

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: P588947

Luminaire Tested: **FMR-24-2-LD4-1STD-40-UNV-93-96-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588947
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-LD4-1STD-40-UNV-93-96-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

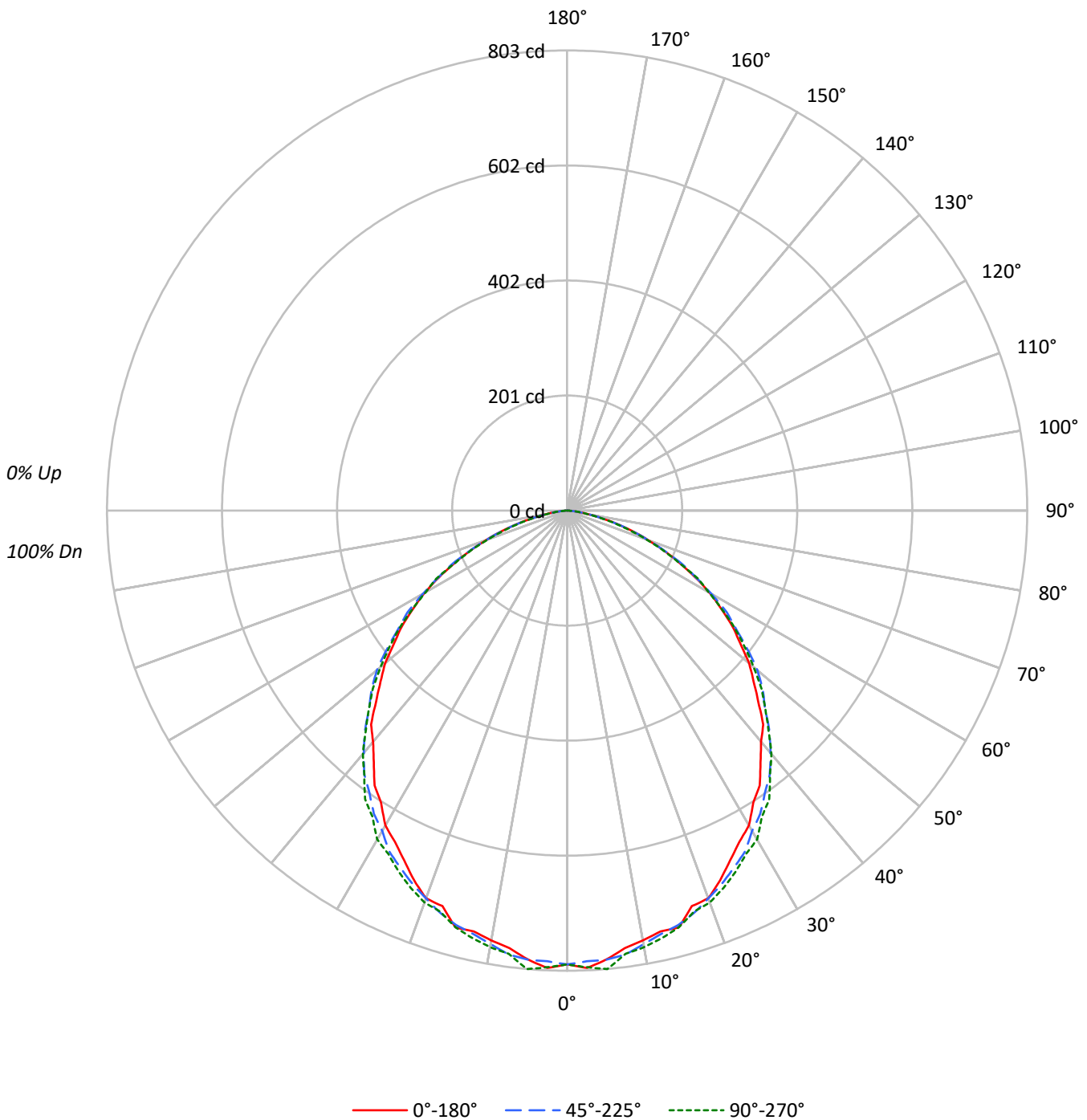
Lumens per Lamp: N/A
Luminaire Lumens: 1996.0 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): 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°	2131	2131	2131
5°	2124	2125	2170
10°	2081	2099	2114
15°	2098	2086	2098
20°	2062	2062	2084
25°	1999	2042	2065
30°	1971	2006	2059
35°	1925	1975	2020
40°	1850	1939	1948
45°	1794	1858	1861
50°	1735	1814	1779
55°	1653	1685	1673
60°	1546	1561	1533
65°	1379	1414	1368
70°	1183	1186	1153
75°	937	935	898
80°	628	611	586
85°	340	337	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.7
10°-20°	211.1	10.6
20°-30°	316.3	15.8
30°-40°	374.9	18.8
40°-50°	375.6	18.8
50°-60°	318.8	16.0
60°-70°	214.9	10.8
70°-80°	94.4	4.7
80°-90°	15.3	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°	601.9	30.2
0°-40°	976.8	48.9
0°-60°	1671.3	83.7
0°-90°	1996.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	786	784	787	784	803	74
15°	753	744	749	753	753	210
25°	673	677	688	697	695	311
35°	586	588	601	615	615	364
45°	471	480	488	501	489	365
55°	352	350	359	357	357	313
65°	216	214	222	214	215	215
75°	90	88	90	84	86	97
85°	11	11	11	11	10	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	792.0	792.0	792.0	792.0	792.0
2.5°	798.8	792.8	787.2	793.7	797.7
5°	786.3	784.5	786.6	784.3	803.2
7.5°	770.2	777.2	781.3	778.8	779.9
10°	761.6	759.1	768.2	774.6	773.7
12.5°	752.4	756.1	756.6	763.4	764.0
15°	752.9	744.2	748.8	752.7	753.0
17.5°	723.7	733.1	736.2	745.1	734.1
20°	720.1	713.2	720.1	729.2	727.7
22.5°	698.1	690.4	705.1	713.2	712.7
25°	673.1	676.8	687.9	696.9	695.4
27.5°	651.3	655.6	671.3	683.7	675.7
30°	634.4	632.2	645.5	656.6	662.7
32.5°	604.2	612.0	627.5	638.5	632.6
35°	585.9	587.7	601.3	615.2	614.8
37.5°	553.9	562.0	581.1	585.0	581.4
40°	526.6	534.7	552.0	556.2	554.4
42.5°	506.5	507.9	522.7	527.5	519.9
45°	471.4	480.2	488.2	500.7	488.9
47.5°	441.5	445.6	462.8	466.2	459.9
50°	414.4	415.9	433.2	429.0	424.9
52.5°	380.4	386.4	396.1	395.3	390.5
55°	352.4	350.0	359.2	356.8	356.7
57.5°	318.7	322.8	330.4	326.5	320.3
60°	287.2	287.3	290.1	285.7	284.9
62.5°	252.2	253.4	254.0	248.6	257.4
65°	216.5	213.6	222.0	213.5	214.9
67.5°	183.6	185.1	184.3	178.9	181.0
70°	150.3	152.2	150.8	144.8	146.6
72.5°	119.8	117.6	119.0	111.5	114.9
75°	90.1	88.2	89.9	83.5	86.4
77.5°	61.4	62.8	61.8	58.4	60.3
80°	40.5	39.4	39.4	37.4	37.8
82.5°	23.6	22.5	22.2	21.6	22.5
85°	11.0	10.7	10.9	10.6	10.2
87.5°	4.0	4.1	4.1	3.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)