

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: P821254

Luminaire Tested: **TT-D5-735-24VDC-MQ-UPL**

Issue Date: 7/23/2020

Test Information

Test Method: LM-79-08
Report Number: P821254
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab: INNOVATION CENTER
Issue Date: 7/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TT-D5-735-24VDC-MQ-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
3500K, 70 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

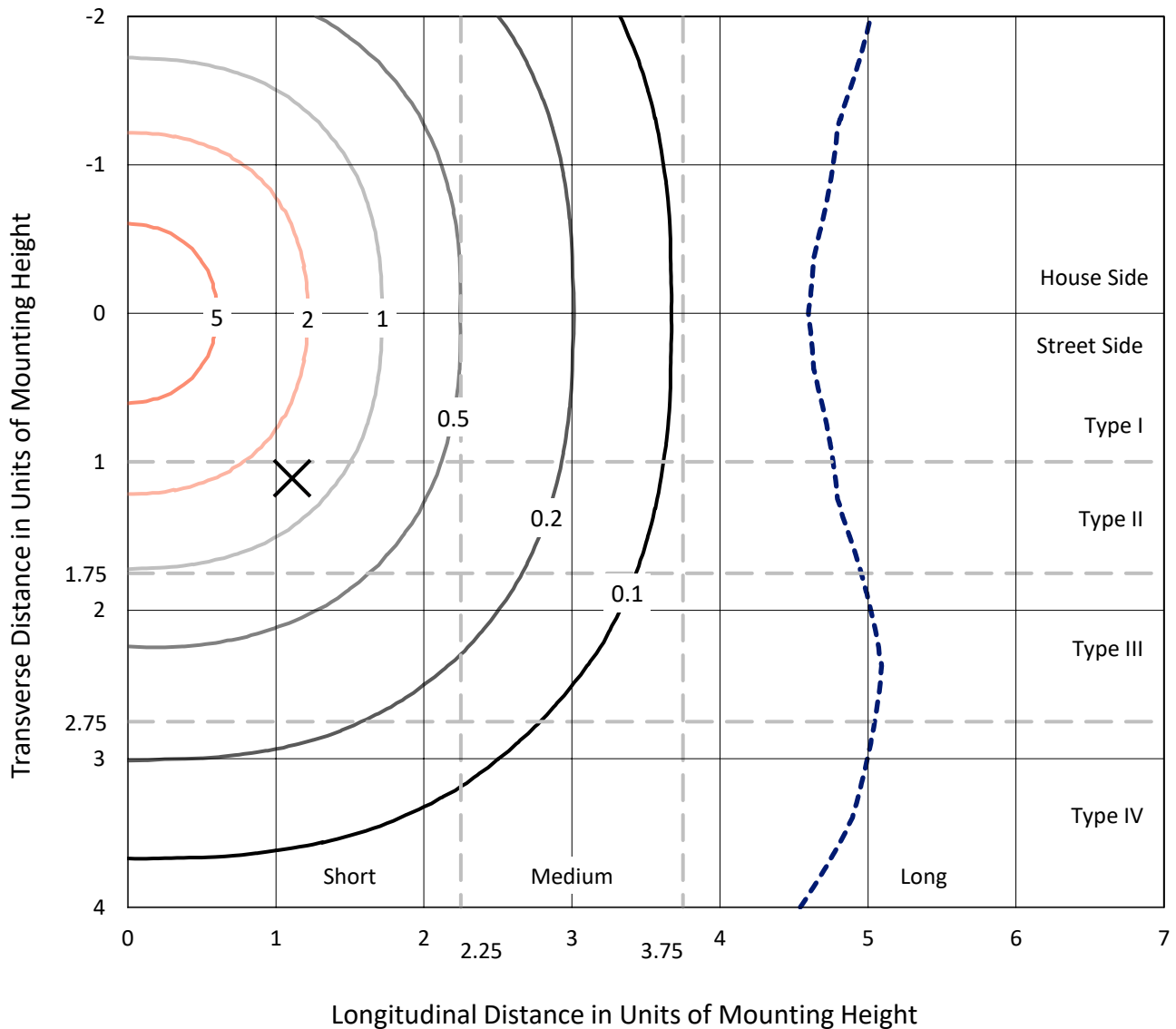
Lumens per Lamp: N/A
Luminaire Lumens: 10355.7 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short
BUG Rating: B3 - U4 - G3

Input Watts (W): 73
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

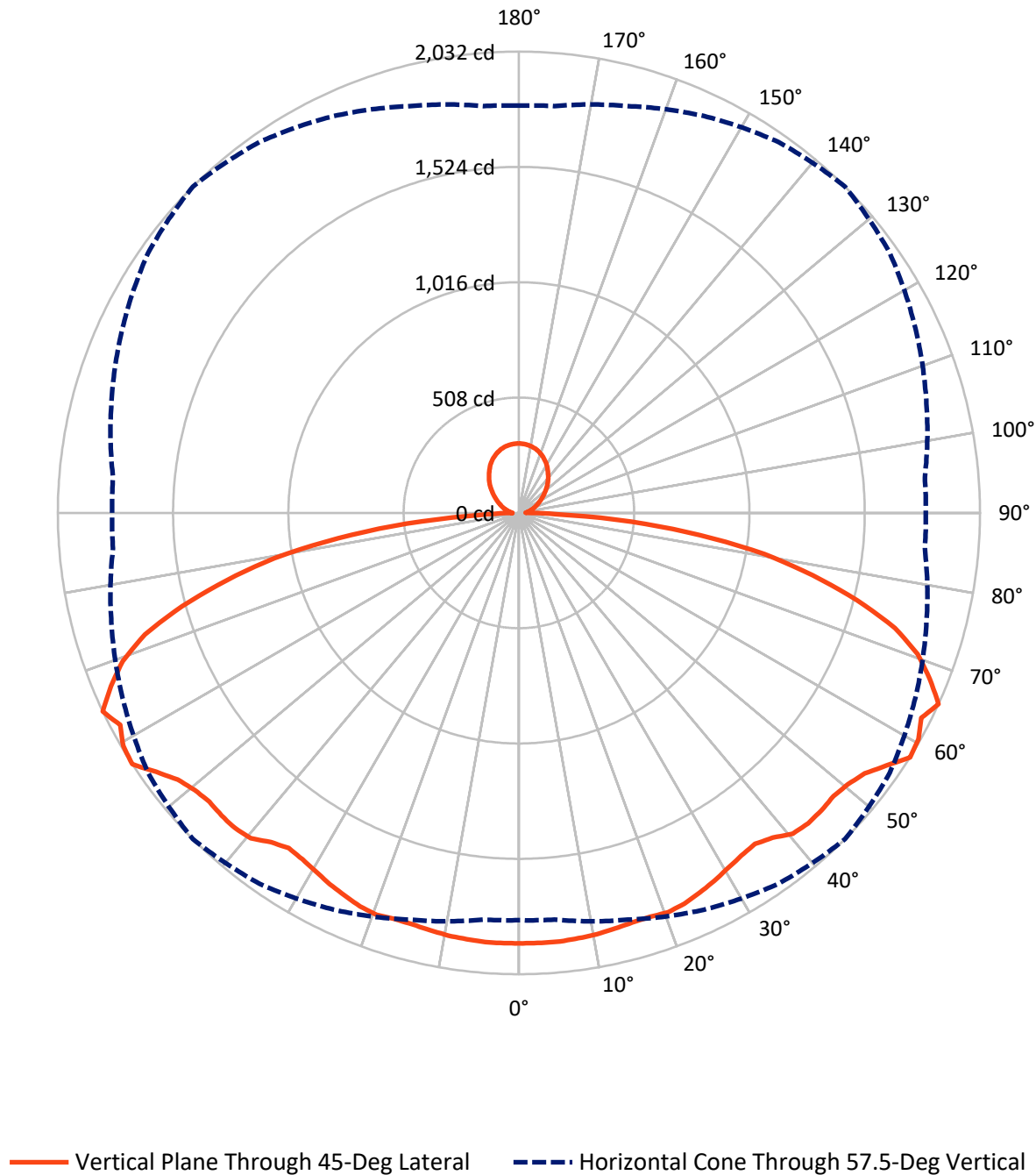
✕ Max cd
- - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 8.4 fc
Type V - Short - N/A

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Luminous Intensity Polar Plot



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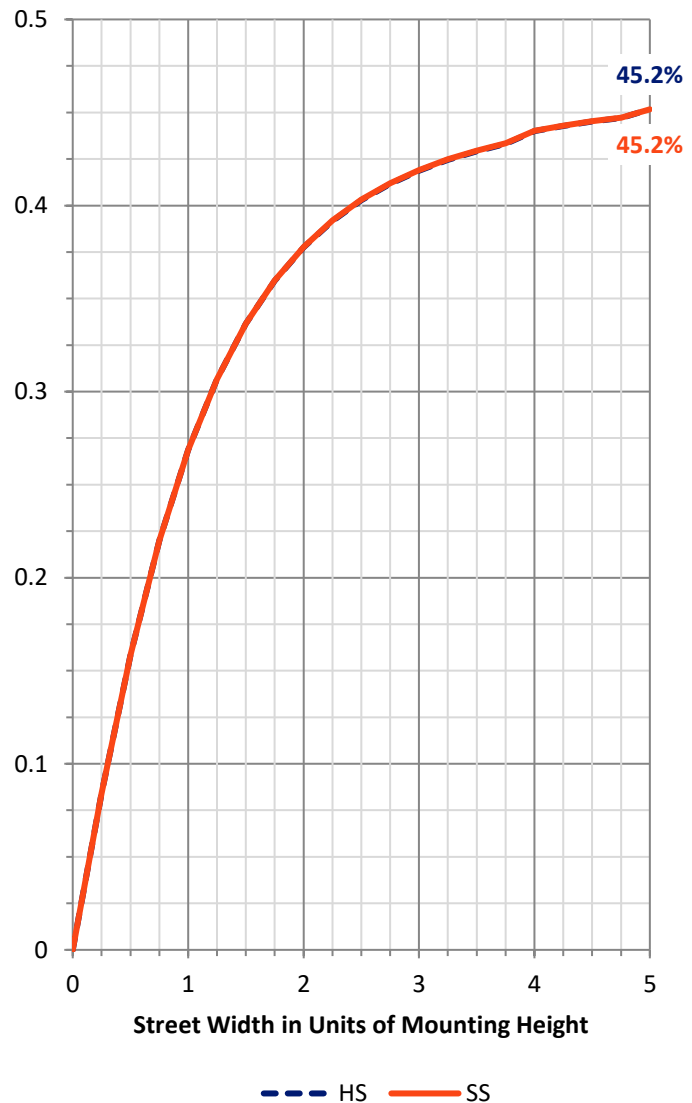
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4762.0	415.9	5177.9
	% Fixture	46.0	4.0	50.0
Street Side	Lumens	4762.0	415.9	5177.9
	% Fixture	46.0	4.0	50.0
Total	Lumens	9524.0	831.7	10355.7
	% Fixture	92.0	8.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.7	1.7
10°-20°	531.4	5.1
20°-30°	853.9	8.2
30°-40°	1127.3	10.9
40°-50°	1410.4	13.6
50°-60°	1677.6	16.2
60°-70°	1819.5	17.6
70°-80°	1448.3	14.0
80°-90°	474.8	4.6
90°-100°	42.6	0.4
100°-110°	66.0	0.6
110°-120°	91.9	0.9
120°-130°	119.0	1.1
130°-140°	138.7	1.3
140°-150°	140.5	1.4
150°-160°	121.9	1.2
160°-170°	82.2	0.8
170°-180°	28.9	0.3
0°-90°	9524.0	92.0
0°-180°	10355.7	100.0

Coefficient of Utilization



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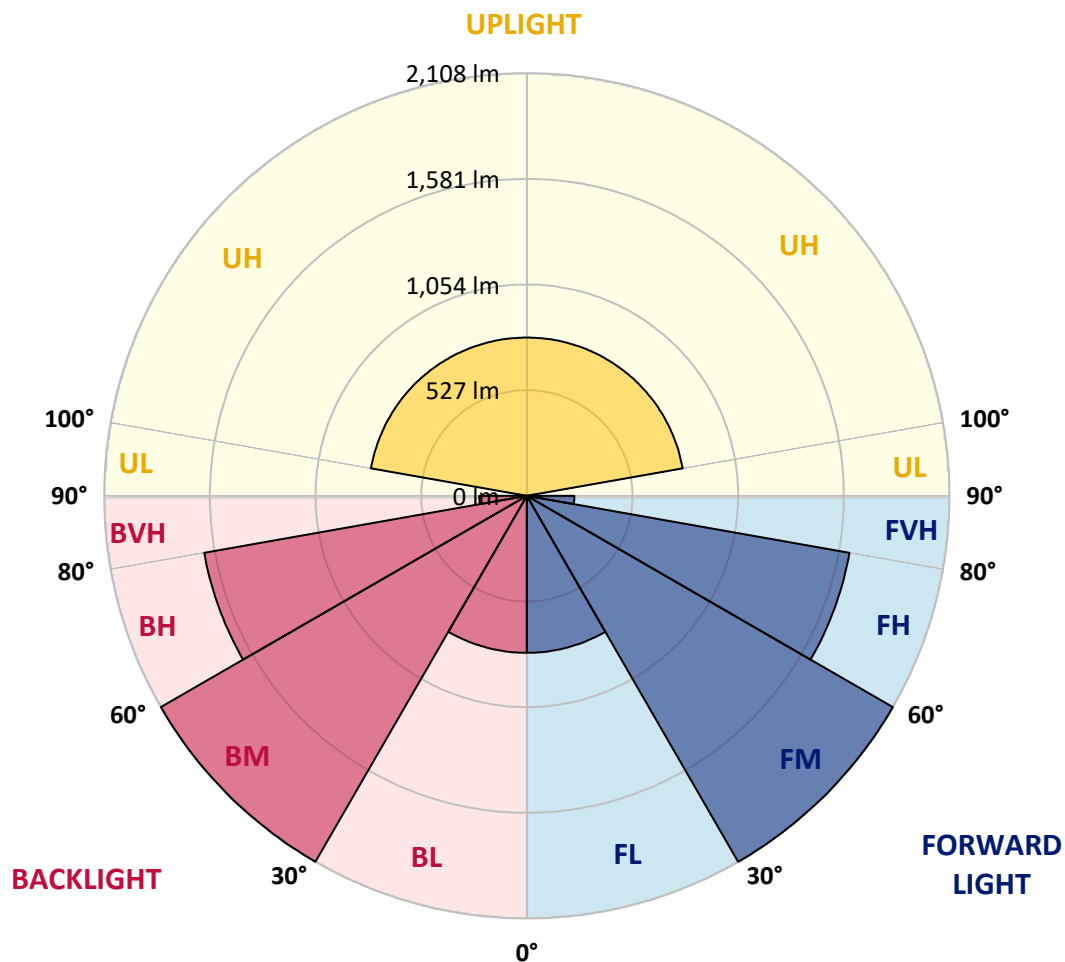
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	783.0	7.6			
FM	(30°-60°)	2107.7	20.4			
FH	(60°-80°)	1633.9	15.8			G1/1800
FVH	(80°-90°)	237.4	2.3			G3/500
BL	(0°-30°)	783.0	7.6	B2/1000		
BM	(30°-60°)	2107.7	20.4	B2/2500		
BH	(60°-80°)	1633.9	15.8	B3/2500		G1/1800
BVH	(80°-90°)	237.4	2.3			G3/500
UL	(90°-100°)	42.6	0.4		U2/50	
UH	(100°-180°)	789.1	7.6		U4/1000	

BUG Rating: B3-U4-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1
2.5°	1898.9	1897.5	1898.9	1897.5	1897.5	1896.1	1897.5	1897.5	1897.5	1897.5	1897.5
5°	1897.5	1896.1	1896.1	1897.5	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1	1896.1
7.5°	1891.8	1891.8	1893.3	1891.8	1891.8	1891.8	1891.8	1891.8	1891.8	1893.3	1893.3
10°	1887.6	1886.2	1887.6	1887.6	1886.2	1887.6	1886.2	1887.6	1887.6	1887.6	1887.6
12.5°	1881.9	1880.5	1881.9	1881.9	1880.5	1879.1	1880.5	1880.5	1881.9	1881.9	1881.9
15°	1872.0	1872.0	1874.8	1873.4	1873.4	1872.0	1874.8	1873.4	1872.0	1873.4	1873.4
17.5°	1864.9	1864.9	1867.8	1870.6	1870.6	1870.6	1870.6	1869.2	1866.4	1867.8	1864.9
20°	1866.4	1867.8	1869.2	1873.4	1876.3	1877.7	1877.7	1873.4	1869.2	1870.6	1869.2
22.5°	1862.1	1860.7	1862.1	1864.9	1869.2	1869.2	1869.2	1863.5	1862.1	1860.7	1860.7
25°	1845.1	1845.1	1847.9	1850.8	1853.6	1852.2	1853.6	1850.8	1847.9	1845.1	1845.1
27.5°	1825.3	1825.3	1829.5	1832.4	1835.2	1835.2	1833.8	1831.0	1829.5	1826.7	1825.3
30°	1805.5	1805.5	1809.7	1812.5	1816.8	1815.4	1815.4	1811.1	1806.9	1804.0	1804.0
32.5°	1784.2	1782.8	1787.1	1794.1	1799.8	1799.8	1799.8	1791.3	1785.6	1782.8	1781.4
35°	1765.8	1765.8	1771.5	1784.2	1791.3	1791.3	1788.5	1782.8	1770.1	1765.8	1765.8
37.5°	1760.1	1764.4	1780.0	1798.4	1812.5	1815.4	1811.1	1795.6	1778.6	1765.8	1761.6
40°	1778.6	1782.8	1802.6	1832.4	1853.6	1857.9	1853.6	1831.0	1801.2	1781.4	1780.0
42.5°	1781.4	1784.2	1808.3	1842.3	1862.1	1869.2	1862.1	1839.4	1806.9	1782.8	1781.4
45°	1771.5	1772.9	1801.2	1836.6	1860.7	1869.2	1860.7	1833.8	1799.8	1772.9	1771.5
47.5°	1758.7	1761.6	1792.7	1829.5	1859.3	1864.9	1857.9	1828.1	1789.9	1763.0	1758.7
50°	1748.8	1757.3	1785.6	1826.7	1862.1	1879.1	1862.1	1822.5	1784.2	1754.5	1748.8
52.5°	1754.5	1757.3	1794.1	1852.2	1900.3	1907.4	1898.9	1852.2	1791.3	1757.3	1753.1
55°	1771.5	1784.2	1823.9	1907.4	1951.3	1964.1	1945.7	1904.6	1825.3	1784.2	1771.5
57.5°	1794.1	1798.4	1855.0	1928.7	1993.8	2032.0	1995.2	1927.2	1859.3	1795.6	1792.7
60°	1775.7	1763.0	1833.8	1920.2	2008.0	2023.5	2002.3	1921.6	1831.0	1761.6	1774.3
62.5°	1726.2	1734.7	1792.7	1911.7	1972.6	1989.5	1966.9	1911.7	1789.9	1741.7	1721.9
65°	1686.5	1737.5	1801.2	1886.2	1983.9	2032.0	1985.3	1883.3	1804.0	1729.0	1682.3
67.5°	1631.3	1641.2	1736.1	1840.9	1928.7	1952.7	1927.2	1842.3	1727.6	1634.1	1641.2
70°	1537.8	1523.7	1620.0	1741.7	1825.3	1863.5	1828.1	1736.1	1615.7	1520.8	1533.6
72.5°	1383.5	1392.0	1481.2	1610.0	1696.4	1733.2	1697.8	1600.1	1478.4	1400.5	1392.0
75°	1222.1	1232.0	1318.3	1435.9	1523.7	1539.2	1529.3	1428.8	1321.2	1230.5	1222.1
77.5°	1038.0	1047.9	1118.7	1247.5	1299.9	1324.0	1302.8	1254.6	1115.8	1046.5	1035.1
80°	834.1	831.2	893.5	1004.0	1069.1	1096.0	1069.1	1006.8	890.7	836.9	818.5
82.5°	596.2	599.0	657.0	733.5	795.8	804.3	791.6	740.6	651.4	606.1	580.6
85°	331.4	344.1	386.6	443.2	484.3	498.4	477.2	429.1	385.2	349.8	338.4
87.5°	79.3	86.4	100.5	127.4	143.0	157.2	143.0	133.1	94.9	86.4	79.3
90°	30.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	55.9	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	69.0	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	84.0	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	92.0	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	101.4	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	110.8	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	121.6	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	132.4	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	144.2	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	155.9	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	168.1	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	180.3	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	191.6	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	202.9	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	213.7	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	224.5	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	235.8	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	247.0	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	256.0	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	264.9	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	272.4	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	279.9	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	286.0	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	292.1	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	295.8	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	299.6	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	302.0	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	304.3	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	305.2	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2	306.2

(END OF REPORT)