

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: P197595

Luminaire Tested: **TT-C4-LED-E1-MQ-LWR-LW-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197595  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P115393)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-C4-LED-E1-MQ-LWR-LW-7050  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
MEDIUM 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: 6531.9 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 58  
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



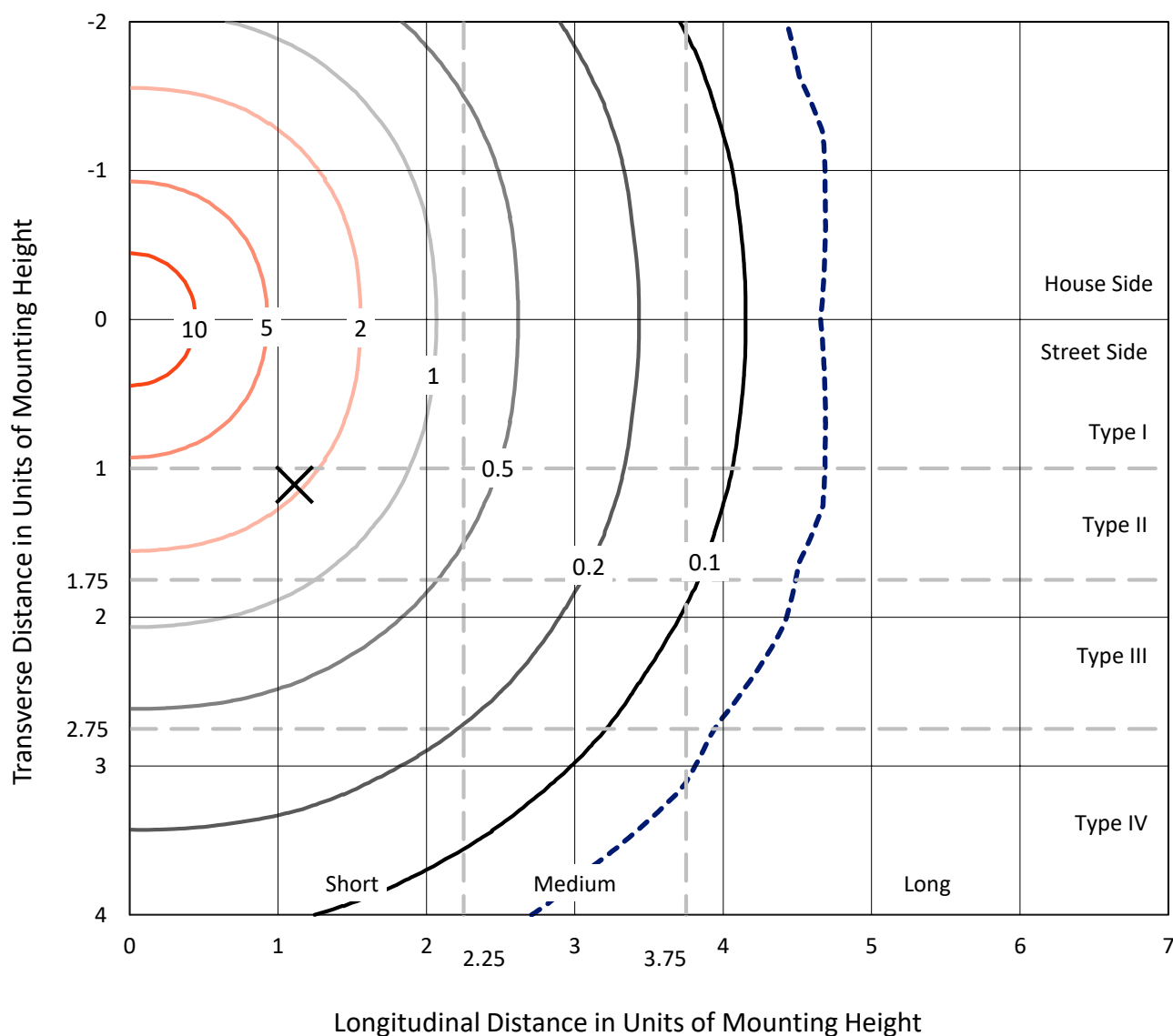
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

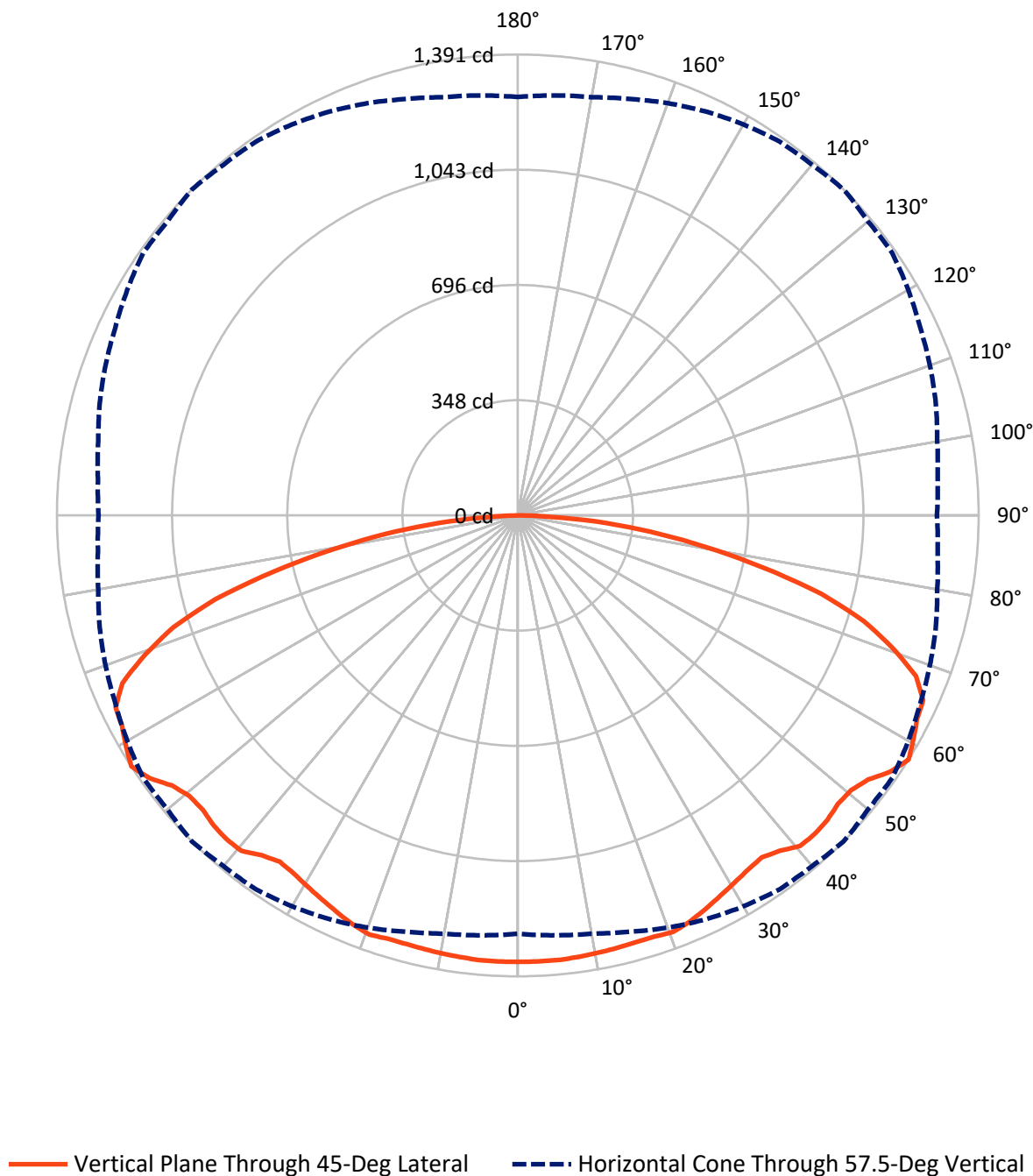


Based on 10 foot mounting height. Maximum calculated value = 13.5 fc  
 Type V - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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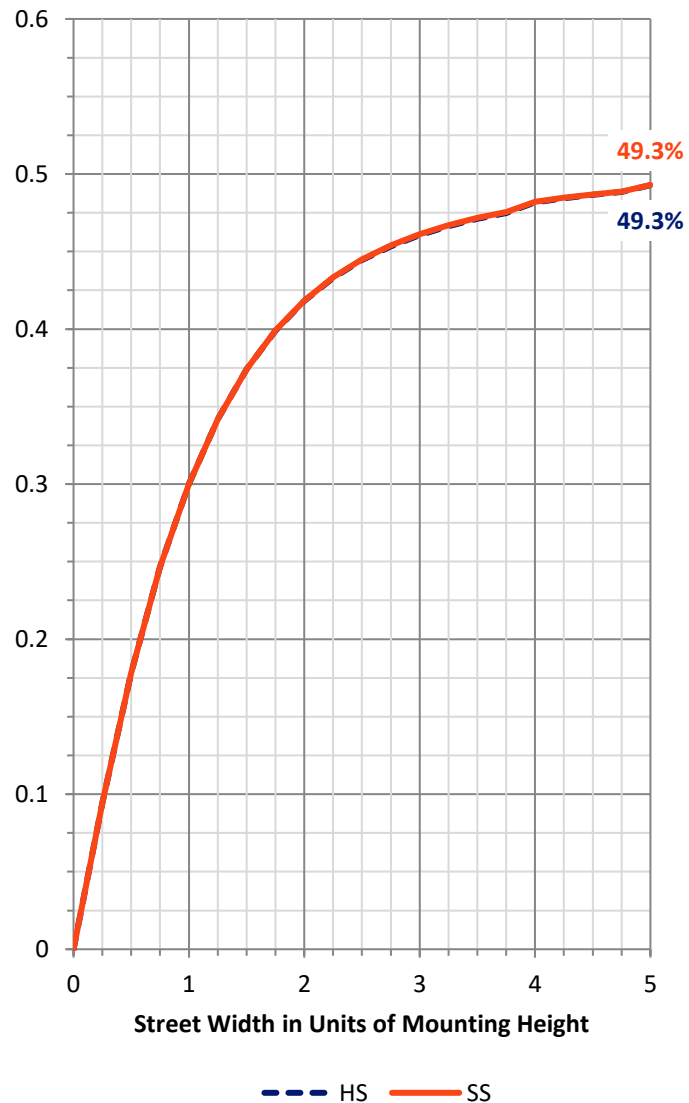
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3266.0   | 0.0    | 3266.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 3266.0   | 0.0    | 3266.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 6531.9   | 0.0    | 6531.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 128.3  | 2.0       |
| 10°-20°   | 378.7  | 5.8       |
| 20°-30°   | 606.6  | 9.3       |
| 30°-40°   | 798.5  | 12.2      |
| 40°-50°   | 994.5  | 15.2      |
| 50°-60°   | 1171.5 | 17.9      |
| 60°-70°   | 1245.5 | 19.1      |
| 70°-80°   | 934.0  | 14.3      |
| 80°-90°   | 274.3  | 4.2       |
| 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°    | 6531.9 | 100.0     |
| 0°-180°   | 6531.9 | 100.0     |

**Coefficient of Utilization**



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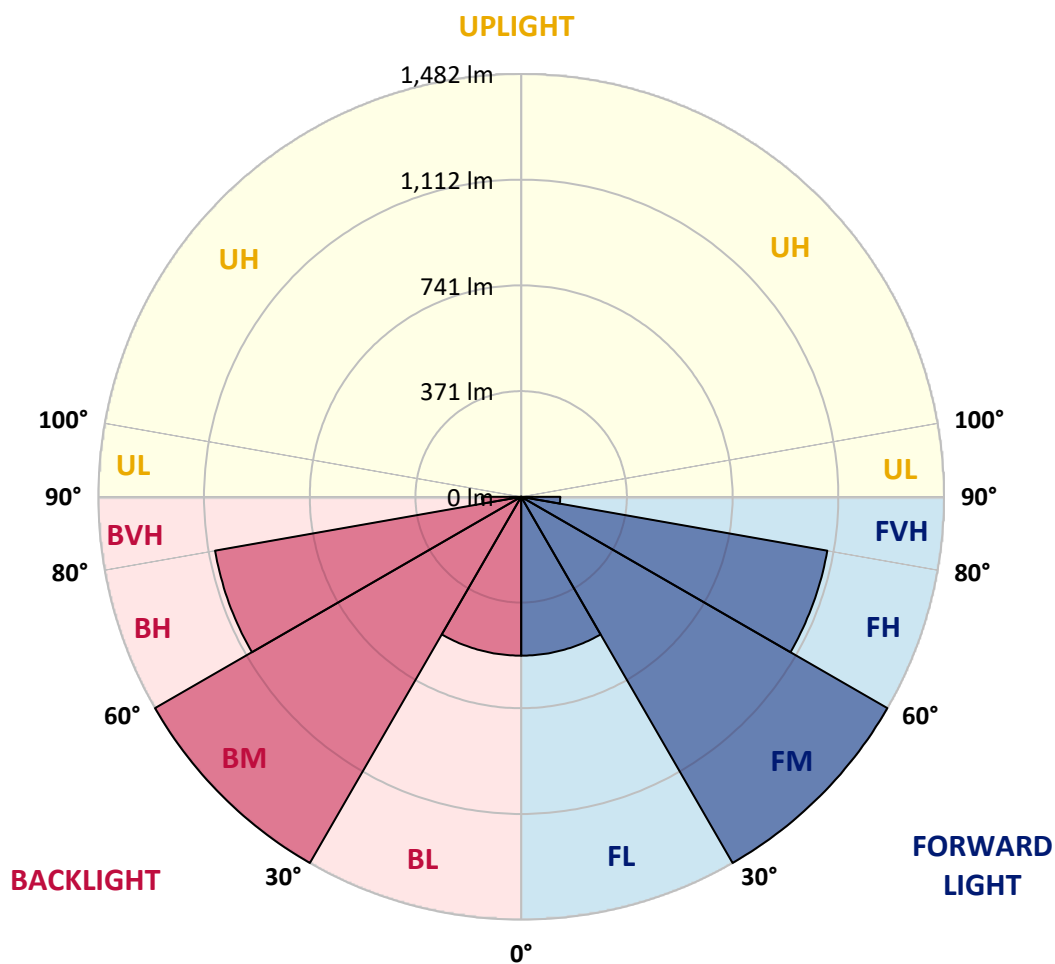
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 556.8  | 8.5       |                         |      |         |
| FM   | (30°-60°)   | 1482.3 | 22.7      |                         |      |         |
| FH   | (60°-80°)   | 1089.7 | 16.7      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 137.1  | 2.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 556.8  | 8.5       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1482.3 | 22.7      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1089.7 | 16.7      | B3/2500                 |      | G1/1800 |
| BVH  | (80°-90°)   | 137.1  | 2.1       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type V Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 |
| 2.5°  | 1346.0 | 1346.0 | 1346.0 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 |
| 5°    | 1346.0 | 1346.0 | 1346.0 | 1346.0 | 1346.0 | 1346.0 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 |
| 7.5°  | 1343.3 | 1343.3 | 1343.3 | 1343.3 | 1343.3 | 1344.6 | 1344.6 | 1344.6 | 1344.6 | 1344.6 | 1344.6 |
| 10°   | 1340.5 | 1340.5 | 1340.5 | 1340.5 | 1341.9 | 1341.9 | 1341.9 | 1341.9 | 1341.9 | 1341.9 | 1341.9 |
| 12.5° | 1337.8 | 1337.8 | 1336.4 | 1337.8 | 1337.8 | 1337.8 | 1339.2 | 1339.2 | 1339.2 | 1339.2 | 1339.2 |
| 15°   | 1332.3 | 1332.3 | 1333.7 | 1333.7 | 1335.1 | 1335.1 | 1335.1 | 1335.1 | 1336.4 | 1336.4 | 1336.4 |
| 17.5° | 1329.6 | 1329.6 | 1330.9 | 1332.3 | 1332.3 | 1333.7 | 1335.1 | 1335.1 | 1336.4 | 1336.4 | 1336.4 |
| 20°   | 1333.7 | 1333.7 | 1333.7 | 1335.1 | 1336.4 | 1337.8 | 1339.2 | 1340.5 | 1340.5 | 1341.9 | 1340.5 |
| 22.5° | 1325.5 | 1325.5 | 1325.5 | 1326.8 | 1326.8 | 1326.8 | 1328.2 | 1329.6 | 1329.6 | 1330.9 | 1329.6 |
| 25°   | 1310.4 | 1310.4 | 1311.8 | 1311.8 | 1313.2 | 1313.2 | 1314.5 | 1314.5 | 1314.5 | 1315.9 | 1315.9 |
| 27.5° | 1295.4 | 1294.0 | 1296.8 | 1296.8 | 1298.1 | 1298.1 | 1299.5 | 1300.9 | 1300.9 | 1300.9 | 1302.2 |
| 30°   | 1279.0 | 1279.0 | 1280.3 | 1280.3 | 1281.7 | 1283.1 | 1284.4 | 1285.8 | 1285.8 | 1287.2 | 1287.2 |
| 32.5° | 1261.2 | 1262.6 | 1263.9 | 1265.3 | 1266.7 | 1269.4 | 1270.8 | 1272.1 | 1273.5 | 1274.9 | 1273.5 |
| 35°   | 1248.9 | 1250.2 | 1251.6 | 1254.3 | 1258.5 | 1261.2 | 1263.9 | 1266.7 | 1268.0 | 1268.0 | 1268.0 |
| 37.5° | 1251.6 | 1253.0 | 1255.7 | 1261.2 | 1268.0 | 1272.1 | 1277.6 | 1281.7 | 1283.1 | 1284.4 | 1284.4 |
| 40°   | 1266.7 | 1269.4 | 1273.5 | 1280.3 | 1288.5 | 1295.4 | 1303.6 | 1307.7 | 1310.4 | 1311.8 | 1310.4 |
| 42.5° | 1265.3 | 1269.4 | 1273.5 | 1281.7 | 1291.3 | 1298.1 | 1306.3 | 1310.4 | 1313.2 | 1314.5 | 1313.2 |
| 45°   | 1261.2 | 1263.9 | 1268.0 | 1276.2 | 1283.1 | 1292.6 | 1300.9 | 1305.0 | 1309.1 | 1310.4 | 1309.1 |
| 47.5° | 1251.6 | 1251.6 | 1253.0 | 1261.2 | 1270.8 | 1283.1 | 1289.9 | 1296.8 | 1300.9 | 1300.9 | 1300.9 |
| 50°   | 1239.3 | 1244.8 | 1247.5 | 1258.5 | 1268.0 | 1279.0 | 1291.3 | 1300.9 | 1302.2 | 1303.6 | 1302.2 |
| 52.5° | 1239.3 | 1240.7 | 1250.2 | 1257.1 | 1276.2 | 1292.6 | 1305.0 | 1314.5 | 1322.7 | 1324.1 | 1324.1 |
| 55°   | 1261.2 | 1263.9 | 1269.4 | 1285.8 | 1300.9 | 1325.5 | 1346.0 | 1354.2 | 1359.7 | 1365.1 | 1359.7 |
| 57.5° | 1262.6 | 1272.1 | 1281.7 | 1300.9 | 1324.1 | 1344.6 | 1362.4 | 1377.5 | 1381.6 | 1391.1 | 1380.2 |
| 60°   | 1246.1 | 1248.9 | 1258.5 | 1281.7 | 1311.8 | 1333.7 | 1350.1 | 1363.8 | 1377.5 | 1372.0 | 1377.5 |
| 62.5° | 1220.1 | 1227.0 | 1240.7 | 1258.5 | 1283.1 | 1309.1 | 1333.7 | 1337.8 | 1358.3 | 1352.8 | 1361.0 |
| 65°   | 1199.6 | 1205.1 | 1218.8 | 1244.8 | 1274.9 | 1291.3 | 1318.6 | 1335.1 | 1333.7 | 1344.6 | 1332.3 |
| 67.5° | 1149.0 | 1153.1 | 1165.4 | 1191.4 | 1220.1 | 1244.8 | 1253.0 | 1279.0 | 1281.7 | 1296.8 | 1283.1 |
| 70°   | 1065.6 | 1075.2 | 1092.9 | 1117.6 | 1140.8 | 1161.3 | 1176.4 | 1190.1 | 1198.3 | 1201.0 | 1198.3 |
| 72.5° | 961.6  | 976.7  | 990.3  | 1013.6 | 1036.9 | 1050.5 | 1060.1 | 1079.3 | 1084.7 | 1092.9 | 1090.2 |
| 75°   | 854.9  | 854.9  | 868.6  | 886.4  | 904.2  | 912.4  | 917.8  | 930.2  | 937.0  | 946.6  | 938.4  |
| 77.5° | 708.6  | 716.8  | 729.1  | 744.1  | 741.4  | 745.5  | 745.5  | 752.3  | 749.6  | 756.4  | 761.9  |
| 80°   | 555.4  | 563.6  | 574.5  | 585.5  | 584.1  | 574.5  | 581.3  | 573.1  | 570.4  | 571.8  | 575.9  |
| 82.5° | 396.7  | 402.2  | 411.7  | 418.6  | 418.6  | 411.7  | 414.5  | 406.3  | 409.0  | 402.2  | 407.6  |
| 85°   | 227.1  | 233.9  | 240.7  | 247.6  | 247.6  | 243.5  | 247.6  | 236.6  | 238.0  | 238.0  | 238.0  |
| 87.5° | 56.1   | 61.6   | 64.3   | 68.4   | 65.7   | 72.5   | 76.6   | 69.8   | 71.1   | 68.4   | 72.5   |
| 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):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1347.4 |
| 2.5°  | 1347.4 | 1346.0 | 1347.4 | 1347.4 | 1347.4 | 1347.4 | 1346.0 | 1346.0 |
| 5°    | 1347.4 | 1347.4 | 1347.4 | 1346.0 | 1346.0 | 1346.0 | 1346.0 | 1346.0 |
| 7.5°  | 1344.6 | 1344.6 | 1344.6 | 1343.3 | 1343.3 | 1343.3 | 1343.3 | 1343.3 |
| 10°   | 1341.9 | 1341.9 | 1340.5 | 1340.5 | 1340.5 | 1340.5 | 1340.5 | 1340.5 |
| 12.5° | 1339.2 | 1339.2 | 1337.8 | 1337.8 | 1337.8 | 1337.8 | 1337.8 | 1336.4 |
| 15°   | 1336.4 | 1336.4 | 1335.1 | 1335.1 | 1333.7 | 1333.7 | 1332.3 | 1332.3 |
| 17.5° | 1336.4 | 1335.1 | 1333.7 | 1332.3 | 1332.3 | 1330.9 | 1329.6 | 1329.6 |
| 20°   | 1340.5 | 1339.2 | 1337.8 | 1336.4 | 1335.1 | 1333.7 | 1333.7 | 1332.3 |
| 22.5° | 1329.6 | 1328.2 | 1326.8 | 1326.8 | 1325.5 | 1325.5 | 1325.5 | 1324.1 |
| 25°   | 1315.9 | 1314.5 | 1314.5 | 1311.8 | 1311.8 | 1310.4 | 1310.4 | 1309.1 |
| 27.5° | 1300.9 | 1299.5 | 1299.5 | 1298.1 | 1296.8 | 1295.4 | 1294.0 | 1294.0 |
| 30°   | 1285.8 | 1284.4 | 1284.4 | 1283.1 | 1280.3 | 1280.3 | 1279.0 | 1277.6 |
| 32.5° | 1272.1 | 1272.1 | 1270.8 | 1268.0 | 1265.3 | 1263.9 | 1261.2 | 1261.2 |
| 35°   | 1268.0 | 1265.3 | 1262.6 | 1258.5 | 1254.3 | 1251.6 | 1250.2 | 1248.9 |
| 37.5° | 1283.1 | 1279.0 | 1272.1 | 1268.0 | 1262.6 | 1257.1 | 1254.3 | 1251.6 |
| 40°   | 1309.1 | 1302.2 | 1295.4 | 1288.5 | 1280.3 | 1273.5 | 1268.0 | 1266.7 |
| 42.5° | 1310.4 | 1306.3 | 1299.5 | 1291.3 | 1281.7 | 1273.5 | 1268.0 | 1266.7 |
| 45°   | 1306.3 | 1300.9 | 1292.6 | 1283.1 | 1276.2 | 1266.7 | 1262.6 | 1261.2 |
| 47.5° | 1296.8 | 1291.3 | 1283.1 | 1269.4 | 1259.8 | 1253.0 | 1251.6 | 1251.6 |
| 50°   | 1302.2 | 1291.3 | 1277.6 | 1269.4 | 1259.8 | 1248.9 | 1244.8 | 1242.0 |
| 52.5° | 1314.5 | 1303.6 | 1295.4 | 1277.6 | 1257.1 | 1247.5 | 1242.0 | 1237.9 |
| 55°   | 1354.2 | 1348.7 | 1324.1 | 1299.5 | 1284.4 | 1272.1 | 1266.7 | 1263.9 |
| 57.5° | 1380.2 | 1361.0 | 1340.5 | 1324.1 | 1306.3 | 1285.8 | 1272.1 | 1265.3 |
| 60°   | 1366.5 | 1346.0 | 1336.4 | 1314.5 | 1277.6 | 1255.7 | 1247.5 | 1243.4 |
| 62.5° | 1336.4 | 1336.4 | 1310.4 | 1276.2 | 1262.6 | 1243.4 | 1228.4 | 1222.9 |
| 65°   | 1335.1 | 1317.3 | 1291.3 | 1279.0 | 1246.1 | 1217.4 | 1202.4 | 1199.6 |
| 67.5° | 1277.6 | 1253.0 | 1246.1 | 1218.8 | 1191.4 | 1165.4 | 1154.5 | 1149.0 |
| 70°   | 1190.1 | 1181.8 | 1161.3 | 1143.5 | 1118.9 | 1091.6 | 1076.5 | 1071.1 |
| 72.5° | 1079.3 | 1065.6 | 1056.0 | 1041.0 | 1017.7 | 983.5  | 971.2  | 964.4  |
| 75°   | 928.8  | 922.0  | 922.0  | 905.5  | 883.7  | 863.1  | 861.8  | 859.0  |
| 77.5° | 746.9  | 749.6  | 756.4  | 738.7  | 745.5  | 734.6  | 725.0  | 718.1  |
| 80°   | 567.7  | 580.0  | 581.3  | 585.5  | 589.6  | 574.5  | 567.7  | 559.5  |
| 82.5° | 403.5  | 410.4  | 418.6  | 419.9  | 422.7  | 411.7  | 406.3  | 398.1  |
| 85°   | 238.0  | 242.1  | 249.0  | 249.0  | 249.0  | 239.4  | 236.6  | 229.8  |
| 87.5° | 69.8   | 69.8   | 73.9   | 69.8   | 69.8   | 69.8   | 62.9   | 67.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)