

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: INVUE

Report Number: P401635

Luminaire Tested: **ENT-SA1E-730-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401635
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-8)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-730-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4817 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 57.2
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

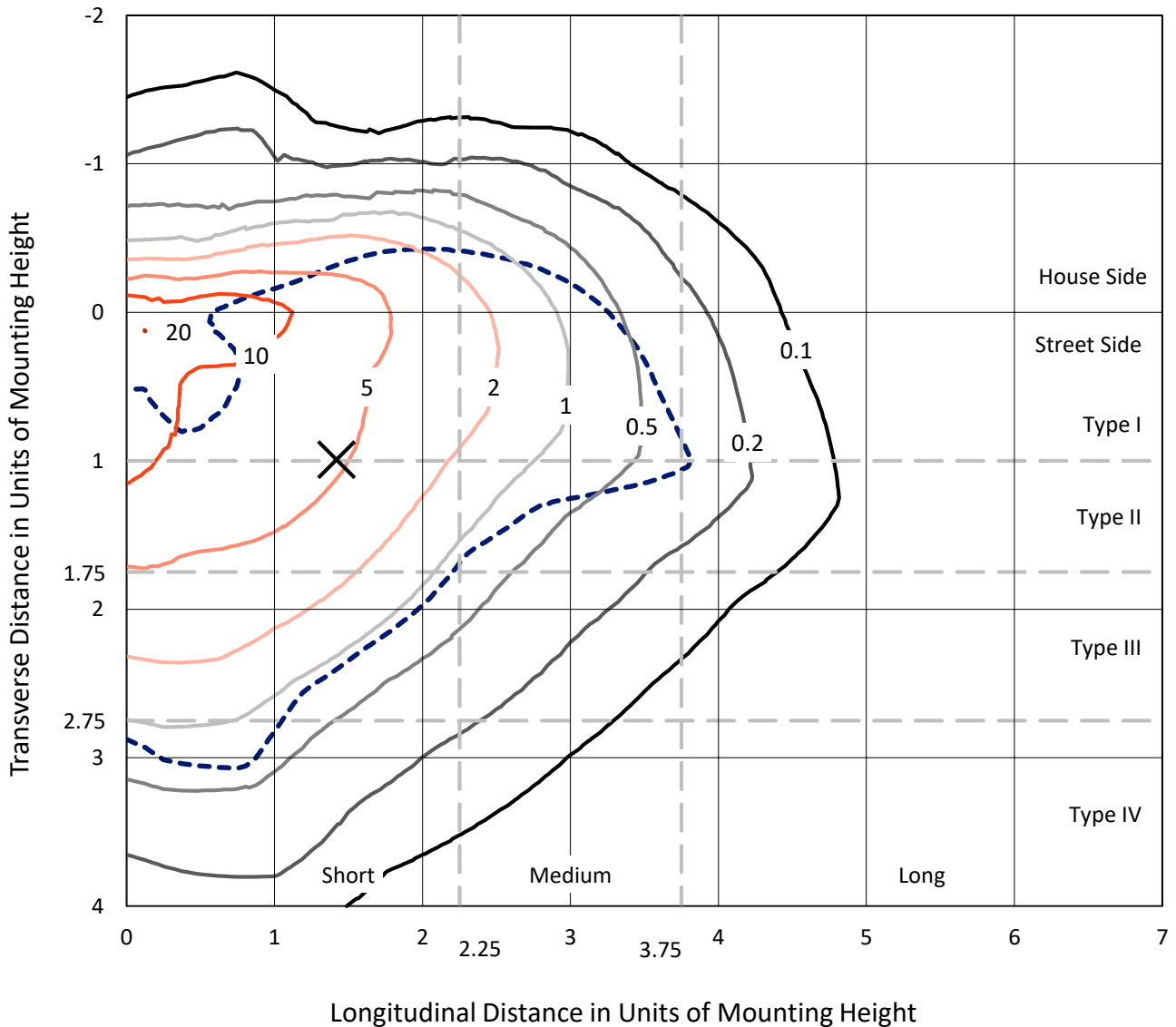


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

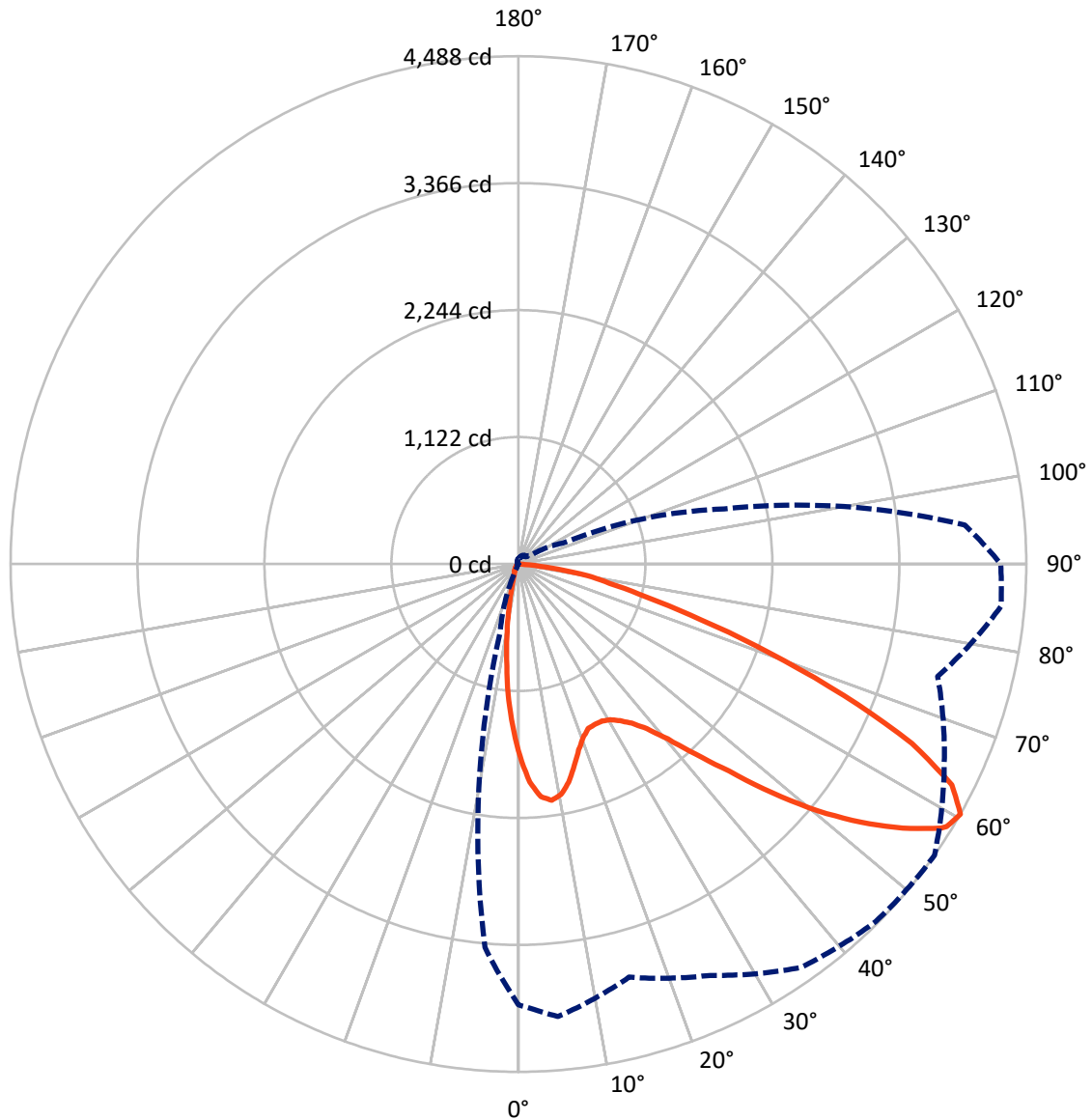


Based on 10 foot mounting height. Maximum calculated value = 20.1 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 60-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	853.0	0.0	853.0
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	3964.0	0.0	3964.0
	% Fixture	82.3	0.0	82.3
Total	Lumens	4817.0	0.0	4817.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	2.7
10°-20°	243.5	5.1
20°-30°	347.3	7.2
30°-40°	509.4	10.6
40°-50°	751.1	15.6
50°-60°	1112.7	23.1
60°-70°	1185.8	24.6
70°-80°	491.9	10.2
80°-90°	47.3	1.0
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°	4817.0	100.0
0°-180°	4817.0	100.0



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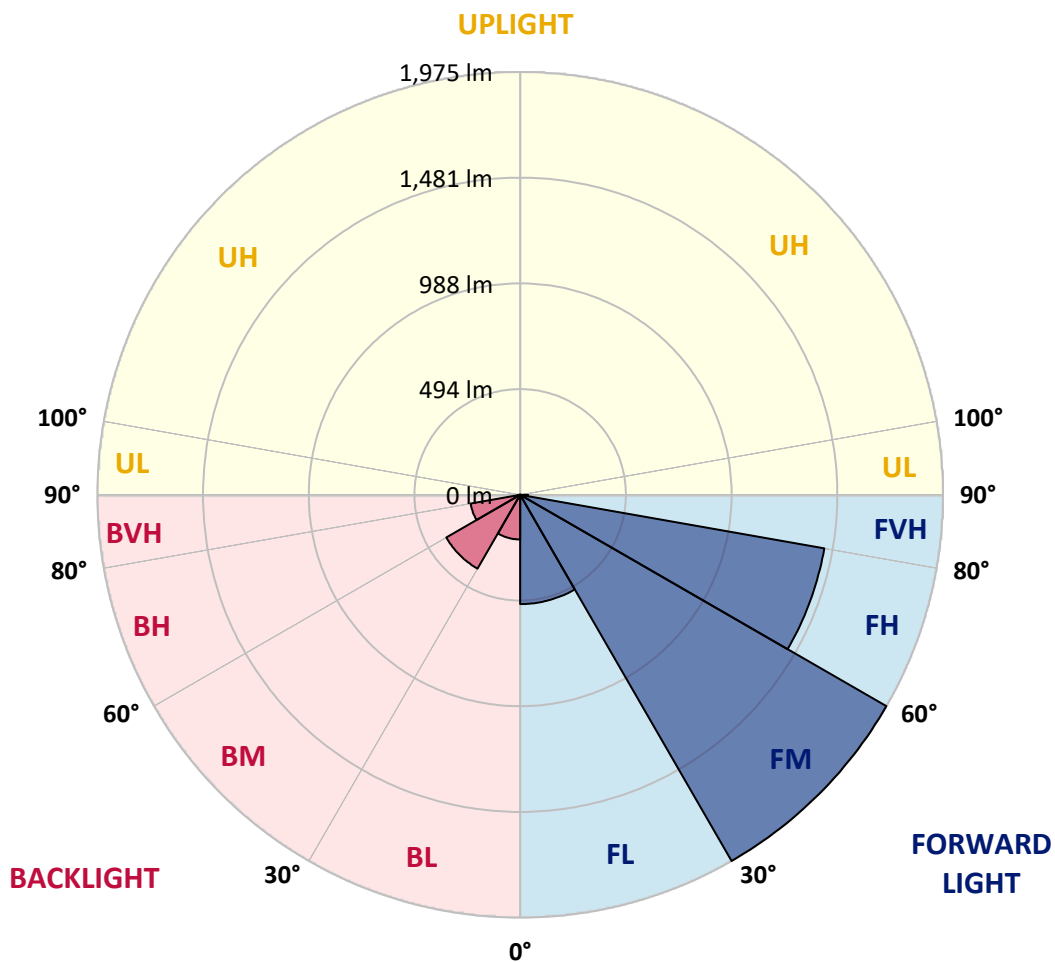
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	510.2	10.6			
FM	(30°-60°)	1975.0	41.0			
FH	(60°-80°)	1442.5	29.9			G1/1800
FVH	(80°-90°)	36.2	0.8			G1/100
BL	(0°-30°)	208.6	4.3	B1/500		
BM	(30°-60°)	398.3	8.3	B1/1000		
BH	(60°-80°)	235.2	4.9	B1/500		G1/500
BVH	(80°-90°)	11.1	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1
2.5°	1776.7	1774.0	1799.5	1852.3	1885.1	1905.1	1908.8	1929.7	1908.8	1897.9	1858.7
5°	1724.8	1723.9	1773.1	1888.7	1983.5	2054.5	2089.1	2065.4	2029.0	1957.0	1869.6
7.5°	1580.9	1580.9	1673.8	1828.6	1987.1	2110.0	2151.9	2108.2	2021.7	1876.9	1720.3
10°	1463.5	1474.4	1563.6	1748.5	1924.3	2059.0	2105.5	2071.8	1958.9	1771.3	1587.3
12.5°	1393.3	1399.7	1499.0	1684.8	1848.7	1958.0	1986.2	1976.2	1894.2	1690.2	1495.3
15°	1399.7	1408.8	1522.7	1674.7	1781.3	1825.0	1835.0	1847.8	1814.1	1657.4	1465.3
17.5°	1499.9	1506.3	1621.0	1719.4	1714.8	1701.1	1704.8	1725.7	1765.8	1684.8	1526.3
20°	1660.2	1676.6	1792.2	1794.0	1680.2	1616.5	1600.1	1634.7	1743.0	1756.7	1656.5
22.5°	1866.0	1872.4	1989.8	1919.7	1683.8	1558.2	1539.0	1578.2	1750.3	1873.3	1836.8
25°	2104.6	2127.3	2191.1	2082.7	1736.7	1550.0	1537.2	1570.0	1776.7	1997.1	2022.6
27.5°	2265.8	2284.0	2345.0	2193.8	1784.0	1554.5	1530.8	1570.9	1808.6	2113.7	2221.1
30°	2409.7	2422.4	2445.2	2252.1	1837.7	1577.3	1539.0	1596.4	1825.9	2138.3	2349.5
32.5°	2545.3	2560.8	2547.2	2322.2	1896.9	1620.1	1554.5	1650.1	1863.2	2187.4	2461.6
35°	2720.2	2721.1	2674.7	2392.4	1964.3	1671.1	1600.1	1726.6	1936.1	2263.9	2581.8
37.5°	2927.8	2929.7	2812.2	2464.3	2040.8	1756.7	1707.5	1845.0	2041.7	2352.3	2753.9
40°	3109.1	3116.3	2960.6	2547.2	2134.6	1923.4	1918.8	2032.6	2177.4	2469.8	2938.8
42.5°	3266.6	3287.5	3097.2	2616.4	2267.6	2179.3	2190.2	2294.0	2342.3	2568.1	3053.5
45°	3426.0	3425.1	3209.2	2685.6	2489.8	2508.9	2612.7	2608.2	2529.0	2620.9	3143.7
47.5°	3525.2	3520.7	3277.5	2798.5	2789.4	2972.5	3082.6	3022.5	2735.7	2677.4	3256.6
50°	3563.5	3561.7	3331.3	2942.4	3094.5	3392.3	3549.8	3429.6	2988.8	2772.1	3391.4
52.5°	3671.9	3662.7	3455.1	3106.3	3370.4	3796.6	3926.8	3793.0	3241.1	2942.4	3548.0
55°	3841.2	3844.0	3668.2	3298.5	3591.7	4081.7	4241.0	4121.7	3498.8	3176.4	3762.9
57.5°	3955.1	3963.3	3904.1	3512.5	3828.5	4281.1	4435.9	4402.2	3842.1	3456.0	4015.2
58°	3966.0	3972.4	3941.4	3553.5	3864.0	4303.9	4462.3	4438.6	3917.7	3545.3	4075.3
60°	3895.9	3915.0	4014.3	3779.3	4010.6	4352.1	4466.9	4487.8	4151.8	3834.9	4281.1
62.5°	3705.5	3711.9	3892.2	4032.5	4110.8	4232.8	4243.8	4298.4	4248.3	4174.5	4465.1
65°	3472.4	3472.4	3667.3	4044.3	3851.3	3831.2	3767.5	3822.1	3966.9	4387.6	4452.3
67.5°	3067.2	3069.9	3318.5	3602.6	3192.8	3123.6	3082.6	3102.7	3411.4	4210.1	4204.6
70°	2478.9	2477.0	2732.9	2916.9	2369.6	2310.4	2359.6	2353.2	2771.2	3741.1	3670.9
72.5°	1753.1	1768.5	2031.7	2253.0	1609.2	1387.0	1603.7	1687.5	2084.5	3153.7	2840.4
75°	987.2	1008.1	1223.0	1565.5	1015.4	938.0	1049.1	1168.4	1507.2	2510.7	1907.9
77.5°	495.4	503.6	626.5	753.1	615.6	714.9	708.5	822.3	1033.6	1693.9	1091.0
80°	286.0	302.3	344.2	388.9	344.2	453.5	526.4	619.3	636.6	876.1	608.3
82.5°	114.7	128.4	161.2	183.0	143.0	134.8	92.0	289.6	383.4	423.5	233.1
85°	0.0	0.0	0.9	1.8	2.7	2.7	4.6	51.0	93.8	20.9	38.2
87.5°	0.0	0.0	0.9	0.9	1.8	2.7	3.6	6.4	8.2	10.0	34.6
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°	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1
2.5°	1844.1	1834.1	1800.4	1749.4	1717.5	1668.4	1648.3	1601.9	1578.2	1539.0	1539.0
5°	1825.9	1784.9	1700.2	1590.0	1511.7	1429.8	1403.4	1348.7	1309.6	1263.1	1244.0
7.5°	1660.2	1602.8	1470.7	1342.3	1217.6	1134.7	1052.7	997.2	944.4	906.1	911.6
10°	1508.1	1426.1	1281.3	1118.3	989.0	902.5	828.7	764.1	709.4	655.7	647.5
12.5°	1408.8	1315.0	1142.0	967.1	870.6	806.9	738.6	667.5	600.1	540.9	517.3
15°	1366.9	1264.9	1071.9	907.0	818.7	736.7	657.5	570.1	492.7	421.6	402.5
17.5°	1412.5	1290.4	1065.5	867.0	744.0	641.1	530.9	435.3	344.2	293.2	277.8
20°	1536.3	1377.9	1086.4	826.9	661.2	528.2	393.4	285.0	234.0	203.1	193.1
22.5°	1715.7	1522.7	1122.0	787.7	577.4	393.4	271.4	205.8	175.8	159.4	154.8
25°	1910.6	1709.3	1187.5	755.0	493.6	292.3	201.3	168.5	150.3	138.4	133.9
27.5°	2130.1	1894.2	1267.7	730.4	416.2	234.0	173.0	148.4	133.9	125.7	122.0
30°	2267.6	2027.2	1328.7	686.7	363.4	213.1	164.8	140.2	124.8	118.4	115.7
32.5°	2394.2	2131.9	1387.0	636.6	323.3	188.5	160.3	147.5	129.3	116.6	111.1
35°	2533.5	2239.4	1415.2	606.5	296.9	163.9	132.0	114.7	104.7	102.9	100.2
37.5°	2741.1	2366.9	1433.4	590.1	280.5	149.4	122.9	103.8	92.0	81.1	76.5
40°	2937.8	2498.9	1442.5	574.6	272.3	140.2	117.5	98.4	85.6	75.6	71.0
42.5°	3091.8	2619.1	1448.0	563.7	257.7	134.8	112.9	94.7	81.1	71.0	66.5
45°	3217.4	2758.4	1443.4	560.1	245.9	138.4	111.1	92.0	77.4	67.4	62.8
47.5°	3340.4	2909.6	1460.7	555.5	234.0	133.0	112.0	91.1	74.7	64.7	60.1
50°	3501.6	3092.7	1523.6	542.8	225.8	124.8	121.1	92.0	73.8	62.8	59.2
52.5°	3710.1	3345.8	1637.4	529.1	215.8	117.5	126.6	92.0	71.9	61.0	56.5
55°	3963.3	3630.0	1763.1	509.1	198.5	108.4	121.1	92.0	70.1	60.1	54.6
57.5°	4170.0	3883.1	1862.3	485.4	166.7	97.4	111.1	88.3	65.6	56.5	51.9
58°	4188.2	3912.3	1876.0	479.0	163.0	95.6	108.4	87.4	63.7	55.6	51.0
60°	4262.0	3959.6	1881.5	444.4	135.7	91.1	93.8	84.7	60.1	51.9	48.3
62.5°	4236.5	3803.0	1765.8	383.4	121.1	82.9	78.3	86.5	55.6	47.4	43.7
65°	4109.9	3495.2	1547.2	343.3	122.0	73.8	67.4	75.6	51.0	42.8	39.2
67.5°	3808.5	3028.0	1256.7	321.5	127.5	65.6	58.3	56.5	45.5	38.2	35.5
70°	3248.4	2481.6	952.6	302.3	134.8	58.3	53.7	50.1	41.9	35.5	31.9
72.5°	2392.4	1837.7	693.0	283.2	131.1	51.9	50.1	45.5	38.2	31.9	30.1
75°	1492.6	1067.3	474.5	231.3	117.5	45.5	46.4	42.8	34.6	30.1	27.3
77.5°	871.5	749.5	234.0	172.1	81.1	40.1	41.0	39.2	35.5	28.2	26.4
80°	521.8	466.3	100.2	73.8	44.6	35.5	34.6	36.4	33.7	26.4	24.6
82.5°	225.8	202.2	48.3	41.0	36.4	31.0	30.1	31.0	29.1	21.9	20.9
85°	12.7	33.7	22.8	30.1	27.3	22.8	22.8	23.7	20.9	17.3	17.3
87.5°	11.8	25.5	14.6	18.2	20.0	17.3	18.2	18.2	17.3	15.5	14.6
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1
2.5°	1518.1	1508.1	1478.0	1467.1	1419.7	1431.6	1435.2	1430.7	1432.5	1436.1	1449.8
5°	1257.6	1241.3	1202.1	1176.6	1162.9	1153.8	1111.0	1111.9	1118.3	1093.7	1125.6
7.5°	893.4	911.6	915.2	891.6	877.0	846.0	806.9	785.0	747.7	768.6	773.2
10°	639.3	630.2	647.5	639.3	616.5	604.7	562.8	559.2	555.5	552.8	579.2
12.5°	487.2	459.9	439.9	444.4	427.1	398.0	390.7	391.6	395.2	395.2	402.5
15°	386.1	344.2	312.4	293.2	296.0	266.8	258.6	231.3	227.7	219.5	221.3
17.5°	270.5	253.2	234.0	212.2	203.1	176.7	144.8	130.2	119.3	121.1	126.6
20°	186.7	179.4	173.9	163.0	153.9	122.9	102.9	96.5	95.6	97.4	99.3
22.5°	150.3	143.0	137.5	133.9	122.0	99.3	88.3	83.8	83.8	83.8	84.7
25°	129.3	122.0	114.7	114.7	103.8	86.5	78.3	74.7	73.8	72.9	74.7
27.5°	120.2	110.2	102.9	98.4	90.2	76.5	69.2	65.6	64.7	64.7	65.6
30°	111.1	101.1	93.8	87.4	78.3	68.3	61.0	58.3	56.5	56.5	57.4
32.5°	105.6	95.6	86.5	78.3	68.3	60.1	53.7	50.1	48.3	49.2	50.1
35°	93.8	85.6	77.4	69.2	60.1	52.8	46.4	42.8	41.9	41.9	42.8
37.5°	73.8	67.4	65.6	61.0	52.8	45.5	39.2	35.5	34.6	34.6	35.5
40°	66.5	58.3	54.6	52.8	48.3	39.2	31.9	28.2	28.2	27.3	29.1
42.5°	61.0	52.8	46.4	44.6	41.9	33.7	25.5	22.8	21.9	21.9	22.8
45°	57.4	48.3	40.1	35.5	35.5	27.3	20.9	17.3	16.4	16.4	17.3
47.5°	55.6	45.5	35.5	29.1	28.2	22.8	16.4	12.7	11.8	11.8	11.8
50°	53.7	41.9	31.9	24.6	21.9	19.1	12.7	10.0	9.1	9.1	9.1
52.5°	51.0	40.1	29.1	21.9	17.3	14.6	10.0	7.3	6.4	5.5	6.4
55°	49.2	37.3	28.2	20.0	14.6	10.9	7.3	5.5	4.6	4.6	4.6
57.5°	46.4	34.6	25.5	19.1	13.7	8.2	5.5	3.6	2.7	2.7	3.6
58°	45.5	34.6	24.6	18.2	12.7	8.2	5.5	3.6	2.7	2.7	3.6
60°	42.8	31.9	23.7	16.4	11.8	7.3	4.6	2.7	1.8	1.8	2.7
62.5°	40.1	29.1	20.9	14.6	10.0	6.4	3.6	1.8	0.9	0.9	0.9
65°	35.5	26.4	18.2	13.7	8.2	4.6	2.7	0.9	0.0	0.0	0.0
67.5°	31.9	24.6	16.4	11.8	7.3	3.6	1.8	0.0	0.0	0.0	0.0
70°	29.1	22.8	14.6	10.0	6.4	2.7	0.9	0.0	0.0	0.0	0.0
72.5°	27.3	20.9	13.7	9.1	4.6	2.7	0.9	0.0	0.0	0.0	0.0
75°	26.4	20.0	13.7	8.2	4.6	2.7	1.8	0.9	0.0	0.0	0.9
77.5°	25.5	20.0	13.7	8.2	5.5	2.7	2.7	1.8	1.8	0.9	2.7
80°	23.7	18.2	11.8	7.3	4.6	3.6	2.7	1.8	0.0	0.0	0.0
82.5°	20.0	14.6	10.0	7.3	4.6	2.7	0.9	0.0	0.0	0.0	0.0
85°	16.4	11.8	8.2	4.6	2.7	0.9	0.0	0.0	0.0	0.0	0.0
87.5°	14.6	9.1	6.4	3.6	1.8	0.9	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



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1	1701.1
2.5°	1461.6	1503.5	1520.8	1579.1	1604.6	1657.4	1703.0	1742.1	1761.3	1776.7
5°	1133.8	1173.9	1216.7	1303.2	1377.9	1458.0	1558.2	1662.0	1692.0	1724.8
7.5°	791.4	850.6	922.5	999.9	1106.5	1227.6	1371.5	1499.9	1564.5	1580.9
10°	614.7	684.8	761.3	837.8	926.2	1055.5	1200.3	1366.0	1435.2	1463.5
12.5°	461.7	555.5	646.6	736.7	813.2	925.2	1082.8	1280.4	1356.9	1393.3
15°	277.8	383.4	495.4	616.5	723.1	854.2	1031.8	1262.2	1358.7	1399.7
17.5°	138.4	189.4	292.3	474.5	632.0	795.0	1030.9	1327.8	1447.1	1499.9
20°	102.9	116.6	155.7	296.0	525.5	745.8	1041.8	1439.8	1615.5	1660.2
22.5°	88.3	98.4	112.0	173.0	393.4	700.3	1080.1	1588.2	1806.8	1866.0
25°	77.4	85.6	96.5	119.3	269.6	646.6	1152.0	1797.7	2023.5	2104.6
27.5°	68.3	75.6	84.7	100.2	180.3	545.5	1193.0	1973.4	2198.4	2265.8
30°	60.1	65.6	74.7	85.6	133.0	421.6	1231.2	2128.3	2356.8	2409.7
32.5°	52.8	57.4	64.7	72.9	101.1	319.6	1233.1	2261.2	2495.3	2545.3
35°	44.6	50.1	55.6	62.8	80.1	249.5	1195.7	2393.3	2659.2	2720.2
37.5°	37.3	41.9	48.3	54.6	72.9	193.1	1118.3	2548.1	2858.6	2927.8
40°	31.9	36.4	41.9	49.2	64.7	140.2	994.5	2688.3	3045.3	3109.1
42.5°	25.5	30.1	36.4	48.3	53.7	101.1	869.7	2823.1	3207.4	3266.6
45°	20.0	25.5	33.7	46.4	44.6	71.0	762.2	2942.4	3346.7	3426.0
47.5°	14.6	20.9	33.7	41.9	36.4	51.0	707.6	3057.1	3471.5	3525.2
50°	10.9	17.3	36.4	35.5	31.0	43.7	715.8	3184.6	3528.9	3563.5
52.5°	8.2	14.6	28.2	25.5	26.4	38.2	747.7	3353.1	3647.3	3671.9
55°	7.3	10.9	17.3	19.1	23.7	36.4	739.5	3512.5	3798.4	3841.2
57.5°	6.4	9.1	13.7	15.5	20.9	34.6	693.0	3582.6	3895.9	3955.1
58°	5.5	9.1	12.7	15.5	20.9	33.7	681.2	3563.5	3891.3	3966.0
60°	4.6	8.2	11.8	13.7	18.2	30.1	623.8	3401.4	3791.2	3895.9
62.5°	3.6	5.5	9.1	10.0	14.6	24.6	513.6	3139.1	3576.2	3705.5
65°	1.8	3.6	5.5	7.3	10.0	18.2	365.2	2828.6	3345.8	3472.4
67.5°	0.0	1.8	3.6	4.6	6.4	13.7	210.4	2400.5	2967.0	3067.2
70°	0.0	0.9	1.8	2.7	3.6	9.1	111.1	1762.2	2298.6	2478.9
72.5°	0.9	0.9	0.9	0.0	1.8	7.3	49.2	1045.5	1567.3	1753.1
75°	0.9	0.9	0.0	0.0	0.0	3.6	20.9	551.0	898.8	987.2
77.5°	3.6	1.8	0.0	0.0	0.0	0.9	10.0	296.9	466.3	495.4
80°	0.9	0.0	0.0	0.0	0.0	0.0	3.6	99.3	279.6	286.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	120.2	114.7
85°	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
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)