

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: P198253

Luminaire Tested: **TT-C1-LED-E1-MQ-CG-UPL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P198253  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: TT-C1-LED-E1-MQ-CG-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT  
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS  
Light Source: (168) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4309.6 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B2 - U4 - G1

Input Watts (W): 45.4  
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

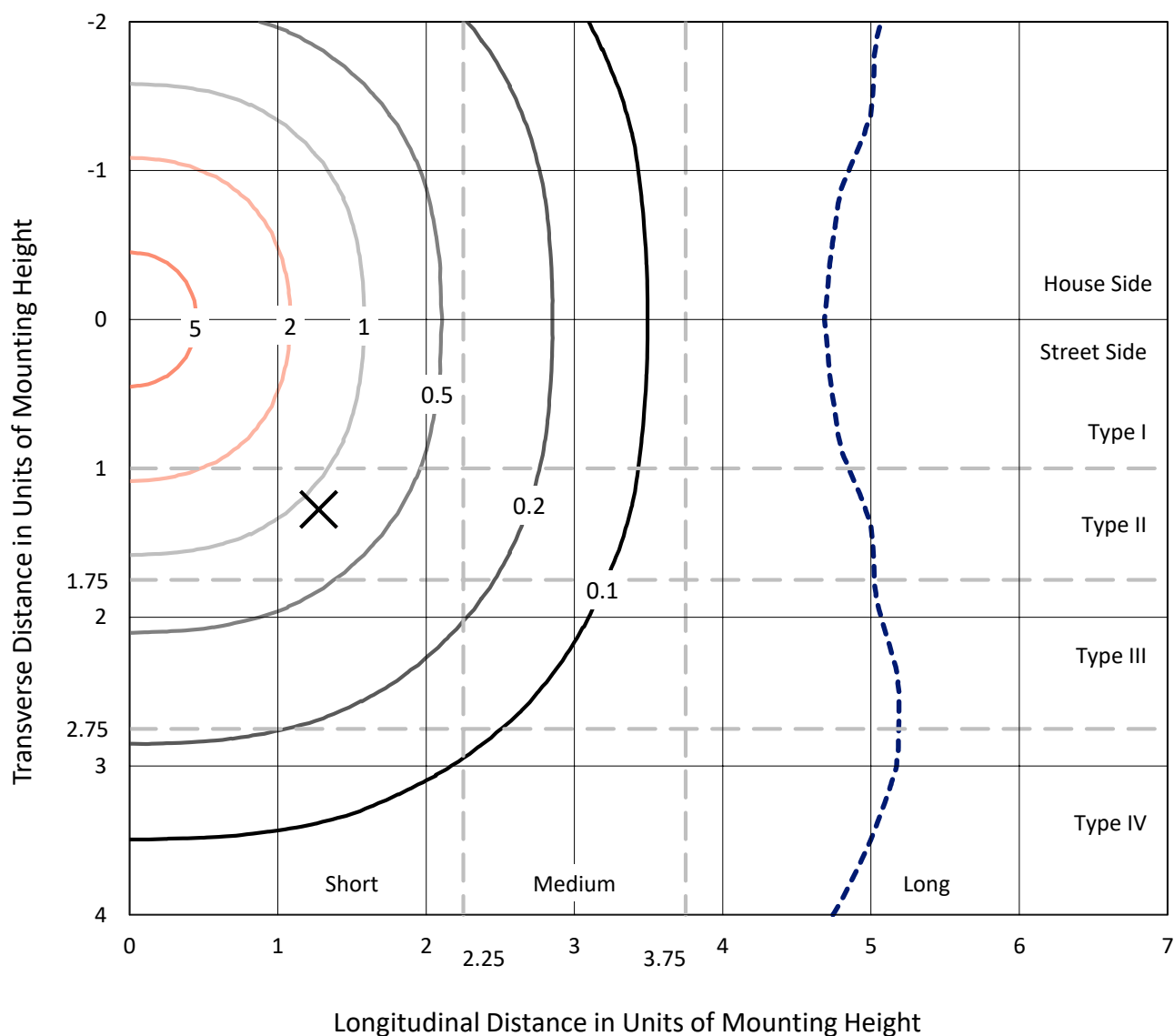


REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

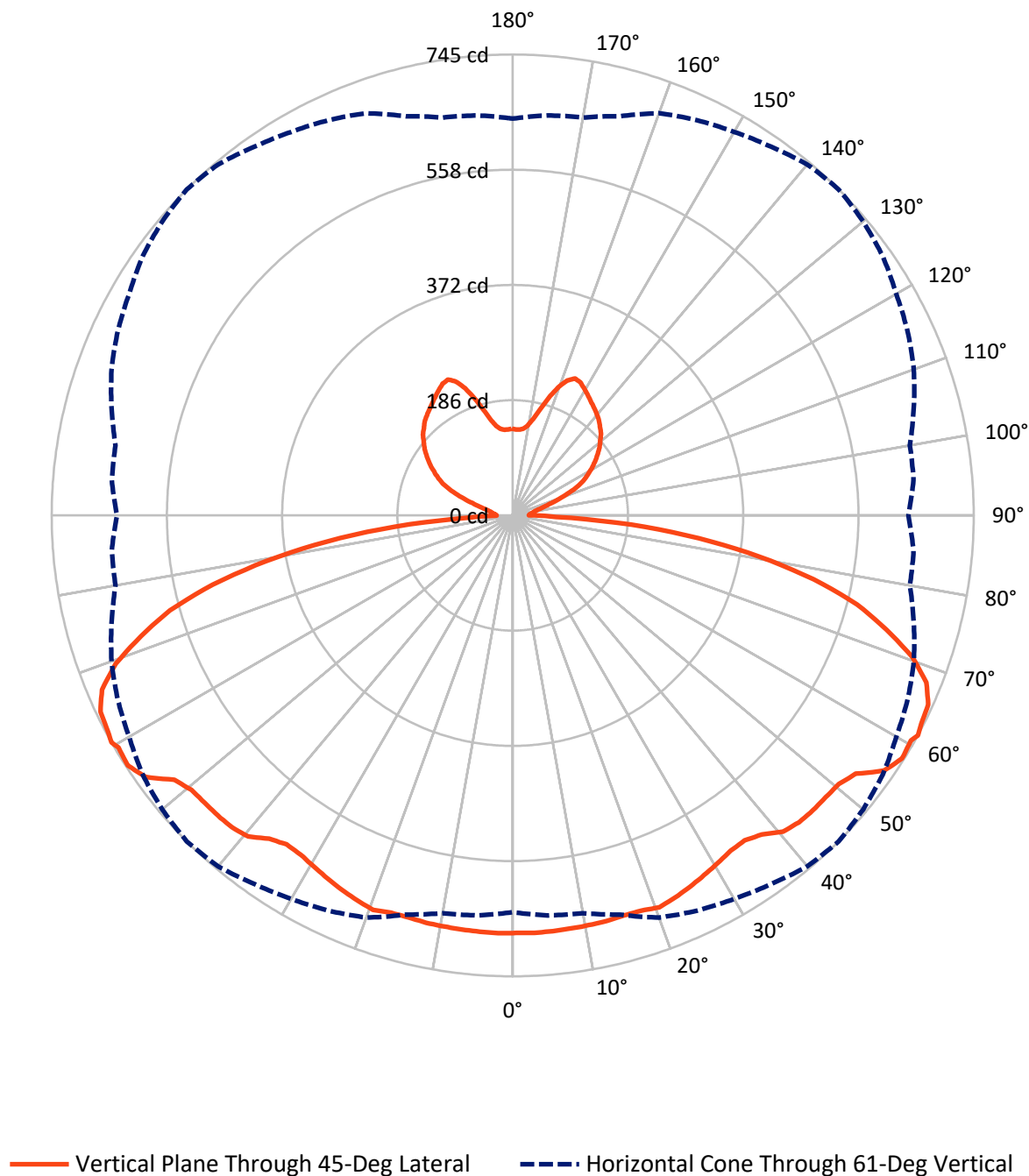


Based on 10 foot mounting height. Maximum calculated value = 6.7 fc  
 Type V - Short - Non-Cutoff

REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

## Luminous Intensity Polar Plot



REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

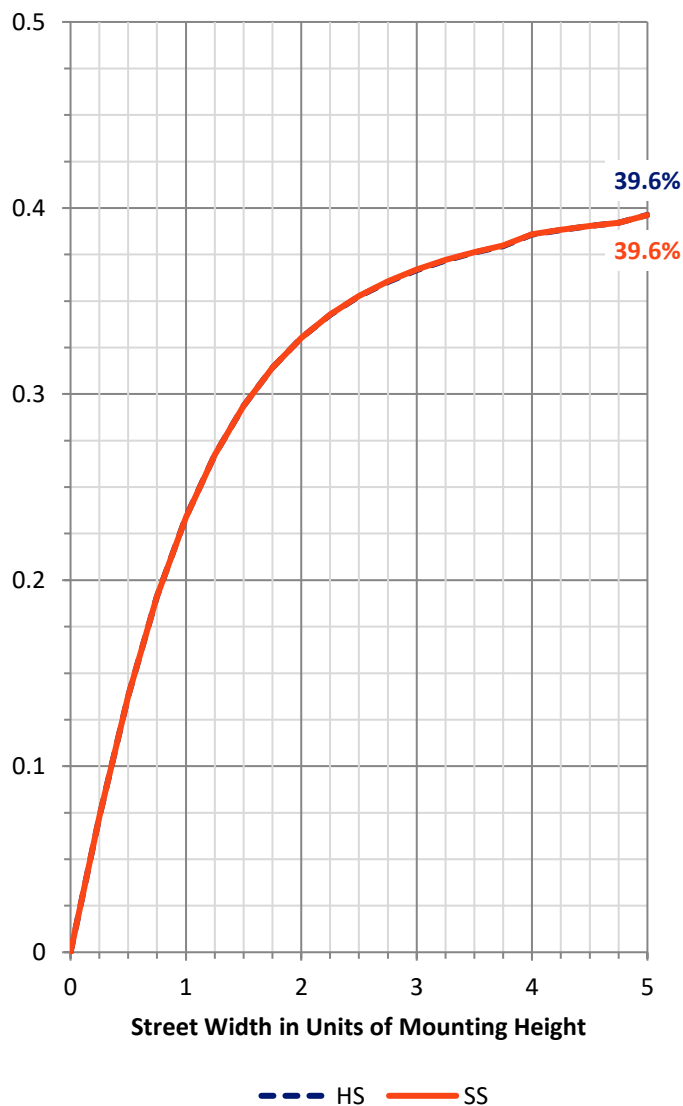
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1742.8   | 412.0  | 2154.8 |
|                    | % Fixture | 40.4     | 9.6    | 50.0   |
| <b>Street Side</b> | Lumens    | 1742.8   | 412.0  | 2154.8 |
|                    | % Fixture | 40.4     | 9.6    | 50.0   |
| <b>Total</b>       | Lumens    | 3485.7   | 824.0  | 4309.6 |
|                    | % Fixture | 80.9     | 19.1   | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.3   | 1.5       |
| 10°-20°   | 190.2  | 4.4       |
| 20°-30°   | 306.1  | 7.1       |
| 30°-40°   | 405.5  | 9.4       |
| 40°-50°   | 512.0  | 11.9      |
| 50°-60°   | 613.5  | 14.2      |
| 60°-70°   | 670.9  | 15.6      |
| 70°-80°   | 537.0  | 12.5      |
| 80°-90°   | 186.1  | 4.3       |
| 90°-100°  | 38.3   | 0.9       |
| 100°-110° | 59.4   | 1.4       |
| 110°-120° | 119.3  | 2.8       |
| 120°-130° | 148.7  | 3.5       |
| 130°-140° | 153.2  | 3.6       |
| 140°-150° | 136.0  | 3.2       |
| 150°-160° | 103.7  | 2.4       |
| 160°-170° | 51.8   | 1.2       |
| 170°-180° | 13.6   | 0.3       |
| 0°-90°    | 3485.7 | 80.9      |
| 0°-180°   | 4309.6 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P198253

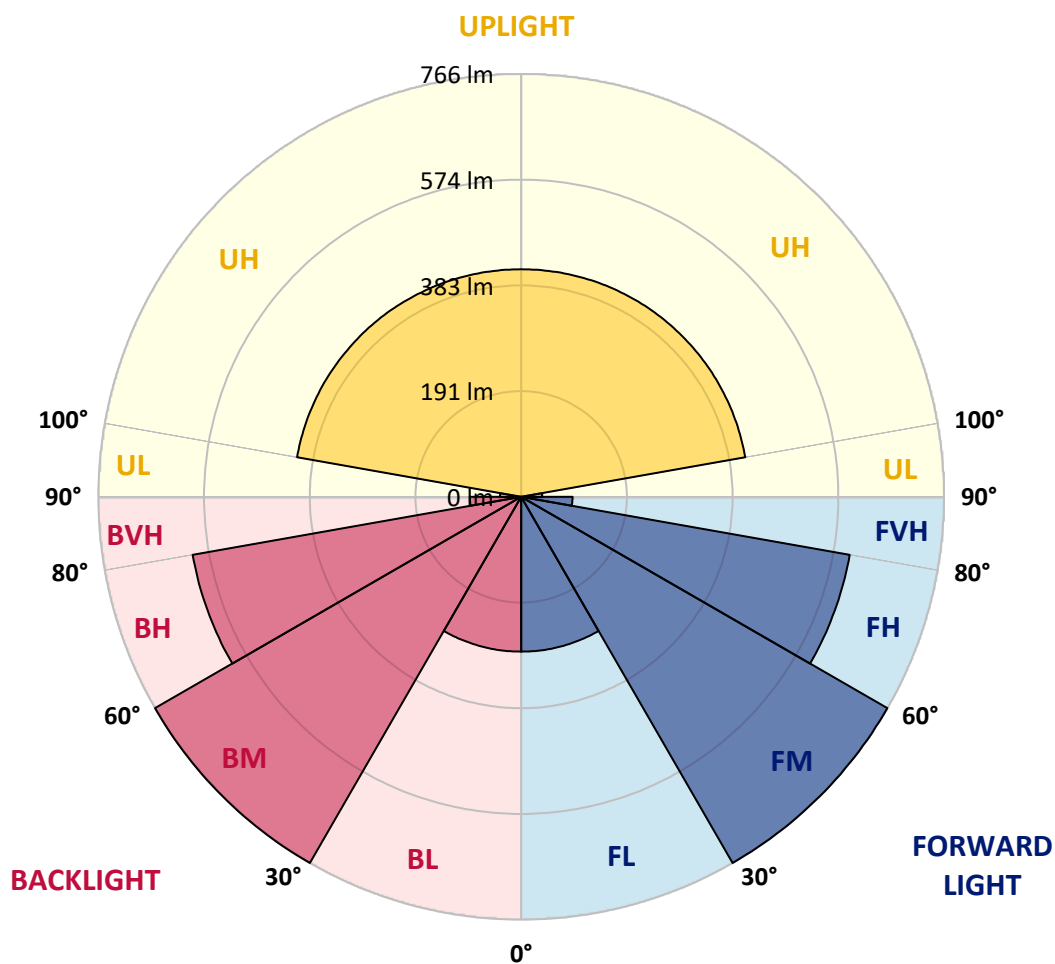
CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |        |        |
|------|-------------|--------|-----------|-------------------------|--------|--------|
|      |             |        |           | B                       | U      | G      |
| FL   | (0°-30°)    | 280.3  | 6.5       |                         |        |        |
| FM   | (30°-60°)   | 765.5  | 17.8      |                         |        |        |
| FH   | (60°-80°)   | 603.9  | 14.0      |                         |        | G0/660 |
| FVH  | (80°-90°)   | 93.0   | 2.2       |                         |        | G1/100 |
| BL   | (0°-30°)    | 280.3  | 6.5       | B1/500                  |        |        |
| BM   | (30°-60°)   | 765.5  | 17.8      | B1/1000                 |        |        |
| BH   | (60°-80°)   | 603.9  | 14.0      | B2/1000                 |        | G0/660 |
| BVH  | (80°-90°)   | 93.0   | 2.2       |                         |        | G1/100 |
| UL   | (90°-100°)  | 38.3   | 0.9       |                         | U2/50  |        |
| UH   | (100°-180°) | 412.0  | 9.6       |                         | U3/500 |        |

**BUG Rating: B2-U4-G1**

Type V Short



REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 |
| 2.5°   | 675.1 | 674.5 | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 |
| 5°     | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 |
| 7.5°   | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 | 674.5 | 673.8 | 674.5 |
| 10°    | 672.6 | 672.6 | 672.6 | 672.6 | 673.1 | 673.1 | 673.1 | 673.1 | 673.1 | 673.1 | 673.1 |
| 12.5°  | 671.2 | 671.2 | 671.2 | 671.2 | 671.9 | 671.9 | 671.9 | 671.9 | 672.6 | 672.6 | 671.9 |
| 15°    | 669.9 | 669.3 | 669.3 | 669.9 | 669.9 | 670.6 | 670.6 | 670.6 | 671.2 | 670.6 | 670.6 |
| 17.5°  | 668.6 | 668.0 | 668.6 | 669.3 | 669.3 | 669.9 | 670.6 | 670.6 | 671.2 | 671.2 | 671.2 |
| 20°    | 670.6 | 669.9 | 670.6 | 671.2 | 671.9 | 673.1 | 673.8 | 674.5 | 675.1 | 675.8 | 675.8 |
| 22.5°  | 666.7 | 666.1 | 666.7 | 666.7 | 667.4 | 668.0 | 669.3 | 669.9 | 670.6 | 670.6 | 670.6 |
| 25°    | 660.9 | 660.9 | 661.5 | 661.5 | 662.2 | 662.8 | 663.4 | 664.1 | 664.1 | 664.7 | 664.1 |
| 27.5°  | 654.4 | 654.4 | 655.0 | 655.0 | 656.3 | 656.3 | 657.0 | 657.6 | 658.2 | 658.2 | 658.2 |
| 30°    | 646.6 | 646.6 | 647.2 | 647.9 | 649.2 | 649.8 | 650.5 | 651.2 | 651.8 | 651.8 | 651.8 |
| 32.5°  | 639.5 | 638.8 | 639.5 | 640.8 | 642.7 | 644.0 | 645.3 | 646.0 | 646.0 | 646.0 | 646.6 |
| 35°    | 633.6 | 634.3 | 635.6 | 636.8 | 639.5 | 640.8 | 642.0 | 644.0 | 644.7 | 644.7 | 644.7 |
| 37.5°  | 634.9 | 635.6 | 637.5 | 640.1 | 643.3 | 647.2 | 649.8 | 652.4 | 654.4 | 653.7 | 653.1 |
| 40°    | 643.3 | 644.7 | 647.9 | 651.8 | 657.0 | 662.2 | 666.1 | 669.3 | 671.2 | 671.9 | 671.2 |
| 42.5°  | 644.7 | 646.0 | 648.5 | 654.4 | 660.2 | 666.1 | 671.2 | 674.5 | 677.1 | 677.7 | 677.1 |
| 45°    | 644.0 | 644.0 | 647.9 | 654.4 | 660.2 | 666.1 | 672.6 | 677.1 | 679.6 | 679.6 | 679.6 |
| 47.5°  | 639.5 | 641.4 | 644.0 | 650.5 | 658.2 | 664.1 | 670.6 | 675.1 | 678.3 | 680.3 | 678.3 |
| 50°    | 639.5 | 639.5 | 644.0 | 648.5 | 655.7 | 666.1 | 675.1 | 679.6 | 682.9 | 682.3 | 682.9 |
| 52.5°  | 638.1 | 642.0 | 644.7 | 651.2 | 664.1 | 674.5 | 681.6 | 688.1 | 692.7 | 693.3 | 692.0 |
| 55°    | 649.8 | 650.5 | 656.3 | 668.6 | 681.0 | 692.7 | 705.6 | 715.3 | 723.1 | 727.7 | 721.1 |
| 57.5°  | 658.9 | 655.7 | 667.4 | 677.7 | 692.0 | 709.5 | 729.0 | 736.7 | 742.6 | 741.2 | 743.2 |
| 60°    | 646.6 | 651.2 | 659.6 | 670.6 | 693.3 | 710.8 | 721.1 | 729.6 | 736.7 | 738.7 | 736.1 |
| 61°    | 640.8 | 648.5 | 652.4 | 667.4 | 691.3 | 704.3 | 715.3 | 727.0 | 740.0 | 744.5 | 738.7 |
| 62.5°  | 631.1 | 643.3 | 642.0 | 666.1 | 681.0 | 695.9 | 716.6 | 730.3 | 739.3 | 740.7 | 739.3 |
| 65°    | 631.6 | 629.7 | 644.7 | 662.2 | 677.1 | 703.7 | 721.1 | 729.6 | 734.8 | 737.4 | 736.1 |
| 67.5°  | 610.9 | 604.5 | 622.6 | 634.9 | 660.2 | 681.0 | 697.8 | 710.1 | 717.9 | 720.5 | 717.3 |
| 70°    | 563.0 | 567.5 | 580.4 | 599.3 | 620.0 | 645.3 | 660.9 | 677.1 | 683.5 | 684.2 | 684.2 |
| 72.5°  | 516.9 | 519.5 | 532.4 | 550.0 | 573.9 | 596.0 | 611.6 | 624.6 | 630.4 | 631.1 | 632.3 |
| 75°    | 455.9 | 458.5 | 473.5 | 489.7 | 513.6 | 532.4 | 543.5 | 559.0 | 567.5 | 574.6 | 568.7 |
| 77.5°  | 385.2 | 389.8 | 401.4 | 419.0 | 441.0 | 451.4 | 470.8 | 489.0 | 494.9 | 496.8 | 494.9 |
| 80°    | 305.5 | 311.3 | 321.7 | 345.0 | 354.7 | 371.6 | 390.4 | 398.2 | 403.4 | 404.7 | 405.4 |
| 82.5°  | 219.9 | 224.4 | 235.4 | 251.6 | 262.7 | 276.3 | 289.3 | 299.0 | 304.8 | 303.5 | 302.9 |
| 85°    | 129.7 | 131.0 | 142.7 | 153.7 | 162.1 | 170.5 | 180.9 | 188.1 | 189.4 | 191.9 | 191.3 |
| 87.5°  | 38.9  | 39.5  | 44.7  | 50.6  | 54.5  | 58.4  | 64.9  | 73.3  | 75.3  | 70.1  | 70.7  |
| 90°    | 36.0  | 36.0  | 36.0  | 36.0  | 35.0  | 34.0  | 31.0  | 29.0  | 27.0  | 26.0  | 26.0  |
| 92.5°  | 40.0  | 39.0  | 39.0  | 38.0  | 36.0  | 34.0  | 32.0  | 29.0  | 27.0  | 27.0  | 27.0  |
| 95°    | 44.0  | 43.0  | 42.0  | 41.0  | 38.0  | 36.0  | 34.0  | 32.0  | 31.0  | 30.0  | 30.0  |
| 97.5°  | 42.0  | 42.0  | 41.0  | 40.0  | 38.0  | 37.0  | 36.0  | 35.0  | 34.0  | 33.0  | 32.0  |
| 100°   | 45.0  | 45.0  | 45.0  | 44.0  | 42.0  | 40.0  | 39.0  | 38.0  | 36.0  | 36.0  | 35.0  |
| 102.5° | 51.0  | 51.0  | 50.0  | 49.0  | 47.0  | 46.0  | 45.0  | 44.0  | 42.0  | 42.0  | 42.0  |
| 105°   | 60.0  | 60.0  | 59.0  | 57.0  | 55.0  | 54.0  | 53.0  | 53.0  | 51.0  | 52.0  | 52.0  |
| 107.5° | 72.0  | 72.0  | 72.0  | 70.0  | 68.0  | 67.0  | 66.0  | 66.0  | 66.0  | 68.0  | 68.0  |

REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 86.0  | 86.0  | 87.0  | 89.0  | 86.0  | 85.0  | 85.0  | 86.0  | 86.0  | 87.0  | 86.0  |
| 112.5° | 101.0 | 102.0 | 104.0 | 108.0 | 106.0 | 107.0 | 107.0 | 110.0 | 108.0 | 107.0 | 103.0 |
| 115°   | 121.0 | 122.0 | 123.0 | 128.0 | 126.0 | 128.0 | 127.0 | 129.0 | 126.0 | 124.0 | 120.0 |
| 117.5° | 140.0 | 141.0 | 141.0 | 144.0 | 141.0 | 141.0 | 140.0 | 141.0 | 138.0 | 136.0 | 135.0 |
| 120°   | 152.0 | 153.0 | 154.0 | 155.0 | 151.0 | 149.0 | 147.0 | 149.0 | 147.0 | 147.0 | 148.0 |
| 122.5° | 161.0 | 162.0 | 163.0 | 164.0 | 159.0 | 154.0 | 153.0 | 155.0 | 156.0 | 158.0 | 158.0 |
| 125°   | 169.0 | 169.0 | 170.0 | 172.0 | 168.0 | 163.0 | 160.0 | 165.0 | 166.0 | 168.0 | 167.0 |
| 127.5° | 177.0 | 177.0 | 179.0 | 181.0 | 177.0 | 171.0 | 170.0 | 176.0 | 177.0 | 178.0 | 175.0 |
| 130°   | 187.0 | 188.0 | 190.0 | 191.0 | 185.0 | 179.0 | 179.0 | 186.0 | 187.0 | 186.0 | 183.0 |
| 132.5° | 198.0 | 199.0 | 200.0 | 201.0 | 193.0 | 186.0 | 187.0 | 193.0 | 195.0 | 195.0 | 191.0 |
| 135°   | 210.0 | 210.0 | 211.0 | 209.0 | 199.0 | 192.0 | 193.0 | 199.0 | 202.0 | 201.0 | 197.0 |
| 137.5° | 221.0 | 219.0 | 217.0 | 213.0 | 203.0 | 197.0 | 198.0 | 205.0 | 207.0 | 208.0 | 203.0 |
| 140°   | 229.0 | 226.0 | 222.0 | 216.0 | 205.0 | 200.0 | 201.0 | 207.0 | 210.0 | 213.0 | 212.0 |
| 142.5° | 235.0 | 231.0 | 225.0 | 218.0 | 206.0 | 201.0 | 202.0 | 208.0 | 212.0 | 218.0 | 218.0 |
| 145°   | 235.0 | 230.0 | 225.0 | 218.0 | 207.0 | 202.0 | 204.0 | 211.0 | 215.0 | 223.0 | 225.0 |
| 147.5° | 230.0 | 227.0 | 223.0 | 219.0 | 210.0 | 207.0 | 209.0 | 216.0 | 220.0 | 229.0 | 233.0 |
| 150°   | 224.0 | 221.0 | 219.0 | 220.0 | 215.0 | 214.0 | 216.0 | 222.0 | 227.0 | 235.0 | 239.0 |
| 152.5° | 216.0 | 214.0 | 216.0 | 221.0 | 220.0 | 220.0 | 224.0 | 230.0 | 234.0 | 241.0 | 241.0 |
| 155°   | 208.0 | 207.0 | 211.0 | 219.0 | 222.0 | 224.0 | 229.0 | 237.0 | 239.0 | 243.0 | 239.0 |
| 157.5° | 203.0 | 203.0 | 207.0 | 216.0 | 220.0 | 224.0 | 229.0 | 234.0 | 232.0 | 235.0 | 230.0 |
| 160°   | 199.0 | 198.0 | 203.0 | 210.0 | 212.0 | 213.0 | 216.0 | 219.0 | 216.0 | 219.0 | 216.0 |
| 162.5° | 185.0 | 184.0 | 188.0 | 193.0 | 194.0 | 193.0 | 196.0 | 198.0 | 195.0 | 198.0 | 196.0 |
| 165°   | 169.0 | 167.0 | 169.0 | 173.0 | 173.0 | 173.0 | 175.0 | 176.0 | 174.0 | 177.0 | 175.0 |
| 167.5° | 154.0 | 152.0 | 153.0 | 156.0 | 156.0 | 155.0 | 157.0 | 159.0 | 157.0 | 159.0 | 158.0 |
| 170°   | 142.0 | 141.0 | 142.0 | 145.0 | 144.0 | 144.0 | 146.0 | 147.0 | 146.0 | 147.0 | 147.0 |
| 172.5° | 137.0 | 135.0 | 136.0 | 139.0 | 139.0 | 138.0 | 140.0 | 141.0 | 140.0 | 141.0 | 140.0 |
| 175°   | 136.0 | 134.0 | 135.0 | 137.0 | 137.0 | 137.0 | 138.0 | 139.0 | 138.0 | 139.0 | 138.0 |
| 177.5° | 137.0 | 136.0 | 136.0 | 139.0 | 138.0 | 138.0 | 139.0 | 140.0 | 139.0 | 139.0 | 138.0 |
| 180°   | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |

REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 |
| 2.5°   | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 | 675.1 | 674.5 | 675.1 |
| 5°     | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 | 674.5 |
| 7.5°   | 674.5 | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 | 673.8 |
| 10°    | 673.1 | 673.1 | 673.1 | 673.1 | 672.6 | 672.6 | 672.6 | 672.6 |
| 12.5°  | 671.9 | 671.9 | 671.9 | 671.9 | 671.2 | 671.2 | 671.2 | 671.2 |
| 15°    | 670.6 | 670.6 | 670.6 | 670.6 | 669.9 | 669.9 | 669.9 | 669.9 |
| 17.5°  | 671.2 | 670.6 | 669.9 | 669.9 | 669.3 | 668.6 | 668.6 | 668.6 |
| 20°    | 675.1 | 674.5 | 673.1 | 671.9 | 671.2 | 670.6 | 670.6 | 670.6 |
| 22.5°  | 669.9 | 669.3 | 668.0 | 667.4 | 667.4 | 666.7 | 666.1 | 666.1 |
| 25°    | 664.1 | 662.8 | 662.8 | 662.2 | 662.2 | 660.9 | 660.9 | 660.2 |
| 27.5°  | 657.6 | 657.0 | 656.3 | 655.7 | 655.7 | 655.0 | 654.4 | 653.7 |
| 30°    | 651.8 | 650.5 | 649.2 | 648.5 | 647.9 | 647.2 | 647.2 | 647.2 |
| 32.5°  | 646.0 | 644.7 | 644.0 | 642.0 | 640.8 | 640.1 | 639.5 | 639.5 |
| 35°    | 644.0 | 642.0 | 640.8 | 638.8 | 636.8 | 635.6 | 634.9 | 633.6 |
| 37.5°  | 651.8 | 649.2 | 647.2 | 644.0 | 639.5 | 637.5 | 635.6 | 634.9 |
| 40°    | 668.6 | 666.1 | 662.2 | 657.0 | 651.8 | 647.9 | 644.7 | 643.3 |
| 42.5°  | 674.5 | 671.2 | 666.1 | 660.9 | 654.4 | 648.5 | 646.0 | 644.7 |
| 45°    | 676.4 | 673.1 | 666.1 | 659.6 | 653.7 | 648.5 | 644.7 | 643.3 |
| 47.5°  | 674.5 | 669.9 | 663.4 | 658.2 | 649.8 | 643.3 | 640.8 | 638.8 |
| 50°    | 679.0 | 675.1 | 666.7 | 655.0 | 647.9 | 644.0 | 639.5 | 638.8 |
| 52.5°  | 688.1 | 681.0 | 673.1 | 664.7 | 651.2 | 643.3 | 640.8 | 637.5 |
| 55°    | 715.3 | 705.6 | 692.0 | 678.3 | 669.9 | 657.6 | 649.8 | 649.8 |
| 57.5°  | 736.1 | 728.3 | 710.8 | 692.7 | 677.1 | 668.0 | 656.3 | 657.0 |
| 60°    | 730.3 | 719.9 | 711.4 | 693.3 | 671.2 | 658.9 | 654.4 | 646.0 |
| 61°    | 729.6 | 715.3 | 703.7 | 689.4 | 670.6 | 651.2 | 649.8 | 638.8 |
| 62.5°  | 730.9 | 717.9 | 695.9 | 681.0 | 666.7 | 641.4 | 640.8 | 630.4 |
| 65°    | 729.6 | 717.3 | 706.2 | 678.3 | 658.9 | 648.5 | 626.5 | 634.9 |
| 67.5°  | 709.5 | 698.5 | 678.3 | 662.8 | 633.0 | 620.0 | 607.7 | 607.7 |
| 70°    | 677.7 | 661.5 | 642.0 | 622.6 | 602.5 | 580.4 | 569.4 | 563.0 |
| 72.5°  | 624.6 | 610.9 | 595.3 | 574.6 | 550.0 | 529.9 | 519.5 | 515.0 |
| 75°    | 557.8 | 542.8 | 529.2 | 513.6 | 487.7 | 470.8 | 459.8 | 456.6 |
| 77.5°  | 487.7 | 474.7 | 450.7 | 435.8 | 418.3 | 398.9 | 389.1 | 385.2 |
| 80°    | 398.2 | 391.0 | 374.2 | 350.2 | 341.8 | 317.8 | 311.3 | 305.5 |
| 82.5°  | 299.0 | 291.2 | 275.6 | 258.8 | 248.4 | 234.8 | 223.1 | 221.8 |
| 85°    | 188.1 | 182.9 | 173.2 | 160.8 | 147.9 | 140.1 | 129.7 | 132.3 |
| 87.5°  | 70.1  | 66.8  | 60.9  | 53.2  | 47.3  | 42.2  | 37.0  | 38.9  |
| 90°    | 28.0  | 30.0  | 32.0  | 33.0  | 34.0  | 34.0  | 34.0  | 34.0  |
| 92.5°  | 28.0  | 30.0  | 32.0  | 33.0  | 35.0  | 36.0  | 36.0  | 36.0  |
| 95°    | 30.0  | 32.0  | 34.0  | 35.0  | 37.0  | 38.0  | 39.0  | 38.0  |
| 97.5°  | 33.0  | 34.0  | 34.0  | 35.0  | 36.0  | 36.0  | 36.0  | 36.0  |
| 100°   | 36.0  | 37.0  | 38.0  | 38.0  | 38.0  | 38.0  | 37.0  | 37.0  |
| 102.5° | 43.0  | 44.0  | 44.0  | 42.0  | 42.0  | 41.0  | 41.0  | 41.0  |
| 105°   | 54.0  | 54.0  | 53.0  | 51.0  | 49.0  | 48.0  | 48.0  | 49.0  |
| 107.5° | 68.0  | 68.0  | 66.0  | 63.0  | 60.0  | 59.0  | 59.0  | 60.0  |

REPORT NUMBER: P198253

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-UPL

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110°   | 84.0  | 83.0  | 84.0  | 81.0  | 78.0  | 76.0  | 74.0  | 75.0  |
| 112.5° | 102.0 | 102.0 | 105.0 | 103.0 | 100.0 | 98.0  | 95.0  | 94.0  |
| 115°   | 121.0 | 123.0 | 125.0 | 124.0 | 123.0 | 121.0 | 116.0 | 113.0 |
| 117.5° | 138.0 | 140.0 | 141.0 | 139.0 | 139.0 | 139.0 | 133.0 | 129.0 |
| 120°   | 150.0 | 151.0 | 153.0 | 148.0 | 148.0 | 148.0 | 145.0 | 142.0 |
| 122.5° | 159.0 | 160.0 | 162.0 | 156.0 | 155.0 | 156.0 | 153.0 | 150.0 |
| 125°   | 167.0 | 167.0 | 168.0 | 164.0 | 163.0 | 164.0 | 160.0 | 158.0 |
| 127.5° | 176.0 | 175.0 | 175.0 | 173.0 | 173.0 | 173.0 | 166.0 | 163.0 |
| 130°   | 183.0 | 182.0 | 183.0 | 181.0 | 184.0 | 181.0 | 171.0 | 169.0 |
| 132.5° | 190.0 | 189.0 | 192.0 | 189.0 | 192.0 | 190.0 | 179.0 | 176.0 |
| 135°   | 196.0 | 197.0 | 201.0 | 199.0 | 199.0 | 195.0 | 185.0 | 184.0 |
| 137.5° | 203.0 | 205.0 | 210.0 | 207.0 | 204.0 | 198.0 | 191.0 | 190.0 |
| 140°   | 212.0 | 214.0 | 217.0 | 214.0 | 209.0 | 202.0 | 195.0 | 195.0 |
| 142.5° | 220.0 | 222.0 | 223.0 | 217.0 | 211.0 | 204.0 | 198.0 | 198.0 |
| 145°   | 230.0 | 230.0 | 227.0 | 217.0 | 211.0 | 205.0 | 201.0 | 202.0 |
| 147.5° | 239.0 | 236.0 | 229.0 | 218.0 | 212.0 | 207.0 | 204.0 | 206.0 |
| 150°   | 242.0 | 240.0 | 232.0 | 220.0 | 214.0 | 211.0 | 210.0 | 211.0 |
| 152.5° | 242.0 | 241.0 | 235.0 | 223.0 | 219.0 | 217.0 | 215.0 | 216.0 |
| 155°   | 238.0 | 237.0 | 234.0 | 227.0 | 224.0 | 223.0 | 220.0 | 219.0 |
| 157.5° | 228.0 | 229.0 | 229.0 | 226.0 | 226.0 | 225.0 | 222.0 | 219.0 |
| 160°   | 215.0 | 217.0 | 219.0 | 219.0 | 221.0 | 222.0 | 218.0 | 215.0 |
| 162.5° | 196.0 | 199.0 | 200.0 | 201.0 | 204.0 | 208.0 | 207.0 | 207.0 |
| 165°   | 176.0 | 179.0 | 181.0 | 181.0 | 185.0 | 189.0 | 190.0 | 192.0 |
| 167.5° | 160.0 | 163.0 | 165.0 | 164.0 | 168.0 | 171.0 | 172.0 | 174.0 |
| 170°   | 148.0 | 150.0 | 152.0 | 152.0 | 155.0 | 158.0 | 159.0 | 160.0 |
| 172.5° | 141.0 | 144.0 | 145.0 | 144.0 | 146.0 | 149.0 | 149.0 | 151.0 |
| 175°   | 138.0 | 140.0 | 141.0 | 140.0 | 141.0 | 143.0 | 143.0 | 144.0 |
| 177.5° | 138.0 | 140.0 | 140.0 | 138.0 | 140.0 | 141.0 | 141.0 | 141.0 |
| 180°   | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |

(END OF REPORT)