

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: P597057

Luminaire Tested: **MSA-SA3C-835-U-SLL-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597057
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-25)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-835-U-SLL-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS
EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10948 lumens
Efficiency: N/A
Efficacy: 66.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

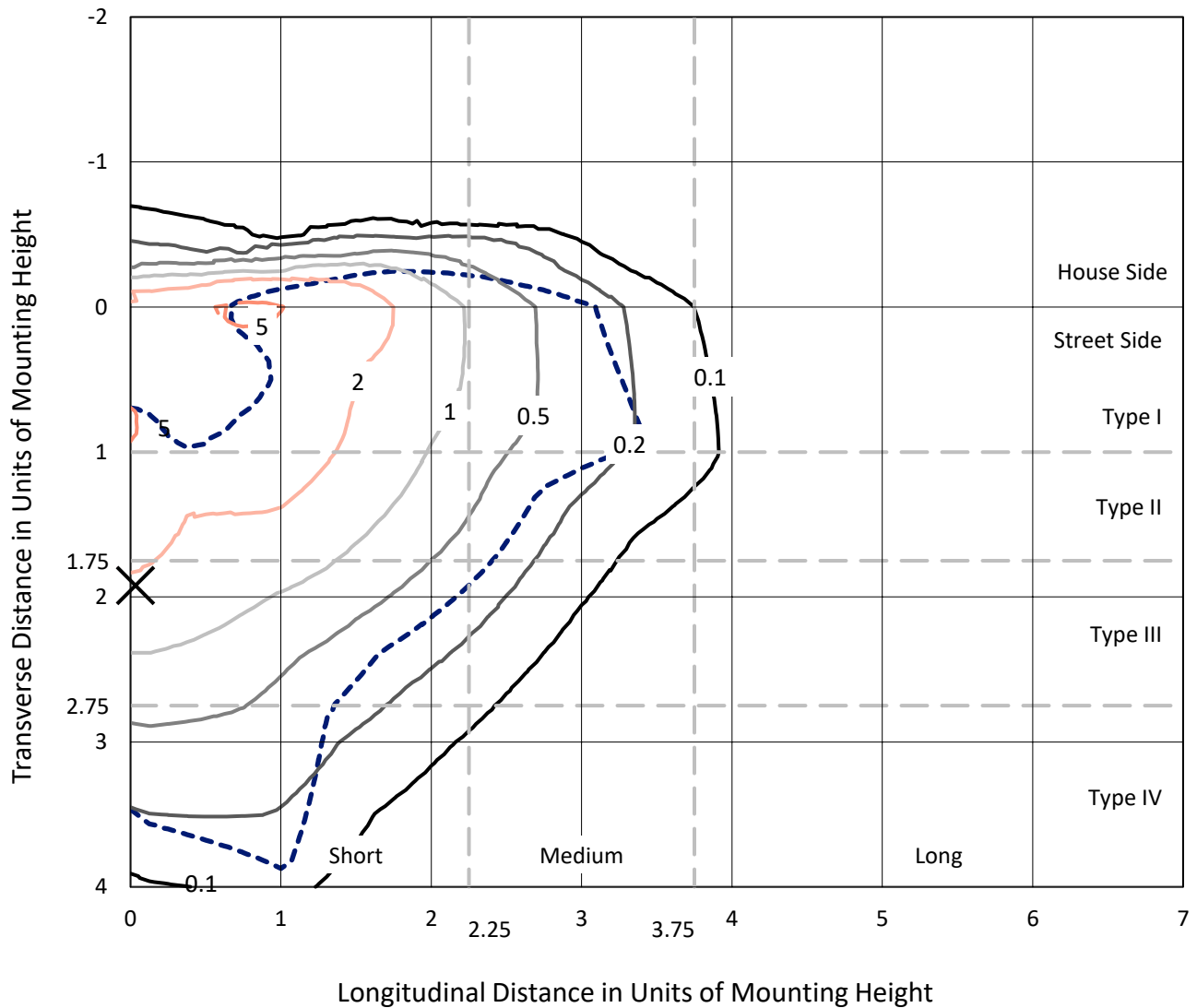
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

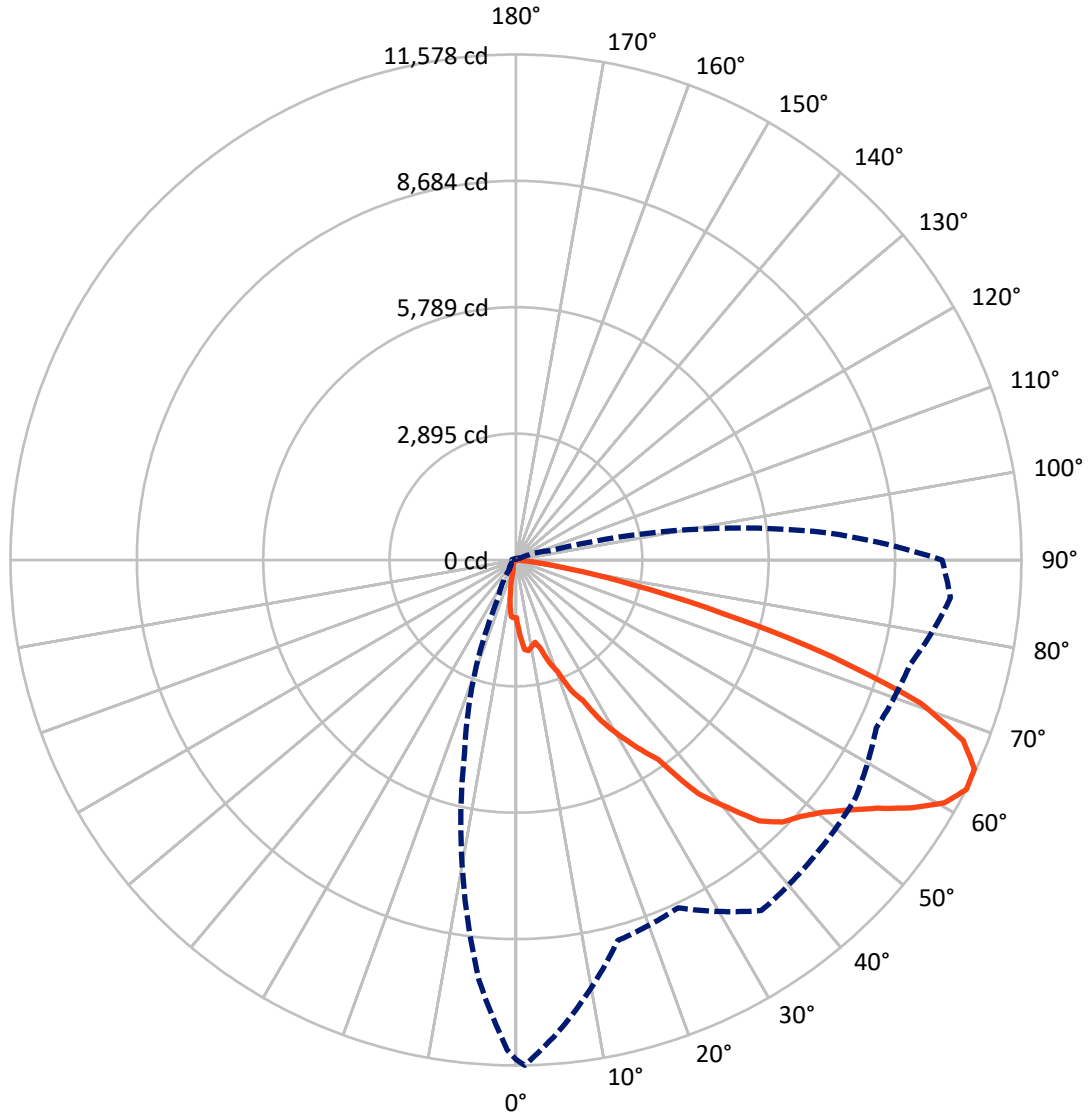
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 1-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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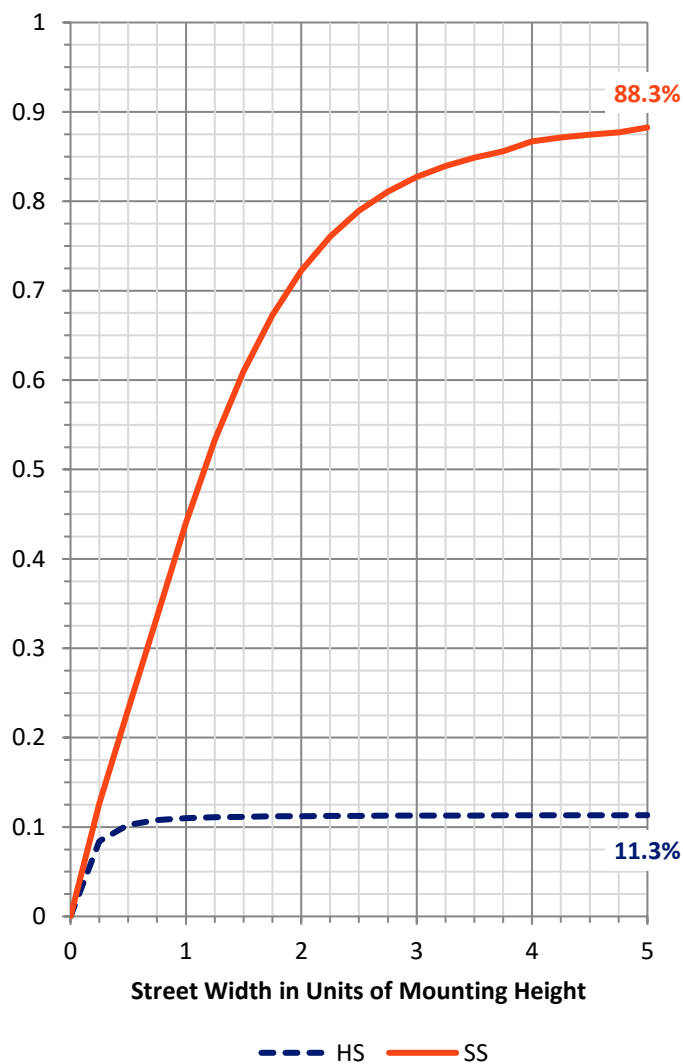
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1251.9	0.0	1251.9
	% Fixture	11.4	0.0	11.4
Street Side	Lumens	9696.0	0.0	9696.0
	% Fixture	88.6	0.0	88.6
Total	Lumens	10948.0	0.0	10948.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.4	1.3
10°-20°	384.9	3.5
20°-30°	622.2	5.7
30°-40°	1042.2	9.5
40°-50°	1704.1	15.6
50°-60°	2522.5	23.0
60°-70°	2896.1	26.5
70°-80°	1432.1	13.1
80°-90°	196.6	1.8
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°	10948.0	100.0
0°-180°	10948.0	100.0

Coefficient of Utilization



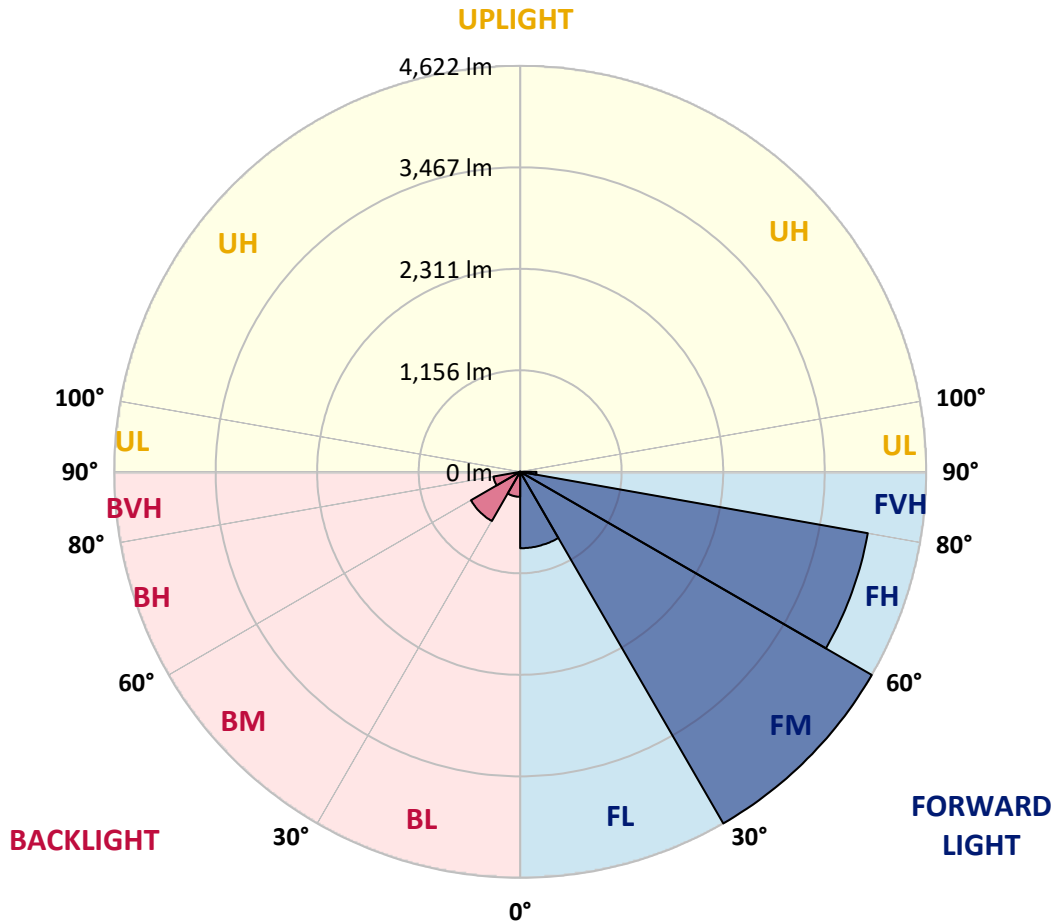
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	869.6	7.9			
FM (30°-60°)	4622.2	42.2			
FH (60°-80°)	4018.6	36.7			G2/5000
FVH (80°-90°)	185.7	1.7			G2/225
BL (0°-30°)	284.8	2.6	B1/500		
BM (30°-60°)	646.7	5.9	B1/1000		
BH (60°-80°)	309.6	2.8	B1/500		G1/500
BVH (80°-90°)	10.9	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9
2.5°	1700.7	1708.8	1670.7	1665.7	1577.1	1687.6	1690.7	1703.8	1622.7	1465.5	1685.1
5°	2035.1	2057.5	2028.2	2158.6	2196.0	2276.5	2128.6	2260.9	2204.8	2220.4	2252.2
7.5°	2075.0	2098.1	2159.8	2378.2	2579.7	2529.2	2513.0	2562.9	2558.5	2443.1	2500.5
10°	1992.0	2011.4	2114.3	2511.7	2599.7	2826.8	2882.3	2767.5	2720.7	2468.0	2357.6
12.5°	1901.6	1934.0	2065.0	2541.6	2805.5	3035.1	3217.9	3054.5	2899.1	2630.2	2529.2
15°	2075.0	2093.1	2299.0	2604.0	2834.9	2993.3	3143.1	3088.8	3065.1	2871.7	2529.2
17.5°	2415.0	2457.4	2606.5	2756.9	2939.1	3034.5	2998.9	2982.1	2921.6	3225.4	2871.1
20°	2657.1	2736.3	2931.6	2996.4	2851.7	2940.9	2919.1	2904.1	2856.7	3421.9	3264.1
22.5°	3181.1	3254.1	3257.9	3280.9	2944.0	2801.8	2765.6	2770.0	2985.2	3480.6	3753.2
25°	3538.0	3562.9	3760.1	3595.4	3196.1	2844.2	2706.3	2768.1	3078.2	3902.3	4213.0
27.5°	4121.9	4181.2	4304.1	3746.3	3347.1	2817.4	2597.8	2822.4	3322.7	4042.1	4723.9
30°	4597.9	4654.7	4852.5	3952.8	3478.1	2950.3	2644.6	2931.6	3475.0	4329.7	5183.1
32.5°	4984.1	5130.7	5355.3	4271.6	3473.1	3103.1	2883.5	2895.4	3662.1	4702.1	5637.3
35°	5477.6	5614.2	5772.0	4491.2	3700.2	3152.4	2954.0	3251.0	3940.4	5091.4	6248.7
37.5°	6589.9	6796.4	6484.5	5044.6	3964.7	3597.9	3232.3	3470.0	4231.7	5488.8	7089.0
40°	7268.7	7442.8	7141.4	5327.2	4422.6	3822.5	3728.9	3850.5	4516.8	5694.1	7722.3
42.5°	7937.5	8167.1	7663.6	5752.7	4857.5	4456.3	4200.5	4298.5	4929.2	6189.4	8434.7
45°	8421.6	8563.9	7776.5	5975.4	5455.1	5178.7	5008.4	4862.4	5504.4	6507.6	8894.5
47.5°	8664.9	8778.5	7999.3	6045.9	5810.7	5943.0	6316.1	6011.0	6013.5	6737.8	9142.2
50°	9001.8	9081.1	8124.0	6130.2	6196.9	7134.0	7322.4	6672.9	6594.9	6968.6	9182.7
52.5°	9475.3	9514.0	8366.1	6352.2	6775.2	8066.6	8134.6	7872.0	7177.0	7397.9	9272.6
55°	10104.8	10036.8	8798.4	6818.9	7378.5	8749.8	8840.9	8611.9	7908.8	7826.5	9550.8
57.5°	10783.6	10705.6	9439.2	7476.5	8033.0	9272.0	9326.2	9344.3	8394.8	8205.8	10023.7
60°	11270.2	11284.6	10245.8	8230.7	8439.7	9771.7	9663.1	9498.4	8885.2	8761.6	10253.9
62.5°	11440.5	11578.4	10874.1	9021.2	8790.3	9802.9	9634.4	9495.3	9104.8	9335.0	9990.0
65°	11301.4	11542.2	11020.0	9715.5	9002.5	9411.7	9236.4	9147.2	9097.9	9568.9	9406.1
67.5°	10748.7	11050.0	10602.1	9721.8	8231.3	8013.6	8220.7	8503.4	8339.9	9374.9	8588.2
70°	9510.3	9840.3	9631.9	9151.6	6857.0	6304.8	6533.2	6960.5	6845.1	8338.0	7384.8
72.5°	7135.2	7559.4	7600.6	7900.7	5443.3	4745.2	4778.2	4766.4	4965.4	6723.5	5762.7
75°	4583.6	4913.6	5359.7	6375.3	4135.0	3464.4	3147.4	3070.1	3441.3	5253.6	4125.7
77.5°	2660.8	2700.1	2906.0	4810.0	2961.5	2496.1	2280.2	2390.7	2520.4	3666.5	2734.4
80°	1272.7	1292.7	1377.5	2474.9	2057.5	2160.5	1993.9	2118.0	1730.6	2107.4	1551.6
82.5°	403.6	408.0	422.4	1215.9	1277.7	1431.2	917.1	1229.6	1069.9	1273.9	1033.1
85°	67.4	114.8	141.6	351.2	721.2	482.9	199.0	438.6	597.0	803.5	469.2
87.5°	0.0	0.0	0.0	6.2	58.6	27.5	4.4	25.0	91.7	179.1	21.2
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°	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9
2.5°	1748.7	1791.8	1629.5	1484.2	1521.0	1491.7	1447.4	1371.9	1197.2	1325.7	1317.0
5°	2250.3	2170.4	1950.8	1848.5	1723.8	1533.5	1510.4	1364.4	1300.1	1310.8	1301.4
7.5°	2425.0	2282.1	2088.1	1779.9	1487.3	1212.8	1128.6	1033.1	1013.8	1055.0	1081.8
10°	2287.7	2136.1	1966.4	1583.4	1358.2	1159.8	952.0	818.5	746.1	737.4	744.9
12.5°	2350.7	2187.3	1837.9	1544.7	1309.5	1129.8	897.7	696.2	539.0	550.9	519.7
15°	2394.4	2206.6	1807.4	1463.6	1209.1	968.9	689.4	487.9	359.3	321.9	299.5
17.5°	2650.8	2382.6	1768.7	1370.0	1068.7	754.3	433.0	282.6	240.8	227.7	217.1
20°	2980.2	2599.0	1768.0	1271.4	861.6	471.6	270.1	204.6	194.6	202.1	194.0
22.5°	3363.3	2887.3	1862.3	1148.5	618.3	297.6	210.2	181.5	171.6	177.8	178.4
25°	3748.8	3319.6	1939.0	1031.9	430.5	228.3	187.2	167.2	156.0	161.6	158.5
27.5°	4445.1	3677.7	1921.5	882.8	316.9	200.9	174.1	156.6	139.7	148.5	147.9
30°	4900.5	4309.7	1989.5	673.8	251.4	175.9	162.2	142.9	124.8	134.8	134.1
32.5°	5445.1	4581.1	2063.1	517.2	209.0	166.6	146.0	127.3	116.7	122.9	121.7
35°	6057.2	5117.6	1927.8	430.5	181.5	150.4	129.1	114.8	105.4	108.6	108.6
37.5°	7138.3	5566.2	1846.7	350.6	169.1	136.0	121.0	103.6	97.9	97.9	101.1
40°	7752.2	6251.2	1604.6	277.6	172.8	125.4	112.9	94.8	87.3	86.7	89.8
42.5°	8550.8	6646.1	1453.0	224.6	156.6	122.3	103.6	86.1	77.4	76.7	79.9
45°	9024.3	6866.9	1239.6	176.6	140.4	142.2	96.1	79.2	66.1	63.6	69.2
47.5°	9323.1	7159.5	1118.6	140.4	122.3	141.6	93.6	68.6	55.5	52.4	57.4
50°	9474.7	7304.3	1094.9	120.4	106.1	126.6	107.3	57.4	47.4	43.0	47.4
52.5°	9632.6	7539.5	1103.6	111.0	93.6	101.7	101.7	49.3	41.8	36.8	39.9
55°	9951.4	7887.0	1084.3	105.4	86.1	77.4	65.5	43.7	38.1	32.4	35.6
57.5°	10343.1	8136.5	1084.3	100.4	79.9	66.1	52.4	40.6	34.9	28.1	30.6
60°	10268.9	7873.9	1030.6	95.5	74.9	61.8	47.4	37.4	32.4	25.6	27.5
62.5°	9759.2	7159.5	834.7	88.0	70.5	58.6	43.0	35.6	30.6	22.5	24.3
65°	9160.3	6400.9	580.2	79.9	65.5	53.0	38.7	33.7	28.1	20.0	21.2
67.5°	8439.1	5496.9	321.9	71.7	60.5	46.2	35.6	33.1	26.8	18.1	19.3
70°	7187.6	4150.0	172.8	65.5	56.8	42.4	33.7	33.1	26.8	17.5	18.1
72.5°	5395.9	2613.4	101.1	59.9	51.8	39.3	31.8	33.7	26.2	16.8	16.8
75°	3671.5	1586.5	72.4	51.2	46.2	33.1	30.6	32.4	26.8	16.8	15.6
77.5°	2496.1	1114.9	59.3	46.2	41.8	29.3	31.2	32.4	26.8	13.7	10.6
80°	1558.4	575.2	44.9	36.8	36.2	25.6	31.2	28.1	17.5	3.1	0.0
82.5°	1089.9	214.0	26.2	28.1	28.1	18.1	24.3	20.0	10.0	0.0	0.0
85°	457.3	36.8	14.3	20.0	17.5	10.6	19.3	15.0	6.2	0.0	0.0
87.5°	8.1	0.0	5.6	11.9	12.5	6.2	10.0	6.2	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9
2.5°	1358.2	1298.9	1174.1	1234.0	1227.8	1255.2	1257.7	1194.1	1331.3	1416.2	1428.7
5°	1302.6	1262.7	1255.9	1221.5	1212.8	1263.3	1235.9	1234.0	1300.1	1396.8	1397.5
7.5°	1082.4	1051.8	1066.2	1026.3	923.3	929.6	938.9	978.2	1035.0	1098.6	1121.7
10°	743.0	822.3	764.2	759.3	748.6	715.6	689.4	710.0	783.6	842.2	864.1
12.5°	530.3	542.8	578.3	565.2	583.3	555.2	544.6	608.9	680.6	740.5	783.6
15°	310.1	331.3	352.5	397.4	415.5	409.9	442.3	496.0	554.0	581.4	634.5
17.5°	218.4	220.2	224.6	273.3	305.1	317.6	336.9	377.4	401.1	413.6	435.5
20°	190.9	185.3	177.8	205.3	235.2	250.8	245.2	277.0	296.3	308.8	324.4
22.5°	172.8	163.5	159.1	168.4	191.5	205.3	207.7	226.5	255.8	264.5	269.5
25°	156.0	149.7	146.6	151.6	164.1	177.2	179.7	204.0	230.2	234.0	243.9
27.5°	144.7	132.9	134.1	137.9	143.5	159.7	164.7	178.4	216.5	220.9	224.0
30°	132.9	120.4	124.2	127.9	125.4	145.4	152.8	168.4	205.3	212.1	215.9
32.5°	121.0	111.7	111.0	114.8	119.2	129.8	146.0	164.1	197.8	207.1	216.5
35°	107.9	100.4	101.7	102.3	107.9	121.7	133.5	142.9	165.9	170.9	174.1
37.5°	98.6	92.3	91.1	97.3	102.9	113.5	117.9	122.3	152.8	164.1	164.7
40°	87.3	83.6	83.6	88.0	100.4	99.2	104.8	118.5	147.9	159.7	161.0
42.5°	79.2	74.2	75.5	79.9	88.6	82.4	93.6	113.5	146.0	157.8	157.2
45°	66.8	65.5	68.0	71.7	75.5	69.9	87.3	108.6	139.7	155.3	151.0
47.5°	55.5	55.5	58.6	62.4	60.5	62.4	79.2	101.7	136.0	150.4	147.2
50°	45.5	46.2	49.3	55.5	49.9	54.9	71.1	94.8	129.8	145.4	142.9
52.5°	38.7	39.3	41.2	45.5	43.0	49.9	65.5	88.0	123.5	136.6	135.4
55°	33.7	34.9	34.9	37.4	38.7	46.8	59.3	81.1	114.2	128.5	126.0
57.5°	29.9	31.2	30.6	32.4	33.7	41.2	53.0	73.6	104.8	116.7	112.9
60°	26.8	28.1	27.5	29.9	29.3	35.6	46.2	65.5	94.8	104.2	101.1
62.5°	23.7	25.0	25.0	26.2	26.8	29.9	39.9	58.0	84.8	92.3	89.8
65°	21.2	22.5	23.1	22.5	23.7	25.6	33.7	52.4	73.6	81.1	77.4
67.5°	19.3	20.6	21.8	19.3	20.6	21.2	28.7	46.8	64.9	71.1	68.0
70°	18.7	19.3	19.3	16.8	16.2	16.8	25.0	39.9	56.8	63.0	58.6
72.5°	17.5	18.1	17.5	13.7	11.9	13.1	21.2	33.7	48.0	53.0	49.3
75°	16.2	16.8	16.2	11.2	7.5	9.4	17.5	29.3	41.2	43.7	41.8
77.5°	13.7	15.0	15.0	8.1	2.5	5.6	13.1	23.7	34.3	34.3	34.9
80°	1.2	3.7	6.2	4.4	0.0	0.6	4.4	12.5	21.8	21.2	23.1
82.5°	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	7.5	5.6	6.2
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



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CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9	1318.9
2.5°	1399.3	1380.0	1404.3	1478.6	1448.6	1454.2	1434.3	1557.2	1696.3	1700.7
5°	1398.7	1381.2	1417.4	1414.3	1499.8	1592.7	1682.6	1827.9	2033.8	2035.1
7.5°	1111.1	1214.7	1241.5	1233.4	1343.2	1471.1	1609.6	1887.8	2056.9	2075.0
10°	1001.9	1046.9	1101.8	1121.7	1167.3	1288.9	1445.5	1760.6	1950.2	1992.0
12.5°	868.4	1011.9	1084.9	1226.5	1252.7	1270.2	1517.3	1791.1	1906.5	1901.6
15°	719.3	844.1	959.5	1132.3	1203.4	1386.9	1581.5	1940.2	2008.9	2075.0
17.5°	509.1	603.3	780.5	962.0	1179.1	1378.8	1758.7	2206.6	2336.4	2415.0
20°	340.6	386.2	546.5	786.7	1061.8	1260.2	1831.1	2447.4	2589.1	2657.1
22.5°	276.4	298.2	381.2	576.5	907.1	1254.6	1860.4	2710.1	3090.7	3181.1
25°	243.3	258.3	302.6	426.7	753.0	1229.6	2022.6	3005.8	3465.0	3538.0
27.5°	212.7	235.2	268.3	351.9	645.7	1212.2	2104.9	3502.4	4050.2	4121.9
30°	203.4	230.8	262.6	320.7	570.8	1144.8	2236.0	3950.3	4470.0	4597.9
32.5°	219.6	229.0	244.6	293.8	512.8	1073.7	2466.2	4485.6	4817.5	4984.1
35°	174.1	190.9	218.4	269.5	488.5	1069.9	2596.5	4830.0	5374.6	5477.6
37.5°	170.3	185.9	221.5	262.6	517.8	1098.6	2789.9	5535.6	6379.1	6589.9
40°	165.3	185.3	219.0	259.5	517.8	1126.7	2913.5	6100.2	7054.7	7268.7
42.5°	163.5	189.0	218.4	272.6	501.6	1142.3	3100.0	6663.6	7768.4	7937.5
45°	162.2	192.8	220.2	288.2	497.8	1193.5	3205.4	6937.4	8227.6	8421.6
47.5°	159.1	192.8	245.8	278.9	477.3	1188.5	3342.1	7343.6	8501.5	8664.9
50°	156.6	194.0	278.2	261.4	480.4	1157.9	3527.4	7724.8	8885.2	9001.8
52.5°	151.0	198.4	273.3	237.1	471.0	1154.8	3803.7	8266.9	9389.9	9475.3
55°	138.5	192.8	247.1	207.1	438.0	1119.2	4169.9	8971.9	10089.9	10104.8
57.5°	127.3	179.1	206.5	190.3	366.8	1123.6	4485.6	9620.7	10713.7	10783.6
60°	116.0	185.9	160.3	177.2	303.8	1043.7	4638.5	9869.0	11167.9	11270.2
62.5°	105.4	171.6	136.6	162.8	270.8	969.5	4532.4	9669.4	11225.9	11440.5
65°	93.6	119.2	115.4	146.0	273.9	865.3	4178.1	9084.8	11005.7	11301.4
67.5°	80.5	93.6	101.7	126.0	293.2	776.1	3570.4	8146.5	10413.6	10748.7
70°	70.5	84.2	88.6	110.4	305.1	717.5	2817.4	6844.5	9200.8	9510.3
72.5°	58.6	78.0	79.2	96.7	293.8	659.4	2007.6	4913.6	6986.7	7135.2
75°	50.5	64.9	71.7	81.1	247.1	492.2	1106.1	3041.4	4417.6	4583.6
77.5°	45.5	49.3	54.3	56.1	104.8	256.4	380.6	1875.4	2473.6	2660.8
80°	34.9	38.7	37.4	38.7	57.4	88.6	144.7	879.0	1168.5	1272.7
82.5°	11.2	18.7	20.6	17.5	37.4	43.7	41.8	303.8	379.9	403.6
85°	2.5	6.9	3.1	0.0	12.5	22.5	3.1	46.2	91.1	67.4
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)