

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: P300727

Luminaire Tested: **GLNA-AF-02-LED-E1-AFL-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300727
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-AFL-7030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5771.2 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 66
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

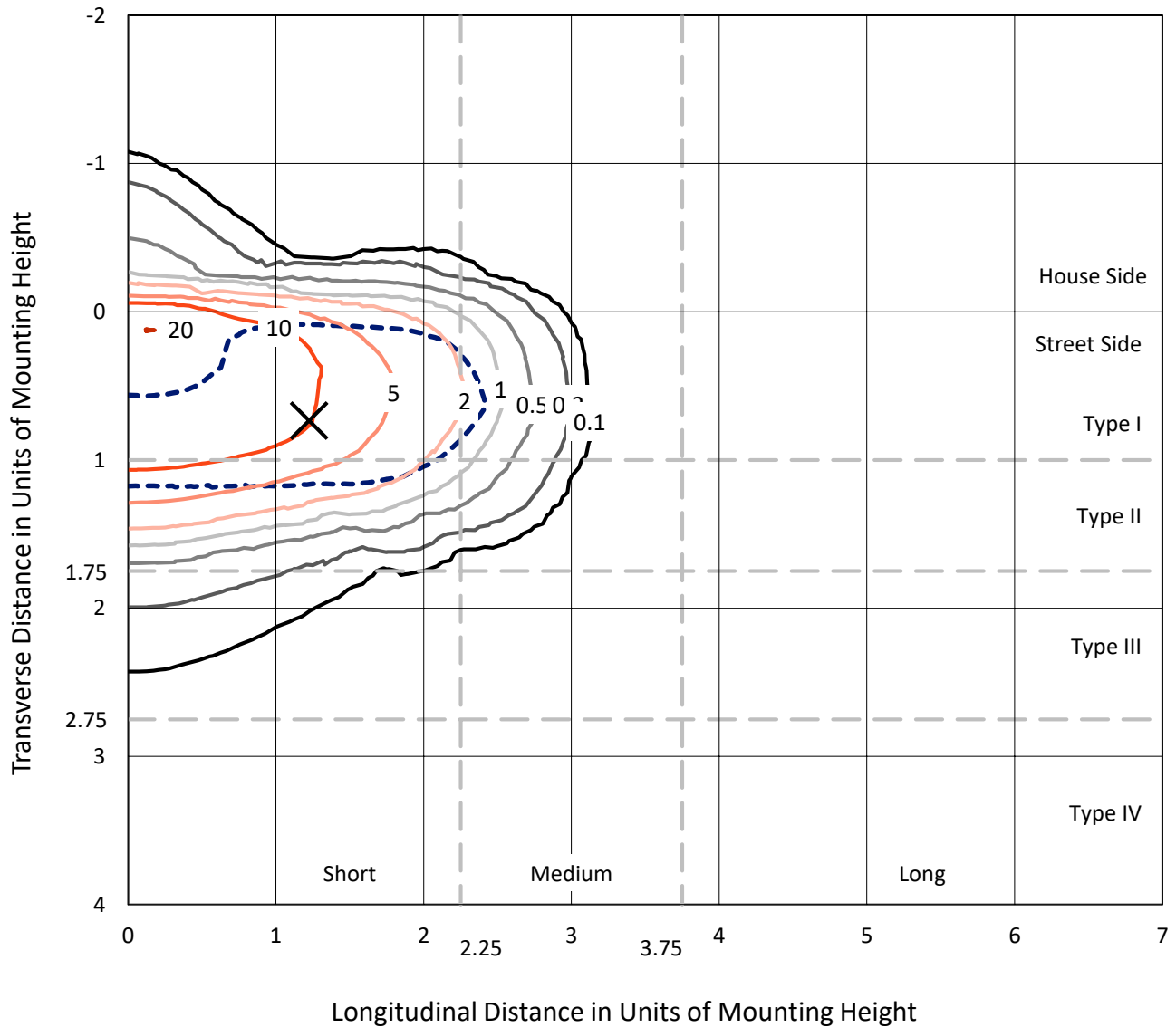


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

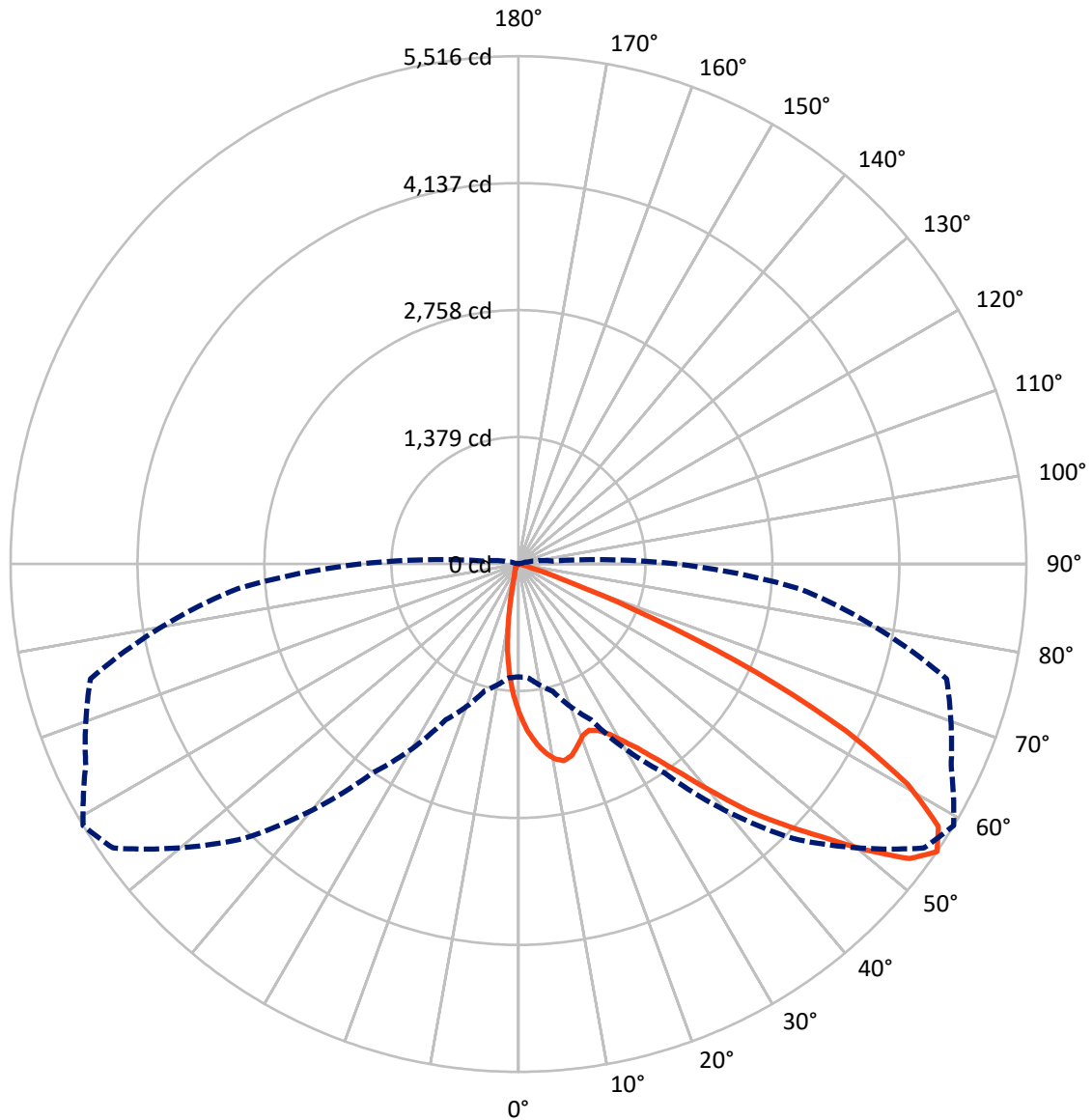


Based on 10 foot mounting height. Maximum calculated value = 20.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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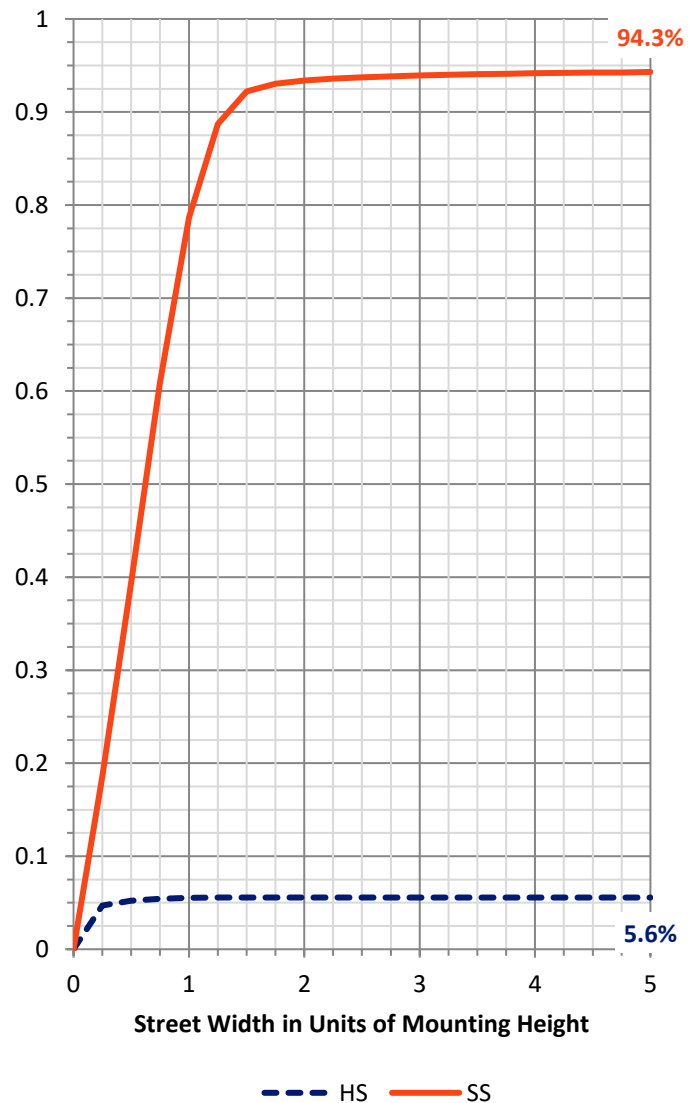
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 322.4 | 0.0 | 322.4 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 5448.8 | 0.0 | 5448.8 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 5771.2 | 0.0 | 5771.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 136.1 | 2.4 |
| 10°-20° | 325.8 | 5.6 |
| 20°-30° | 554.4 | 9.6 |
| 30°-40° | 953.4 | 16.5 |
| 40°-50° | 1472.0 | 25.5 |
| 50°-60° | 1479.8 | 25.6 |
| 60°-70° | 758.8 | 13.1 |
| 70°-80° | 82.2 | 1.4 |
| 80°-90° | 8.6 | 0.1 |
| 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° | 5771.2 | 100.0 |
| 0°-180° | 5771.2 | 100.0 |

Coefficient of Utilization



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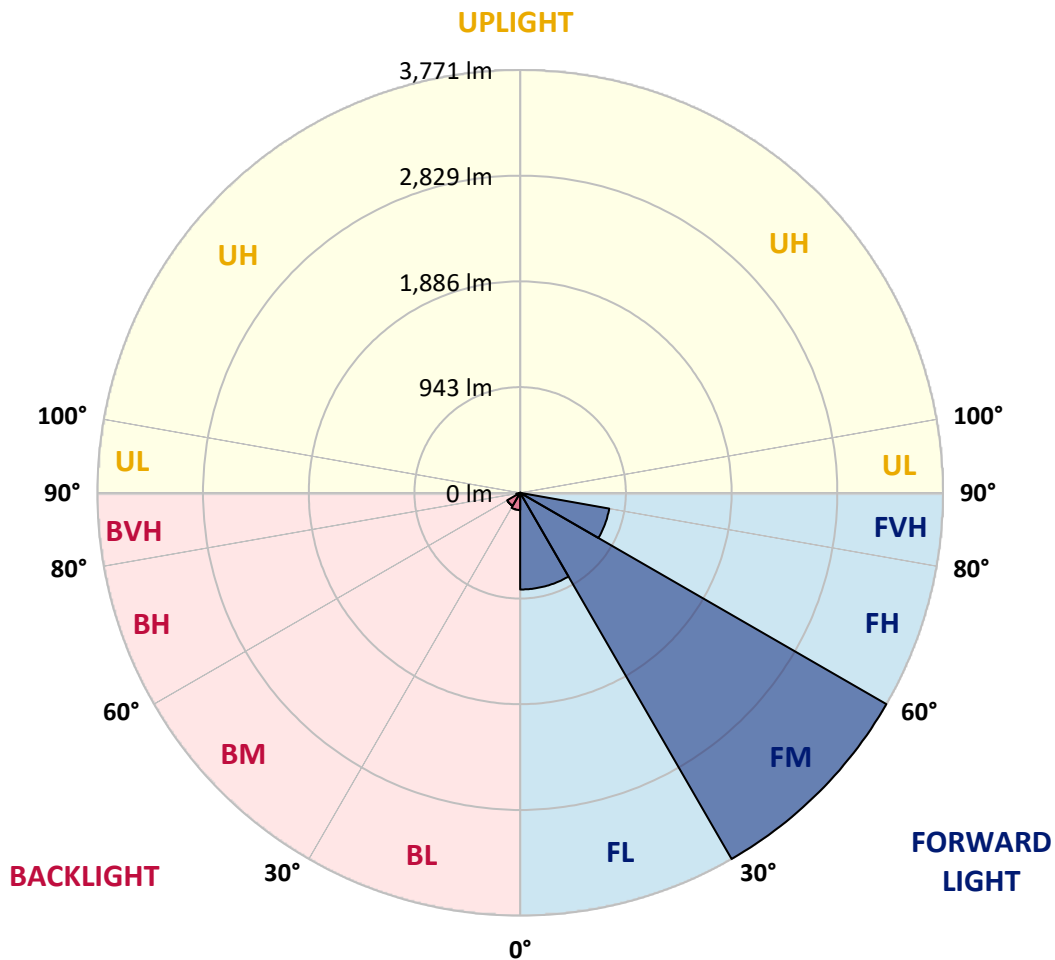
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 862.4 | 14.9 | | | |
| FM | (30°-60°) | 3771.4 | 65.3 | | | |
| FH | (60°-80°) | 806.6 | 14.0 | | | G1/1800 |
| FVH | (80°-90°) | 8.4 | 0.1 | | | G0/10 |
| BL | (0°-30°) | 153.9 | 2.7 | B1/500 | | |
| BM | (30°-60°) | 133.8 | 2.3 | B0/220 | | |
| BH | (60°-80°) | 34.5 | 0.6 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.2 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 |
| 2.5° | 1922.2 | 1901.8 | 1895.7 | 1891.6 | 1872.8 | 1849.3 | 1817.3 | 1802.3 | 1771.7 | 1722.3 | 1661.7 |
| 5° | 2098.3 | 2094.6 | 2080.9 | 2073.4 | 2053.4 | 2020.0 | 1968.9 | 1944.4 | 1895.7 | 1812.6 | 1703.9 |
| 7.5° | 2021.3 | 2044.8 | 2063.6 | 2094.9 | 2134.4 | 2133.0 | 2090.1 | 2064.6 | 2010.1 | 1900.4 | 1750.9 |
| 10° | 1724.0 | 1743.1 | 1773.7 | 1844.9 | 1990.0 | 2118.1 | 2168.5 | 2150.1 | 2106.5 | 1981.1 | 1796.2 |
| 12.5° | 1665.8 | 1663.7 | 1669.2 | 1690.0 | 1765.9 | 1948.5 | 2155.2 | 2192.3 | 2183.5 | 2055.1 | 1839.1 |
| 15° | 1696.8 | 1694.4 | 1693.7 | 1700.9 | 1719.2 | 1796.2 | 2055.4 | 2162.0 | 2230.5 | 2123.5 | 1875.6 |
| 17.5° | 1783.6 | 1773.4 | 1767.9 | 1762.2 | 1756.7 | 1775.8 | 1935.5 | 2077.2 | 2237.6 | 2183.5 | 1905.9 |
| 20° | 1932.4 | 1915.4 | 1895.3 | 1862.6 | 1832.0 | 1822.4 | 1885.1 | 1990.0 | 2212.1 | 2229.1 | 1925.6 |
| 22.5° | 2119.4 | 2097.6 | 2062.9 | 2003.3 | 1941.0 | 1904.9 | 1910.0 | 1962.4 | 2173.9 | 2278.8 | 1934.8 |
| 25° | 2329.6 | 2301.6 | 2255.3 | 2172.6 | 2080.9 | 2016.9 | 1983.5 | 2001.9 | 2156.5 | 2337.1 | 1945.4 |
| 27.5° | 2554.7 | 2523.7 | 2463.1 | 2350.3 | 2246.5 | 2160.0 | 2091.8 | 2089.5 | 2186.2 | 2413.3 | 1962.4 |
| 30° | 2777.8 | 2773.0 | 2694.0 | 2574.8 | 2437.2 | 2331.9 | 2233.9 | 2221.3 | 2268.9 | 2518.9 | 1996.1 |
| 32.5° | 3075.4 | 3039.7 | 2942.9 | 2820.3 | 2661.6 | 2535.3 | 2419.1 | 2389.8 | 2396.0 | 2641.9 | 2048.2 |
| 35° | 3450.7 | 3411.6 | 3275.3 | 3106.1 | 2928.6 | 2779.5 | 2651.1 | 2611.2 | 2596.2 | 2843.2 | 2136.1 |
| 37.5° | 3693.2 | 3692.6 | 3607.1 | 3434.7 | 3244.4 | 3079.9 | 2940.2 | 2893.6 | 2863.2 | 3086.3 | 2272.3 |
| 40° | 3699.7 | 3715.7 | 3727.0 | 3725.3 | 3589.7 | 3438.1 | 3314.2 | 3256.6 | 3186.1 | 3411.2 | 2448.4 |
| 42.5° | 3501.2 | 3542.4 | 3641.5 | 3809.7 | 3890.1 | 3829.8 | 3725.3 | 3668.7 | 3563.8 | 3759.0 | 2663.0 |
| 45° | 3232.8 | 3261.4 | 3434.7 | 3744.7 | 4052.9 | 4218.1 | 4138.4 | 4037.2 | 3898.9 | 4121.7 | 2855.4 |
| 47.5° | 3112.6 | 3117.7 | 3229.7 | 3570.0 | 4065.2 | 4536.2 | 4584.5 | 4420.0 | 4203.4 | 4413.9 | 3006.0 |
| 50° | 2753.2 | 2762.4 | 2917.1 | 3267.2 | 3921.4 | 4686.4 | 5032.7 | 4876.8 | 4535.5 | 4639.0 | 3060.8 |
| 52.5° | 2075.1 | 2088.1 | 2284.3 | 2769.6 | 3526.4 | 4622.3 | 5353.6 | 5315.8 | 4899.2 | 4749.0 | 3063.8 |
| 55° | 1224.4 | 1241.4 | 1428.7 | 1864.3 | 2773.7 | 4215.0 | 5377.4 | 5516.4 | 5186.3 | 4814.1 | 3059.1 |
| 57.5° | 571.8 | 583.8 | 691.0 | 960.4 | 1725.0 | 3331.2 | 5018.4 | 5378.8 | 5344.7 | 4848.5 | 3092.8 |
| 60° | 303.8 | 307.2 | 333.1 | 415.8 | 779.6 | 2112.3 | 4317.9 | 4857.0 | 5200.3 | 4896.2 | 3134.0 |
| 62.5° | 232.3 | 233.3 | 231.9 | 241.8 | 327.6 | 937.6 | 3263.8 | 3992.9 | 4618.9 | 4860.4 | 3088.4 |
| 65° | 201.3 | 203.0 | 193.4 | 191.1 | 210.1 | 334.4 | 1938.9 | 2846.2 | 3629.6 | 4377.8 | 2777.4 |
| 67.5° | 180.5 | 181.2 | 169.6 | 159.7 | 163.1 | 180.8 | 764.9 | 1558.1 | 2402.4 | 3208.9 | 2013.2 |
| 70° | 166.2 | 165.5 | 152.9 | 137.3 | 132.8 | 123.6 | 243.2 | 571.2 | 1148.1 | 1627.3 | 936.3 |
| 72.5° | 147.1 | 147.5 | 141.3 | 120.9 | 110.3 | 86.5 | 112.7 | 166.5 | 342.6 | 443.4 | 219.3 |
| 75° | 130.4 | 128.7 | 121.2 | 108.3 | 90.9 | 56.9 | 55.9 | 74.2 | 105.6 | 104.9 | 47.3 |
| 77.5° | 94.3 | 92.6 | 95.0 | 88.9 | 69.8 | 36.8 | 27.9 | 35.8 | 42.9 | 41.6 | 13.3 |
| 80° | 69.1 | 68.1 | 61.3 | 73.9 | 61.6 | 25.2 | 17.4 | 19.1 | 22.1 | 18.7 | 4.1 |
| 82.5° | 47.3 | 47.0 | 43.3 | 40.9 | 35.1 | 15.3 | 10.9 | 11.9 | 14.3 | 10.6 | 2.0 |
| 85° | 7.5 | 8.5 | 31.3 | 24.9 | 20.8 | 6.8 | 7.5 | 8.2 | 9.5 | 5.8 | 0.7 |
| 87.5° | 0.0 | 0.0 | 14.6 | 12.9 | 4.1 | 2.7 | 4.4 | 4.8 | 4.8 | 3.1 | 0.0 |
| 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° | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 | 1624.6 |
| 2.5° | 1630.7 | 1596.6 | 1533.6 | 1468.6 | 1408.3 | 1336.4 | 1287.0 | 1249.9 | 1207.0 | 1195.4 | 1220.6 |
| 5° | 1641.9 | 1577.6 | 1442.0 | 1294.5 | 1155.9 | 1002.3 | 884.8 | 791.8 | 707.7 | 679.1 | 705.0 |
| 7.5° | 1659.6 | 1563.9 | 1342.9 | 1100.1 | 858.9 | 619.2 | 455.0 | 347.1 | 278.3 | 257.8 | 268.7 |
| 10° | 1677.4 | 1544.2 | 1228.1 | 869.8 | 540.2 | 301.4 | 196.2 | 156.7 | 142.0 | 139.0 | 140.7 |
| 12.5° | 1692.0 | 1517.6 | 1088.2 | 618.5 | 288.8 | 161.4 | 128.4 | 121.9 | 119.9 | 119.9 | 120.6 |
| 15° | 1700.9 | 1477.4 | 922.3 | 393.4 | 166.2 | 121.9 | 112.1 | 110.0 | 110.0 | 110.3 | 111.0 |
| 17.5° | 1699.8 | 1426.3 | 740.8 | 238.1 | 124.3 | 108.0 | 102.2 | 100.5 | 100.1 | 100.8 | 101.2 |
| 20° | 1687.2 | 1359.6 | 558.5 | 157.0 | 108.3 | 98.4 | 92.6 | 89.6 | 89.2 | 89.9 | 90.6 |
| 22.5° | 1663.4 | 1277.2 | 399.5 | 120.9 | 97.7 | 89.2 | 82.1 | 79.4 | 79.4 | 80.0 | 80.7 |
| 25° | 1634.4 | 1176.4 | 273.1 | 102.5 | 88.2 | 79.4 | 72.5 | 70.2 | 70.8 | 72.5 | 72.9 |
| 27.5° | 1598.3 | 1062.9 | 185.6 | 87.9 | 76.6 | 69.5 | 64.4 | 62.7 | 64.4 | 66.8 | 67.4 |
| 30° | 1567.3 | 944.8 | 132.5 | 75.9 | 65.1 | 59.9 | 56.9 | 56.9 | 59.3 | 63.7 | 64.7 |
| 32.5° | 1543.5 | 830.3 | 102.2 | 67.1 | 56.5 | 52.1 | 50.4 | 52.1 | 55.9 | 60.3 | 61.3 |
| 35° | 1540.4 | 736.0 | 86.5 | 59.9 | 50.4 | 46.0 | 45.3 | 48.4 | 52.1 | 55.5 | 56.2 |
| 37.5° | 1563.9 | 648.8 | 78.0 | 54.2 | 45.0 | 40.9 | 40.2 | 43.9 | 47.7 | 51.8 | 52.8 |
| 40° | 1608.6 | 580.3 | 71.9 | 48.7 | 40.5 | 36.1 | 34.7 | 37.5 | 42.6 | 48.0 | 49.4 |
| 42.5° | 1666.5 | 523.8 | 65.1 | 43.3 | 36.1 | 30.0 | 28.3 | 31.3 | 36.8 | 42.6 | 44.3 |
| 45° | 1721.6 | 475.1 | 57.6 | 37.1 | 30.3 | 23.2 | 22.5 | 26.6 | 29.3 | 35.1 | 36.4 |
| 47.5° | 1751.9 | 432.2 | 51.1 | 30.3 | 23.5 | 18.7 | 18.7 | 19.8 | 22.5 | 29.3 | 30.7 |
| 50° | 1741.7 | 397.8 | 44.3 | 22.5 | 16.3 | 14.3 | 14.3 | 14.0 | 18.1 | 23.5 | 24.5 |
| 52.5° | 1721.3 | 378.0 | 38.1 | 17.4 | 11.2 | 10.2 | 9.2 | 10.2 | 12.6 | 15.0 | 15.3 |
| 55° | 1718.2 | 374.6 | 32.0 | 14.0 | 7.8 | 6.8 | 5.1 | 5.1 | 5.1 | 4.8 | 4.1 |
| 57.5° | 1742.1 | 380.1 | 26.9 | 11.2 | 5.8 | 4.4 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 1766.6 | 385.9 | 23.2 | 7.8 | 4.1 | 2.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 1725.7 | 372.9 | 19.4 | 4.8 | 3.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 1515.9 | 317.4 | 15.3 | 3.4 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1078.3 | 212.5 | 10.2 | 2.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 492.1 | 88.9 | 6.5 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 105.2 | 27.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 21.5 | 20.1 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 6.8 | 31.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 4.1 | 22.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.7 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)