

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: P588809

Luminaire Tested: **FMR-24-2-LD4-1LO-35-UNV-82-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588809
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-LD4-1LO-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

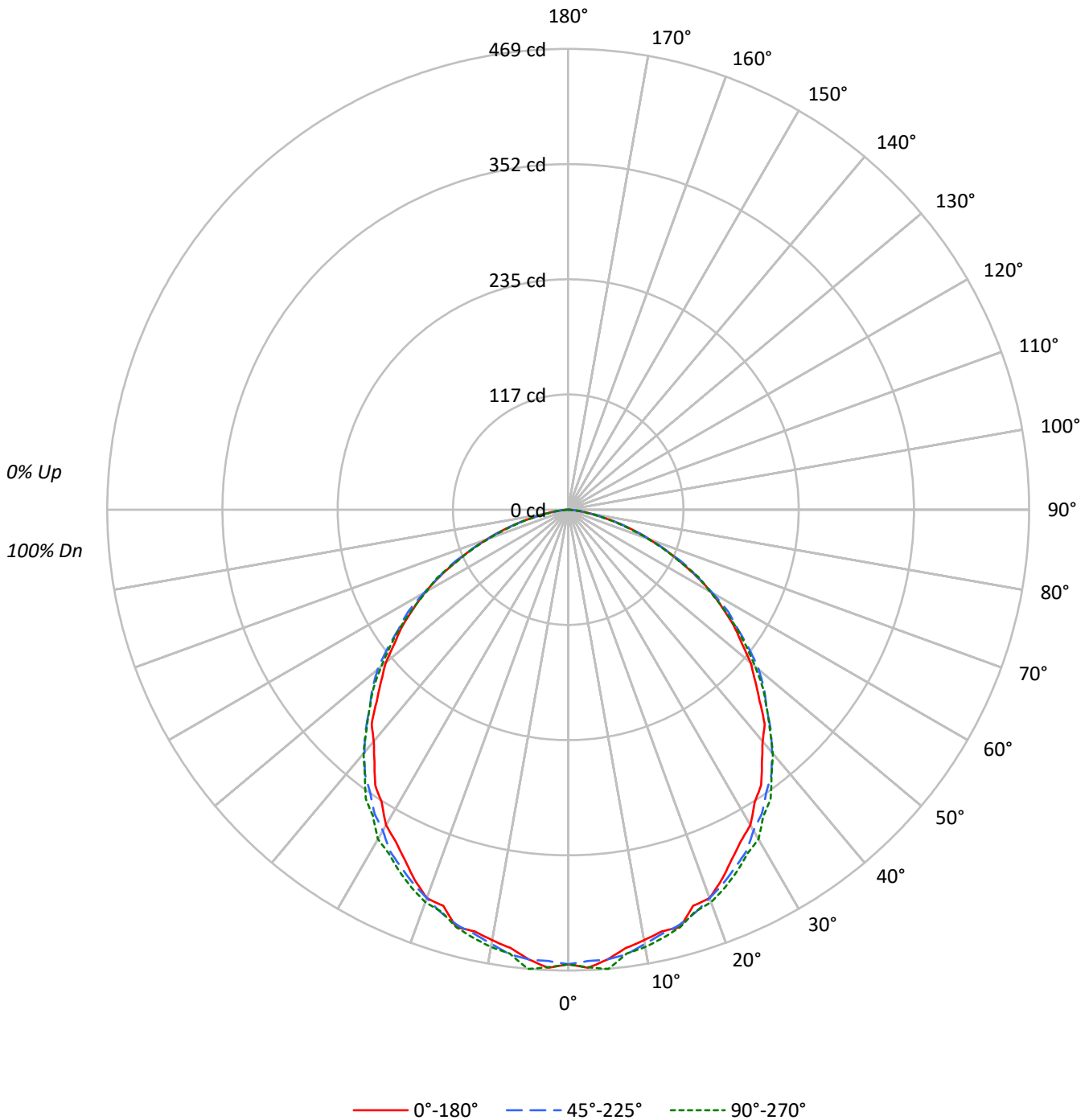
Lumens per Lamp: N/A
Luminaire Lumens: 1166.0 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	1245	1245	1245
5°	1241	1241	1267
10°	1216	1226	1235
15°	1225	1219	1226
20°	1204	1204	1217
25°	1167	1193	1206
30°	1152	1172	1203
35°	1124	1154	1180
40°	1081	1133	1138
45°	1048	1085	1087
50°	1014	1059	1039
55°	966	984	978
60°	903	912	896
65°	805	826	800
70°	691	693	674
75°	547	546	525
80°	367	356	342
85°	201	198	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	3.7
10°-20°	123.3	10.6
20°-30°	184.8	15.8
30°-40°	219.0	18.8
40°-50°	219.4	18.8
50°-60°	186.2	16.0
60°-70°	125.6	10.8
70°-80°	55.2	4.7
80°-90°	9.0	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°	351.6	30.2
0°-40°	570.6	48.9
0°-60°	976.3	83.7
0°-90°	1166.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1166.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	463	463	463	463	463	
5°	459	458	460	458	469	43
15°	440	435	437	440	440	123
25°	393	395	402	407	406	182
35°	342	343	351	359	359	213
45°	275	280	285	292	286	213
55°	206	204	210	208	208	183
65°	126	125	130	125	126	126
75°	53	52	52	49	50	56
85°	6	6	6	6	6	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	462.6	462.6	462.6	462.6	462.6
2.5°	466.6	463.1	459.8	463.7	466.0
5°	459.4	458.3	459.5	458.2	469.2
7.5°	449.9	454.0	456.4	454.9	455.6
10°	444.9	443.5	448.8	452.5	451.9
12.5°	439.5	441.7	442.0	446.0	446.3
15°	439.8	434.7	437.4	439.7	439.9
17.5°	422.7	428.2	430.1	435.3	428.8
20°	420.6	416.6	420.6	426.0	425.1
22.5°	407.8	403.3	411.9	416.6	416.3
25°	393.2	395.4	401.8	407.1	406.3
27.5°	380.4	383.0	392.2	399.4	394.7
30°	370.6	369.3	377.1	383.6	387.1
32.5°	353.0	357.5	366.6	373.0	369.6
35°	342.3	343.3	351.2	359.4	359.1
37.5°	323.6	328.3	339.5	341.7	339.6
40°	307.6	312.3	322.4	324.9	323.9
42.5°	295.9	296.7	305.4	308.2	303.7
45°	275.4	280.5	285.2	292.5	285.6
47.5°	257.9	260.3	270.4	272.3	268.7
50°	242.1	242.9	253.0	250.6	248.2
52.5°	222.2	225.7	231.4	230.9	228.1
55°	205.8	204.5	209.8	208.4	208.4
57.5°	186.2	188.6	193.0	190.7	187.1
60°	167.8	167.9	169.5	166.9	166.4
62.5°	147.3	148.0	148.4	145.2	150.4
65°	126.5	124.8	129.7	124.7	125.6
67.5°	107.3	108.1	107.6	104.5	105.7
70°	87.8	88.9	88.1	84.6	85.7
72.5°	70.0	68.7	69.5	65.1	67.1
75°	52.6	51.6	52.5	48.8	50.5
77.5°	35.8	36.7	36.1	34.1	35.2
80°	23.7	23.0	23.0	21.9	22.1
82.5°	13.8	13.1	13.0	12.6	13.1
85°	6.5	6.3	6.4	6.2	6.0
87.5°	2.3	2.4	2.4	2.3	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)