

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: P589015

Luminaire Tested: **FMR-24-2-LD4-2HI-40-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P589015
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-LD4-2HI-40-UNV-80-86-EDD
Description: 2X2 FMR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

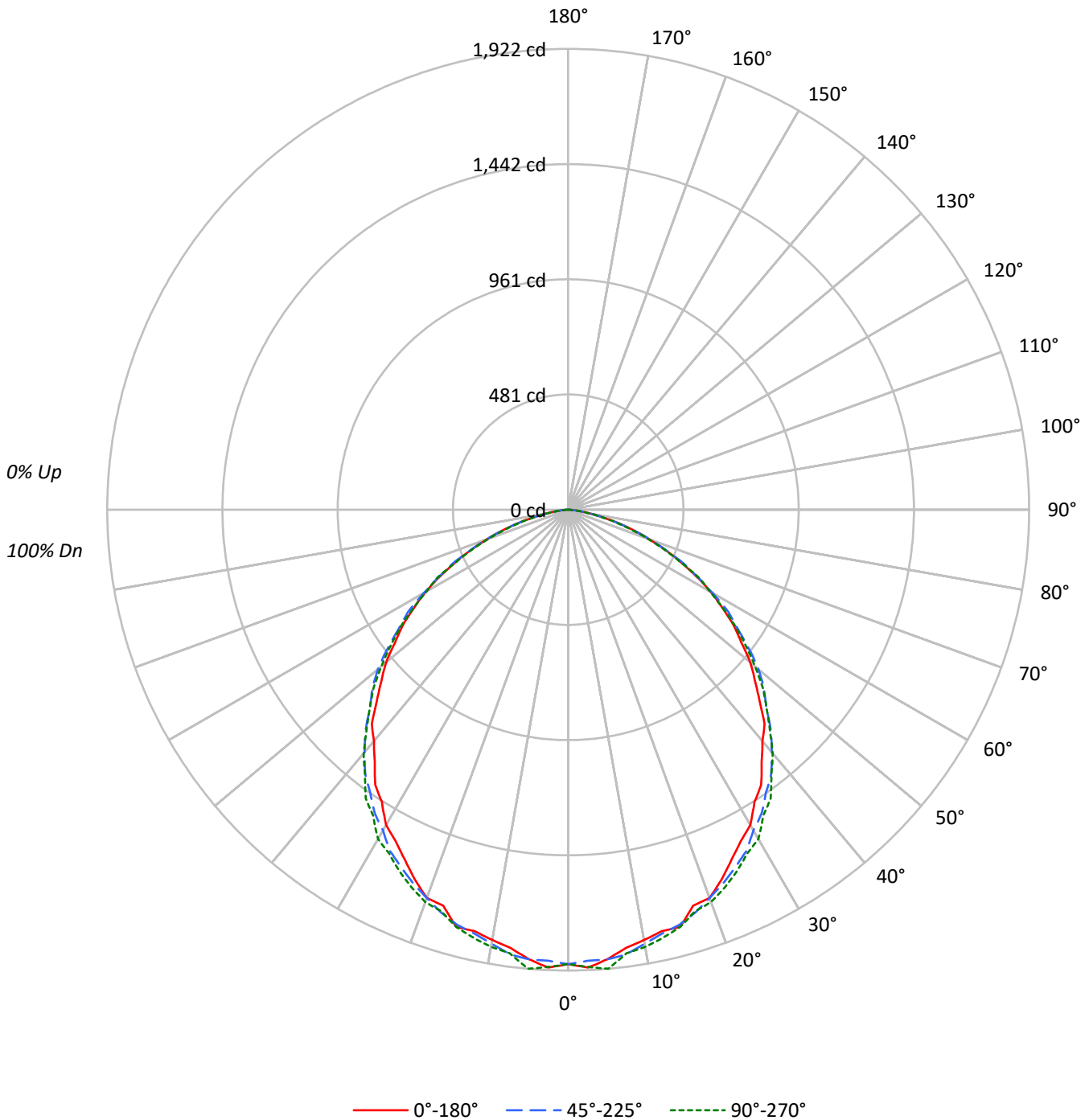
Lumens per Lamp: N/A
Luminaire Lumens: 4776.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	5099	5099	5099
5°	5082	5085	5192
10°	4979	5023	5058
15°	5019	4992	5020
20°	4934	4934	4987
25°	4782	4887	4941
30°	4717	4799	4927
35°	4606	4726	4832
40°	4427	4639	4660
45°	4292	4445	4452
50°	4152	4339	4256
55°	3955	4032	4004
60°	3699	3736	3669
65°	3298	3382	3275
70°	2830	2840	2761
75°	2242	2236	2149
80°	1502	1460	1402
85°	815	809	756



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.3	3.7
10°-20°	505.2	10.6
20°-30°	756.9	15.8
30°-40°	897.1	18.8
40°-50°	898.7	18.8
50°-60°	762.8	16.0
60°-70°	514.3	10.8
70°-80°	226.0	4.7
80°-90°	36.7	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°	1440.3	30.2
0°-40°	2337.4	48.9
0°-60°	3998.9	83.7
0°-90°	4776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1895	1895	1895	1895	1895	
5°	1882	1877	1882	1877	1922	177
15°	1802	1781	1792	1801	1802	502
25°	1611	1620	1646	1667	1664	745
35°	1402	1406	1439	1472	1471	870
45°	1128	1149	1168	1198	1170	873
55°	843	838	860	854	853	750
65°	518	511	531	511	514	515
75°	216	211	215	200	207	231
85°	26	26	26	25	24	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1895.0	1895.0	1895.0	1895.0	1895.0
2.5°	1911.4	1897.0	1883.5	1899.2	1908.7
5°	1881.5	1877.1	1882.3	1876.6	1921.9
7.5°	1842.9	1859.8	1869.6	1863.4	1866.1
10°	1822.3	1816.5	1838.2	1853.4	1851.2
12.5°	1800.3	1809.1	1810.3	1826.7	1828.2
15°	1801.5	1780.7	1791.7	1801.0	1801.8
17.5°	1731.6	1754.1	1761.6	1782.9	1756.5
20°	1723.0	1706.6	1723.0	1744.8	1741.3
22.5°	1670.4	1652.0	1687.3	1706.6	1705.4
25°	1610.7	1619.5	1645.9	1667.4	1664.0
27.5°	1558.3	1568.6	1606.3	1635.9	1616.8
30°	1518.0	1512.8	1544.6	1571.0	1585.7
32.5°	1445.8	1464.4	1501.6	1527.7	1513.8
35°	1402.0	1406.1	1438.7	1472.0	1471.0
37.5°	1325.4	1344.7	1390.5	1399.8	1391.2
40°	1260.1	1279.4	1320.7	1330.8	1326.6
42.5°	1211.9	1215.3	1250.8	1262.3	1243.9
45°	1127.9	1149.0	1168.1	1198.2	1169.8
47.5°	1056.5	1066.3	1107.4	1115.5	1100.5
50°	991.7	995.1	1036.4	1026.4	1016.6
52.5°	910.2	924.6	947.9	945.9	934.4
55°	843.1	837.5	859.5	853.7	853.4
57.5°	762.6	772.4	790.5	781.2	766.3
60°	687.3	687.5	694.1	683.6	681.7
62.5°	603.4	606.3	607.8	594.8	615.8
65°	518.0	511.1	531.2	510.9	514.3
67.5°	439.4	442.9	440.9	428.2	433.1
70°	359.7	364.1	360.9	346.5	350.9
72.5°	286.8	281.4	284.8	266.7	275.0
75°	215.6	211.2	215.1	199.9	206.7
77.5°	146.8	150.2	147.8	139.7	144.4
80°	96.9	94.2	94.2	89.6	90.5
82.5°	56.5	53.8	53.1	51.6	53.8
85°	26.4	25.7	26.2	25.4	24.5
87.5°	9.5	9.8	9.8	9.3	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)