

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: P588728

Luminaire Tested: **FMR-24-2-LD4-1HI-40-UNV-80-87-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588728
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-LD4-1HI-40-UNV-80-87-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

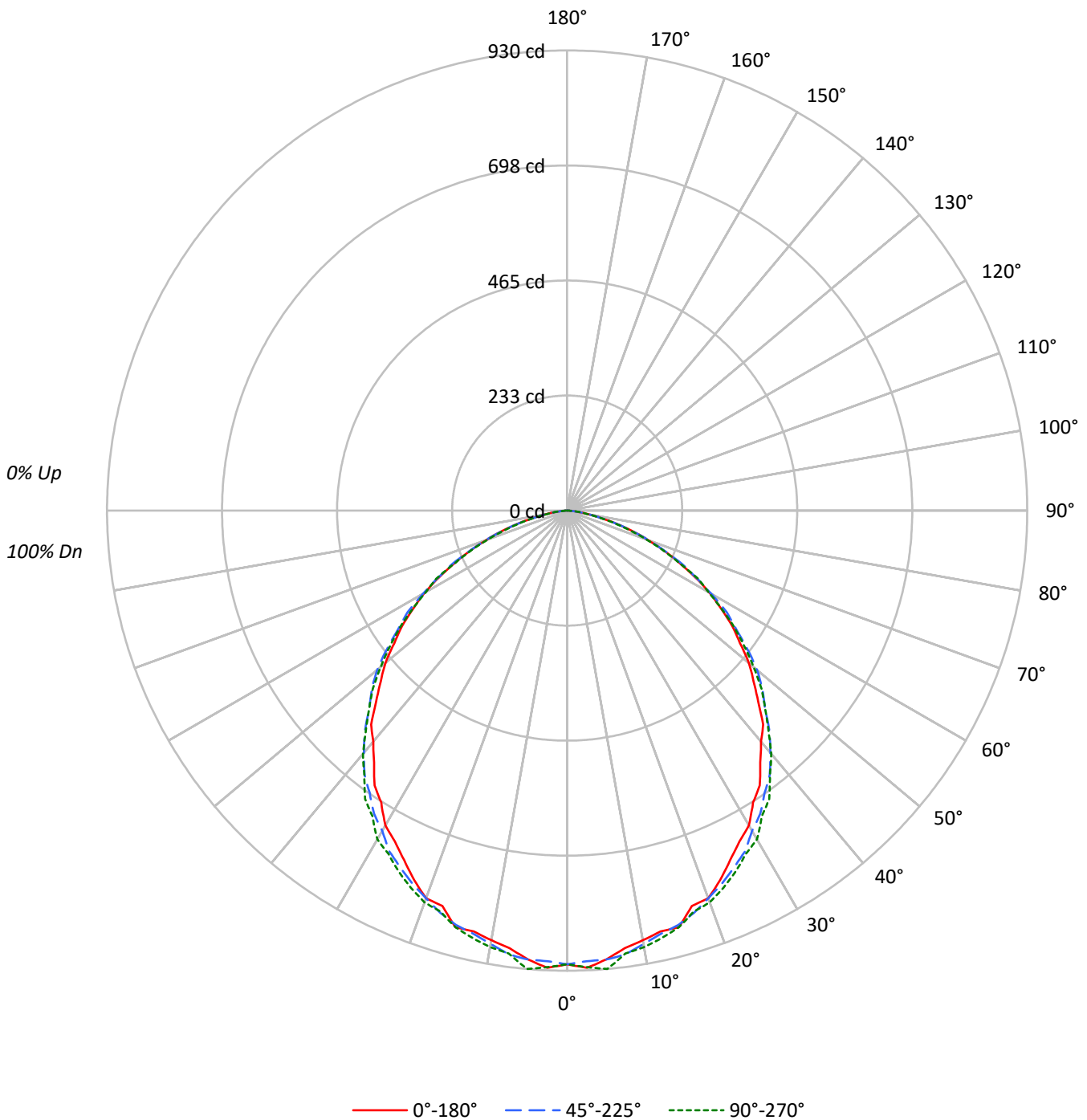
Lumens per Lamp: N/A
Luminaire Lumens: 2311.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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°	2467	2467	2467
5°	2459	2460	2512
10°	2410	2431	2448
15°	2428	2415	2429
20°	2387	2387	2413
25°	2314	2365	2391
30°	2282	2322	2384
35°	2229	2287	2338
40°	2142	2245	2255
45°	2077	2151	2154
50°	2009	2099	2059
55°	1914	1951	1938
60°	1790	1808	1775
65°	1596	1636	1585
70°	1369	1374	1336
75°	1084	1082	1040
80°	727	707	679
85°	395	392	364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	3.7
10°-20°	244.5	10.6
20°-30°	366.2	15.8
30°-40°	434.1	18.8
40°-50°	434.9	18.8
50°-60°	369.1	16.0
60°-70°	248.9	10.8
70°-80°	109.4	4.7
80°-90°	17.8	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°	696.9	30.2
0°-40°	1131.0	48.9
0°-60°	1935.0	83.7
0°-90°	2311.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2311.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	910	908	911	908	930	86
15°	872	862	867	872	872	243
25°	779	784	796	807	805	360
35°	678	680	696	712	712	421
45°	546	556	565	580	566	422
55°	408	405	416	413	413	363
65°	251	247	257	247	249	249
75°	104	102	104	97	100	112
85°	13	12	13	12	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	916.9	916.9	916.9	916.9	916.9
2.5°	924.9	917.9	911.4	919.0	923.6
5°	910.4	908.3	910.8	908.1	930.0
7.5°	891.7	899.9	904.6	901.7	903.0
10°	881.8	878.9	889.5	896.8	895.8
12.5°	871.1	875.4	876.0	883.9	884.6
15°	871.7	861.7	867.0	871.5	871.8
17.5°	837.9	848.8	852.4	862.7	849.9
20°	833.7	825.8	833.7	844.3	842.6
22.5°	808.3	799.4	816.4	825.8	825.2
25°	779.4	783.6	796.4	806.8	805.2
27.5°	754.0	759.0	777.2	791.6	782.3
30°	734.5	732.0	747.4	760.2	767.3
32.5°	699.6	708.6	726.6	739.2	732.5
35°	678.4	680.4	696.1	712.2	711.8
37.5°	641.3	650.7	672.8	677.3	673.2
40°	609.7	619.1	639.1	643.9	641.9
42.5°	586.4	588.1	605.2	610.8	601.9
45°	545.8	556.0	565.2	579.8	566.0
47.5°	511.2	516.0	535.8	539.7	532.5
50°	479.8	481.5	501.5	496.7	491.9
52.5°	440.4	447.4	458.7	457.7	452.1
55°	408.0	405.3	415.9	413.1	413.0
57.5°	369.0	373.8	382.5	378.0	370.8
60°	332.6	332.7	335.9	330.8	329.8
62.5°	292.0	293.4	294.1	287.8	298.0
65°	250.6	247.3	257.0	247.2	248.9
67.5°	212.6	214.3	213.3	207.2	209.6
70°	174.0	176.2	174.6	167.6	169.8
72.5°	138.8	136.2	137.8	129.0	133.1
75°	104.3	102.2	104.1	96.7	100.0
77.5°	71.0	72.7	71.5	67.6	69.9
80°	46.9	45.6	45.6	43.3	43.8
82.5°	27.3	26.0	25.7	25.0	26.0
85°	12.8	12.4	12.7	12.3	11.8
87.5°	4.6	4.7	4.7	4.5	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)