

# FME TN1 SERIES

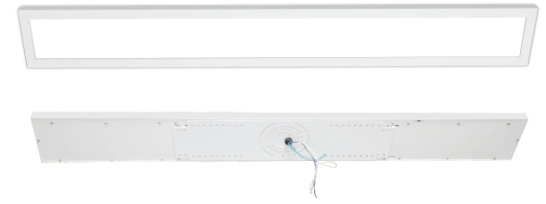
## LINEAR LED FIXTURE



Project:

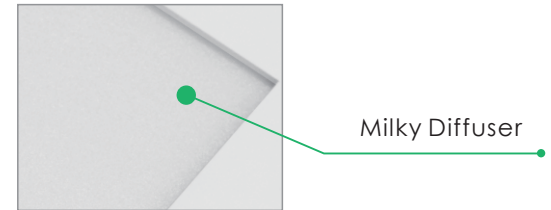
Type:

Catalog #:



### PRODUCT DESCRIPTION

FME's TN1 series LED linear fixtures with milky diffuser are an energy-efficient, low maintenance alternative to traditional linear fluorescent with built-in driver. It is available in 4"x4FT or 6"x4FT units, with a choice of color temperatures 3000k, 3500k, 4000k and 5000K. This luminaire can be surface mounted in the drywall ceiling or recessed in suspension ceiling, providing a flexible solution for new construction application or retrofit existing fixtures, widely used in office space, major retail stores, education, government, healthcare and hospitality, ect.



### PERFORMANCE SUMMARY

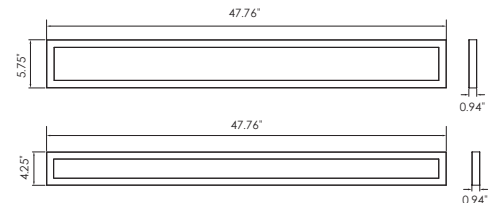
| Model                       | LS44-DM-XXX                   | LS46-DM-XXX                   |
|-----------------------------|-------------------------------|-------------------------------|
| Diffuser                    | Milky                         | Milky                         |
| Size                        | 4"x4FT                        | 6"x4FT                        |
| Input Wattage               | 40 Watts                      | 40 Watts                      |
| Input Voltage               | 100-277V AC                   | 100-277V AC                   |
| Delivery Lumens@3500K       | 3400 lm                       | 3760 lm                       |
| Efficacy@3500K              | 85 lm/w                       | 94 lm/w                       |
| Color Rendering Index (CRI) | Ra>80                         | Ra>80                         |
| Power Factor                | PF>0.90                       | PF>0.90                       |
| Dimming Style               | 1-10V Dimming                 | 1-10V Dimming                 |
| CCT                         | 3000K/3500K<br>4000K/5000K    | 3000K/3500K<br>4000K/5000K    |
| Beam Angle                  | 112°                          | 112°                          |
| Mounting                    | Surface mounted<br>& recessed | Surface mounted<br>& recessed |
| Warranty                    | 5 Years                       | 5 Years                       |



### REGULATORY & VOLUNTARY QUALIFICATIONS

|            |         |
|------------|---------|
| UL Listed  | Pending |
| Damp rated | Yes     |

### DIMENSIONS



### ORDER INFORMATION

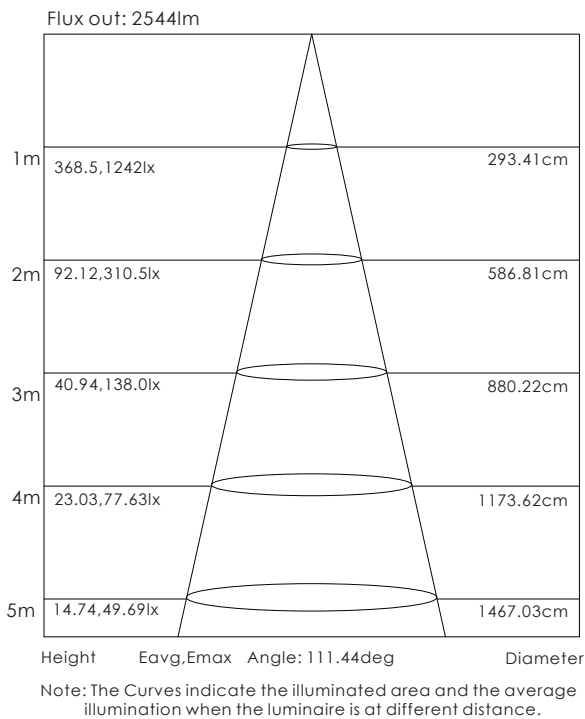
EXAMPLE: LS44-DM-35E

| Product category | Size                   | Dimming          | Diffuser(X)            | CCT(XX)                                      | CRI(X)   |
|------------------|------------------------|------------------|------------------------|----------------------------------------------|----------|
| TN1              | 44=4"x4FT<br>46=6"x4FT | D= 1-10V Dimming | M=Milky<br>P=Prismatic | 30=3000k<br>35=3500k<br>40=4000k<br>50=5000k | E=80 CRI |

FME Lighting | 877-234-8460 | [info@fmelighting.com](mailto:info@fmelighting.com)

*Specifications and dimensions subject to change without notice.*

### AVERAGE ILLUMINANCE CURVE

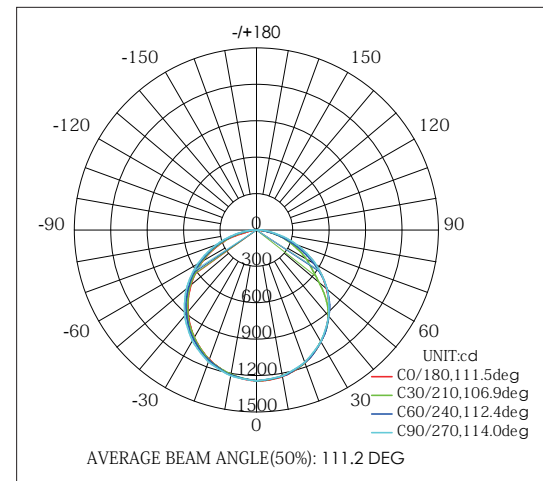


### PHOTOMETR Y

Fixture photometry has been conducted accredited testing laboratory in accordance with IESNA TN1-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%. Result may vary per actual order.

### Luminous Intensity Distribution Diagram

TN1-44-DM-XXX



### Zonal Flux Diagram

| T   | C0                    | C45   | C90   | C135  | C180   | C225   | C270   | C315  |
|-----|-----------------------|-------|-------|-------|--------|--------|--------|-------|
| 5   | 1240                  | 1235  | 1232  | 1229  | 1232   | 1228   | 1231   | 1234  |
| 10  | 1226                  | 1221  | 1222  | 1210  | 1210   | 1209   | 1220   | 1220  |
| 15  | 1201                  | 1199  | 1192  | 1184  | 1178   | 1182   | 1189   | 1197  |
| 20  | 1165                  | 1161  | 1161  | 1140  | 1135   | 1138   | 1158   | 1158  |
| 25  | 1118                  | 1118  | 1111  | 1091  | 1084   | 1090   | 1107   | 1114  |
| 30  | 1062                  | 1064  | 1061  | 1018  | 1023   | 1031   | 1057   | 1059  |
| 35  | 997.3                 | 998.7 | 993.8 | 939.5 | 954.7  | 964.4  | 988.9  | 992.9 |
| 40  | 923.7                 | 928.6 | 926.2 | 865.3 | 878.8  | 893.2  | 921.1  | 922.8 |
| 45  | 842.5                 | 831.8 | 842.9 | 732.3 | 795.6  | 808.2  | 838.0  | 840.3 |
| 50  | 754.2                 | 707.6 | 759.6 | 592.7 | 706.6  | 722.3  | 754.8  | 756.8 |
| 55  | 660.2                 | 582.2 | 662.3 | 490.9 | 611.2  | 625.8  | 657.9  | 659.3 |
| 60  | 559.1                 | 479.6 | 565.0 | 399.0 | 511.7  | 529.1  | 560.9  | 560.9 |
| 65  | 451.4                 | 387.1 | 458.2 | 308.0 | 406.4  | 423.6  | 454.6  | 456.2 |
| 70  | 340.7                 | 290.1 | 351.5 | 224.7 | 298.3  | 317.9  | 348.3  | 349.7 |
| 75  | 219.5                 | 198.2 | 247.9 | 147.0 | 163.4  | 211.8  | 245.2  | 240.7 |
| 80  | 117.1                 | 112.2 | 144.3 | 81.42 | 59.93  | 114.0  | 142.1  | 136.7 |
| 85  | 21.80                 | 45.57 | 73.17 | 32.88 | 14.48  | 41.64  | 71.25  | 55.01 |
| 90  | 0.3653                | 2.755 | 2.029 | 2.697 | 0.4430 | 0.4464 | 0.3879 | 1.713 |
| DEG | LUMINOUS INTENSITY:cd |       |       |       |        |        |        |       |

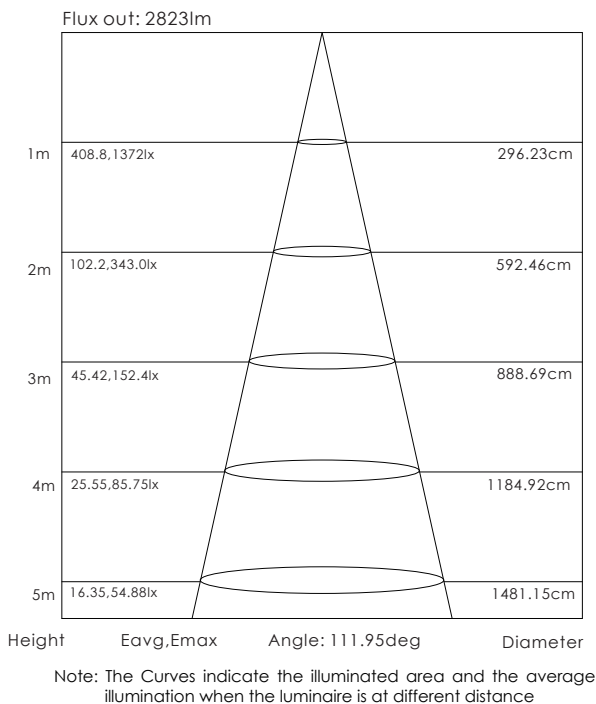
### Zonal Lumen Summary

| T     | φ zone   | φ total | %lum, lamp |
|-------|----------|---------|------------|
| 0-5   | 29.55    | 29.55   | 0.86,0.86  |
| 5-10  | 87.57    | 117.1   | 3.41,3.41  |
| 10-15 | 142.7    | 259.8   | 7.57,7.57  |
| 15-20 | 192.8    | 452.6   | 13.2,13.2  |
| 20-25 | 236.5    | 689.1   | 20.1,20.1  |
| 25-30 | 271.9    | 961.0   | 28,28      |
| 30-35 | 298.0    | 1259    | 36.7,36.7  |
| 35-40 | 313.9    | 1573    | 45.9,45.9  |
| 40-45 | 318.5    | 1891    | 55.1,55.1  |
| 45-50 | 309.5    | 2201    | 64.2,64.2  |
| 50-55 | 289.0    | 2490    | 72.6,72.6  |
| 55-60 | 259.6    | 2750    | 80.2,80.2  |
| 60-65 | 223.1    | 2973    | 86.7,86.7  |
| 65-70 | 180.0    | 3153    | 91.9,91.9  |
| 70-75 | 133.8    | 3286    | 95.8,95.8  |
| 75-80 | 86.53    | 3373    | 98.3,98.3  |
| 80-85 | 43.87    | 3417    | 99.6,99.6  |
| 85-90 | 13.39    | 3430    | 100,100    |
|       | UNIT: lm |         |            |

### Coefficients Of Utilization

| ppc  | 80%                   |     |     | 70% |     |     | 50%  |     |     | 30% |     |     | 10% |     |     | 0   |
|------|-----------------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| pw   | 50%                   | 30% | 10% | 50% | 30% | 10% | 50%  | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 0   |
| pfc  | 20%                   |     |     | 20% |     |     | 20%  |     |     | 20% |     |     | 20% |     |     | 0   |
| RCR  | RCR:Room Cavity Ratio |     |     |     |     |     | (CU) |     |     |     |     |     |     |     |     |     |
| 0.0  | 119                   | 119 | 119 | 116 | 116 | 116 | 111  | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1.0  | 104                   | 100 | 96  | 102 | 98  | 95  | 98   | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2.0  | 91                    | 84  | 79  | 89  | 83  | 78  | 86   | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  | 70  |
| 3.0  | 80                    | 72  | 65  | 78  | 71  | 65  | 75   | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 59  |
| 4.0  | 71                    | 62  | 56  | 70  | 61  | 55  | 67   | 60  | 54  | 65  | 59  | 54  | 63  | 57  | 53  | 51  |
| 5.0  | 63                    | 54  | 48  | 62  | 54  | 48  | 60   | 53  | 47  | 58  | 52  | 47  | 56  | 51  | 46  | 44  |
| 6.0  | 57                    | 48  | 42  | 56  | 48  | 42  | 54   | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 41  | 38  |
| 7.0  | 52                    | 43  | 37  | 51  | 43  | 37  | 49   | 42  | 37  | 48  | 41  | 36  | 47  | 41  | 36  | 34  |
| 8.0  | 47                    | 39  | 33  | 47  | 38  | 33  | 45   | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 30  |
| 9.0  | 43                    | 35  | 30  | 43  | 35  | 30  | 42   | 34  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 27  |
| 10.0 | 40                    | 32  | 27  | 40  | 32  | 27  | 39   | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 25  |

### AVERAGE ILLUMINANCE CURVE

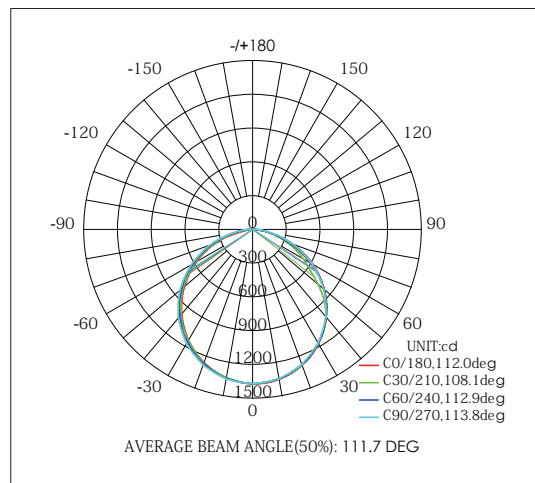


### PHOTOMETR Y

Fixture photometry has been conducted accredited testing laboratory in accordance with IESNA TN1-79-08. IESNA TM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%. Result may vary per actual order.

### Luminous Intensity Distribution Diagram

TN1-46-DM-XXX



### Zonal Flux Diagram

| T   | C0                    | C45   | C90   | C135  | C180   | C225   | C270  | C315  |
|-----|-----------------------|-------|-------|-------|--------|--------|-------|-------|
| 5   | 1369                  | 1362  | 1360  | 1357  | 1362   | 1359   | 1361  | 1363  |
| 10  | 1353                  | 1347  | 1348  | 1337  | 1339   | 1340   | 1350  | 1348  |
| 15  | 1325                  | 1322  | 1313  | 1308  | 1305   | 1312   | 1317  | 1324  |
| 20  | 1285                  | 1278  | 1278  | 1257  | 1260   | 1265   | 1283  | 1281  |
| 25  | 1234                  | 1230  | 1221  | 1196  | 1204   | 1214   | 1229  | 1234  |
| 30  | 1173                  | 1168  | 1164  | 1124  | 1138   | 1151   | 1174  | 1173  |
| 35  | 1101                  | 1096  | 1088  | 1046  | 1063   | 1079   | 1100  | 1101  |
| 40  | 1020                  | 1017  | 1012  | 958.9 | 980.5  | 1002   | 1026  | 1024  |
| 45  | 930.2                 | 914.1 | 918.5 | 830.1 | 889.3  | 908.9  | 934.5 | 933.5 |
| 50  | 832.7                 | 791.6 | 825.0 | 685.9 | 791.3  | 814.9  | 843.2 | 841.6 |
| 55  | 728.4                 | 651.6 | 716.5 | 560.4 | 686.4  | 709.1  | 736.9 | 734.3 |
| 60  | 617.6                 | 529.2 | 608.0 | 451.8 | 576.0  | 602.6  | 630.6 | 625.5 |
| 65  | 500.2                 | 421.9 | 489.5 | 348.2 | 460.1  | 485.9  | 513.6 | 510.2 |
| 70  | 380.1                 | 315.8 | 371.0 | 252.4 | 340.6  | 369.0  | 396.6 | 393.9 |
| 75  | 250.6                 | 211.7 | 257.9 | 164.2 | 193.5  | 251.6  | 282.2 | 276.3 |
| 80  | 124.0                 | 118.0 | 144.9 | 90.10 | 67.07  | 141.1  | 167.8 | 162.2 |
| 85  | 27.51                 | 46.85 | 73.89 | 35.87 | 19.47  | 55.36  | 86.11 | 69.35 |
| 90  | 0.4329                | 3.120 | 2.872 | 3.382 | 0.4385 | 0.8703 | 4.446 | 4.951 |
| DEG | LUMINOUS INTENSITY:cd |       |       |       |        |        |       |       |

### Zonal Lumen Summary

| T     | Φ zone   | Φ total | %lum, lamp |
|-------|----------|---------|------------|
| 0-5   | 36.62    | 36.62   | 0.86,0.86  |
| 5-10  | 109.0    | 145.6   | 3.39,3.39  |
| 10-15 | 178.4    | 324.0   | 7.52,7.52  |
| 15-20 | 241.2    | 565.2   | 13.1,13.1  |
| 20-25 | 292.2    | 857.4   | 20.20      |
| 25-30 | 324.6    | 1182    | 27.8,27.8  |
| 30-35 | 336.6    | 1519    | 36.5,36.5  |
| 35-40 | 325.0    | 1844    | 45.6,45.6  |
| 40-45 | 284.1    | 2128    | 54.9,54.9  |
| 45-50 | 227.7    | 2356    | 63.9,63.9  |
| 50-55 | 183.3    | 2539    | 72.4,72.4  |
| 55-60 | 149.5    | 2688    | 79.9,79.9  |
| 60-65 | 115.3    | 2804    | 86.5,86.5  |
| 65-70 | 88.48    | 2892    | 91.8,91.8  |
| 70-75 | 67.90    | 2960    | 95.7,95.7  |
| 75-80 | 50.44    | 3010    | 98.3,98.3  |
| 80-85 | 29.93    | 3040    | 99.6,99.6  |
| 85-90 | 9.692    | 3050    | 100,100    |
|       | UNIT: lm |         |            |

### Coefficients Of Utilization

| ppc  | 80%                   |     |     | 70%                   |     |     | 50%                   |     |     | 30%                   |     |     | 10%                   |     |     | 0   |
|------|-----------------------|-----|-----|-----------------------|-----|-----|-----------------------|-----|-----|-----------------------|-----|-----|-----------------------|-----|-----|-----|
| pw   | 50%                   | 30% | 10% | 50%                   | 30% | 10% | 50%                   | 30% | 10% | 50%                   | 30% | 10% | 50%                   | 30% | 10% | 0   |
| pfc  | 20%                   |     |     | 20%                   |     |     | 20%                   |     |     | 20%                   |     |     | 20%                   |     |     | 0   |
| RCR  | RCR:Room Cavity Ratio |     |     | RCR:Room Cavity Ratio |     |     | RCR:Room Cavity Ratio |     |     | RCR:Room Cavity Ratio |     |     | RCR:Room Cavity Ratio |     |     | 0   |
| 0.0  | 119                   | 119 | 119 | 116                   | 116 | 116 | 111                   | 111 | 111 | 106                   | 106 | 106 | 102                   | 102 | 102 | 100 |
| 1.0  | 104                   | 0   | 96  | 102                   | 98  | 95  | 98                    | 94  | 92  | 94                    | 91  | 89  | 90                    | 88  | 86  | 84  |
| 2.0  | 91                    | 84  | 78  | 89                    | 83  | 78  | 85                    | 80  | 76  | 82                    | 78  | 74  | 79                    | 76  | 72  | 70  |
| 3.0  | 80                    | 72  | 65  | 78                    | 71  | 65  | 75                    | 69  | 64  | 73                    | 67  | 62  | 70                    | 65  | 61  | 59  |
| 4.0  | 71                    | 62  | 55  | 69                    | 61  | 55  | 67                    | 60  | 54  | 65                    | 58  | 53  | 62                    | 57  | 53  | 51  |
| 5.0  | 63                    | 54  | 48  | 62                    | 54  | 47  | 60                    | 53  | 47  | 58                    | 52  | 46  | 56                    | 50  | 46  | 44  |
| 6.0  | 57                    | 48  | 42  | 56                    | 48  | 41  | 54                    | 47  | 41  | 53                    | 46  | 41  | 51                    | 45  | 40  | 38  |
| 7.0  | 52                    | 43  | 37  | 51                    | 43  | 37  | 49                    | 42  | 36  | 48                    | 41  | 36  | 47                    | 40  | 36  | 34  |
| 8.0  | 47                    | 39  | 33  | 46                    | 38  | 33  | 45                    | 38  | 33  | 44                    | 37  | 32  | 43                    | 37  | 32  | 30  |
| 9.0  | 43                    | 35  | 30  | 43                    | 35  | 29  | 42                    | 34  | 29  | 40                    | 34  | 29  | 39                    | 33  | 29  | 27  |
| 10.0 | 40                    | 32  | 27  | 39                    | 32  | 27  | 38                    | 31  | 27  | 37                    | 31  | 26  | 37                    | 31  | 26  | 25  |