

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: STREETWORKS

Report Number: P226221

Luminaire Tested: **MLN-B3-D-U-T4-8030-XX**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226221  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29663)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: MLN-B3-D-U-T4-8030-XX  
Description: METROLINE ARCHITECTURAL LED LUMINAIRE  
80 CRI, 3000K LEDS AND TYPE IV DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9824 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')  
IES Classification: Type IV - Short - Cutoff  
BUG Rating: B2 - U1 - G2

Input Watts (W): 93.7  
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: 28.75 FT

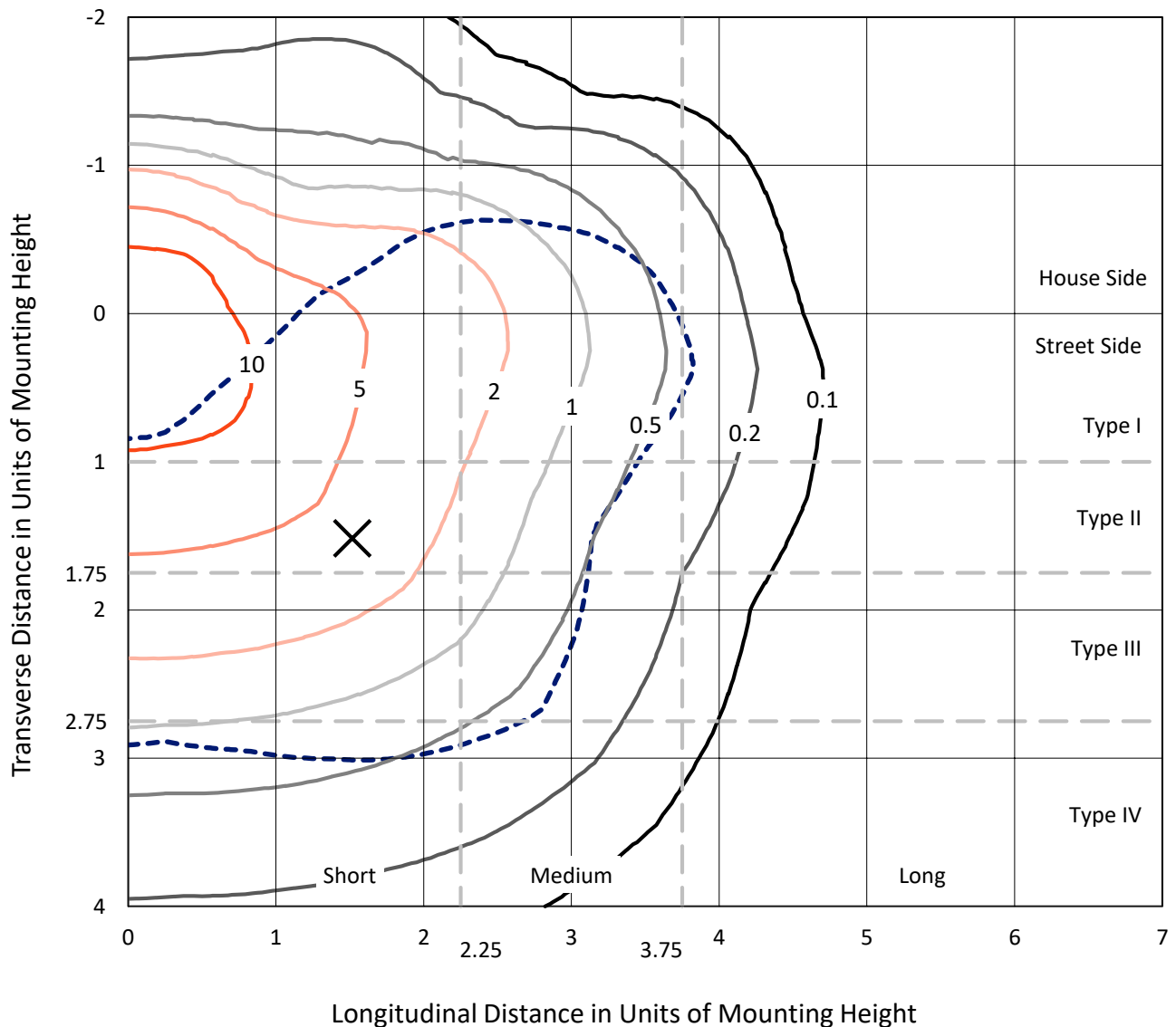


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

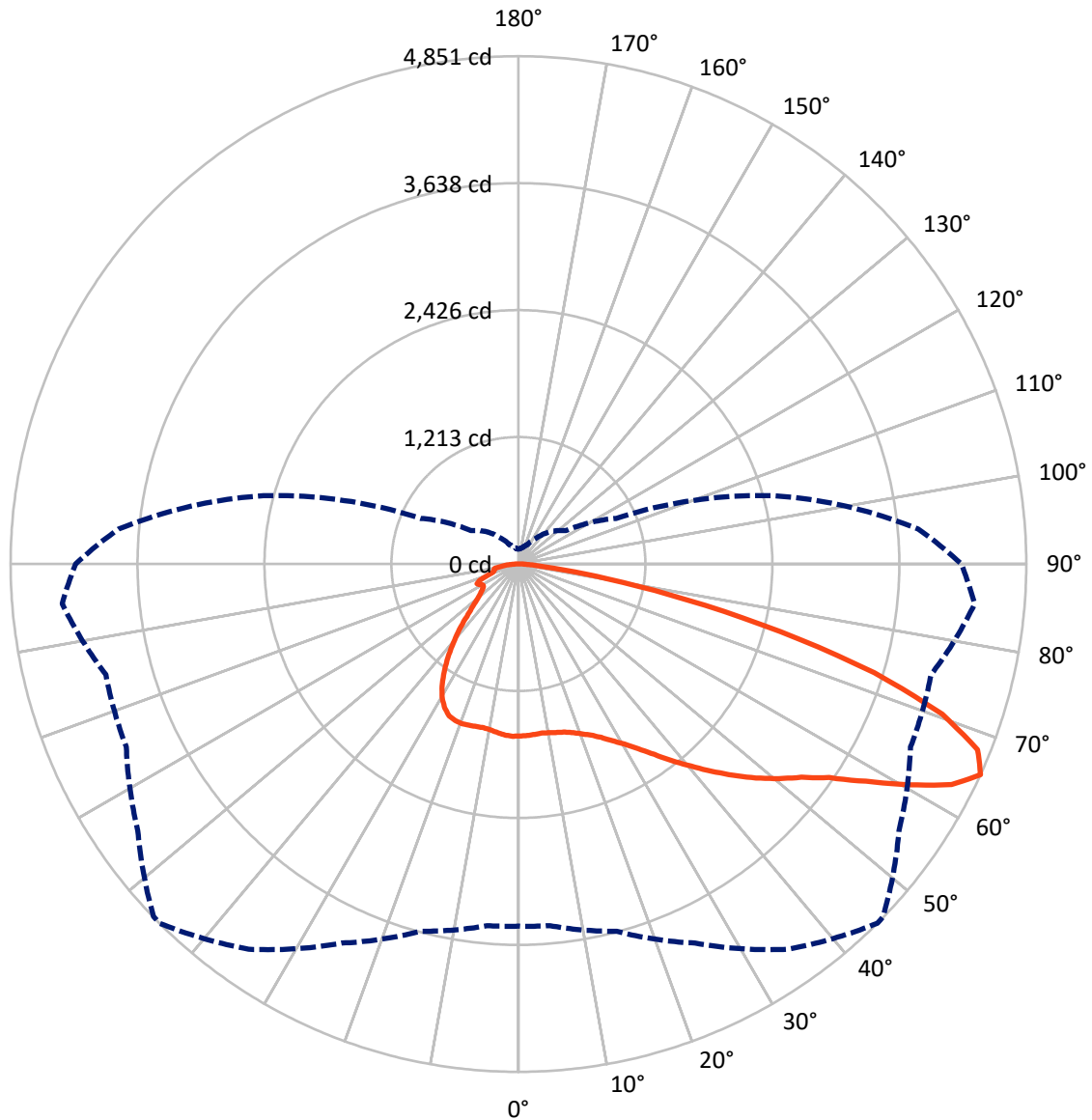


Based on 10 foot mounting height. Maximum calculated value = 16.4 fc  
 Type IV - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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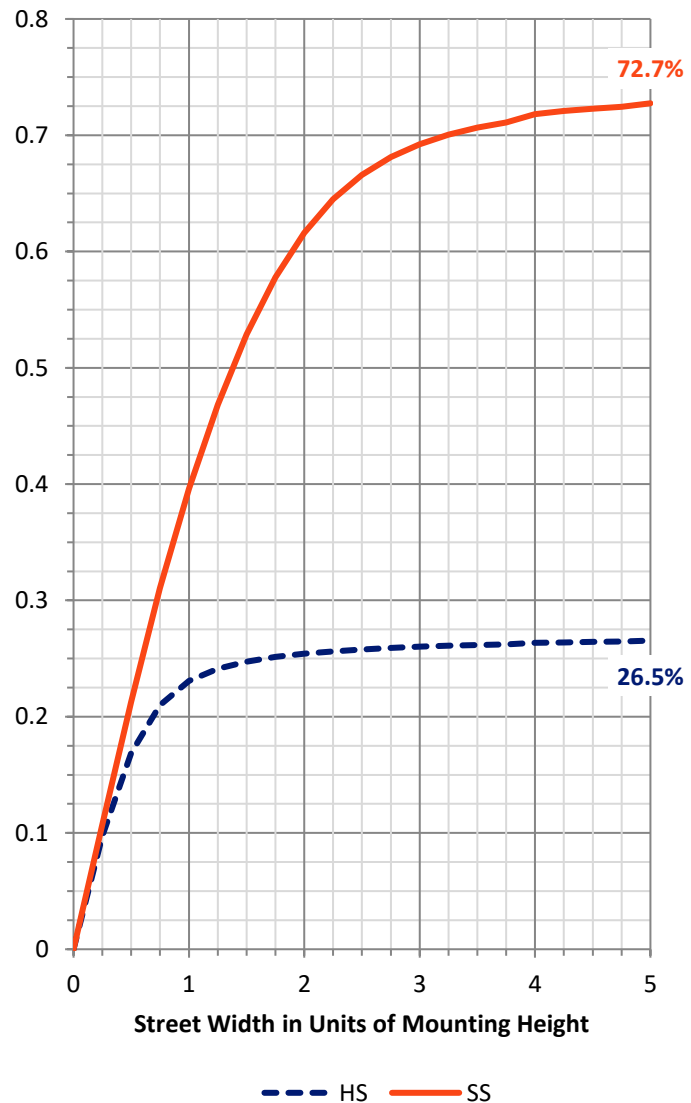
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2643.8	4.0	2647.9
	% Fixture	26.9	0.0	27.0
<b>Street Side</b>	Lumens	7171.4	4.7	7176.1
	% Fixture	73.0	0.0	73.0
<b>Total</b>	Lumens	9815.2	8.8	9824.0
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.5	1.6
10°-20°	460.3	4.7
20°-30°	767.7	7.8
30°-40°	1084.5	11.0
40°-50°	1410.0	14.4
50°-60°	1895.9	19.3
60°-70°	2464.0	25.1
70°-80°	1400.4	14.3
80°-90°	176.8	1.8
90°-100°	8.6	0.1
100°-110°	0.2	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°	9815.2	99.9
0°-180°	9824.0	100.0



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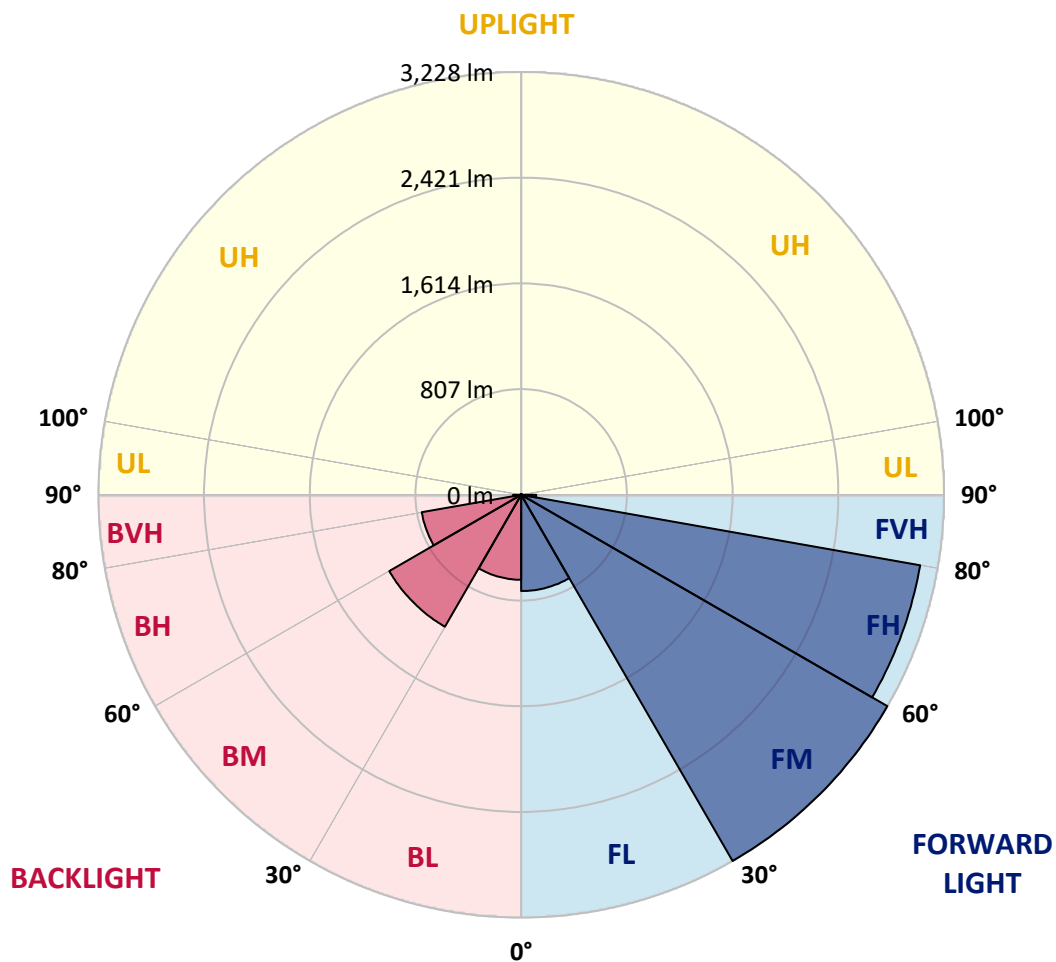
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	734.8	7.5			
FM	(30°-60°)	3227.9	32.9			
FH	(60°-80°)	3093.6	31.5			G2/5000
FVH	(80°-90°)	115.2	1.2			G2/225
BL	(0°-30°)	648.8	6.6	B2/1000		
BM	(30°-60°)	1162.5	11.8	B2/2500		
BH	(60°-80°)	770.9	7.8	B2/1000		G2/1000
BVH	(80°-90°)	61.6	0.6			G1/100
UL	(90°-100°)	8.6	0.1		U1/10	
UH	(100°-180°)	4.0	0.0		U1/10	

**BUG Rating: B2-U1-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6
2.5°	1650.8	1647.5	1636.1	1632.8	1629.6	1640.2	1645.9	1644.3	1645.9	1638.5	1634.5
5°	1627.1	1625.5	1614.1	1616.5	1616.5	1634.5	1638.5	1641.8	1648.3	1646.7	1649.1
7.5°	1613.2	1610.0	1601.0	1603.5	1608.3	1630.4	1634.5	1643.4	1654.0	1658.9	1659.8
10°	1614.1	1610.0	1601.0	1605.1	1609.2	1638.5	1641.0	1654.9	1665.5	1667.1	1664.7
12.5°	1630.4	1627.1	1615.7	1619.0	1622.2	1650.8	1654.9	1667.1	1678.5	1676.9	1669.5
15°	1660.6	1657.3	1642.6	1644.3	1643.4	1665.5	1674.4	1677.7	1690.8	1682.6	1664.7
17.5°	1705.5	1704.6	1688.3	1687.5	1680.2	1694.0	1698.9	1690.8	1697.3	1679.3	1651.6
20°	1760.1	1759.3	1740.5	1734.0	1725.9	1731.6	1734.0	1711.2	1699.7	1672.0	1636.1
22.5°	1819.7	1817.2	1799.3	1790.3	1777.3	1774.8	1776.4	1734.0	1706.3	1670.4	1630.4
25°	1897.2	1894.8	1869.5	1859.7	1839.3	1835.2	1837.6	1783.0	1740.5	1693.2	1645.1
27.5°	1964.1	1963.3	1947.8	1933.1	1915.2	1910.3	1912.7	1855.6	1801.7	1747.9	1691.6
30°	2050.6	2044.1	2018.8	2008.2	2002.5	1997.6	1995.1	1951.1	1893.1	1828.7	1765.8
32.5°	2131.4	2126.5	2102.8	2098.0	2101.2	2102.0	2098.0	2057.2	1999.2	1925.8	1849.9
35°	2229.3	2223.6	2198.3	2202.4	2221.2	2233.4	2235.0	2187.7	2115.9	2022.1	1927.4
37.5°	2316.6	2314.2	2306.0	2324.8	2359.9	2384.4	2377.0	2342.8	2244.0	2120.0	1991.1
40°	2409.7	2408.8	2408.0	2452.9	2516.6	2537.8	2534.5	2502.7	2380.3	2236.7	2080.0
42.5°	2507.6	2508.4	2512.5	2584.3	2674.9	2705.1	2700.2	2660.2	2523.9	2381.9	2195.1
45°	2616.9	2625.9	2633.3	2718.9	2834.0	2878.1	2873.2	2820.1	2664.3	2533.7	2320.7
47.5°	2734.4	2746.7	2752.4	2852.8	2987.4	3053.5	3042.1	2974.3	2794.0	2678.9	2452.1
50°	2883.8	2894.4	2897.6	2998.8	3145.7	3221.6	3212.6	3128.6	2923.7	2825.0	2621.8
52.5°	3050.2	3067.4	3073.1	3175.9	3311.4	3384.0	3377.4	3287.7	3073.1	2982.5	2826.6
55°	3246.9	3271.4	3286.9	3399.5	3530.9	3601.9	3591.2	3479.4	3278.7	3170.2	3072.3
57.5°	3448.4	3455.8	3512.9	3663.9	3828.7	3915.2	3894.0	3719.4	3527.6	3393.8	3355.4
60°	3513.7	3515.4	3618.2	3842.6	4120.8	4281.6	4257.1	4000.1	3851.5	3676.9	3704.7
62.5°	3540.7	3550.4	3694.1	4007.4	4400.7	4643.1	4628.4	4281.6	4089.0	3958.4	4094.7
65°	3459.0	3468.0	3632.0	3995.2	4492.1	4851.2	4844.6	4438.3	4133.1	4080.8	4374.6
67.5°	3135.1	3185.7	3379.1	3769.1	4309.3	4731.2	4731.2	4337.1	3963.3	4044.1	4417.0
70°	2676.5	2649.6	2874.8	3279.5	3847.5	4293.8	4306.9	3973.1	3574.1	3709.6	4108.6
72.5°	2049.0	2037.6	2251.4	2608.8	3095.1	3555.3	3578.2	3311.4	2904.2	3063.3	3543.9
75°	1548.0	1523.5	1681.0	1933.1	2252.2	2584.3	2615.3	2384.4	2034.3	2260.3	2651.2
77.5°	912.3	938.4	1064.9	1246.9	1523.5	1641.0	1667.1	1466.4	1166.9	1335.0	1348.0
80°	409.6	411.3	533.7	648.7	799.7	857.6	838.9	743.4	559.8	604.7	358.2
82.5°	140.4	161.6	253.0	302.7	363.1	342.7	334.6	323.1	303.6	329.7	164.0
85°	44.9	69.4	133.8	159.9	171.4	148.5	146.1	159.9	207.3	246.4	110.2
87.5°	8.2	26.9	76.7	90.6	92.2	69.4	66.9	84.0	130.6	155.9	62.8
90°	0.0	15.5	40.0	44.1	40.8	29.4	27.7	35.1	57.1	58.8	20.4
92.5°	0.0	5.7	18.0	18.8	13.9	8.2	7.3	7.3	8.2	5.7	4.9
95°	0.0	0.8	5.7	4.1	3.3	2.4	2.4	2.4	2.4	2.4	2.4
97.5°	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4
100°	0.0	0.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.4
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6	1642.6
2.5°	1636.1	1635.3	1637.7	1645.1	1645.1	1645.9	1631.2	1630.4	1634.5	1650.8	1650.8
5°	1652.4	1650.8	1645.9	1645.1	1643.4	1638.5	1623.0	1618.1	1621.4	1635.3	1635.3
7.5°	1660.6	1655.7	1646.7	1637.7	1630.4	1623.0	1602.6	1596.9	1600.2	1614.1	1613.2
10°	1662.2	1653.2	1638.5	1623.9	1614.1	1605.9	1578.2	1573.3	1575.7	1590.4	1591.2
12.5°	1660.6	1647.5	1627.1	1614.1	1605.9	1598.6	1565.9	1552.9	1546.3	1559.4	1558.6
15°	1651.6	1636.9	1618.1	1614.9	1612.4	1602.6	1557.8	1527.6	1510.4	1518.6	1517.8
17.5°	1636.9	1624.7	1613.2	1625.5	1631.2	1611.6	1548.0	1499.0	1473.7	1475.3	1472.1
20°	1620.6	1605.9	1607.5	1636.9	1647.5	1616.5	1534.9	1465.5	1430.5	1423.9	1419.0
22.5°	1608.3	1593.7	1606.7	1650.0	1656.5	1612.4	1509.6	1421.5	1373.3	1363.5	1362.7
25°	1615.7	1601.0	1623.9	1660.6	1655.7	1593.7	1469.6	1375.8	1314.6	1302.3	1300.7
27.5°	1649.1	1628.7	1651.6	1667.1	1637.7	1546.3	1416.6	1314.6	1250.1	1233.0	1231.4
30°	1706.3	1671.2	1672.8	1658.1	1594.5	1477.8	1344.8	1233.8	1169.3	1148.1	1151.4
32.5°	1773.2	1719.3	1681.0	1618.1	1514.5	1378.2	1242.0	1131.0	1077.1	1059.2	1060.0
35°	1836.8	1768.3	1677.7	1554.5	1407.6	1251.8	1118.7	1026.5	974.3	959.6	962.9
37.5°	1898.0	1818.1	1661.4	1463.9	1276.2	1119.6	993.1	902.5	857.6	842.9	844.6
40°	1981.3	1882.5	1637.7	1361.1	1141.6	975.1	856.0	772.8	736.9	723.8	727.9
42.5°	2084.9	1962.5	1615.7	1259.9	1016.7	841.3	719.7	651.2	617.7	607.9	611.2
45°	2193.4	2055.5	1598.6	1166.9	901.7	701.8	607.9	543.5	508.4	497.8	499.4
47.5°	2319.9	2158.3	1610.0	1100.0	797.2	596.5	511.6	447.2	409.6	395.8	396.6
50°	2474.9	2302.0	1653.2	1064.1	690.3	518.2	436.6	368.0	324.8	306.8	301.9
52.5°	2681.4	2471.7	1721.8	1056.7	611.2	461.9	371.3	302.7	259.5	239.9	237.5
55°	2912.3	2659.4	1809.1	1054.3	558.1	422.7	322.3	252.1	212.2	192.6	190.1
57.5°	3173.4	2880.5	1908.6	1038.8	530.4	397.4	290.5	222.0	188.5	169.7	166.5
60°	3528.4	3180.8	2089.0	1038.0	527.1	393.3	280.7	214.6	178.7	157.5	155.0
62.5°	3952.7	3561.9	2352.5	1052.6	551.6	417.0	294.6	213.0	172.2	151.0	148.5
65°	4231.0	3832.8	2519.8	1029.8	554.9	438.2	307.6	205.6	164.8	145.2	142.8
67.5°	4240.8	3828.7	2439.9	894.3	477.4	401.5	292.1	194.2	157.5	139.5	137.9
70°	3927.4	3531.7	2157.5	692.0	382.7	319.9	252.1	177.1	147.7	131.4	129.7
72.5°	3350.5	2999.6	1766.7	519.0	306.0	260.3	220.3	164.8	137.1	121.6	120.8
75°	2394.2	2138.8	1284.4	406.4	265.2	238.3	203.2	163.2	129.7	114.2	111.8
77.5°	1064.9	908.2	713.2	357.4	254.6	238.3	195.0	159.1	122.4	101.2	98.7
80°	274.2	287.2	368.0	337.0	247.2	229.3	182.0	145.2	112.6	85.7	83.2
82.5°	153.4	155.9	228.5	266.0	206.4	176.3	155.0	119.1	96.3	71.8	68.5
85°	106.9	102.0	137.1	146.9	119.1	120.0	111.8	88.1	73.4	51.4	45.7
87.5°	57.9	61.2	72.6	63.6	57.9	57.9	73.4	61.2	53.0	29.4	20.4
90°	17.1	22.8	36.7	31.8	28.6	24.5	37.5	35.1	32.6	15.5	0.0
92.5°	4.9	4.1	6.5	7.3	8.2	8.2	13.9	15.5	16.3	4.9	0.0
95°	2.4	1.6	1.6	0.8	2.4	3.3	4.9	5.7	6.5	1.6	0.0
97.5°	2.4	2.4	1.6	1.6	0.8	0.8	1.6	1.6	1.6	0.0	0.0
100°	2.4	2.4	1.6	1.6	1.6	0.8	0.8	0.8	0.8	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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)