783.7	765.2
47.5°	691.1	697.5	724.3	729.6	719.9
50°	648.6	650.9	677.9	671.4	665.0
52.5°	595.4	604.8	620.0	618.7	611.2
55°	551.5	547.8	562.2	558.4	558.2
57.5°	498.9	505.3	517.1	511.0	501.3
60°	449.6	449.7	454.0	447.2	445.9
62.5°	394.7	396.6	397.5	389.1	402.8
65°	338.8	334.3	347.5	334.2	336.4
67.5°	287.4	289.7	288.4	280.1	283.3
70°	235.3	238.1	236.1	226.6	229.5
72.5°	187.6	184.0	186.3	174.4	179.9
75°	141.0	138.1	140.7	130.8	135.2
77.5°	96.0	98.3	96.7	91.4	94.4
80°	63.4	61.6	61.6	58.6	59.2
82.5°	37.0	35.2	34.7	33.8	35.2
85°	17.3	16.8	17.1	16.6	16.0
87.5°	6.2	6.4	6.4	6.1	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)