

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: P588983

Luminaire Tested: **FMR-24-2-LD4-2HI-35-UNV-80-86-EDD**

Issue Date: 12/8/2021



Test Information

Test Method: LM-79-08
Report Number: P588983
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-35-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

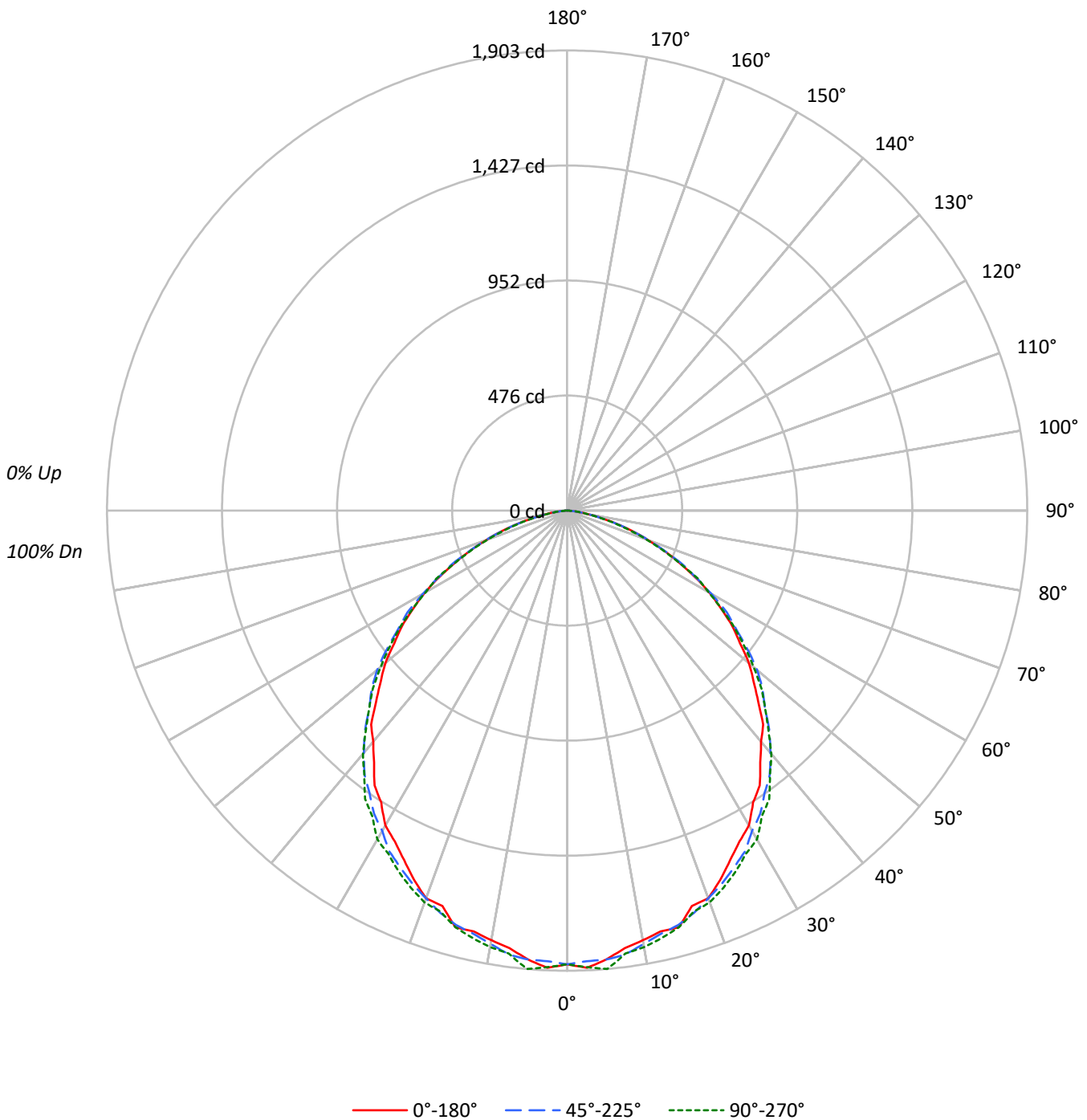
Lumens per Lamp: N/A
Luminaire Lumens: 4729.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	5049	5049	5049
5°	5032	5034	5140
10°	4931	4973	5009
15°	4969	4942	4970
20°	4885	4885	4938
25°	4735	4839	4892
30°	4670	4752	4879
35°	4560	4680	4785
40°	4383	4594	4614
45°	4250	4402	4408
50°	4111	4296	4214
55°	3917	3993	3964
60°	3662	3699	3633
65°	3266	3349	3242
70°	2802	2811	2733
75°	2219	2215	2128
80°	1486	1446	1389
85°	809	800	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.5	3.7
10°-20°	500.2	10.6
20°-30°	749.4	15.8
30°-40°	888.2	18.8
40°-50°	889.9	18.8
50°-60°	755.4	16.0
60°-70°	509.3	10.8
70°-80°	223.8	4.7
80°-90°	36.4	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°	1426.1	30.2
0°-40°	2314.4	48.9
0°-60°	3959.6	83.7
0°-90°	4729.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4729.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1876	1876	1876	1876	1876	
5°	1863	1859	1864	1858	1903	176
15°	1784	1763	1774	1783	1784	497
25°	1595	1604	1630	1651	1648	737
35°	1388	1392	1424	1458	1456	862
45°	1117	1138	1157	1186	1158	864
55°	835	829	851	845	845	743
65°	513	506	526	506	509	510
75°	213	209	213	198	205	229
85°	26	25	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°	1876.3	1876.3	1876.3	1876.3	1876.3
2.5°	1892.6	1878.3	1865.0	1880.5	1889.9
5°	1863.0	1858.7	1863.7	1858.2	1903.0
7.5°	1824.7	1841.5	1851.2	1845.1	1847.8
10°	1804.4	1798.6	1820.1	1835.2	1833.0
12.5°	1782.6	1791.3	1792.5	1808.8	1810.2
15°	1783.8	1763.2	1774.1	1783.3	1784.0
17.5°	1714.5	1736.8	1744.3	1765.4	1739.2
20°	1706.0	1689.8	1706.0	1727.6	1724.2
22.5°	1653.9	1635.8	1670.7	1689.8	1688.6
25°	1594.8	1603.6	1629.7	1651.0	1647.6
27.5°	1543.0	1553.2	1590.5	1619.8	1600.9
30°	1503.0	1497.9	1529.4	1555.6	1570.1
32.5°	1431.5	1450.0	1486.8	1512.7	1498.9
35°	1388.2	1392.3	1424.5	1457.5	1456.5
37.5°	1312.4	1331.5	1376.8	1386.0	1377.5
40°	1247.7	1266.8	1307.8	1317.7	1313.6
42.5°	1199.9	1203.3	1238.5	1249.8	1231.7
45°	1116.8	1137.7	1156.6	1186.4	1158.3
47.5°	1046.1	1055.8	1096.5	1104.5	1089.7
50°	981.9	985.3	1026.2	1016.3	1006.6
52.5°	901.2	915.5	938.5	936.6	925.2
55°	834.8	829.3	851.1	845.3	845.0
57.5°	755.1	764.8	782.8	773.6	758.8
60°	680.5	680.8	687.3	676.9	675.0
62.5°	597.4	600.3	601.8	588.9	609.8
65°	512.9	506.1	526.0	505.9	509.2
67.5°	435.1	438.5	436.6	424.0	428.8
70°	356.1	360.5	357.3	343.0	347.4
72.5°	283.9	278.6	282.0	264.1	272.3
75°	213.4	209.1	213.0	197.9	204.7
77.5°	145.4	148.8	146.3	138.3	142.9
80°	95.9	93.3	93.3	88.7	89.6
82.5°	56.0	53.3	52.6	51.1	53.3
85°	26.2	25.4	25.9	25.2	24.2
87.5°	9.4	9.7	9.7	9.2	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)