

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: P588785

Luminaire Tested: **FMR-24-2-LD4-1HI-50-UNV-93-88-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588785
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-50-UNV-93-88-EDD
Description: 2X2 FMR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

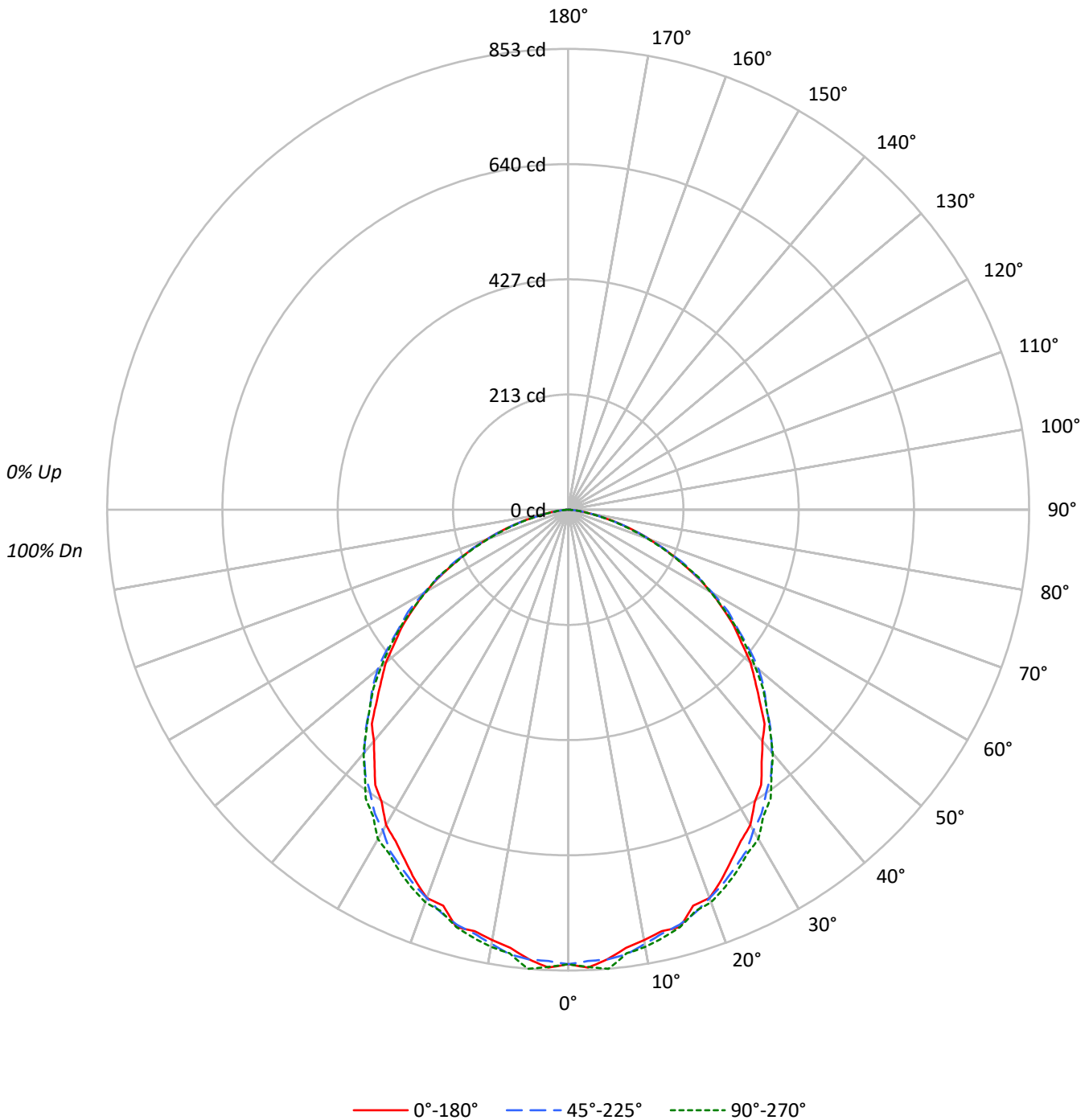
Lumens per Lamp: N/A
Luminaire Lumens: 2120.0 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2264	2264	2264
5°	2256	2257	2304
10°	2210	2230	2245
15°	2228	2216	2228
20°	2190	2190	2214
25°	2123	2169	2193
30°	2094	2130	2187
35°	2044	2098	2145
40°	1965	2060	2069
45°	1905	1973	1976
50°	1843	1926	1889
55°	1756	1790	1777
60°	1642	1658	1629
65°	1464	1501	1454
70°	1257	1260	1225
75°	995	993	954
80°	666	648	623
85°	361	358	337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.7
10°-20°	224.2	10.6
20°-30°	336.0	15.8
30°-40°	398.2	18.8
40°-50°	398.9	18.8
50°-60°	338.6	16.0
60°-70°	228.3	10.8
70°-80°	100.3	4.7
80°-90°	16.3	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°	639.3	30.2
0°-40°	1037.5	48.9
0°-60°	1775.1	83.7
0°-90°	2120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2120.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	841	841	841	841	841	
5°	835	833	836	833	853	79
15°	800	790	795	800	800	223
25°	715	719	731	740	739	331
35°	622	624	639	653	653	386
45°	501	510	518	532	519	387
55°	374	372	382	379	379	333
65°	230	227	236	227	228	229
75°	96	94	96	89	92	103
85°	12	11	12	11	11	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	841.2	841.2	841.2	841.2	841.2
2.5°	848.4	842.0	836.1	843.0	847.2
5°	835.2	833.2	835.5	833.0	853.1
7.5°	818.0	825.5	829.9	827.2	828.3
10°	808.9	806.3	816.0	822.7	821.7
12.5°	799.1	803.0	803.6	810.9	811.5
15°	799.7	790.4	795.3	799.5	799.8
17.5°	768.6	778.6	782.0	791.4	779.7
20°	764.8	757.5	764.8	774.5	773.0
22.5°	741.5	733.3	749.0	757.5	757.0
25°	715.0	718.9	730.6	740.2	738.6
27.5°	691.7	696.3	713.0	726.1	717.7
30°	673.8	671.5	685.6	697.4	703.9
32.5°	641.8	650.0	666.5	678.1	672.0
35°	622.3	624.2	638.6	653.4	652.9
37.5°	588.3	596.9	617.2	621.3	617.5
40°	559.3	567.9	586.3	590.7	588.9
42.5°	537.9	539.5	555.2	560.3	552.2
45°	500.7	510.0	518.5	531.8	519.3
47.5°	469.0	473.3	491.6	495.1	488.5
50°	440.2	441.7	460.1	455.6	451.3
52.5°	404.0	410.4	420.7	419.9	414.8
55°	374.3	371.8	381.5	378.9	378.8
57.5°	338.5	342.9	350.9	346.8	340.2
60°	305.1	305.2	308.1	303.4	302.6
62.5°	267.8	269.1	269.8	264.0	273.4
65°	229.9	226.9	235.8	226.8	228.3
67.5°	195.1	196.6	195.7	190.1	192.2
70°	159.7	161.6	160.2	153.8	155.7
72.5°	127.3	124.9	126.4	118.4	122.1
75°	95.7	93.7	95.5	88.7	91.8
77.5°	65.2	66.7	65.6	62.0	64.1
80°	43.0	41.8	41.8	39.8	40.2
82.5°	25.1	23.9	23.6	22.9	23.9
85°	11.7	11.4	11.6	11.3	10.9
87.5°	4.2	4.3	4.3	4.1	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)