



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NLR48MFA50.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] 8,389  
[TESTLAB] CSA Group  
[ISSUEDATE] 10/29/2015 11:51:52 AM  
[MANUFAC] LAMAR LIGHTING CO., INC.  
[LUMINAIRE] NLR48MFA50  
[ \_AMBIENT] 24.6 deg C  
[ \_POWERFACTOR] 0.9973  
[ \_ATHD] 5.35%  
[ \_CURRENT] 0.27591  
[ \_VOLTAGE] 120.00  
[ \_STABILIZATION] 23:22.1 Stable  
[ \_POWER VARIATION] 0.36 %  
[ \_LIGHT VARIATION] 0.40 %  
[ \_Lumens] 3,340.18

**CHARACTERISTICS**

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 3341            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 101             |
| Total Luminaire Watts           | 33.02           |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.20            |
| Spacing Criterion (90-270)      | 1.12            |
| Spacing Criterion (Diagonal)    | 1.26            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 0.16 ft         |
| Luminous Width (90-270)         | 3.91 ft         |
| Luminous Height                 | 0.00 ft         |

**LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 19419            | 18446             | 17429             |
| 55                  | 17665            | 16771             | 15873             |
| 65                  | 15618            | 14979             | 14284             |
| 75                  | 12749            | 12655             | 12379             |
| 85                  | 6834             | 9685              | 11059             |

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**CANDELA TABULATION**

|      | <u>0</u> | <u>10</u> | <u>20</u> | <u>30</u> | <u>40</u> | <u>50</u> | <u>60</u> | <u>70</u> | <u>80</u> | <u>90</u> |
|------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0  | 1387.90  | 1387.90   | 1387.90   | 1387.90   | 1387.90   | 1387.90   | 1387.90   | 1387.90   | 1387.90   | 1387.90   |
| 2.5  | 1386.91  | 1387.68   | 1387.40   | 1389.87   | 1392.21   | 1395.52   | 1392.24   | 1389.97   | 1388.78   | 1385.81   |
| 5.0  | 1381.25  | 1380.98   | 1380.65   | 1382.33   | 1384.47   | 1386.46   | 1383.59   | 1380.32   | 1378.05   | 1375.29   |
| 7.5  | 1371.09  | 1369.76   | 1369.65   | 1370.11   | 1371.44   | 1372.27   | 1368.11   | 1363.53   | 1361.09   | 1358.40   |
| 10.0 | 1356.92  | 1354.48   | 1353.65   | 1353.44   | 1353.53   | 1352.71   | 1347.24   | 1342.21   | 1339.19   | 1336.80   |
| 12.5 | 1338.12  | 1335.70   | 1333.17   | 1332.24   | 1331.49   | 1329.33   | 1322.62   | 1315.85   | 1312.56   | 1309.39   |
| 15.0 | 1314.50  | 1311.81   | 1308.85   | 1307.32   | 1303.90   | 1300.38   | 1293.32   | 1285.18   | 1280.61   | 1277.68   |
| 17.5 | 1287.27  | 1284.40   | 1280.22   | 1277.66   | 1273.16   | 1267.34   | 1258.46   | 1249.56   | 1244.72   | 1240.90   |
| 20.0 | 1256.98  | 1253.82   | 1247.70   | 1243.28   | 1238.63   | 1231.32   | 1219.82   | 1211.56   | 1204.73   | 1200.69   |
| 22.5 | 1221.12  | 1219.19   | 1212.89   | 1206.30   | 1200.61   | 1191.11   | 1179.21   | 1169.21   | 1161.92   | 1157.97   |
| 25.0 | 1182.26  | 1180.81   | 1174.27   | 1166.72   | 1158.11   | 1148.24   | 1135.56   | 1124.55   | 1117.66   | 1111.90   |
| 27.5 | 1141.91  | 1140.21   | 1132.26   | 1123.95   | 1115.59   | 1102.36   | 1089.54   | 1077.70   | 1069.72   | 1065.11   |
| 30.0 | 1098.39  | 1096.98   | 1088.03   | 1079.41   | 1068.83   | 1055.19   | 1040.48   | 1028.39   | 1021.59   | 1015.73   |
| 32.5 | 1051.56  | 1050.30   | 1041.50   | 1032.43   | 1021.01   | 1006.40   | 990.96    | 978.20    | 971.87    | 966.39    |
| 35.0 | 1003.34  | 1003.50   | 991.79    | 984.21    | 971.31    | 956.42    | 940.34    | 928.50    | 921.40    | 916.80    |
| 37.5 | 953.49   | 953.45    | 943.64    | 934.64    | 919.82    | 904.64    | 890.85    | 878.72    | 872.02    | 867.46    |
| 40.0 | 905.07   | 903.88    | 893.31    | 883.78    | 869.48    | 854.59    | 839.58    | 827.72    | 821.22    | 816.87    |
| 42.5 | 852.85   | 852.04    | 841.28    | 831.86    | 817.64    | 803.45    | 788.53    | 778.02    | 770.95    | 766.26    |
| 45.0 | 798.82   | 799.52    | 789.53    | 780.05    | 766.11    | 751.50    | 737.21    | 728.38    | 721.45    | 716.97    |
| 47.5 | 747.77   | 746.00    | 737.51    | 727.93    | 715.55    | 702.01    | 689.04    | 679.88    | 672.98    | 667.25    |
| 50.0 | 695.24   | 694.02    | 686.96    | 676.16    | 664.44    | 651.63    | 640.73    | 631.42    | 623.91    | 620.43    |
| 52.5 | 643.06   | 642.25    | 636.88    | 625.88    | 614.86    | 602.93    | 592.36    | 583.49    | 577.06    | 574.09    |
| 55.0 | 589.44   | 589.52    | 585.03    | 576.15    | 565.76    | 553.46    | 544.16    | 536.77    | 531.37    | 529.66    |
| 57.5 | 537.47   | 537.96    | 533.64    | 525.75    | 516.51    | 506.26    | 496.35    | 490.61    | 485.69    | 483.21    |
| 60.0 | 485.68   | 486.25    | 481.40    | 477.00    | 466.33    | 457.75    | 450.69    | 445.07    | 440.90    | 438.67    |
| 62.5 | 435.28   | 435.98    | 431.80    | 426.89    | 417.58    | 410.63    | 404.88    | 401.00    | 397.53    | 395.09    |
| 65.0 | 383.98   | 386.57    | 382.53    | 378.10    | 371.13    | 365.39    | 360.22    | 356.78    | 355.40    | 351.19    |
| 67.5 | 334.15   | 336.99    | 334.63    | 329.43    | 324.96    | 319.87    | 315.90    | 312.93    | 313.77    | 308.82    |
| 70.0 | 286.25   | 287.59    | 285.66    | 282.70    | 279.38    | 275.71    | 273.19    | 270.21    | 272.14    | 265.93    |
| 72.5 | 238.45   | 239.92    | 238.69    | 235.56    | 233.16    | 231.75    | 230.78    | 228.80    | 230.51    | 225.89    |
| 75.0 | 191.96   | 193.57    | 192.75    | 191.33    | 190.35    | 190.74    | 189.77    | 188.79    | 188.88    | 186.39    |
| 77.5 | 146.36   | 148.67    | 149.58    | 149.81    | 150.96    | 151.15    | 150.87    | 151.08    | 150.78    | 150.02    |
| 80.0 | 105.55   | 107.44    | 108.30    | 110.30    | 111.78    | 114.13    | 115.17    | 115.56    | 115.82    | 115.37    |
| 82.5 | 67.57    | 68.45     | 71.00     | 75.18     | 77.47     | 80.25     | 81.96     | 83.78     | 84.23     | 84.17     |
| 85.0 | 34.65    | 35.80     | 39.91     | 43.72     | 47.07     | 51.14     | 53.36     | 55.30     | 55.76     | 56.07     |
| 87.5 | 9.83     | 11.70     | 15.91     | 19.70     | 23.79     | 26.96     | 30.51     | 32.27     | 33.17     | 33.61     |
| 90.0 | 0.06     | 1.81      | 5.00      | 8.84      | 12.32     | 15.54     | 18.57     | 20.29     | 21.97     | 22.34     |

**Vert. Angles**      **Horizontal Angles**

|      | <u>100</u> | <u>110</u> | <u>120</u> | <u>130</u> | <u>140</u> | <u>150</u> | <u>160</u> | <u>170</u> | <u>180</u> | <u>190</u> |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0.0  | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    |
| 2.5  | 1384.81    | 1379.79    | 1377.64    | 1371.29    | 1370.74    | 1376.97    | 1381.73    | 1387.65    | 1386.20    | 1386.24    |
| 5.0  | 1373.10    | 1369.72    | 1367.58    | 1361.69    | 1361.53    | 1367.24    | 1373.46    | 1379.69    | 1379.80    | 1380.18    |
| 7.5  | 1356.28    | 1353.44    | 1350.71    | 1346.38    | 1346.37    | 1353.04    | 1360.17    | 1366.51    | 1369.95    | 1369.06    |
| 10.0 | 1333.22    | 1332.02    | 1329.54    | 1325.69    | 1327.39    | 1333.11    | 1342.63    | 1349.72    | 1354.81    | 1353.98    |
| 12.5 | 1305.98    | 1305.48    | 1303.48    | 1300.40    | 1303.66    | 1310.17    | 1320.98    | 1328.97    | 1334.08    | 1333.84    |
| 15.0 | 1274.77    | 1273.82    | 1273.66    | 1271.76    | 1275.60    | 1285.01    | 1294.44    | 1302.98    | 1309.80    | 1309.08    |
| 17.5 | 1238.66    | 1238.02    | 1238.89    | 1238.14    | 1243.43    | 1253.62    | 1265.68    | 1273.97    | 1282.35    | 1281.88    |
| 20.0 | 1199.66    | 1199.88    | 1201.21    | 1201.42    | 1207.76    | 1219.01    | 1231.86    | 1241.27    | 1252.34    | 1250.86    |
| 22.5 | 1156.21    | 1155.91    | 1159.90    | 1160.57    | 1170.48    | 1181.28    | 1195.42    | 1205.73    | 1218.44    | 1216.23    |
| 25.0 | 1111.59    | 1111.72    | 1116.61    | 1119.39    | 1128.69    | 1142.74    | 1155.67    | 1166.51    | 1180.23    | 1179.44    |
| 27.5 | 1065.21    | 1064.95    | 1070.69    | 1074.67    | 1084.42    | 1098.03    | 1115.13    | 1123.08    | 1138.65    | 1137.81    |
| 30.0 | 1016.00    | 1016.97    | 1022.56    | 1027.81    | 1038.28    | 1053.00    | 1069.57    | 1078.58    | 1095.01    | 1095.17    |

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**CANDELA TABULATION - (Cont.)**

|      |        |        |        |        |        |         |         |         |         |         |
|------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 32.5 | 964.63 | 967.98 | 972.97 | 979.18 | 990.37 | 1006.03 | 1022.76 | 1031.96 | 1049.35 | 1050.11 |
| 35.0 | 914.47 | 918.69 | 923.63 | 930.58 | 942.18 | 957.79  | 974.87  | 983.49  | 1002.88 | 1003.69 |
| 37.5 | 865.74 | 868.01 | 874.45 | 882.62 | 893.13 | 908.41  | 923.21  | 934.13  | 953.39  | 952.30  |
| 40.0 | 815.78 | 817.44 | 824.88 | 832.70 | 843.27 | 857.54  | 873.26  | 883.46  | 902.40  | 901.54  |
| 42.5 | 765.99 | 767.18 | 774.50 | 782.54 | 791.71 | 806.82  | 821.05  | 832.28  | 851.49  | 849.44  |
| 45.0 | 715.96 | 717.93 | 723.98 | 731.50 | 740.95 | 756.05  | 769.19  | 780.69  | 800.06  | 798.21  |
| 47.5 | 668.13 | 670.00 | 675.74 | 683.65 | 690.74 | 706.86  | 717.50  | 727.79  | 749.35  | 747.08  |
| 50.0 | 619.64 | 622.27 | 628.70 | 634.76 | 641.53 | 655.27  | 667.12  | 675.09  | 697.06  | 694.31  |
| 52.5 | 574.70 | 575.47 | 580.63 | 587.21 | 593.81 | 604.99  | 616.00  | 625.14  | 643.76  | 641.70  |
| 55.0 | 526.19 | 530.22 | 533.77 | 539.05 | 545.80 | 555.89  | 565.18  | 573.51  | 591.48  | 589.68  |
| 57.5 | 481.79 | 484.66 | 487.07 | 493.52 | 499.34 | 507.75  | 515.68  | 522.09  | 542.16  | 539.84  |
| 60.0 | 437.26 | 439.12 | 442.05 | 447.55 | 452.00 | 459.87  | 465.73  | 471.62  | 491.40  | 489.06  |
| 62.5 | 394.02 | 394.03 | 396.88 | 400.79 | 405.16 | 411.30  | 416.89  | 421.85  | 440.84  | 439.66  |
| 65.0 | 350.94 | 350.92 | 353.31 | 356.81 | 359.66 | 364.71  | 369.12  | 371.97  | 389.97  | 388.62  |
| 67.5 | 308.02 | 307.48 | 308.16 | 312.36 | 314.49 | 317.63  | 320.94  | 324.31  | 340.18  | 339.24  |
| 70.0 | 265.89 | 265.44 | 266.00 | 267.91 | 268.51 | 272.82  | 273.86  | 275.28  | 292.33  | 291.62  |
| 72.5 | 225.29 | 224.26 | 224.70 | 224.92 | 224.92 | 226.14  | 228.08  | 227.49  | 243.96  | 245.28  |
| 75.0 | 186.66 | 184.77 | 184.26 | 184.03 | 182.62 | 182.50  | 183.15  | 183.18  | 199.25  | 199.13  |
| 77.5 | 148.47 | 148.28 | 146.21 | 144.29 | 143.62 | 141.72  | 141.09  | 140.77  | 153.68  | 154.06  |
| 80.0 | 113.70 | 113.15 | 110.85 | 108.19 | 105.59 | 103.80  | 102.02  | 100.56  | 112.35  | 112.80  |
| 82.5 | 83.24  | 81.21  | 78.95  | 76.50  | 72.77  | 69.62   | 66.63   | 63.84   | 74.01   | 75.40   |
| 85.0 | 55.41  | 52.92  | 51.39  | 47.56  | 43.95  | 40.07   | 36.16   | 33.01   | 40.86   | 42.83   |
| 87.5 | 32.79  | 30.89  | 28.66  | 25.44  | 21.47  | 17.86   | 13.51   | 10.35   | 14.99   | 16.95   |
| 90.0 | 21.69  | 20.26  | 20.29  | 15.32  | 12.27  | 8.51    | 5.25    | 2.02    | 0.94    | 3.08    |

**Vert.  
Angles**

**Horizontal Angles**

|      | <u>200</u> | <u>210</u> | <u>220</u> | <u>230</u> | <u>240</u> | <u>250</u> | <u>260</u> | <u>270</u> | <u>280</u> | <u>290</u> |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0.0  | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    | 1387.90    |
| 2.5  | 1386.16    | 1389.73    | 1392.31    | 1395.64    | 1392.21    | 1390.51    | 1390.26    | 1388.11    | 1386.69    | 1382.69    |
| 5.0  | 1379.34    | 1382.50    | 1385.42    | 1388.33    | 1385.17    | 1382.50    | 1382.74    | 1380.72    | 1379.77    | 1376.06    |
| 7.5  | 1368.80    | 1371.73    | 1374.65    | 1376.47    | 1372.61    | 1369.56    | 1370.23    | 1368.35    | 1367.60    | 1363.81    |
| 10.0 | 1353.55    | 1354.92    | 1357.88    | 1357.77    | 1354.31    | 1350.32    | 1349.69    | 1350.07    | 1347.97    | 1335.55    |
| 12.5 | 1332.42    | 1333.35    | 1334.07    | 1334.11    | 1329.78    | 1324.07    | 1323.64    | 1322.57    | 1321.60    | 1306.76    |
| 15.0 | 1307.98    | 1306.97    | 1306.64    | 1303.93    | 1298.91    | 1293.19    | 1290.67    | 1290.87    | 1288.78    | 1277.96    |
| 17.5 | 1279.69    | 1277.87    | 1276.16    | 1271.42    | 1265.18    | 1257.80    | 1256.45    | 1254.77    | 1254.22    | 1249.17    |
| 20.0 | 1248.22    | 1245.54    | 1241.50    | 1235.59    | 1228.04    | 1220.10    | 1217.03    | 1215.68    | 1215.34    | 1219.01    |
| 22.5 | 1212.55    | 1208.92    | 1202.83    | 1195.57    | 1187.09    | 1177.49    | 1174.47    | 1172.62    | 1173.55    | 1176.74    |
| 25.0 | 1172.67    | 1167.97    | 1160.63    | 1151.75    | 1140.65    | 1132.20    | 1127.84    | 1125.39    | 1126.99    | 1130.42    |
| 27.5 | 1129.96    | 1123.88    | 1115.13    | 1104.11    | 1092.18    | 1082.06    | 1078.31    | 1074.70    | 1077.89    | 1080.69    |
| 30.0 | 1085.11    | 1079.49    | 1069.33    | 1056.40    | 1041.53    | 1032.44    | 1028.62    | 1025.24    | 1029.00    | 1031.45    |
| 32.5 | 1039.29    | 1032.55    | 1021.91    | 1007.14    | 991.91     | 982.62     | 978.00     | 975.35     | 979.54     | 983.37     |
| 35.0 | 989.92     | 983.39     | 971.39     | 958.51     | 942.44     | 932.09     | 927.39     | 924.16     | 929.22     | 934.08     |
| 37.5 | 940.69     | 932.64     | 920.43     | 904.58     | 889.28     | 879.30     | 874.54     | 872.70     | 876.17     | 883.49     |
| 40.0 | 888.64     | 882.78     | 868.47     | 852.29     | 835.32     | 825.90     | 823.22     | 819.89     | 824.15     | 830.29     |
| 42.5 | 837.88     | 831.32     | 816.27     | 799.85     | 786.03     | 774.19     | 770.87     | 770.08     | 772.40     | 780.09     |
| 45.0 | 787.07     | 780.57     | 765.16     | 748.66     | 736.83     | 726.48     | 721.54     | 721.08     | 723.18     | 731.02     |
| 47.5 | 736.09     | 728.11     | 714.73     | 699.09     | 688.96     | 678.65     | 673.04     | 675.12     | 674.64     | 683.16     |
| 50.0 | 685.79     | 675.43     | 663.05     | 647.96     | 639.56     | 630.51     | 625.15     | 625.60     | 626.99     | 634.23     |
| 52.5 | 633.75     | 624.18     | 611.77     | 597.59     | 589.73     | 582.28     | 577.44     | 576.91     | 579.10     | 585.24     |
| 55.0 | 582.85     | 573.69     | 561.90     | 547.84     | 541.00     | 535.26     | 530.65     | 531.25     | 532.92     | 537.64     |
| 57.5 | 532.31     | 523.91     | 513.20     | 503.19     | 496.68     | 490.85     | 487.85     | 487.10     | 490.27     | 493.86     |
| 60.0 | 483.95     | 475.35     | 466.11     | 457.15     | 451.21     | 448.28     | 445.73     | 444.70     | 446.82     | 451.07     |
| 62.5 | 433.54     | 426.80     | 418.60     | 412.18     | 406.76     | 404.40     | 403.32     | 401.52     | 405.23     | 407.01     |
| 65.0 | 383.96     | 378.38     | 371.82     | 367.22     | 362.17     | 360.86     | 359.75     | 358.03     | 361.35     | 363.38     |
| 67.5 | 334.72     | 331.21     | 325.87     | 321.85     | 318.36     | 317.33     | 316.94     | 316.27     | 318.67     | 320.72     |

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**CANDELA TABULATION - (Cont.)**

|             |        |        |        |        |        |        |        |        |        |        |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>70.0</b> | 288.45 | 285.20 | 281.22 | 278.71 | 277.00 | 275.65 | 276.09 | 276.61 | 277.56 | 280.13 |
| <b>72.5</b> | 242.40 | 240.83 | 237.93 | 237.41 | 236.39 | 235.58 | 236.60 | 237.54 | 238.33 | 240.09 |
| <b>75.0</b> | 196.69 | 196.59 | 196.21 | 196.98 | 196.81 | 197.25 | 198.32 | 198.49 | 199.79 | 200.70 |
| <b>77.5</b> | 154.16 | 154.35 | 155.59 | 157.07 | 158.76 | 159.67 | 160.63 | 162.53 | 163.01 | 163.49 |
| <b>80.0</b> | 112.86 | 115.88 | 118.12 | 120.98 | 123.71 | 124.56 | 126.19 | 127.49 | 128.24 | 127.89 |
| <b>82.5</b> | 77.08  | 81.50  | 84.87  | 87.46  | 90.98  | 93.00  | 94.54  | 96.10  | 96.26  | 95.44  |
| <b>85.0</b> | 46.50  | 50.90  | 54.91  | 58.07  | 62.53  | 65.27  | 66.74  | 67.60  | 68.08  | 66.92  |
| <b>87.5</b> | 21.16  | 25.84  | 30.37  | 34.93  | 38.42  | 41.69  | 43.56  | 44.22  | 44.31  | 42.81  |
| <b>90.0</b> | 7.44   | 11.71  | 16.86  | 20.93  | 24.44  | 26.75  | 28.92  | 29.73  | 29.43  | 28.49  |

**Vert. Angles**      **Horizontal Angles**

|             | <u><b>300</b></u> | <u><b>310</b></u> | <u><b>320</b></u> | <u><b>330</b></u> | <u><b>340</b></u> | <u><b>350</b></u> | <u><b>360</b></u> |
|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>0.0</b>  | 1387.90           | 1387.90           | 1387.90           | 1387.90           | 1387.90           | 1387.90           | 1387.90           |
| <b>2.5</b>  | 1380.39           | 1374.57           | 1374.11           | 1379.95           | 1384.64           | 1389.64           | 1386.91           |
| <b>5.0</b>  | 1373.84           | 1368.86           | 1369.31           | 1374.86           | 1379.84           | 1384.71           | 1381.25           |
| <b>7.5</b>  | 1362.07           | 1358.38           | 1360.46           | 1366.21           | 1371.88           | 1376.63           | 1371.09           |
| <b>10.0</b> | 1345.00           | 1344.10           | 1345.50           | 1351.78           | 1358.79           | 1363.28           | 1356.92           |
| <b>12.5</b> | 1320.94           | 1321.06           | 1323.80           | 1331.40           | 1339.77           | 1345.66           | 1338.12           |
| <b>15.0</b> | 1291.98           | 1293.29           | 1297.71           | 1306.64           | 1315.94           | 1323.02           | 1314.50           |
| <b>17.5</b> | 1259.63           | 1261.90           | 1268.03           | 1278.03           | 1289.04           | 1296.84           | 1287.27           |
| <b>20.0</b> | 1224.54           | 1227.17           | 1235.55           | 1246.22           | 1258.98           | 1267.58           | 1256.98           |
| <b>22.5</b> | 1184.28           | 1189.03           | 1198.03           | 1211.26           | 1224.24           | 1233.82           | 1221.12           |
| <b>25.0</b> | 1139.22           | 1145.51           | 1157.38           | 1171.71           | 1186.66           | 1195.70           | 1182.26           |
| <b>27.5</b> | 1091.56           | 1099.07           | 1112.55           | 1128.10           | 1144.42           | 1154.27           | 1141.91           |
| <b>30.0</b> | 1043.23           | 1051.72           | 1067.85           | 1084.46           | 1101.36           | 1110.27           | 1098.39           |
| <b>32.5</b> | 994.50            | 1005.14           | 1020.05           | 1038.73           | 1055.25           | 1064.66           | 1051.56           |
| <b>35.0</b> | 942.70            | 957.30            | 972.18            | 991.41            | 1008.61           | 1018.62           | 1003.34           |
| <b>37.5</b> | 892.40            | 905.53            | 921.48            | 942.03            | 958.47            | 969.78            | 953.49            |
| <b>40.0</b> | 839.69            | 853.41            | 869.62            | 889.41            | 906.72            | 918.87            | 905.07            |
| <b>42.5</b> | 788.87            | 802.96            | 818.63            | 837.70            | 855.41            | 867.14            | 852.85            |
| <b>45.0</b> | 739.63            | 754.96            | 768.83            | 787.90            | 804.11            | 814.71            | 798.82            |
| <b>47.5</b> | 690.69            | 706.22            | 719.10            | 737.78            | 754.05            | 764.16            | 747.77            |
| <b>50.0</b> | 642.07            | 655.11            | 667.10            | 685.16            | 700.49            | 710.18            | 695.24            |
| <b>52.5</b> | 592.68            | 604.51            | 616.60            | 633.17            | 648.48            | 657.33            | 643.06            |
| <b>55.0</b> | 546.16            | 556.04            | 566.84            | 582.02            | 595.35            | 604.84            | 589.44            |
| <b>57.5</b> | 500.94            | 509.53            | 519.27            | 532.55            | 545.98            | 554.22            | 537.47            |
| <b>60.0</b> | 457.93            | 463.74            | 472.81            | 484.92            | 494.88            | 504.42            | 485.68            |
| <b>62.5</b> | 413.42            | 418.02            | 425.78            | 435.90            | 445.89            | 452.47            | 435.28            |
| <b>65.0</b> | 368.93            | 371.29            | 378.71            | 386.34            | 395.57            | 400.77            | 383.98            |
| <b>67.5</b> | 324.36            | 326.57            | 331.71            | 338.69            | 345.99            | 349.48            | 334.15            |
| <b>70.0</b> | 281.67            | 284.95            | 289.15            | 293.00            | 299.14            | 301.29            | 286.25            |
| <b>72.5</b> | 240.25            | 242.97            | 245.23            | 248.18            | 251.93            | 253.65            | 238.45            |
| <b>75.0</b> | 201.08            | 202.17            | 203.37            | 205.29            | 206.96            | 207.21            | 191.96            |
| <b>77.5</b> | 162.91            | 163.33            | 162.78            | 162.86            | 162.49            | 162.59            | 146.36            |
| <b>80.0</b> | 126.63            | 126.35            | 124.38            | 122.53            | 121.55            | 119.78            | 105.55            |
| <b>82.5</b> | 93.38             | 92.37             | 89.53             | 86.83             | 83.64             | 81.70             | 67.57             |
| <b>85.0</b> | 65.32             | 62.61             | 58.59             | 54.56             | 50.83             | 48.23             | 34.65             |
| <b>87.5</b> | 41.61             | 37.41             | 34.22             | 28.99             | 24.35             | 21.08             | 9.83              |
| <b>90.0</b> | 25.87             | 22.74             | 19.15             | 14.14             | 9.51              | 4.81              | 0.06              |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NLR48MFA50.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 495.37  | N.A.  | 14.80  |
| 0-30    | 1023.64 | N.A.  | 30.60  |
| 0-40    | 1623.57 | N.A.  | 48.60  |
| 0-60    | 2707.24 | N.A.  | 81.00  |
| 0-80    | 3279.66 | N.A.  | 98.20  |
| 0-90    | 3341.46 | N.A.  | 100.00 |
| 10-90   | 3210.91 | N.A.  | 96.10  |
| 20-40   | 1128.2  | N.A.  | 33.80  |
| 20-50   | 1712.3  | N.A.  | 51.20  |
| 40-70   | 1450.17 | N.A.  | 43.40  |
| 60-80   | 572.42  | N.A.  | 17.10  |
| 70-80   | 205.92  | N.A.  | 6.20   |
| 80-90   | 61.80   | N.A.  | 1.80   |
| 90-110  | 0.00    | N.A.  | 0.00   |
| 90-120  | 0.00    | N.A.  | 0.00   |
| 90-130  | 0.00    | N.A.  | 0.00   |
| 90-150  | 0.00    | N.A.  | 0.00   |
| 90-180  | 0.00    | N.A.  | 0.00   |
| 110-180 | 0.00    | N.A.  | 0.00   |
| 0-180   | 3341.46 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 130.55 |
| 10-20   | 364.82 |
| 20-30   | 528.27 |
| 30-40   | 599.93 |
| 40-50   | 584.10 |
| 50-60   | 499.56 |
| 60-70   | 366.50 |
| 70-80   | 205.92 |
| 80-90   | 61.80  |
| 90-100  | 0.00   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

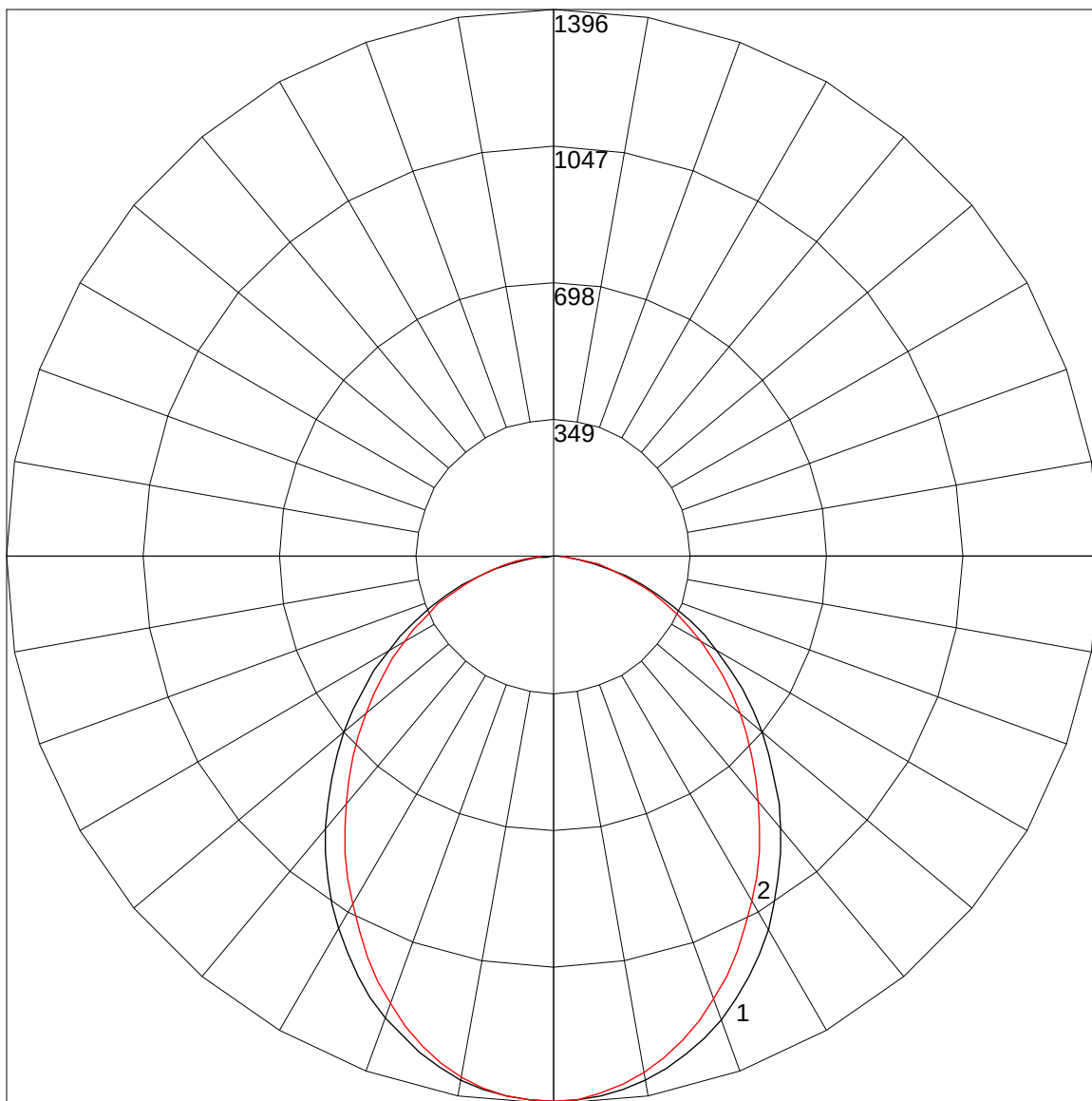
IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : NLR48MFA50.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| 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   |
| 0  | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1  | 109 | 104 | 100 | 97  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 92  | 89  | 90  | 88  | 87  | 84  |
| 2  | 100 | 92  | 85  | 79  | 97  | 90  | 84  | 78  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 76  | 73  | 71  |
| 3  | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 60  |
| 4  | 84  | 72  | 63  | 57  | 81  | 71  | 63  | 57  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 59  | 54  | 52  |
| 5  | 77  | 65  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 49  | 59  | 53  | 48  | 58  | 52  | 48  | 45  |
| 6  | 71  | 58  | 50  | 43  | 70  | 57  | 49  | 43  | 56  | 48  | 43  | 54  | 47  | 42  | 52  | 47  | 42  | 40  |
| 7  | 66  | 53  | 45  | 39  | 65  | 52  | 44  | 38  | 51  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |
| 8  | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |
| 9  | 58  | 45  | 37  | 31  | 57  | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 29  |
| 10 | 54  | 41  | 34  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |

POLAR GRAPH



Maximum Candela = 1395.64 Located At Horizontal Angle = 230, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Vertical Plane Through Horizontal Angles (90 - 270)