

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: P300373

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300373
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-AFL-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17231.7 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

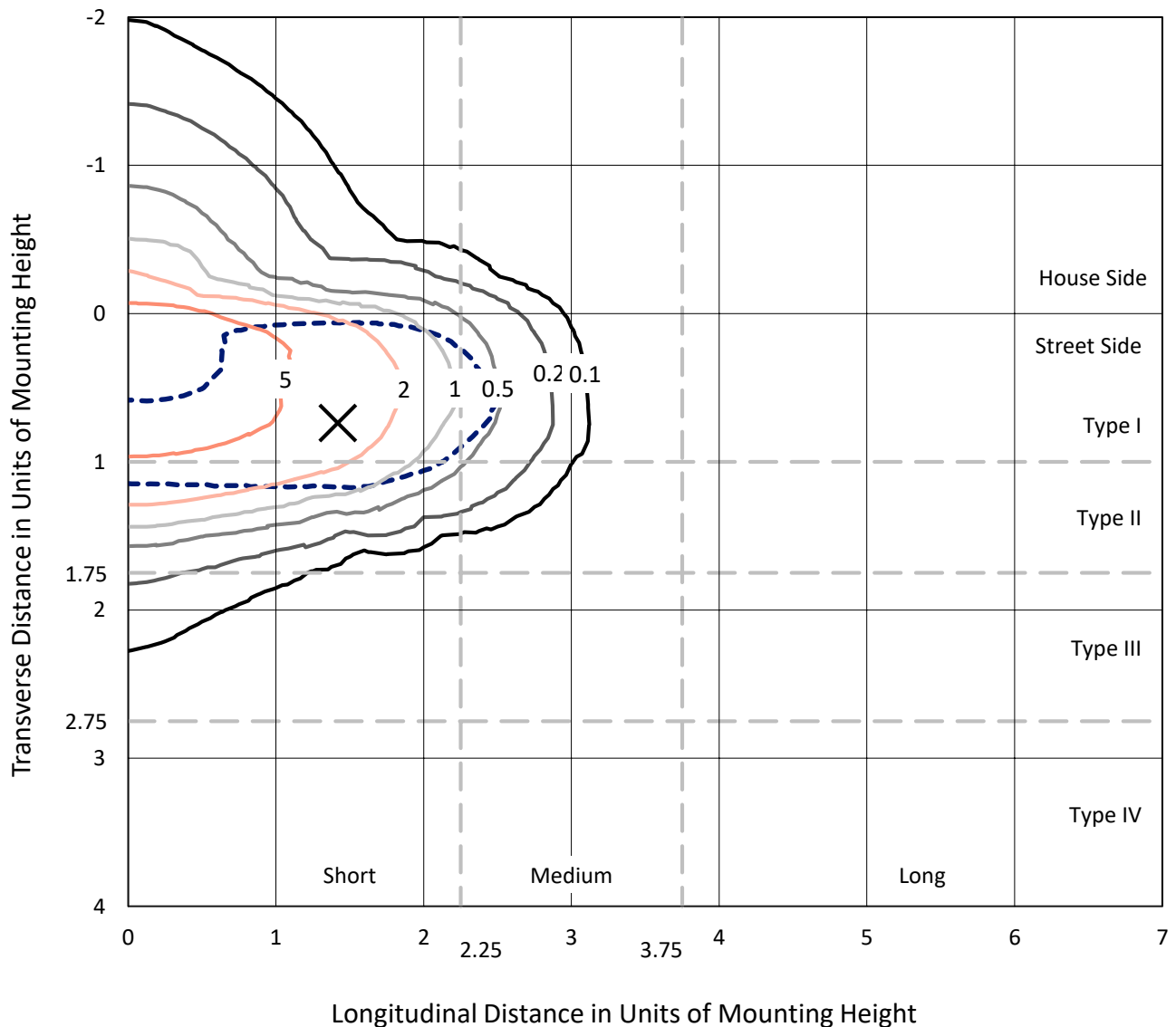
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

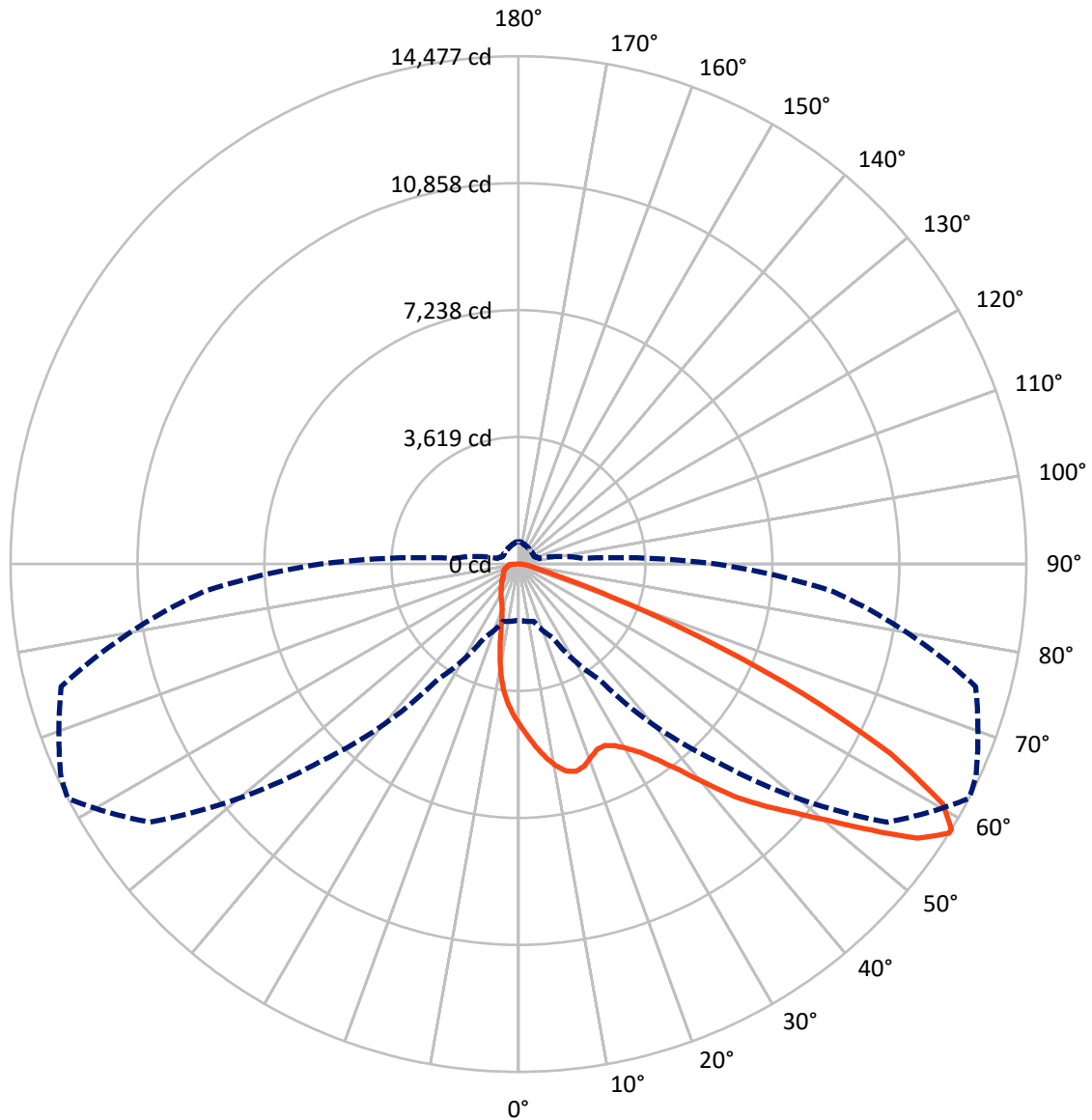
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2627.9 | 0.0 | 2627.9 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 14603.8 | 0.0 | 14603.8 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 17231.7 | 0.0 | 17231.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 409.4 | 2.4 |
| 10°-20° | 1046.4 | 6.1 |
| 20°-30° | 1691.6 | 9.8 |
| 30°-40° | 2685.3 | 15.6 |
| 40°-50° | 3929.2 | 22.8 |
| 50°-60° | 4109.6 | 23.8 |
| 60°-70° | 2428.0 | 14.1 |
| 70°-80° | 684.0 | 4.0 |
| 80°-90° | 248.3 | 1.4 |
| 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° | 17231.7 | 100.0 |
| 0°-180° | 17231.7 | 100.0 |



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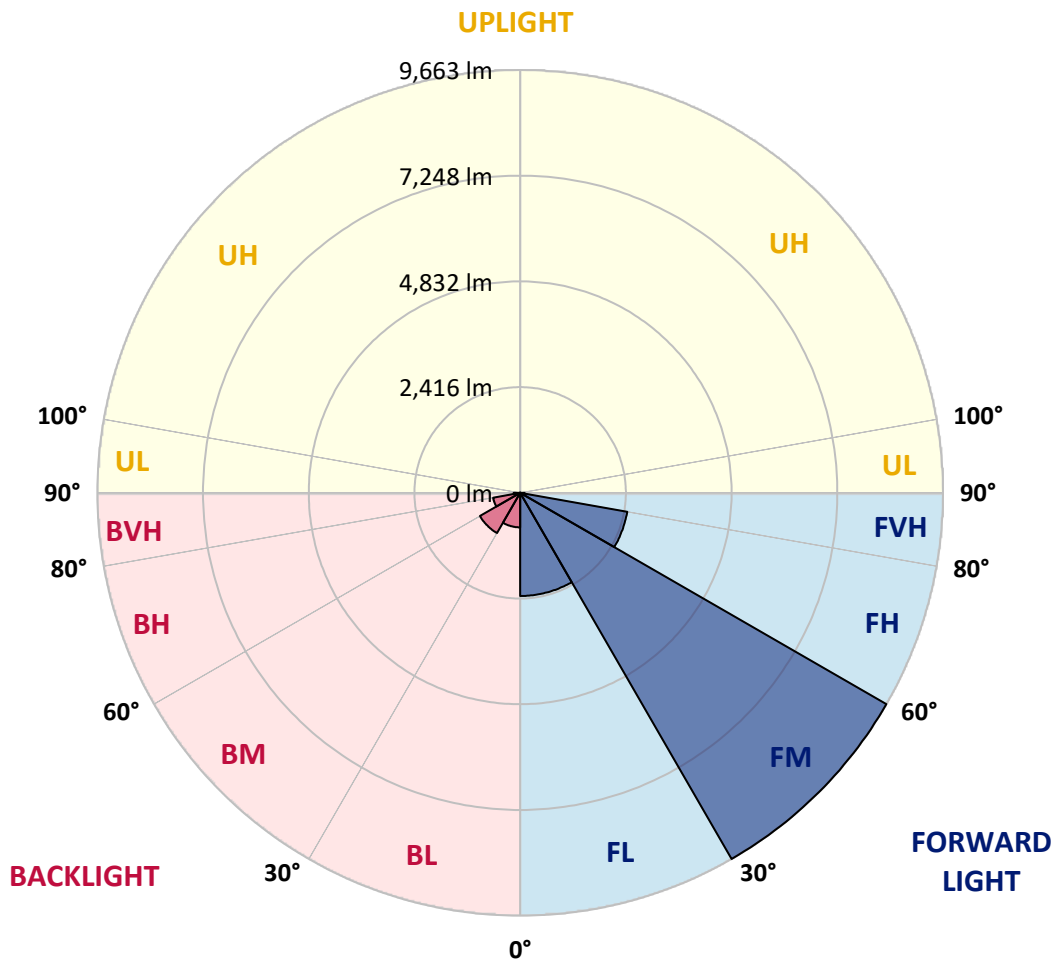
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2357.5 | 13.7 | | | |
| FM (30°-60°) | 9663.5 | 56.1 | | | |
| FH (60°-80°) | 2484.9 | 14.4 | | | G2/5000 |
| FVH (80°-90°) | 98.0 | 0.6 | | | G1/100 |
| BL (0°-30°) | 789.8 | 4.6 | B2/1000 | | |
| BM (30°-60°) | 1060.7 | 6.2 | B2/2500 | | |
| BH (60°-80°) | 627.0 | 3.6 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 150.4 | 0.9 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0° | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 |
| 2.5° | 5230.5 | 5188.3 | 5161.5 | 5138.0 | 5107.1 | 5041.4 | 4953.0 | 4897.0 | 4868.6 | 4772.0 | 4657.6 |
| 5° | 5743.3 | 5706.0 | 5678.4 | 5646.7 | 5591.5 | 5488.5 | 5345.7 | 5232.1 | 5176.1 | 4983.0 | 4754.2 |
| 7.5° | 5623.2 | 5638.6 | 5686.5 | 5770.1 | 5841.5 | 5827.7 | 5700.3 | 5555.8 | 5482.0 | 5213.4 | 4866.1 |
| 10° | 4899.4 | 4926.2 | 5008.9 | 5204.5 | 5521.0 | 5845.5 | 5944.5 | 5844.7 | 5770.1 | 5441.4 | 4981.4 |
| 12.5° | 4754.2 | 4753.3 | 4759.8 | 4811.8 | 5000.0 | 5456.9 | 5952.6 | 6053.3 | 6008.6 | 5658.9 | 5099.0 |
| 15° | 4813.4 | 4815.0 | 4810.1 | 4832.1 | 4890.5 | 5071.4 | 5704.3 | 6133.6 | 6165.2 | 5878.0 | 5220.7 |
| 17.5° | 4969.2 | 4965.1 | 4946.5 | 4946.5 | 4967.6 | 5038.2 | 5412.2 | 6058.9 | 6205.0 | 6071.9 | 5327.8 |
| 20° | 5230.5 | 5211.8 | 5162.3 | 5116.9 | 5094.1 | 5132.3 | 5292.1 | 5886.9 | 6136.0 | 6241.5 | 5416.3 |
| 22.5° | 5546.9 | 5532.3 | 5452.0 | 5354.6 | 5275.9 | 5275.1 | 5353.8 | 5736.8 | 6016.7 | 6401.4 | 5490.9 |
| 25° | 5955.9 | 5932.3 | 5813.1 | 5657.3 | 5519.3 | 5466.6 | 5488.5 | 5729.5 | 5951.8 | 6575.0 | 5557.5 |
| 27.5° | 6436.2 | 6393.2 | 6252.1 | 6027.3 | 5824.4 | 5718.1 | 5686.5 | 5861.8 | 6011.1 | 6790.0 | 5650.0 |
| 30° | 7018.8 | 6969.4 | 6788.4 | 6495.5 | 6209.0 | 6034.6 | 5967.2 | 6096.3 | 6207.4 | 7052.1 | 5798.5 |
| 32.5° | 7681.8 | 7610.4 | 7401.0 | 7078.1 | 6701.6 | 6435.4 | 6325.9 | 6406.2 | 6494.7 | 7367.8 | 5984.3 |
| 35° | 8597.9 | 8512.7 | 8210.0 | 7764.6 | 7339.4 | 6973.4 | 6798.1 | 6856.6 | 6942.6 | 7838.4 | 6252.9 |
| 37.5° | 9222.7 | 9184.5 | 8983.3 | 8564.6 | 8102.1 | 7681.0 | 7410.0 | 7444.0 | 7492.7 | 8426.7 | 6596.9 |
| 40° | 9217.0 | 9232.4 | 9236.5 | 9240.5 | 8925.7 | 8522.4 | 8231.1 | 8195.4 | 8185.7 | 9072.6 | 6988.0 |
| 42.5° | 8755.3 | 8818.6 | 9023.1 | 9437.7 | 9629.2 | 9444.2 | 9177.2 | 9074.2 | 9023.1 | 9833.7 | 7402.7 |
| 45° | 8048.6 | 8082.6 | 8465.6 | 9275.4 | 9989.5 | 10357.1 | 10155.0 | 9830.4 | 9737.9 | 10533.1 | 7746.7 |
| 47.5° | 7684.2 | 7721.5 | 7962.5 | 8845.4 | 9985.4 | 11094.7 | 11211.5 | 10593.2 | 10427.7 | 11141.7 | 8043.7 |
| 50° | 6816.8 | 6894.7 | 7198.2 | 8097.2 | 9621.1 | 11433.8 | 12315.8 | 11502.0 | 11159.6 | 11734.1 | 8341.5 |
| 52.5° | 5224.0 | 5344.1 | 5684.1 | 6867.1 | 8696.9 | 11265.9 | 13199.5 | 12603.9 | 12120.3 | 12347.5 | 8597.1 |
| 55° | 3295.2 | 3384.5 | 3670.1 | 4849.9 | 6957.2 | 10392.0 | 13534.6 | 13795.9 | 13365.8 | 12928.5 | 8818.6 |
| 57.5° | 1791.6 | 1831.4 | 1938.5 | 2677.7 | 4525.3 | 8459.9 | 13046.1 | 14474.2 | 14295.7 | 13421.8 | 8985.8 |
| 58° | 1603.4 | 1630.2 | 1696.7 | 2320.7 | 4013.3 | 7931.7 | 12829.5 | 14476.7 | 14387.4 | 13494.0 | 8998.7 |
| 60° | 1189.6 | 1175.8 | 1116.5 | 1324.2 | 2233.9 | 5479.6 | 11519.8 | 13897.3 | 14159.4 | 13582.5 | 8935.4 |
| 62.5° | 1045.1 | 1011.9 | 890.9 | 877.2 | 1086.5 | 2524.4 | 8814.5 | 11904.5 | 12523.6 | 13077.8 | 8550.8 |
| 65° | 981.8 | 946.1 | 790.3 | 740.0 | 783.8 | 1067.8 | 5192.3 | 8928.1 | 9704.7 | 11547.4 | 7567.4 |
| 67.5° | 934.8 | 888.5 | 726.2 | 657.3 | 660.5 | 705.9 | 2081.3 | 5623.2 | 6497.1 | 8767.5 | 5886.1 |
| 70° | 889.3 | 839.0 | 671.9 | 592.3 | 573.7 | 558.3 | 827.7 | 2814.8 | 3607.6 | 5538.0 | 3752.9 |
| 72.5° | 840.6 | 791.1 | 624.0 | 541.2 | 504.7 | 453.6 | 540.4 | 1151.4 | 1608.2 | 2620.1 | 1702.4 |
| 75° | 770.0 | 725.4 | 576.1 | 495.8 | 443.9 | 375.7 | 408.1 | 601.3 | 721.4 | 1043.5 | 820.4 |
| 77.5° | 683.2 | 646.7 | 522.6 | 458.5 | 393.5 | 305.1 | 314.0 | 417.1 | 462.5 | 597.2 | 487.7 |
| 80° | 490.9 | 503.9 | 464.9 | 412.2 | 350.5 | 247.5 | 241.0 | 304.3 | 328.6 | 383.8 | 317.3 |
| 82.5° | 344.9 | 352.2 | 384.6 | 336.7 | 289.7 | 194.7 | 177.7 | 214.2 | 228.8 | 252.4 | 171.2 |
| 85° | 237.7 | 229.6 | 263.7 | 234.5 | 209.3 | 129.8 | 121.7 | 145.2 | 154.2 | 156.6 | 88.4 |
| 87.5° | 142.8 | 142.8 | 152.5 | 125.8 | 112.8 | 67.3 | 65.7 | 82.8 | 88.4 | 84.4 | 48.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 | 4577.3 |
| 2.5° | 4589.4 | 4531.8 | 4409.3 | 4311.1 | 4187.0 | 4057.9 | 3985.7 | 3908.6 | 3855.9 | 3817.8 | 3878.6 |
| 5° | 4624.3 | 4506.7 | 4253.5 | 4013.3 | 3748.0 | 3472.1 | 3262.8 | 3068.0 | 2932.5 | 2848.1 | 2927.6 |
| 7.5° | 4679.5 | 4498.6 | 4095.3 | 3684.7 | 3208.4 | 2749.1 | 2338.5 | 2081.3 | 1931.2 | 1857.4 | 1903.6 |
| 10° | 4742.8 | 4485.6 | 3909.5 | 3239.2 | 2557.6 | 1979.1 | 1672.4 | 1568.5 | 1534.4 | 1520.6 | 1527.1 |
| 12.5° | 4795.5 | 4458.0 | 3681.4 | 2700.4 | 1920.6 | 1562.8 | 1474.4 | 1471.9 | 1479.2 | 1480.9 | 1483.3 |
| 15° | 4832.9 | 4417.4 | 3343.1 | 2138.9 | 1536.0 | 1424.1 | 1419.2 | 1433.8 | 1447.6 | 1453.3 | 1456.5 |
| 17.5° | 4858.0 | 4333.8 | 2960.9 | 1691.0 | 1376.2 | 1356.7 | 1368.1 | 1386.7 | 1401.3 | 1405.4 | 1408.6 |
| 20° | 4855.6 | 4211.3 | 2505.7 | 1410.3 | 1289.4 | 1289.4 | 1308.8 | 1323.4 | 1324.2 | 1319.4 | 1321.8 |
| 22.5° | 4830.4 | 4043.3 | 2064.3 | 1261.0 | 1212.3 | 1226.1 | 1245.5 | 1231.7 | 1174.9 | 1137.6 | 1140.1 |
| 25° | 4788.2 | 3842.9 | 1686.1 | 1166.0 | 1140.9 | 1165.2 | 1159.5 | 1055.7 | 974.5 | 938.0 | 938.0 |
| 27.5° | 4750.9 | 3606.0 | 1395.7 | 1083.3 | 1069.5 | 1099.5 | 998.9 | 904.7 | 870.7 | 853.6 | 847.9 |
| 30° | 4724.1 | 3350.4 | 1201.7 | 1003.7 | 1002.1 | 980.2 | 866.6 | 840.6 | 835.0 | 821.2 | 816.3 |
| 32.5° | 4730.6 | 3091.5 | 1077.6 | 934.0 | 939.6 | 839.0 | 803.3 | 809.0 | 804.1 | 789.5 | 783.0 |
| 35° | 4784.2 | 2845.7 | 996.4 | 870.7 | 853.6 | 757.9 | 766.0 | 776.5 | 774.9 | 754.6 | 748.1 |
| 37.5° | 4879.9 | 2612.8 | 942.9 | 817.9 | 744.9 | 717.3 | 730.3 | 746.5 | 742.5 | 728.7 | 723.8 |
| 40° | 4980.5 | 2393.7 | 899.1 | 776.5 | 680.8 | 689.7 | 701.1 | 710.0 | 714.1 | 718.1 | 714.9 |
| 42.5° | 5078.7 | 2164.9 | 845.5 | 734.3 | 654.0 | 663.7 | 668.6 | 677.5 | 699.5 | 714.9 | 714.1 |
| 45° | 5137.1 | 1949.9 | 790.3 | 674.3 | 632.9 | 638.6 | 635.3 | 653.2 | 680.0 | 705.1 | 705.9 |
| 47.5° | 5202.1 | 1782.7 | 746.5 | 619.1 | 612.6 | 616.7 | 606.9 | 624.8 | 649.1 | 680.0 | 683.2 |
| 50° | 5280.8 | 1682.9 | 711.6 | 575.3 | 585.0 | 585.0 | 582.6 | 598.8 | 632.9 | 668.6 | 675.1 |
| 52.5° | 5370.0 | 1663.4 | 682.4 | 543.7 | 557.5 | 556.6 | 559.1 | 583.4 | 620.7 | 655.6 | 661.3 |
| 55° | 5478.8 | 1716.2 | 650.8 | 520.1 | 530.7 | 533.9 | 542.0 | 569.6 | 601.3 | 641.0 | 643.5 |
| 57.5° | 5605.3 | 1823.3 | 625.6 | 501.5 | 506.3 | 516.9 | 529.9 | 555.0 | 589.1 | 632.9 | 635.3 |
| 58° | 5626.4 | 1846.0 | 621.6 | 499.8 | 501.5 | 513.6 | 528.2 | 552.6 | 586.7 | 634.5 | 637.0 |
| 60° | 5627.3 | 1921.5 | 612.6 | 492.5 | 482.8 | 503.1 | 519.3 | 543.7 | 582.6 | 640.2 | 645.9 |
| 62.5° | 5427.6 | 1920.6 | 606.1 | 482.0 | 463.3 | 488.5 | 507.1 | 535.5 | 578.5 | 654.0 | 665.4 |
| 65° | 4779.3 | 1745.4 | 575.3 | 465.8 | 447.9 | 475.5 | 496.6 | 529.9 | 589.9 | 714.1 | 721.4 |
| 67.5° | 3738.2 | 1430.5 | 517.7 | 443.0 | 427.6 | 462.5 | 490.1 | 529.1 | 602.1 | 727.9 | 732.7 |
| 70° | 2471.6 | 1070.3 | 454.4 | 417.1 | 406.5 | 447.1 | 493.3 | 556.6 | 588.3 | 698.6 | 685.7 |
| 72.5° | 1282.9 | 751.4 | 403.3 | 384.6 | 382.2 | 433.3 | 540.4 | 553.4 | 574.5 | 657.3 | 641.0 |
| 75° | 673.5 | 521.7 | 358.7 | 348.9 | 353.0 | 430.1 | 637.8 | 538.8 | 556.6 | 628.9 | 659.7 |
| 77.5° | 412.2 | 421.1 | 320.5 | 316.5 | 324.6 | 420.3 | 637.0 | 520.1 | 530.7 | 578.5 | 612.6 |
| 80° | 275.9 | 341.6 | 291.3 | 292.1 | 297.8 | 384.6 | 572.1 | 490.9 | 499.0 | 546.9 | 581.8 |
| 82.5° | 174.5 | 202.0 | 264.5 | 278.3 | 271.0 | 317.3 | 486.0 | 447.1 | 458.5 | 625.6 | 661.3 |
| 85° | 88.4 | 126.6 | 229.6 | 267.8 | 244.2 | 222.3 | 394.4 | 391.9 | 397.6 | 451.2 | 471.4 |
| 87.5° | 40.6 | 69.8 | 179.3 | 233.7 | 184.2 | 138.8 | 286.4 | 290.5 | 313.2 | 320.5 | 320.5 |
| 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)