

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: McGRAW-EDISON

Report Number: P198163

Luminaire Tested: **TT-C2-LED-E1-T4-PM-LWR-LW-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198163
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34705)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-C2-LED-E1-T4-PM-LWR-LW-7050
Description: TOPTIER LED AREA/SITE LUMINAIRE
DRIVE LANE DISTRIBUTION WITH LumaWatt WIRELESS SENSOR
Light Source: (160) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3464.1 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 41.4
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

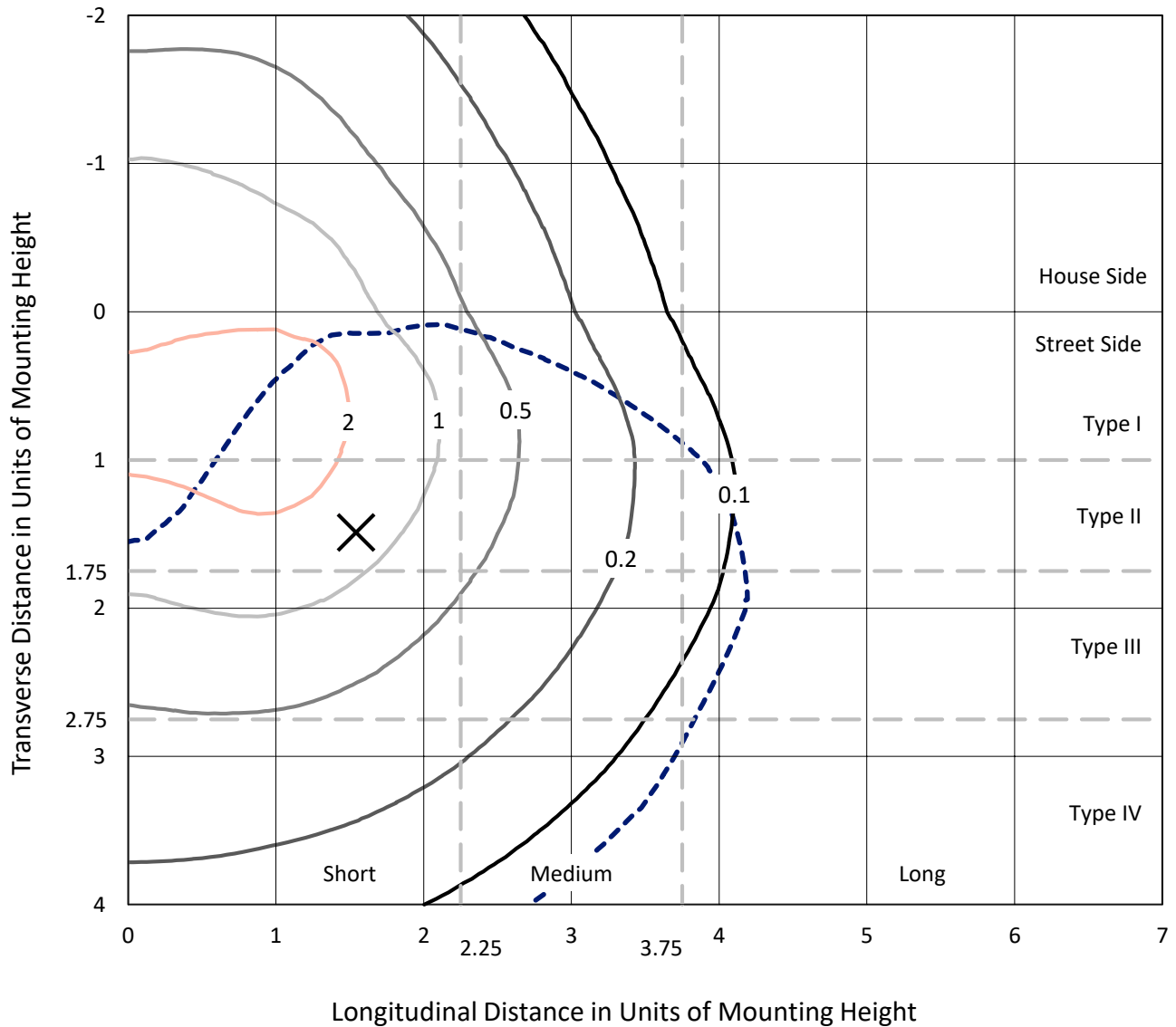


REPORT NUMBER: P198163

CATALOG NUMBER: TT-C2-LED-E1-T4-PM-LWR-LW-7050

Iso-Footcandle Lines of Horizontal Illumination

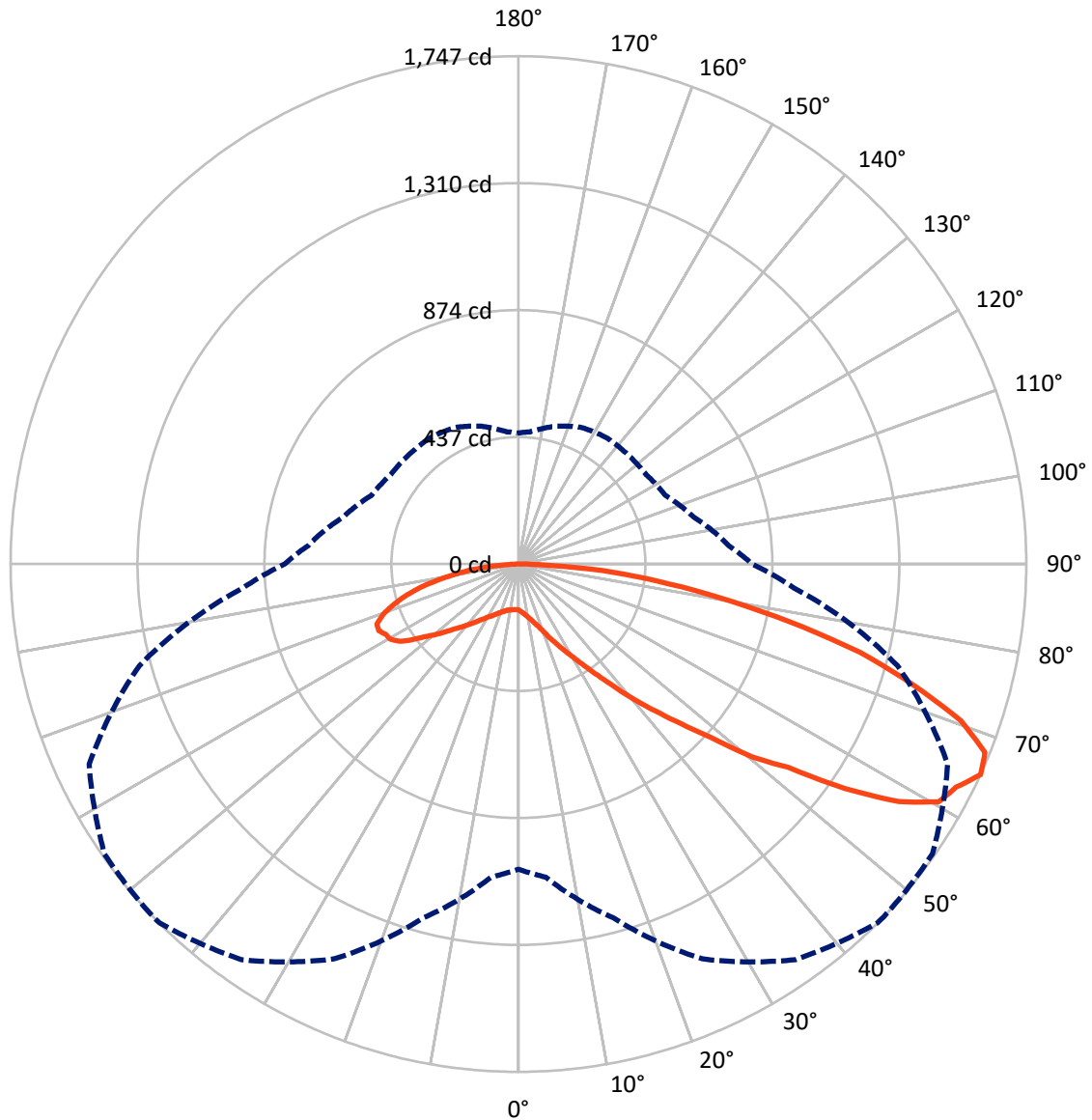
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P198163
CATALOG NUMBER: TT-C2-LED-E1-T4-PM-LWR-LW-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P198163

CATALOG NUMBER: TT-C2-LED-E1-T4-PM-LWR-LW-7050

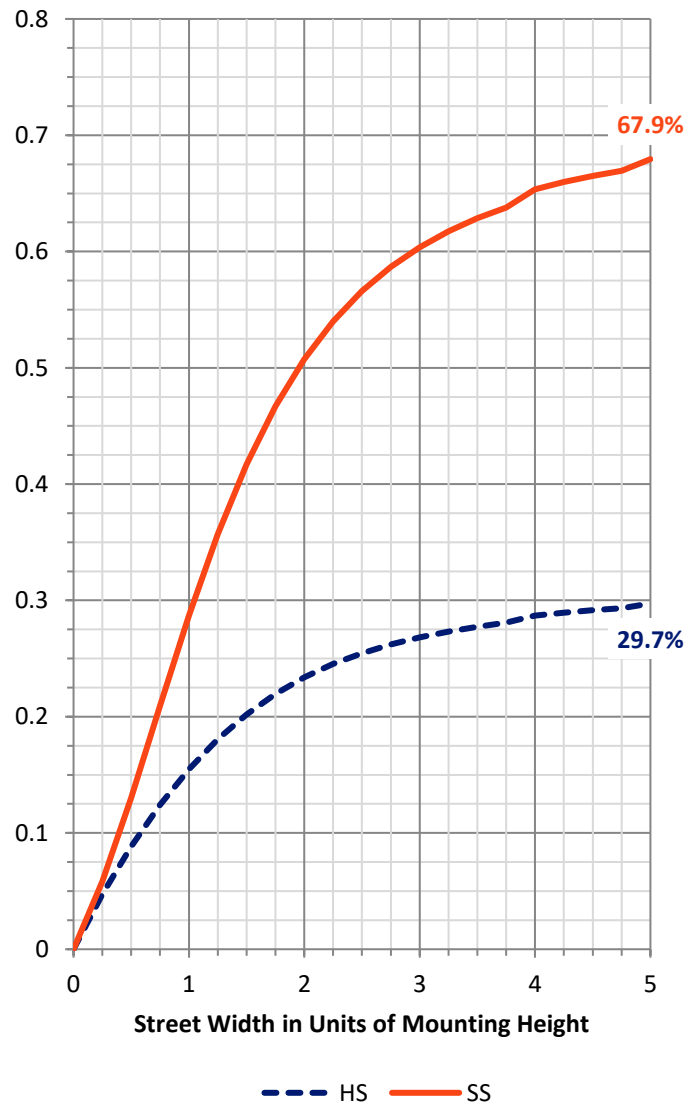
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1051.9 | 0.0 | 1051.9 |
| | % Fixture | 30.4 | 0.0 | 30.4 |
| Street Side | Lumens | 2412.1 | 0.0 | 2412.1 |
| | % Fixture | 69.6 | 0.0 | 69.6 |
| Total | Lumens | 3464.1 | 0.0 | 3464.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 15.9 | 0.5 |
| 10°-20° | 54.3 | 1.6 |
| 20°-30° | 114.7 | 3.3 |
| 30°-40° | 217.9 | 6.3 |
| 40°-50° | 402.4 | 11.6 |
| 50°-60° | 705.4 | 20.4 |
| 60°-70° | 957.2 | 27.6 |
| 70°-80° | 778.2 | 22.5 |
| 80°-90° | 218.0 | 6.3 |
| 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°-90° | 3464.1 | 100.0 |
| 0°-180° | 3464.1 | 100.0 |



REPORT NUMBER: P198163

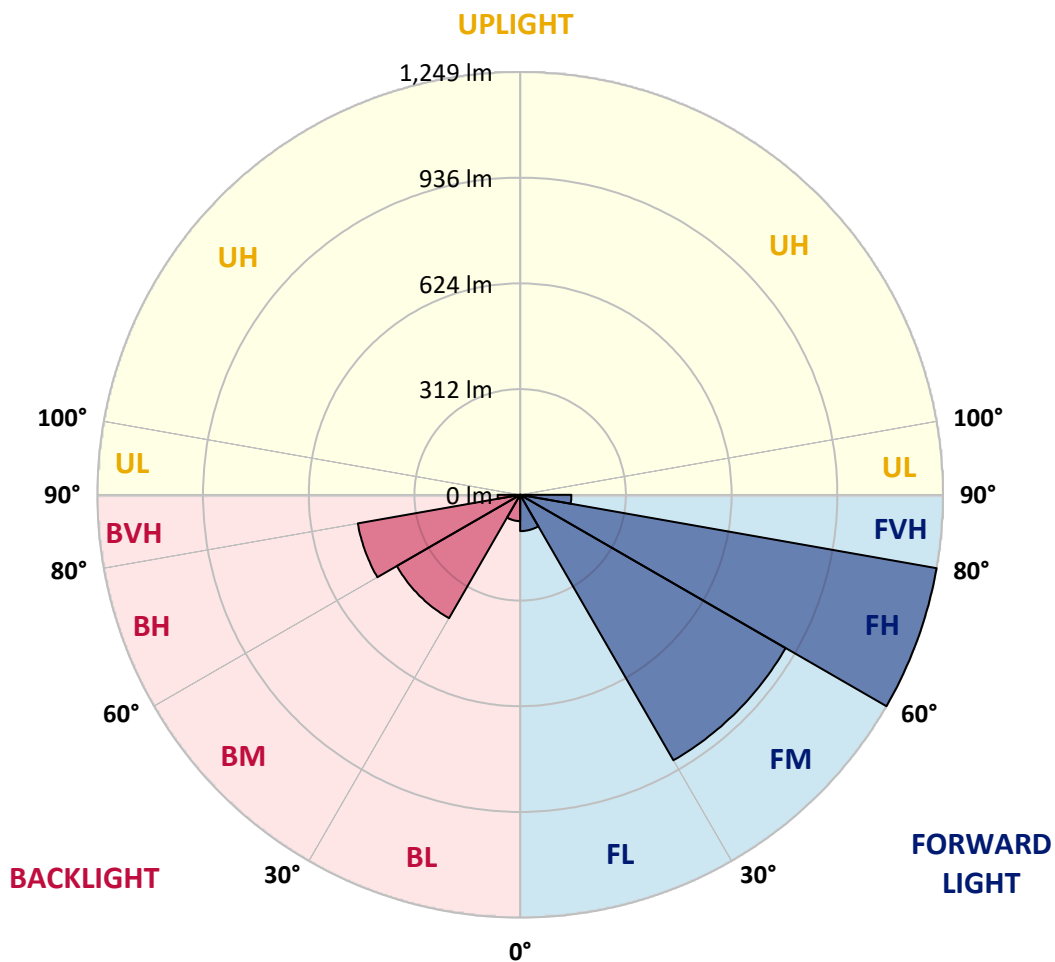
CATALOG NUMBER: TT-C2-LED-E1-T4-PM-LWR-LW-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 107.2 | 3.1 | | | |
| FM (30°-60°) | 905.0 | 26.1 | | | |
| FH (60°-80°) | 1248.6 | 36.0 | | | G1/1800 |
| FVH (80°-90°) | 151.3 | 4.4 | | | G2/225 |
| BL (0°-30°) | 77.7 | 2.2 | B0/110 | | |
| BM (30°-60°) | 420.7 | 12.1 | B1/1000 | | |
| BH (60°-80°) | 486.8 | 14.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 66.7 | 1.9 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P198163

CATALOG NUMBER: TT-C2-LED-E1-T4-PM-LWR-LW-7050

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 0° | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 |
| 2.5° | 164.0 | 164.7 | 164.7 | 164.7 | 164.0 | 163.3 | 163.3 | 162.6 | 161.9 | 161.9 | 161.2 |
| 5° | 171.7 | 171.7 | 171.7 | 171.0 | 170.3 | 169.6 | 168.9 | 168.2 | 166.1 | 164.7 | 164.0 |
| 7.5° | 180.8 | 180.8 | 180.8 | 180.1 | 178.7 | 176.6 | 177.3 | 175.2 | 173.1 | 170.3 | 167.5 |
| 10° | 191.3 | 192.0 | 192.7 | 190.6 | 189.2 | 187.1 | 186.4 | 183.6 | 180.8 | 177.3 | 173.8 |
| 12.5° | 203.9 | 203.2 | 204.6 | 202.5 | 201.1 | 197.6 | 196.9 | 193.4 | 188.5 | 184.3 | 180.1 |
| 15° | 219.3 | 220.0 | 219.3 | 217.9 | 215.1 | 211.6 | 211.6 | 206.7 | 201.1 | 194.8 | 187.8 |
| 17.5° | 241.1 | 241.1 | 238.3 | 237.6 | 232.7 | 228.5 | 227.1 | 222.8 | 213.7 | 206.0 | 197.6 |
| 20° | 264.9 | 263.5 | 260.0 | 260.7 | 256.5 | 250.2 | 248.8 | 241.8 | 232.0 | 220.0 | 208.8 |
| 22.5° | 292.2 | 290.8 | 286.6 | 285.9 | 280.3 | 275.4 | 275.4 | 265.6 | 252.3 | 236.9 | 221.4 |
| 25° | 313.9 | 314.6 | 315.3 | 316.1 | 311.8 | 304.1 | 303.4 | 292.9 | 275.4 | 255.8 | 235.5 |
| 27.5° | 340.6 | 344.1 | 343.4 | 346.9 | 344.8 | 337.8 | 336.4 | 325.2 | 303.4 | 280.3 | 255.1 |
| 30° | 370.7 | 375.6 | 372.8 | 379.8 | 379.8 | 374.9 | 372.1 | 360.9 | 339.2 | 306.2 | 276.1 |
| 32.5° | 404.3 | 405.0 | 409.3 | 418.4 | 422.6 | 419.8 | 417.7 | 407.2 | 379.1 | 342.7 | 303.4 |
| 35° | 442.9 | 439.4 | 446.4 | 463.9 | 470.2 | 470.9 | 470.2 | 457.6 | 432.4 | 387.5 | 337.8 |
| 37.5° | 481.4 | 480.0 | 493.3 | 510.9 | 529.8 | 537.5 | 534.0 | 529.8 | 493.3 | 437.3 | 373.5 |
| 40° | 517.9 | 524.2 | 541.7 | 563.4 | 593.6 | 611.8 | 612.5 | 604.1 | 566.2 | 498.3 | 416.3 |
| 42.5° | 553.6 | 566.2 | 588.7 | 626.5 | 665.0 | 694.5 | 691.0 | 684.0 | 651.0 | 569.7 | 470.9 |
| 45° | 602.7 | 615.3 | 637.7 | 683.3 | 744.9 | 781.4 | 782.1 | 794.7 | 766.6 | 665.7 | 545.2 |
| 47.5° | 647.5 | 658.7 | 691.7 | 752.6 | 828.3 | 894.9 | 892.1 | 910.3 | 874.6 | 754.0 | 603.4 |
| 50° | 709.2 | 705.7 | 754.0 | 838.8 | 941.8 | 1025.9 | 1044.2 | 1053.3 | 986.0 | 864.8 | 665.7 |
| 52.5° | 763.8 | 760.3 | 820.6 | 934.1 | 1062.4 | 1171.0 | 1161.2 | 1183.6 | 1155.6 | 1014.7 | 798.9 |
| 55° | 818.5 | 818.5 | 894.2 | 1043.5 | 1212.3 | 1354.6 | 1363.0 | 1400.9 | 1325.2 | 1126.8 | 845.8 |
| 57.5° | 878.8 | 885.1 | 992.3 | 1178.7 | 1385.4 | 1541.0 | 1542.4 | 1545.9 | 1424.0 | 1171.7 | 858.5 |
| 60° | 936.9 | 953.8 | 1093.2 | 1311.9 | 1522.1 | 1649.6 | 1660.8 | 1612.5 | 1461.8 | 1200.4 | 863.4 |
| 62.5° | 1001.4 | 1018.2 | 1189.2 | 1422.6 | 1623.0 | 1693.8 | 1690.3 | 1642.6 | 1524.2 | 1281.0 | 925.7 |
| 65° | 1049.8 | 1081.3 | 1260.0 | 1499.0 | 1661.5 | 1745.6 | 1747.0 | 1738.6 | 1629.3 | 1349.7 | 951.7 |
| 67.5° | 1098.8 | 1146.5 | 1296.4 | 1528.4 | 1688.9 | 1733.0 | 1730.9 | 1698.7 | 1586.6 | 1311.2 | 899.8 |
| 70° | 1151.4 | 1186.4 | 1321.7 | 1501.8 | 1606.9 | 1612.5 | 1614.6 | 1568.3 | 1477.2 | 1232.0 | 834.6 |
| 72.5° | 1169.6 | 1194.8 | 1283.1 | 1391.0 | 1440.1 | 1438.7 | 1419.1 | 1401.6 | 1324.5 | 1110.7 | 741.4 |
| 75° | 1137.4 | 1139.5 | 1152.8 | 1199.7 | 1222.2 | 1203.2 | 1213.7 | 1187.8 | 1143.7 | 954.5 | 632.1 |
| 77.5° | 1011.2 | 1007.7 | 969.9 | 953.1 | 953.8 | 949.6 | 950.3 | 918.7 | 899.8 | 786.3 | 513.0 |
| 80° | 789.1 | 788.4 | 758.2 | 711.3 | 696.6 | 692.4 | 696.6 | 681.2 | 663.6 | 593.6 | 390.3 |
| 82.5° | 547.3 | 538.9 | 525.6 | 488.4 | 486.3 | 477.9 | 480.0 | 477.2 | 468.8 | 421.9 | 276.8 |
| 85° | 265.6 | 276.8 | 288.7 | 285.9 | 276.8 | 278.2 | 287.3 | 286.6 | 276.8 | 241.8 | 161.2 |
| 87.5° | 36.4 | 52.6 | 54.7 | 52.6 | 66.6 | 83.4 | 66.6 | 68.0 | 54.7 | 56.1 | 35.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P198163

CATALOG NUMBER: TT-C2-LED-E1-T4-PM-LWR-LW-7050

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 | 157.7 |
| 2.5° | 160.5 | 159.8 | 159.1 | 158.4 | 157.7 | 157.0 | 156.3 | 156.3 | 155.6 | 155.6 | 155.6 |
| 5° | 163.3 | 162.6 | 161.2 | 159.8 | 159.1 | 157.7 | 157.0 | 156.3 | 154.9 | 154.9 | 154.2 |
| 7.5° | 166.1 | 165.4 | 163.3 | 161.2 | 159.8 | 158.4 | 157.7 | 157.0 | 156.3 | 154.9 | 154.9 |
| 10° | 171.7 | 169.6 | 166.8 | 164.0 | 161.2 | 159.8 | 158.4 | 157.7 | 157.7 | 157.0 | 157.0 |
| 12.5° | 177.3 | 175.2 | 170.3 | 166.8 | 163.3 | 161.2 | 159.8 | 159.8 | 159.1 | 159.1 | 158.4 |
| 15° | 184.3 | 181.5 | 175.9 | 171.0 | 166.8 | 164.7 | 162.6 | 162.6 | 162.6 | 162.6 | 162.6 |
| 17.5° | 192.7 | 188.5 | 182.2 | 176.6 | 172.4 | 169.6 | 167.5 | 167.5 | 166.8 | 167.5 | 168.2 |
| 20° | 203.9 | 198.3 | 189.9 | 182.9 | 178.0 | 175.9 | 174.5 | 173.8 | 173.8 | 174.5 | 175.2 |
| 22.5° | 214.4 | 208.1 | 196.9 | 189.9 | 185.7 | 182.2 | 181.5 | 181.5 | 180.8 | 182.2 | 182.2 |
| 25° | 227.1 | 219.3 | 207.4 | 198.3 | 192.7 | 189.9 | 189.9 | 189.9 | 190.6 | 191.3 | 189.9 |
| 27.5° | 243.9 | 234.8 | 218.6 | 207.4 | 202.5 | 199.7 | 198.3 | 199.7 | 200.4 | 201.1 | 199.7 |
| 30° | 260.7 | 250.9 | 230.6 | 217.9 | 210.9 | 208.1 | 208.1 | 209.5 | 210.2 | 210.9 | 209.5 |
| 32.5° | 283.8 | 269.1 | 247.4 | 231.3 | 223.5 | 220.7 | 220.7 | 221.4 | 221.4 | 222.8 | 222.1 |
| 35° | 316.1 | 295.7 | 268.4 | 249.5 | 238.3 | 234.1 | 233.4 | 234.1 | 235.5 | 234.8 | 237.6 |
| 37.5° | 346.9 | 323.8 | 289.4 | 269.1 | 257.9 | 251.6 | 248.8 | 248.1 | 249.5 | 250.2 | 250.9 |
| 40° | 383.3 | 355.3 | 315.3 | 290.1 | 276.1 | 269.1 | 264.9 | 264.9 | 264.2 | 264.9 | 262.1 |
| 42.5° | 430.3 | 398.7 | 348.3 | 316.1 | 296.4 | 290.1 | 282.4 | 280.3 | 278.2 | 278.9 | 274.7 |
| 45° | 494.0 | 454.1 | 393.8 | 351.1 | 325.2 | 311.8 | 304.1 | 297.8 | 295.0 | 293.6 | 289.4 |
| 47.5° | 538.2 | 495.4 | 430.3 | 384.0 | 356.7 | 339.2 | 327.3 | 318.9 | 311.8 | 308.3 | 309.0 |
| 50° | 597.1 | 541.7 | 474.4 | 418.4 | 390.3 | 370.7 | 356.7 | 342.0 | 331.5 | 327.3 | 329.4 |
| 52.5° | 708.5 | 641.9 | 537.5 | 471.6 | 424.7 | 402.9 | 388.2 | 370.0 | 354.6 | 346.9 | 349.0 |
| 55° | 745.6 | 677.7 | 581.6 | 514.4 | 472.3 | 445.7 | 422.6 | 400.8 | 380.5 | 367.9 | 368.6 |
| 57.5° | 749.1 | 681.9 | 589.4 | 533.3 | 504.6 | 486.3 | 464.6 | 435.9 | 407.9 | 390.3 | 388.9 |
| 60° | 745.6 | 677.0 | 588.0 | 531.2 | 510.9 | 510.2 | 496.9 | 471.6 | 438.7 | 412.8 | 410.7 |
| 62.5° | 794.7 | 721.1 | 613.2 | 543.1 | 514.4 | 516.5 | 519.3 | 501.8 | 468.1 | 436.6 | 429.6 |
| 65° | 803.8 | 726.0 | 623.7 | 557.8 | 536.1 | 531.9 | 529.8 | 517.9 | 490.5 | 456.2 | 450.6 |
| 67.5° | 758.9 | 685.4 | 592.2 | 535.4 | 520.7 | 529.8 | 537.5 | 527.0 | 501.1 | 475.1 | 467.4 |
| 70° | 699.4 | 632.8 | 545.9 | 493.3 | 484.9 | 499.0 | 515.8 | 519.3 | 504.6 | 483.5 | 480.7 |
| 72.5° | 619.5 | 563.4 | 487.0 | 445.0 | 441.5 | 452.0 | 471.6 | 487.7 | 485.6 | 480.7 | 479.3 |
| 75° | 527.7 | 484.2 | 417.7 | 385.4 | 385.4 | 398.7 | 413.5 | 431.0 | 444.3 | 452.7 | 454.8 |
| 77.5° | 434.5 | 391.0 | 342.0 | 314.6 | 318.2 | 335.7 | 346.2 | 363.7 | 378.4 | 389.6 | 390.3 |
| 80° | 326.6 | 302.7 | 260.0 | 245.3 | 246.7 | 258.6 | 273.3 | 283.8 | 295.7 | 305.5 | 302.7 |
| 82.5° | 236.2 | 214.4 | 185.0 | 176.6 | 182.2 | 187.8 | 199.7 | 208.8 | 212.3 | 215.1 | 220.7 |
| 85° | 136.0 | 129.6 | 113.5 | 108.6 | 110.0 | 115.6 | 122.6 | 124.7 | 128.2 | 126.8 | 129.6 |
| 87.5° | 32.9 | 35.0 | 32.9 | 32.2 | 32.9 | 31.5 | 30.1 | 36.4 | 37.1 | 37.8 | 36.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)