

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: METALUX

Report Number: P855753

Luminaire Tested: **24SFS-L3C4-UNV-LOW-4000K**

Issue Date: 7/17/2024

Test Information

Test Method: LM-79-08
Report Number: P855753
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (BL231218008-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SFS-L3C4-UNV-LOW-4000K
Description: 2x4 Surround Frame Selectable - Architectural Slim LED Frame with,
LOW Lumen and 4000K CCT Settings
Light Source: -
Ballast/Driver: -

Summary

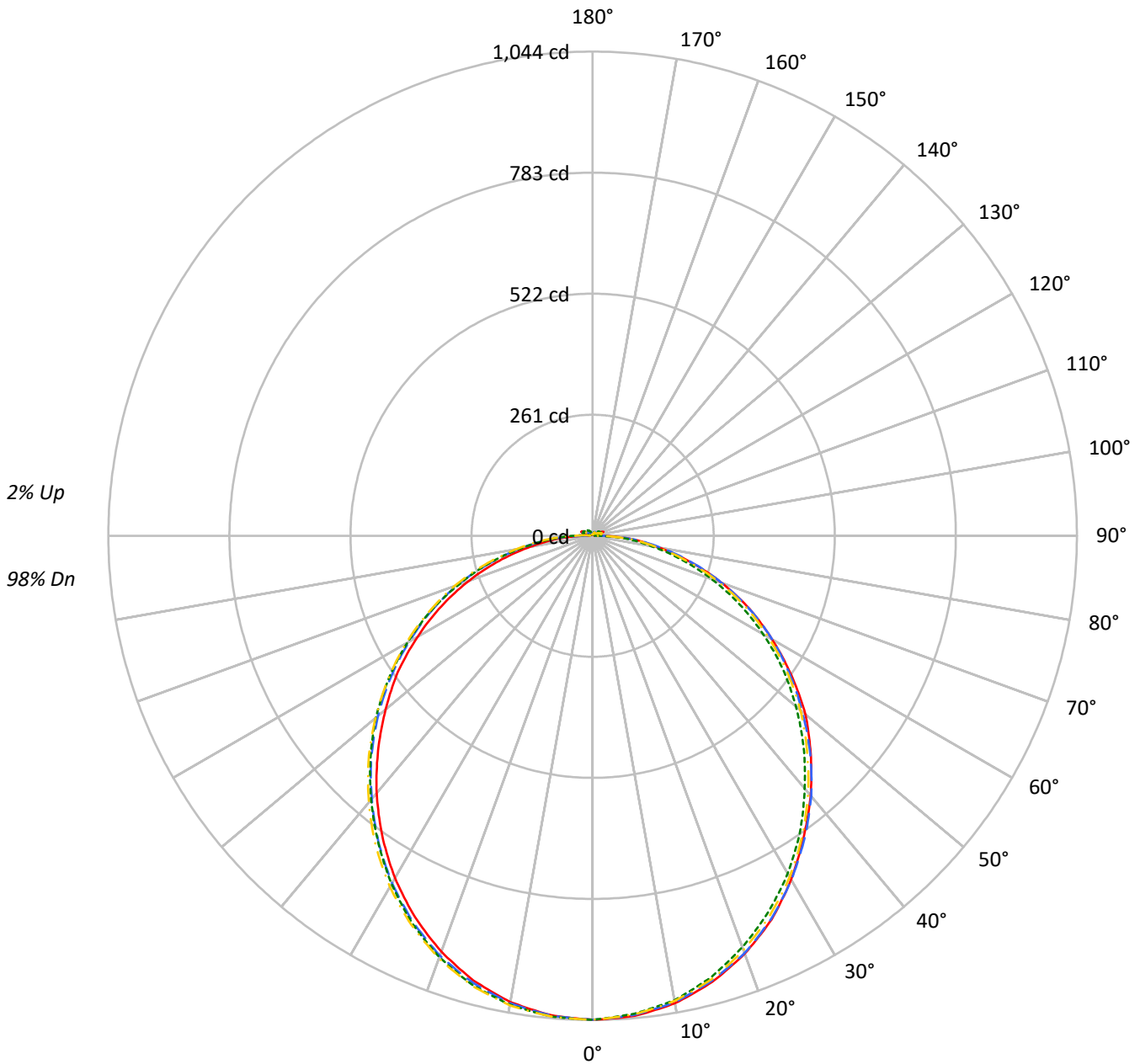
Lumens per Lamp: N/A
Luminaire Lumens: 3045.0 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.35
Luminous Opening: Rectangular (W 1.9' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P855753

CATALOG NUMBER: 24SFS-L3C4-UNV-LOW-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P855753

CATALOG NUMBER: 24SFS-L3C4-UNV-LOW-4000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| RF | 20 | | | | 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 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 105 | 105 | 105 | 100 | 100 | 100 | | | | 98 |
| 1 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 95 | 92 | 89 | 91 | 88 | 86 | 87 | 85 | 83 | | | | 80 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 79 | 75 | 71 | 76 | 72 | 69 | | | | 67 |
| 3 | 89 | 78 | 70 | 63 | 86 | 76 | 69 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 67 | 62 | 58 | | | | 56 |
| 4 | 81 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 57 | 52 | 62 | 56 | 51 | 60 | 54 | 50 | | | | 48 |
| 5 | 75 | 62 | 53 | 46 | 72 | 60 | 52 | 45 | 58 | 50 | 45 | 56 | 49 | 44 | 54 | 48 | 43 | | | | 41 |
| 6 | 69 | 56 | 46 | 40 | 67 | 54 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 49 | 43 | 38 | | | | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 34 | | | | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | | | | 28 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | | | | 25 |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | | | | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|------|------|------|------|
| 0° | 1512 | 1512 | 1512 | 1512 |
| 5° | 1512 | 1504 | 1509 | 1513 |
| 10° | 1506 | 1496 | 1502 | 1510 |
| 15° | 1494 | 1478 | 1489 | 1504 |
| 20° | 1479 | 1455 | 1471 | 1490 |
| 25° | 1459 | 1432 | 1449 | 1473 |
| 30° | 1432 | 1407 | 1426 | 1450 |
| 35° | 1403 | 1379 | 1399 | 1426 |
| 40° | 1383 | 1345 | 1370 | 1405 |
| 45° | 1362 | 1318 | 1340 | 1388 |
| 50° | 1350 | 1289 | 1313 | 1374 |
| 55° | 1319 | 1264 | 1295 | 1354 |
| 60° | 1294 | 1229 | 1263 | 1336 |
| 65° | 1279 | 1197 | 1234 | 1322 |
| 70° | 1251 | 1157 | 1201 | 1301 |
| 75° | 1216 | 1106 | 1167 | 1300 |
| 80° | 1205 | 1065 | 1132 | 1309 |
| 85° | 1436 | 1182 | 1260 | 1554 |



TEST NUMBER: P855753

CATALOG NUMBER: 24SFS-L3C4-UNV-LOW-4000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 98.5 | 3.2 |
| 10°-20° | 280.6 | 9.2 |
| 20°-30° | 420.2 | 13.8 |
| 30°-40° | 499.3 | 16.4 |
| 40°-50° | 512.9 | 16.8 |
| 50°-60° | 466.6 | 15.3 |
| 60°-70° | 368.7 | 12.1 |
| 70°-80° | 233.8 | 7.7 |
| 80°-90° | 92.4 | 3.0 |
| 90°-100° | 10.6 | 0.3 |
| 100°-110° | 18.2 | 0.6 |
| 110°-120° | 17.0 | 0.6 |
| 120°-130° | 10.2 | 0.3 |
| 130°-140° | 6.8 | 0.2 |
| 140°-150° | 4.8 | 0.2 |
| 150°-160° | 2.8 | 0.1 |
| 160°-170° | 1.1 | 0.0 |
| 170°-180° | 0.3 | 0.0 |
| 0°-30° | 799.3 | 26.3 |
| 0°-40° | 1298.6 | 42.6 |
| 0°-60° | 2278.2 | 74.8 |
| 0°-90° | 2973.1 | 97.6 |
| 90°-120° | 45.9 | 1.5 |
| 90°-150° | 67.7 | 2.2 |
| 90°-180° | 72.0 | 2.4 |
| 0°-180° | 3045.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0° | 1044 | 1044 | 1044 | 1044 | 1044 | |
| 5° | 1039 | 1034 | 1038 | 1040 | 1039 | 99 |
| 15° | 996 | 986 | 993 | 1002 | 996 | 281 |
| 25° | 913 | 896 | 907 | 921 | 913 | 420 |
| 35° | 793 | 780 | 791 | 806 | 793 | 497 |
| 45° | 665 | 643 | 654 | 677 | 665 | 514 |
| 55° | 522 | 500 | 513 | 536 | 522 | 468 |
| 65° | 373 | 349 | 360 | 386 | 373 | 369 |
| 75° | 217 | 198 | 208 | 232 | 217 | 231 |
| 85° | 86 | 71 | 76 | 94 | 86 | 81 |
| 90° | 15 | 5 | 10 | 38 | 15 | 16 |
| 95° | 4 | 2 | 7 | 13 | 4 | 5 |
| 105° | 17 | 20 | 23 | 21 | 17 | 17 |
| 115° | 19 | 18 | 23 | 22 | 19 | 19 |
| 125° | 6 | 16 | 6 | 19 | 6 | 7 |
| 135° | 3 | 12 | 2 | 18 | 3 | 2 |
| 145° | 3 | 10 | 2 | 13 | 3 | 2 |
| 155° | 3 | 9 | 3 | 10 | 3 | 1 |
| 165° | 3 | 4 | 3 | 5 | 3 | 1 |
| 175° | 2 | 3 | 3 | 4 | 2 | 0 |
| 180° | 3 | 3 | 3 | 3 | 3 | |



TEST NUMBER: P855753

CATALOG NUMBER: 24SFS-L3C4-UNV-LOW-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 |
| 5° | 1039.4 | 1034.3 | 1036.9 | 1036.9 | 1034.3 | 1031.7 | 1035.9 | 1036.7 | 1037.7 | 1034.9 | 1038.2 |
| 10° | 1023.5 | 1018.7 | 1021.2 | 1019.9 | 1016.8 | 1013.3 | 1018.2 | 1020.2 | 1020.9 | 1019.1 | 1023.3 |
| 15° | 996.0 | 992.5 | 993.0 | 992.0 | 985.5 | 983.9 | 990.2 | 993.0 | 992.7 | 993.3 | 997.8 |
| 20° | 959.1 | 955.7 | 957.7 | 953.9 | 943.9 | 946.7 | 951.1 | 953.7 | 954.2 | 957.2 | 963.1 |
| 25° | 912.8 | 909.8 | 911.2 | 907.4 | 895.8 | 898.9 | 903.5 | 908.0 | 906.7 | 911.8 | 917.9 |
| 30° | 856.1 | 856.0 | 856.8 | 854.2 | 841.2 | 843.2 | 849.6 | 853.2 | 852.2 | 859.3 | 864.8 |
| 35° | 793.1 | 797.2 | 796.5 | 792.0 | 779.5 | 781.8 | 788.5 | 791.1 | 790.7 | 799.2 | 805.1 |
| 40° | 731.2 | 731.5 | 733.2 | 725.2 | 711.1 | 717.5 | 723.0 | 723.8 | 724.3 | 733.5 | 740.6 |
| 45° | 664.9 | 662.0 | 663.1 | 657.2 | 643.1 | 648.2 | 653.4 | 656.1 | 653.9 | 664.4 | 674.6 |
| 50° | 598.9 | 590.7 | 589.9 | 586.0 | 571.9 | 576.8 | 584.5 | 585.2 | 582.4 | 595.0 | 603.5 |
| 55° | 522.0 | 521.3 | 517.9 | 515.1 | 500.2 | 505.6 | 511.7 | 512.3 | 512.6 | 520.7 | 530.8 |
| 60° | 446.7 | 446.3 | 447.1 | 440.3 | 424.2 | 431.6 | 437.5 | 437.8 | 435.8 | 449.1 | 456.6 |
| 65° | 373.1 | 369.5 | 372.3 | 366.3 | 349.2 | 355.9 | 364.3 | 363.5 | 359.9 | 371.8 | 383.5 |
| 70° | 295.2 | 294.7 | 295.5 | 288.2 | 273.1 | 279.2 | 287.2 | 286.9 | 283.4 | 297.5 | 309.3 |
| 75° | 217.3 | 221.9 | 220.2 | 212.8 | 197.6 | 205.6 | 211.0 | 210.1 | 208.4 | 220.7 | 230.2 |
| 80° | 144.4 | 149.3 | 150.0 | 140.5 | 127.7 | 134.4 | 139.3 | 139.2 | 135.7 | 148.3 | 159.0 |
| 85° | 86.4 | 88.4 | 88.4 | 81.2 | 71.1 | 76.5 | 82.0 | 79.4 | 75.8 | 87.9 | 94.0 |
| 90° | 14.9 | 6.2 | 6.1 | 5.7 | 5.2 | 6.7 | 8.5 | 9.3 | 9.7 | 12.4 | 16.0 |
| 95° | 3.8 | 4.4 | 4.4 | 7.5 | 2.0 | 6.4 | 5.1 | 6.9 | 7.4 | 7.0 | 5.9 |
| 100° | 3.4 | 3.9 | 14.9 | 16.0 | 15.1 | 16.0 | 17.4 | 7.0 | 6.9 | 6.7 | 12.0 |
| 105° | 17.4 | 19.6 | 20.5 | 16.4 | 20.5 | 17.5 | 21.0 | 21.8 | 22.8 | 21.4 | 22.4 |
| 110° | 24.9 | 20.0 | 16.0 | 14.4 | 19.0 | 15.2 | 17.5 | 21.0 | 25.4 | 23.6 | 21.9 |
| 115° | 19.2 | 15.7 | 10.2 | 12.8 | 17.5 | 14.4 | 12.4 | 18.8 | 23.2 | 22.1 | 16.4 |
| 120° | 13.8 | 12.1 | 7.2 | 12.4 | 16.5 | 13.6 | 8.5 | 13.3 | 14.6 | 14.6 | 12.4 |
| 125° | 6.5 | 7.9 | 7.4 | 12.1 | 15.7 | 12.3 | 8.0 | 6.5 | 5.7 | 7.2 | 12.3 |
| 130° | 2.5 | 7.4 | 7.7 | 10.6 | 13.8 | 10.8 | 7.4 | 6.1 | 2.5 | 6.9 | 11.3 |
| 135° | 2.8 | 7.0 | 6.7 | 9.7 | 12.4 | 8.4 | 6.7 | 5.6 | 2.5 | 6.4 | 10.0 |
| 140° | 2.5 | 6.5 | 9.2 | 8.0 | 11.5 | 7.7 | 7.9 | 5.2 | 2.5 | 6.1 | 8.5 |
| 145° | 2.6 | 5.9 | 9.7 | 8.7 | 9.8 | 9.5 | 8.0 | 4.9 | 2.5 | 5.6 | 7.7 |
| 150° | 2.5 | 5.1 | 8.4 | 8.8 | 10.2 | 9.5 | 7.4 | 4.7 | 2.6 | 5.2 | 6.9 |
| 155° | 2.6 | 4.7 | 6.9 | 7.9 | 8.8 | 7.0 | 5.6 | 4.1 | 2.6 | 4.7 | 6.2 |
| 160° | 2.8 | 3.9 | 4.9 | 5.7 | 5.2 | 5.4 | 4.6 | 3.4 | 2.5 | 4.1 | 5.4 |
| 165° | 2.6 | 3.1 | 3.6 | 3.1 | 4.3 | 3.3 | 3.3 | 2.8 | 2.6 | 3.4 | 4.6 |
| 170° | 2.6 | 2.8 | 2.9 | 3.1 | 4.3 | 3.8 | 2.9 | 2.6 | 2.6 | 3.1 | 3.8 |
| 175° | 2.5 | 2.6 | 2.9 | 3.3 | 3.3 | 3.1 | 2.9 | 3.1 | 3.1 | 3.1 | 3.3 |
| 180° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |



TEST NUMBER: P855753

CATALOG NUMBER: 24SFS-L3C4-UNV-LOW-4000K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|------|--------|--------|--------|--------|--------|--------|
| 0° | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 | 1043.6 |
| 5° | 1039.7 | 1040.2 | 1036.6 | 1040.3 | 1039.7 | 1039.4 |
| 10° | 1025.6 | 1026.6 | 1024.0 | 1028.2 | 1025.6 | 1023.5 |
| 15° | 1000.7 | 1002.5 | 999.4 | 1004.2 | 1001.0 | 996.0 |
| 20° | 965.4 | 966.7 | 966.3 | 969.4 | 965.7 | 959.1 |
| 25° | 920.8 | 921.3 | 922.9 | 925.2 | 921.3 | 912.8 |
| 30° | 868.8 | 866.9 | 871.2 | 874.3 | 867.6 | 856.1 |
| 35° | 808.8 | 806.4 | 810.5 | 815.4 | 809.2 | 793.1 |
| 40° | 743.2 | 743.0 | 749.9 | 750.5 | 744.0 | 731.2 |
| 45° | 674.1 | 677.2 | 681.0 | 683.1 | 674.1 | 664.9 |
| 50° | 603.5 | 609.7 | 609.6 | 610.7 | 602.5 | 598.9 |
| 55° | 532.9 | 536.1 | 538.0 | 537.9 | 532.9 | 522.0 |
| 60° | 458.9 | 461.2 | 466.0 | 465.0 | 459.4 | 446.7 |
| 65° | 383.9 | 385.6 | 388.5 | 390.3 | 382.5 | 373.1 |
| 70° | 306.8 | 307.0 | 313.1 | 316.5 | 305.4 | 295.2 |
| 75° | 232.3 | 232.2 | 237.9 | 240.4 | 231.8 | 217.3 |
| 80° | 158.0 | 156.9 | 166.2 | 166.2 | 156.2 | 144.4 |
| 85° | 92.3 | 93.5 | 100.7 | 102.7 | 95.3 | 86.4 |
| 90° | 26.4 | 38.0 | 40.0 | 36.8 | 25.5 | 14.9 |
| 95° | 8.4 | 13.3 | 8.5 | 5.2 | 4.6 | 3.8 |
| 100° | 9.3 | 5.2 | 11.6 | 5.7 | 3.6 | 3.4 |
| 105° | 18.2 | 20.8 | 18.8 | 18.3 | 18.2 | 17.4 |
| 110° | 19.8 | 21.9 | 17.2 | 19.5 | 21.3 | 24.9 |
| 115° | 19.2 | 21.8 | 17.7 | 17.7 | 18.2 | 19.2 |
| 120° | 18.3 | 19.8 | 16.9 | 12.8 | 15.2 | 13.8 |
| 125° | 17.7 | 19.3 | 16.0 | 12.6 | 7.9 | 6.5 |
| 130° | 16.9 | 18.7 | 15.2 | 11.8 | 6.1 | 2.5 |
| 135° | 14.4 | 18.0 | 12.8 | 9.8 | 6.1 | 2.8 |
| 140° | 11.5 | 14.2 | 11.6 | 8.7 | 5.6 | 2.5 |
| 145° | 10.3 | 12.8 | 9.8 | 8.8 | 5.2 | 2.6 |
| 150° | 9.3 | 11.0 | 8.7 | 7.9 | 4.7 | 2.5 |
| 155° | 7.2 | 10.0 | 7.4 | 6.4 | 4.4 | 2.6 |
| 160° | 5.6 | 5.6 | 5.7 | 5.4 | 3.9 | 2.8 |
| 165° | 4.7 | 4.9 | 4.7 | 4.4 | 3.4 | 2.6 |
| 170° | 4.4 | 4.9 | 4.3 | 3.6 | 2.9 | 2.6 |
| 175° | 3.3 | 4.3 | 3.3 | 2.8 | 2.8 | 2.5 |
| 180° | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°









(END OF REPORT)