

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: P401653

Luminaire Tested: **ENV-SA1E-735-U-SLL-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401653
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: ENV-SA1E-735-U-SLL-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 4968 lumens
Efficiency: N/A
Efficacy: 86.9 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

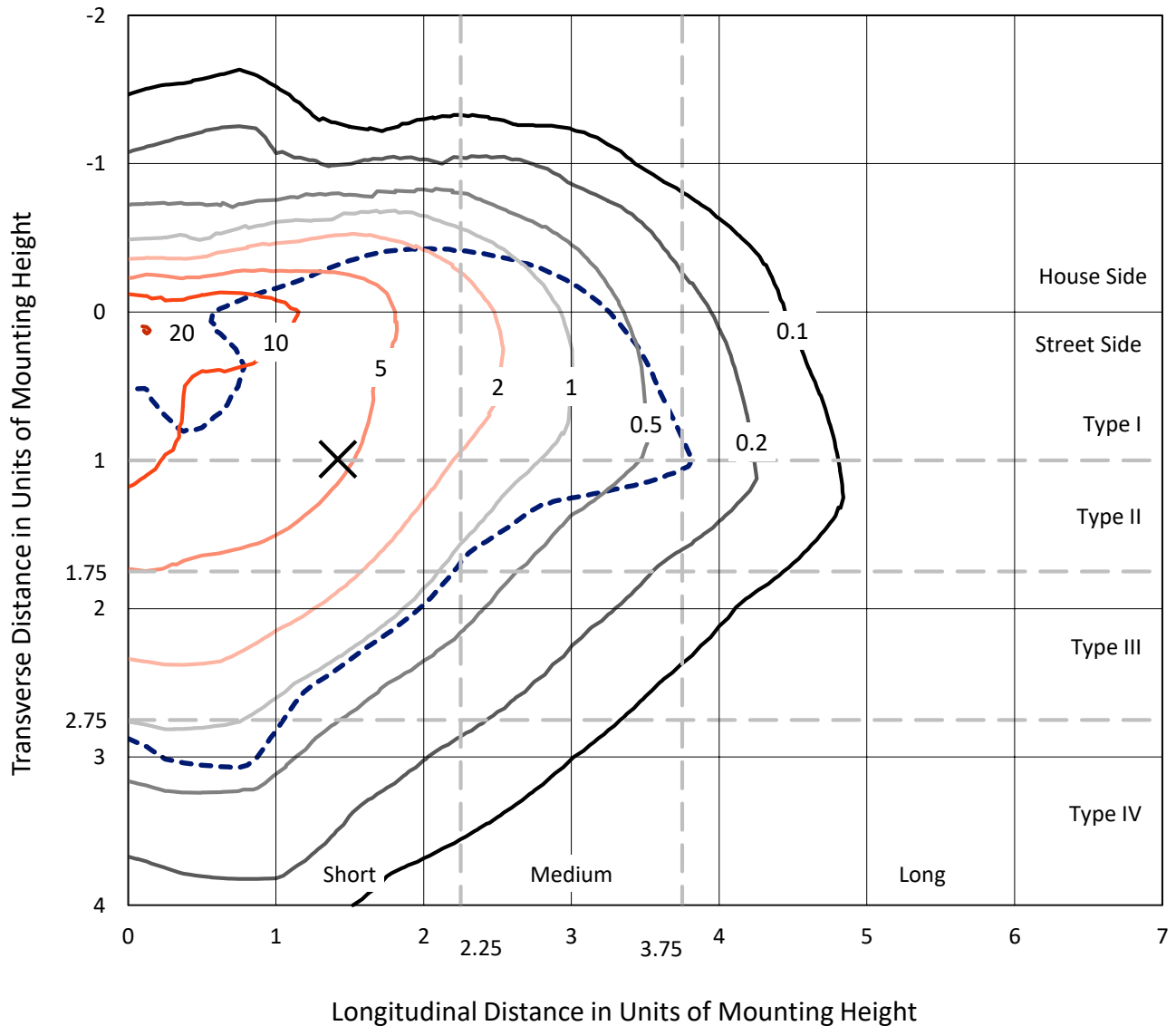


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Iso-Footcandle Lines of Horizontal Illumination

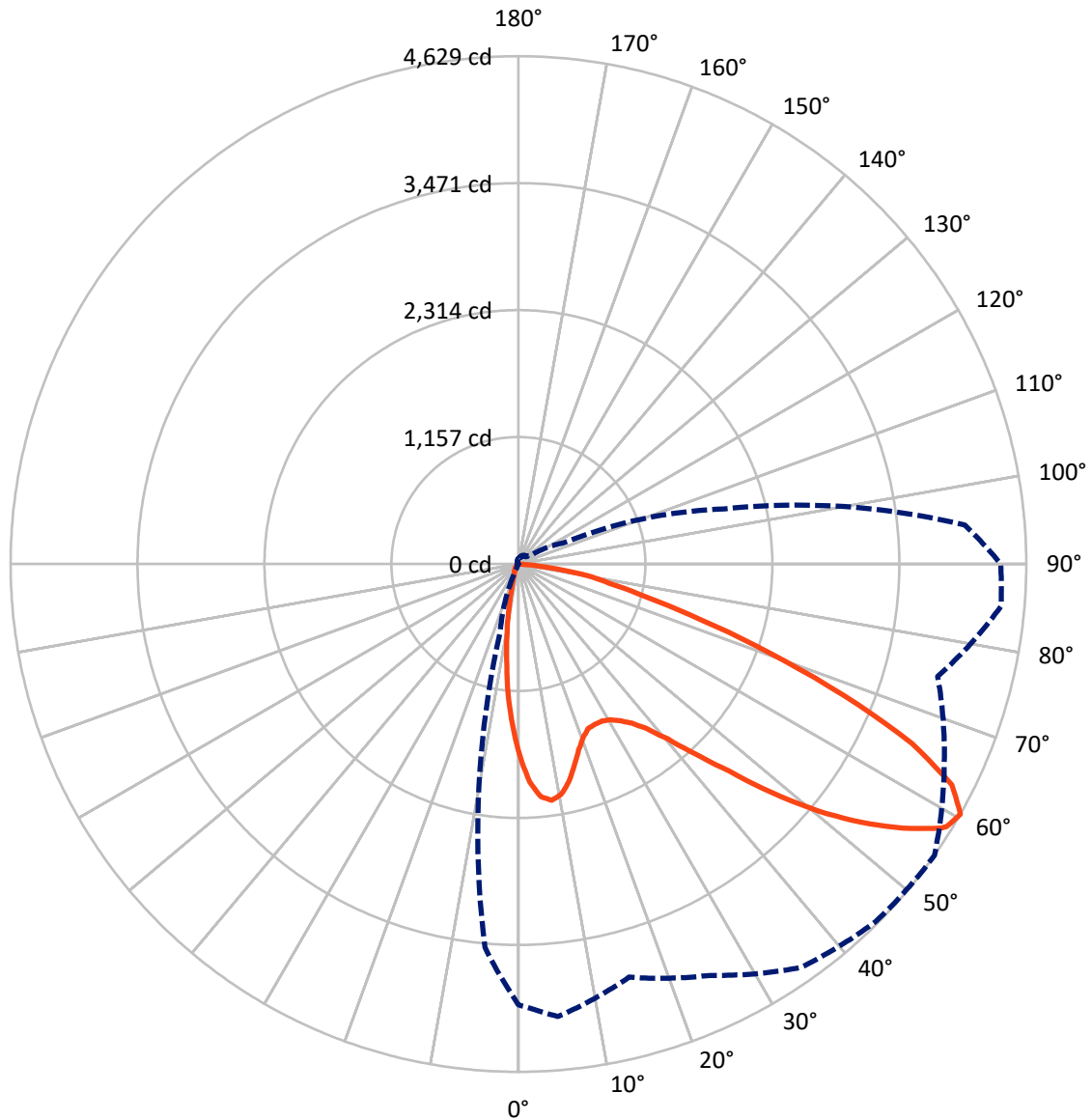
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.7 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	879.8	0.0	879.8
	% Fixture	17.7	0.0	17.7
Street Side	Lumens	4088.2	0.0	4088.2
	% Fixture	82.3	0.0	82.3
Total	Lumens	4968.0	0.0	4968.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.0	2.7
10°-20°	251.1	5.1
20°-30°	358.2	7.2
30°-40°	525.4	10.6
40°-50°	774.7	15.6
50°-60°	1147.6	23.1
60°-70°	1223.0	24.6
70°-80°	507.3	10.2
80°-90°	48.8	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°	4968.0	100.0
0°-180°	4968.0	100.0



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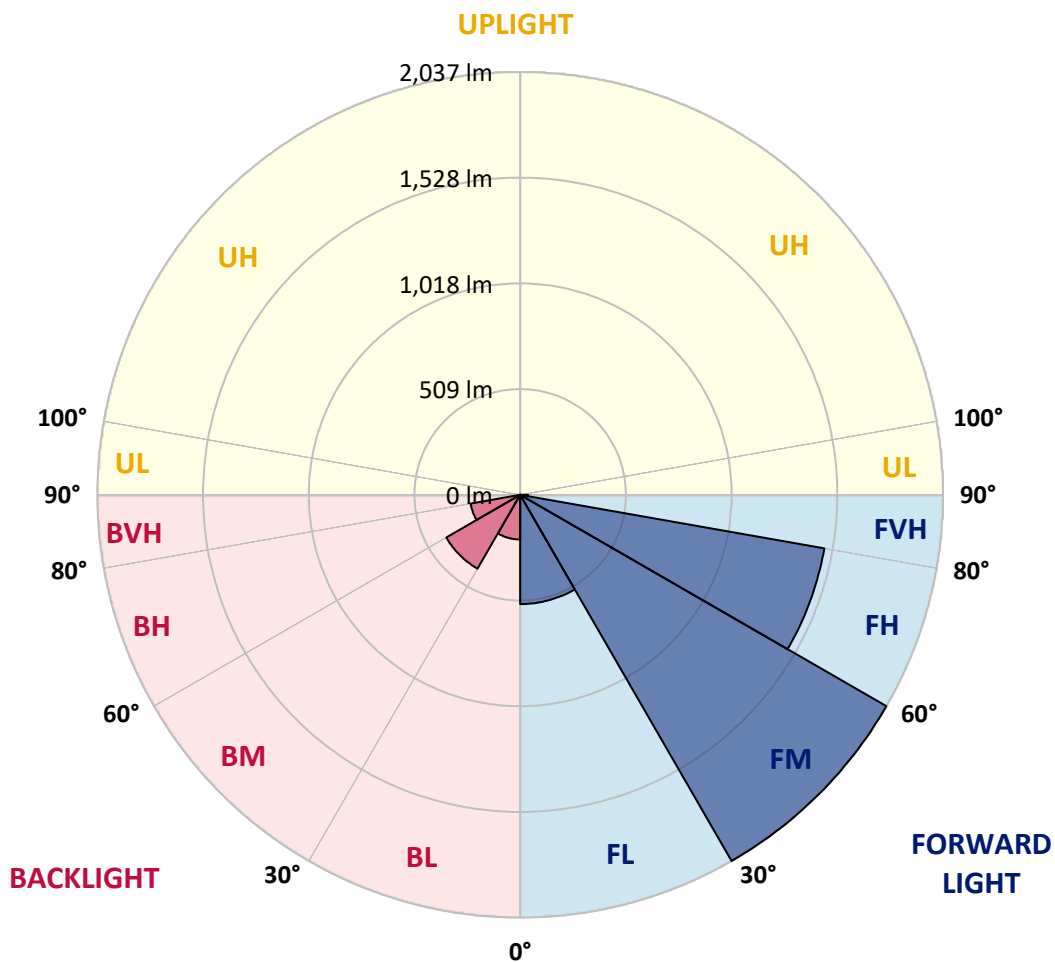
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	526.2	10.6			
FM	(30°-60°)	2036.9	41.0			
FH	(60°-80°)	1487.7	29.9			G1/1800
FVH	(80°-90°)	37.3	0.8			G1/100
BL	(0°-30°)	215.1	4.3	B1/500		
BM	(30°-60°)	410.7	8.3	B1/1000		
BH	(60°-80°)	242.5	4.9	B1/500		G1/500
BVH	(80°-90°)	11.4	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°	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5
2.5°	1832.4	1829.6	1855.9	1910.4	1944.2	1964.9	1968.6	1990.2	1968.6	1957.3	1917.0
5°	1778.9	1778.0	1828.7	1948.0	2045.6	2118.9	2154.6	2130.2	2092.6	2018.4	1928.2
7.5°	1630.5	1630.5	1726.3	1886.0	2049.4	2176.2	2219.4	2174.3	2085.1	1935.7	1774.2
10°	1509.3	1520.6	1612.6	1803.3	1984.6	2123.6	2171.5	2136.7	2020.3	1826.8	1637.1
12.5°	1437.0	1443.6	1546.0	1737.6	1906.6	2019.3	2048.4	2038.1	1953.6	1743.2	1542.2
15°	1443.6	1453.0	1570.4	1727.2	1837.1	1882.2	1892.5	1905.7	1870.9	1709.4	1511.2
17.5°	1546.9	1553.5	1671.8	1773.3	1768.6	1754.5	1758.2	1779.8	1821.2	1737.6	1574.1
20°	1712.2	1729.1	1848.4	1850.3	1732.9	1667.1	1650.2	1685.9	1797.7	1811.8	1708.5
22.5°	1924.5	1931.0	2052.2	1979.9	1736.6	1607.0	1587.3	1627.7	1805.2	1932.0	1894.4
25°	2170.5	2194.0	2259.8	2148.0	1791.1	1598.6	1585.4	1619.2	1832.4	2059.7	2086.0
27.5°	2336.8	2355.6	2418.5	2262.6	1839.9	1603.3	1578.8	1620.2	1865.3	2179.9	2290.8
30°	2485.2	2498.3	2521.8	2322.7	1895.4	1626.7	1587.3	1646.5	1883.1	2205.3	2423.2
32.5°	2625.1	2641.1	2627.0	2395.0	1956.4	1670.9	1603.3	1701.9	1921.7	2256.0	2538.7
35°	2805.5	2806.4	2758.5	2467.3	2025.9	1723.5	1650.2	1780.8	1996.8	2334.9	2662.7
37.5°	3019.6	3021.5	2900.3	2541.5	2104.8	1811.8	1761.0	1902.9	2105.7	2426.0	2840.2
40°	3206.5	3214.0	3053.4	2627.0	2201.5	1983.6	1978.9	2096.4	2245.7	2547.2	3030.9
42.5°	3369.0	3390.6	3194.3	2698.4	2338.7	2247.6	2258.8	2365.9	2415.7	2648.6	3149.2
45°	3533.4	3532.4	3309.8	2769.8	2567.8	2587.6	2694.6	2689.9	2608.2	2703.1	3242.2
47.5°	3635.7	3631.0	3380.3	2886.2	2876.8	3065.6	3179.3	3117.3	2821.4	2761.3	3358.7
50°	3675.2	3673.3	3435.7	3034.6	3191.5	3498.6	3661.1	3537.1	3082.5	2859.0	3497.7
52.5°	3787.0	3777.6	3563.4	3203.7	3476.1	3915.6	4049.9	3911.9	3342.7	3034.6	3659.2
55°	3961.7	3964.5	3783.2	3401.9	3704.3	4209.6	4374.0	4250.9	3608.5	3276.0	3880.9
57.5°	4079.1	4087.5	4026.5	3622.6	3948.5	4415.3	4575.0	4540.2	3962.6	3564.4	4141.0
58°	4090.3	4096.9	4065.0	3664.9	3985.1	4438.8	4602.2	4577.8	4040.5	3656.4	4203.0
60°	4018.0	4037.7	4140.1	3897.8	4136.3	4488.6	4606.9	4628.5	4281.9	3955.1	4415.3
62.5°	3821.7	3828.3	4014.2	4158.9	4239.7	4365.5	4376.8	4433.1	4381.5	4305.4	4605.0
65°	3581.3	3581.3	3782.3	4171.1	3972.0	3951.3	3885.6	3941.9	4091.3	4525.2	4591.9
67.5°	3163.3	3166.1	3422.5	3715.6	3292.9	3221.5	3179.3	3199.9	3518.3	4342.0	4336.4
70°	2556.6	2554.7	2818.6	3008.3	2443.9	2382.8	2433.5	2427.0	2858.1	3858.3	3786.0
72.5°	1808.0	1824.0	2095.4	2323.6	1659.6	1430.4	1654.0	1740.4	2149.9	3252.5	2929.4
75°	1018.1	1039.7	1261.4	1614.5	1047.2	967.4	1082.0	1205.0	1554.4	2589.4	1967.7
77.5°	510.9	519.4	646.2	776.7	634.9	737.3	730.7	848.1	1066.0	1747.0	1125.2
80°	294.9	311.8	355.0	401.0	355.0	467.7	542.9	638.7	656.5	903.5	627.4
82.5°	118.3	132.4	166.2	188.8	147.5	139.0	94.9	298.7	395.4	436.7	240.4
85°	0.0	0.0	0.9	1.9	2.8	2.8	4.7	52.6	96.7	21.6	39.4
87.5°	0.0	0.0	0.9	0.9	1.9	2.8	3.8	6.6	8.5	10.3	35.7
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°	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5
2.5°	1901.9	1891.6	1856.8	1804.3	1771.4	1720.7	1700.0	1652.1	1627.7	1587.3	1587.3
5°	1883.1	1840.9	1753.5	1639.9	1559.1	1474.6	1447.3	1391.0	1350.6	1302.7	1283.0
7.5°	1712.2	1653.0	1516.8	1384.4	1255.7	1170.3	1085.7	1028.5	974.0	934.5	940.2
10°	1555.4	1470.8	1321.5	1153.4	1020.0	930.8	854.7	788.0	731.7	676.2	667.8
12.5°	1453.0	1356.2	1177.8	997.5	897.9	832.2	761.7	688.5	618.9	557.9	533.5
15°	1409.8	1304.6	1105.5	935.5	844.4	759.8	678.1	588.0	508.1	434.9	415.1
17.5°	1456.7	1330.9	1098.9	894.1	767.3	661.2	547.6	448.9	355.0	302.4	286.5
20°	1584.5	1421.0	1120.5	852.8	681.9	544.8	405.7	294.0	241.4	209.4	199.1
22.5°	1769.5	1570.4	1157.1	812.4	595.5	405.7	279.9	212.3	181.3	164.4	159.7
25°	1970.5	1762.9	1224.7	778.6	509.1	301.5	207.6	173.8	155.0	142.8	138.1
27.5°	2196.8	1953.6	1307.4	753.3	429.2	241.4	178.5	153.1	138.1	129.6	125.9
30°	2338.7	2090.7	1370.3	708.2	374.8	219.8	170.0	144.6	128.7	122.1	119.3
32.5°	2469.2	2198.7	1430.4	656.5	333.4	194.4	165.3	152.2	133.4	120.2	114.6
35°	2612.9	2309.6	1459.6	625.5	306.2	169.1	136.2	118.3	108.0	106.1	103.3
37.5°	2827.1	2441.0	1478.3	608.6	289.3	154.0	126.8	107.1	94.9	83.6	78.9
40°	3029.9	2577.2	1487.7	592.7	280.8	144.6	121.2	101.4	88.3	78.0	73.3
42.5°	3188.7	2701.2	1493.4	581.4	265.8	139.0	116.5	97.7	83.6	73.3	68.6
45°	3318.3	2844.9	1488.7	577.6	253.6	142.8	114.6	94.9	79.8	69.5	64.8
47.5°	3445.1	3000.8	1506.5	572.9	241.4	137.1	115.5	93.9	77.0	66.7	62.0
50°	3611.3	3189.6	1571.3	559.8	232.9	128.7	124.9	94.9	76.1	64.8	61.0
52.5°	3826.4	3450.7	1688.7	545.7	222.6	121.2	130.6	94.9	74.2	62.9	58.2
55°	4087.5	3743.8	1818.3	525.0	204.8	111.8	124.9	94.9	72.3	62.0	56.4
57.5°	4300.7	4004.9	1920.7	500.6	171.9	100.5	114.6	91.1	67.6	58.2	53.5
58°	4319.5	4034.9	1934.8	494.0	168.1	98.6	111.8	90.2	65.7	57.3	52.6
60°	4395.6	4083.8	1940.4	458.3	139.9	93.9	96.7	87.3	62.0	53.5	49.8
62.5°	4369.3	3922.2	1821.2	395.4	124.9	85.5	80.8	89.2	57.3	48.8	45.1
65°	4238.7	3604.7	1595.7	354.1	125.9	76.1	69.5	78.0	52.6	44.1	40.4
67.5°	3927.8	3122.9	1296.1	331.5	131.5	67.6	60.1	58.2	47.0	39.4	36.6
70°	3350.2	2559.4	982.4	311.8	139.0	60.1	55.4	51.7	43.2	36.6	32.9
72.5°	2467.3	1895.4	714.8	292.1	135.2	53.5	51.7	47.0	39.4	32.9	31.0
75°	1539.4	1100.8	489.3	238.6	121.2	47.0	47.9	44.1	35.7	31.0	28.2
77.5°	898.8	773.0	241.4	177.5	83.6	41.3	42.3	40.4	36.6	29.1	27.2
80°	538.2	480.9	103.3	76.1	46.0	36.6	35.7	37.6	34.8	27.2	25.4
82.5°	232.9	208.5	49.8	42.3	37.6	31.9	31.0	31.9	30.1	22.5	21.6
85°	13.1	34.8	23.5	31.0	28.2	23.5	23.5	24.4	21.6	17.8	17.8
87.5°	12.2	26.3	15.0	18.8	20.7	17.8	18.8	18.8	17.8	16.0	15.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5
2.5°	1565.7	1555.4	1524.4	1513.1	1464.3	1476.5	1480.2	1475.5	1477.4	1481.2	1495.2
5°	1297.1	1280.2	1239.8	1213.5	1199.4	1190.0	1145.9	1146.8	1153.4	1128.0	1160.9
7.5°	921.4	940.2	943.9	919.5	904.5	872.5	832.2	809.6	771.1	792.7	797.4
10°	659.3	649.9	667.8	659.3	635.9	623.6	580.4	576.7	572.9	570.1	597.3
12.5°	502.5	474.3	453.6	458.3	440.5	410.4	402.9	403.9	407.6	407.6	415.1
15°	398.2	355.0	322.2	302.4	305.2	275.2	266.7	238.6	234.8	226.4	228.2
17.5°	278.9	261.1	241.4	218.8	209.4	182.2	149.3	134.3	123.0	124.9	130.6
20°	192.5	185.0	179.4	168.1	158.7	126.8	106.1	99.6	98.6	100.5	102.4
22.5°	155.0	147.5	141.8	138.1	125.9	102.4	91.1	86.4	86.4	86.4	87.3
25°	133.4	125.9	118.3	118.3	107.1	89.2	80.8	77.0	76.1	75.1	77.0
27.5°	124.0	113.6	106.1	101.4	93.0	78.9	71.4	67.6	66.7	66.7	67.6
30°	114.6	104.3	96.7	90.2	80.8	70.4	62.9	60.1	58.2	58.2	59.2
32.5°	109.0	98.6	89.2	80.8	70.4	62.0	55.4	51.7	49.8	50.7	51.7
35°	96.7	88.3	79.8	71.4	62.0	54.5	47.9	44.1	43.2	43.2	44.1
37.5°	76.1	69.5	67.6	62.9	54.5	47.0	40.4	36.6	35.7	35.7	36.6
40°	68.6	60.1	56.4	54.5	49.8	40.4	32.9	29.1	29.1	28.2	30.1
42.5°	62.9	54.5	47.9	46.0	43.2	34.8	26.3	23.5	22.5	22.5	23.5
45°	59.2	49.8	41.3	36.6	36.6	28.2	21.6	17.8	16.9	16.9	17.8
47.5°	57.3	47.0	36.6	30.1	29.1	23.5	16.9	13.1	12.2	12.2	12.2
50°	55.4	43.2	32.9	25.4	22.5	19.7	13.1	10.3	9.4	9.4	9.4
52.5°	52.6	41.3	30.1	22.5	17.8	15.0	10.3	7.5	6.6	5.6	6.6
55°	50.7	38.5	29.1	20.7	15.0	11.3	7.5	5.6	4.7	4.7	4.7
57.5°	47.9	35.7	26.3	19.7	14.1	8.5	5.6	3.8	2.8	2.8	3.8
58°	47.0	35.7	25.4	18.8	13.1	8.5	5.6	3.8	2.8	2.8	3.8
60°	44.1	32.9	24.4	16.9	12.2	7.5	4.7	2.8	1.9	1.9	2.8
62.5°	41.3	30.1	21.6	15.0	10.3	6.6	3.8	1.9	0.9	0.9	0.9
65°	36.6	27.2	18.8	14.1	8.5	4.7	2.8	0.9	0.0	0.0	0.0
67.5°	32.9	25.4	16.9	12.2	7.5	3.8	1.9	0.0	0.0	0.0	0.0
70°	30.1	23.5	15.0	10.3	6.6	2.8	0.9	0.0	0.0	0.0	0.0
72.5°	28.2	21.6	14.1	9.4	4.7	2.8	0.9	0.0	0.0	0.0	0.0
75°	27.2	20.7	14.1	8.5	4.7	2.8	1.9	0.9	0.0	0.0	0.9
77.5°	26.3	20.7	14.1	8.5	5.6	2.8	2.8	1.9	1.9	0.9	2.8
80°	24.4	18.8	12.2	7.5	4.7	3.8	2.8	1.9	0.0	0.0	0.0
82.5°	20.7	15.0	10.3	7.5	4.7	2.8	0.9	0.0	0.0	0.0	0.0
85°	16.9	12.2	8.5	4.7	2.8	0.9	0.0	0.0	0.0	0.0	0.0
87.5°	15.0	9.4	6.6	3.8	1.9	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°	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5	1754.5
2.5°	1507.5	1550.7	1568.5	1628.6	1654.9	1709.4	1756.4	1796.7	1816.5	1832.4
5°	1169.3	1210.7	1254.8	1344.0	1421.0	1503.7	1607.0	1714.1	1745.1	1778.9
7.5°	816.2	877.2	951.4	1031.3	1141.2	1266.1	1414.5	1546.9	1613.6	1630.5
10°	634.0	706.3	785.2	864.1	955.2	1088.6	1237.9	1408.8	1480.2	1509.3
12.5°	476.2	572.9	666.8	759.8	838.7	954.3	1116.7	1320.6	1399.4	1437.0
15°	286.5	395.4	510.9	635.9	745.7	881.0	1064.1	1301.8	1401.3	1443.6
17.5°	142.8	195.4	301.5	489.3	651.8	819.9	1063.2	1369.4	1492.4	1546.9
20°	106.1	120.2	160.6	305.2	541.9	769.2	1074.5	1484.9	1666.2	1712.2
22.5°	91.1	101.4	115.5	178.5	405.7	722.3	1113.9	1638.0	1863.4	1924.5
25°	79.8	88.3	99.6	123.0	278.0	666.8	1188.1	1854.0	2087.0	2170.5
27.5°	70.4	78.0	87.3	103.3	186.0	562.6	1230.4	2035.3	2267.3	2336.8
30°	62.0	67.6	77.0	88.3	137.1	434.9	1269.8	2195.0	2430.7	2485.2
32.5°	54.5	59.2	66.7	75.1	104.3	329.7	1271.7	2332.1	2573.5	2625.1
35°	46.0	51.7	57.3	64.8	82.7	257.3	1233.2	2468.3	2742.5	2805.5
37.5°	38.5	43.2	49.8	56.4	75.1	199.1	1153.4	2628.0	2948.2	3019.6
40°	32.9	37.6	43.2	50.7	66.7	144.6	1025.6	2772.6	3140.8	3206.5
42.5°	26.3	31.0	37.6	49.8	55.4	104.3	897.0	2911.6	3308.0	3369.0
45°	20.7	26.3	34.8	47.9	46.0	73.3	786.1	3034.6	3451.7	3533.4
47.5°	15.0	21.6	34.8	43.2	37.6	52.6	729.8	3153.0	3580.3	3635.7
50°	11.3	17.8	37.6	36.6	31.9	45.1	738.2	3284.5	3639.5	3675.2
52.5°	8.5	15.0	29.1	26.3	27.2	39.4	771.1	3458.2	3761.6	3787.0
55°	7.5	11.3	17.8	19.7	24.4	37.6	762.7	3622.6	3917.5	3961.7
57.5°	6.6	9.4	14.1	16.0	21.6	35.7	714.8	3694.9	4018.0	4079.1
58°	5.6	9.4	13.1	16.0	21.6	34.8	702.5	3675.2	4013.3	4090.3
60°	4.7	8.5	12.2	14.1	18.8	31.0	643.4	3508.0	3910.0	4018.0
62.5°	3.8	5.6	9.4	10.3	15.0	25.4	529.7	3237.5	3688.3	3821.7
65°	1.9	3.8	5.6	7.5	10.3	18.8	376.6	2917.2	3450.7	3581.3
67.5°	0.0	1.9	3.8	4.7	6.6	14.1	217.0	2475.8	3060.0	3163.3
70°	0.0	0.9	1.9	2.8	3.8	9.4	114.6	1817.4	2370.6	2556.6
72.5°	0.9	0.9	0.9	0.0	1.9	7.5	50.7	1078.2	1616.4	1808.0
75°	0.9	0.9	0.0	0.0	0.0	3.8	21.6	568.2	927.0	1018.1
77.5°	3.8	1.9	0.0	0.0	0.0	0.9	10.3	306.2	480.9	510.9
80°	0.9	0.0	0.0	0.0	0.0	0.0	3.8	102.4	288.3	294.9
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	124.0	118.3
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)