

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: P597073

Luminaire Tested: **MSA-SA3D-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597073
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3D-835-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13449 lumens
Efficiency: N/A
Efficacy: 70.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

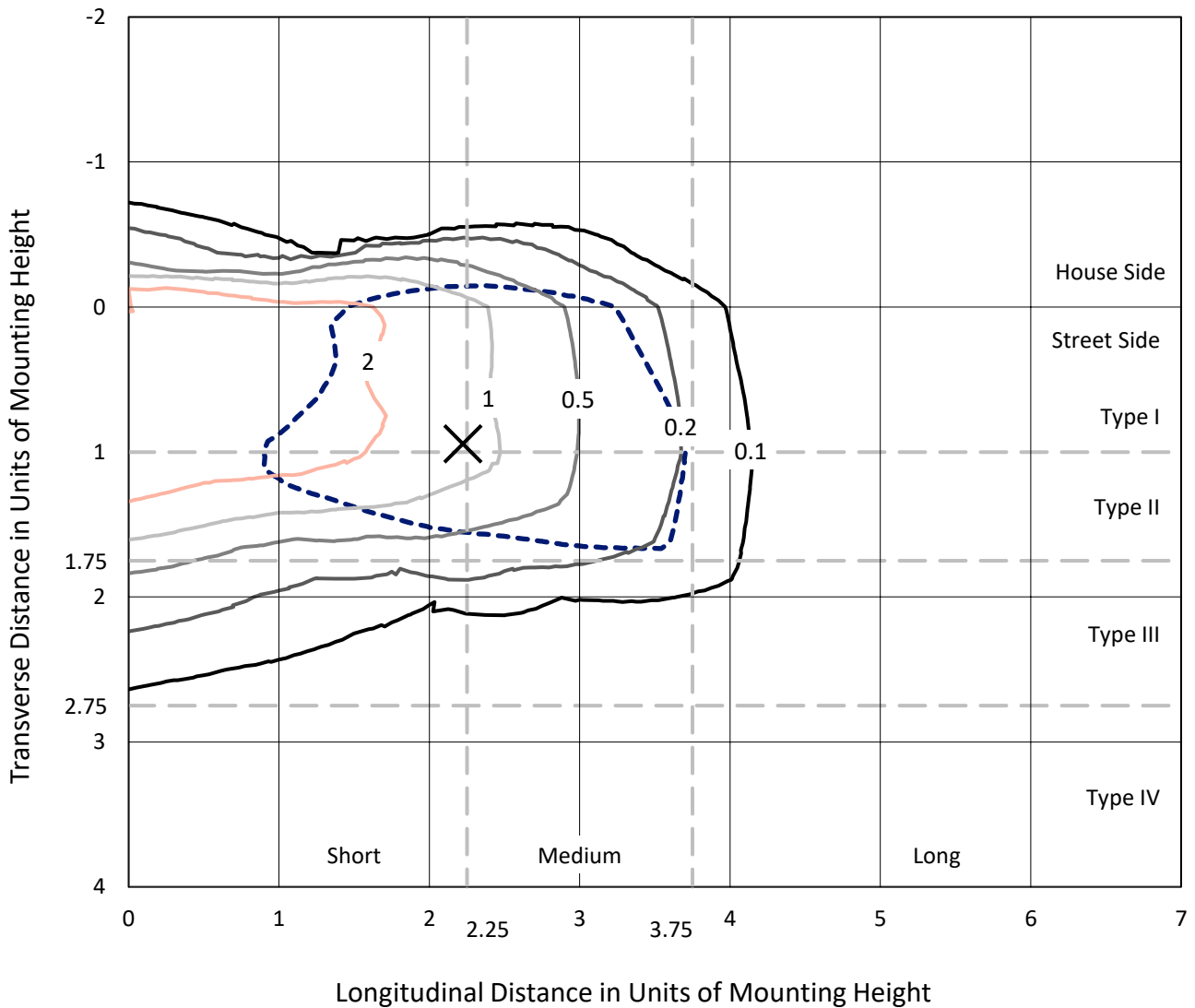
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P597073
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Iso-Footcandle Lines of Horizontal Illumination

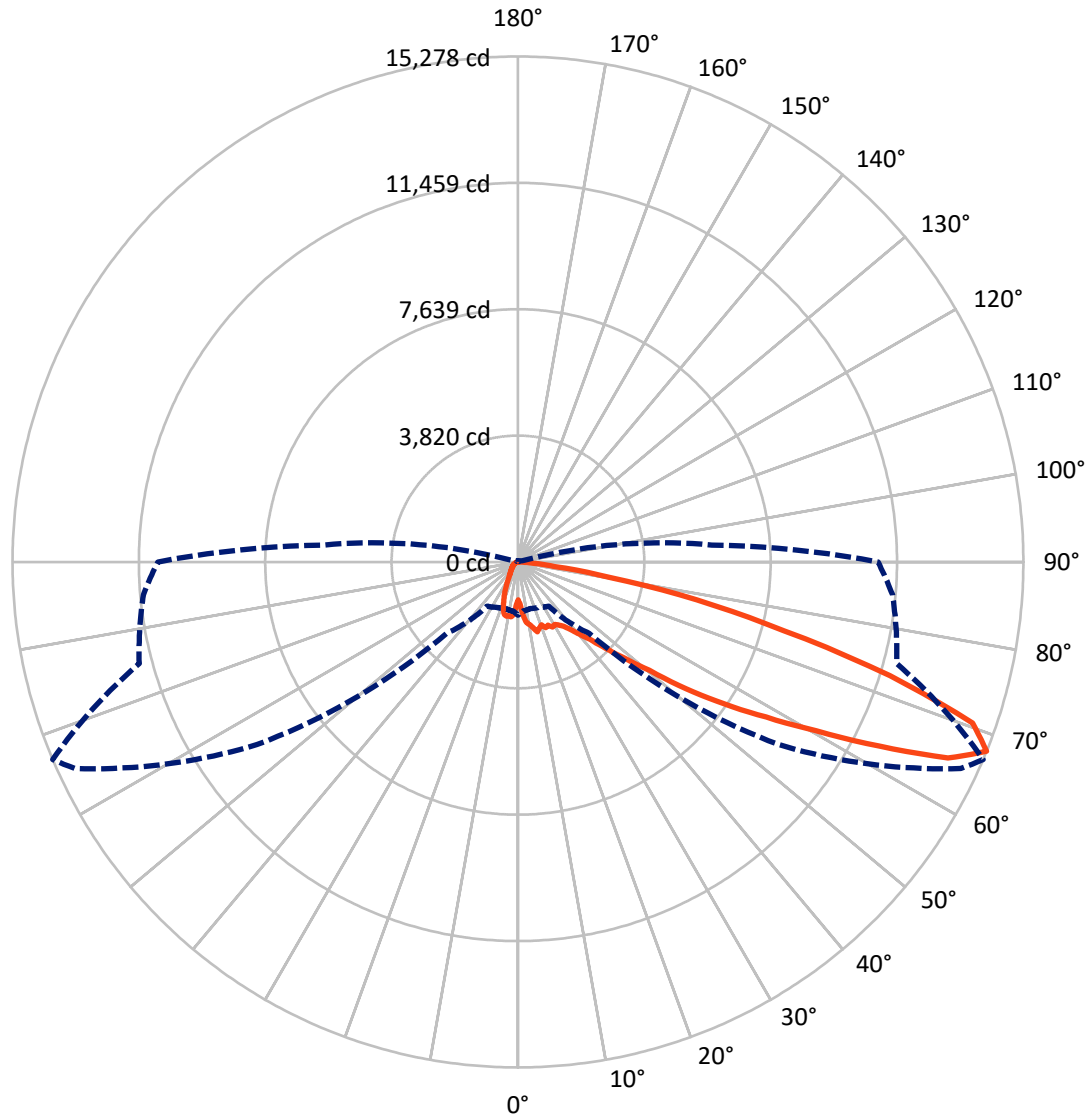
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type II - Short - N/A

REPORT NUMBER: P597073
CATALOG NUMBER: MSA-SA3D-835-U-SL2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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 CATALOG NUMBER: MSA-SA3D-835-U-SL2-HSS

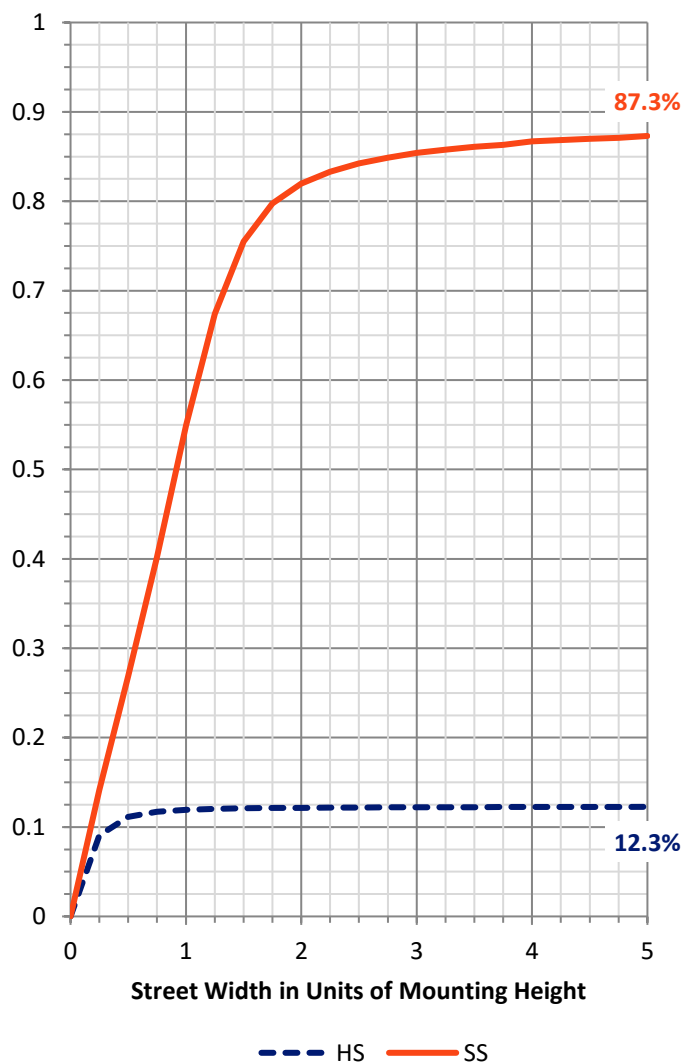
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1663.3	0.0	1663.3
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	11785.7	0.0	11785.7
	% Fixture	87.6	0.0	87.6
Total	Lumens	13449.0	0.0	13449.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.8	1.1
10°-20°	425.4	3.2
20°-30°	666.7	5.0
30°-40°	1075.1	8.0
40°-50°	1975.5	14.7
50°-60°	3336.3	24.8
60°-70°	3688.4	27.4
70°-80°	1930.5	14.4
80°-90°	207.3	1.5
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°	13449.0	100.0
0°-180°	13449.0	100.0

Coefficient of Utilization

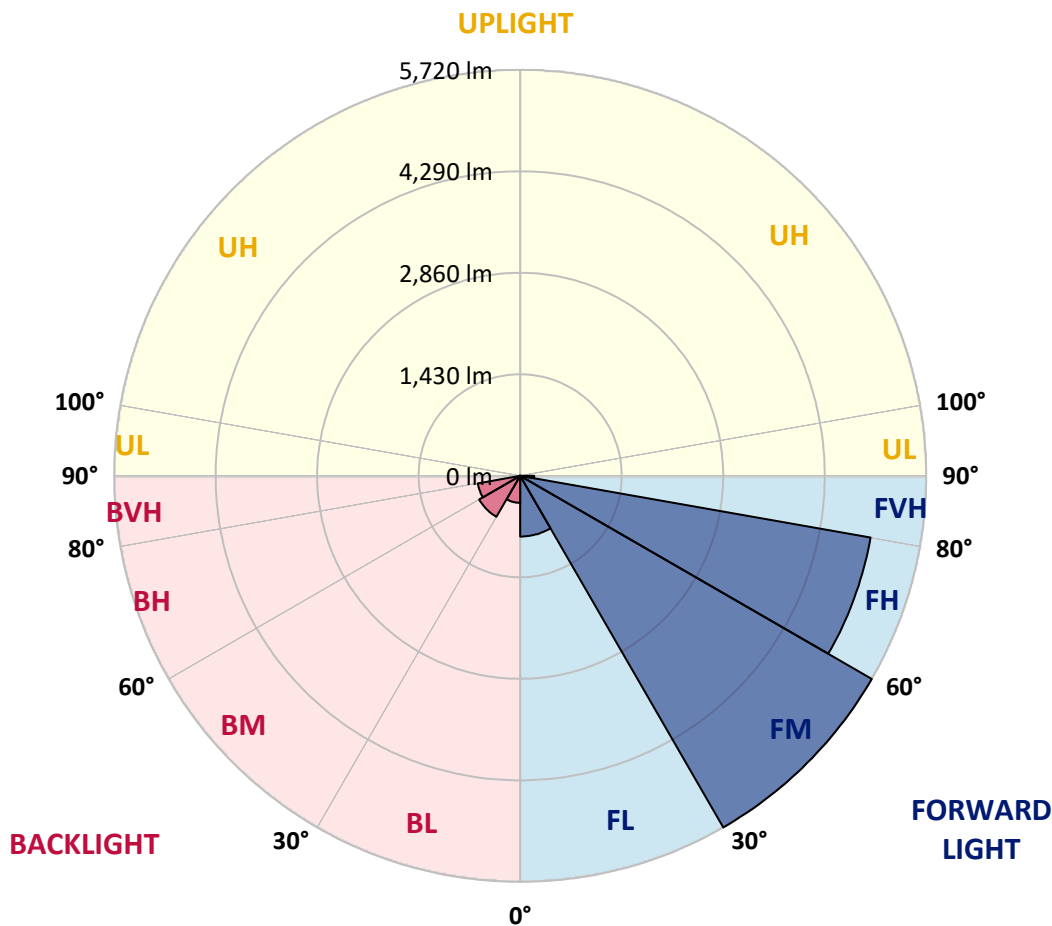


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	855.1	6.4			
FM (30°-60°)	5719.9	42.5			
FH (60°-80°)	5012.2	37.3			G3/7500
FVH (80°-90°)	198.5	1.5			G2/225
BL (0°-30°)	380.8	2.8	B1/500		
BM (30°-60°)	666.9	5.0	B1/1000		
BH (60°-80°)	606.7	4.5	B2/1000		G2/1000
BVH (80°-90°)	8.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3
 Type II Short





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CATALOG NUMBER: MSA-SA3D-835-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5
2.5°	1352.2	1306.5	1228.7	1251.2	1296.3	1333.8	1316.0	1281.2	1281.9	1246.4	1374.0
5°	1573.2	1511.8	1466.8	1482.5	1480.5	1479.1	1563.0	1595.1	1608.7	1667.4	1754.0
7.5°	1636.7	1614.9	1567.8	1582.1	1535.0	1538.4	1685.8	1825.0	1846.8	1883.0	2037.2
10°	1612.1	1569.8	1586.9	1586.9	1587.6	1664.0	1762.9	1895.9	1922.5	2061.7	2078.1
12.5°	1585.5	1587.6	1655.1	1642.8	1735.6	1872.7	1906.2	2055.6	2042.6	2163.4	2342.8
15°	1684.4	1736.3	1692.6	1709.7	1718.6	1879.6	1933.5	2132.0	2189.3	2342.1	2458.8
17.5°	1854.3	1861.1	1770.4	1745.8	1810.0	1855.7	1964.2	2059.7	2097.9	2499.0	2664.1
20°	1885.0	1928.7	1836.6	1694.7	1830.4	1893.2	1968.9	2014.6	2031.0	2547.5	2780.1
22.5°	2069.9	2021.5	1874.1	1766.3	1805.2	1873.4	1920.5	2058.3	2156.6	2456.1	2891.3
25°	2164.7	2151.8	2011.2	1919.1	1879.6	1874.1	1981.9	2086.3	2117.7	2550.9	2918.6
27.5°	2391.9	2362.6	2090.4	2078.8	1948.5	1833.9	1983.9	2171.6	2230.2	2461.5	3020.9
30°	2701.0	2690.1	2327.8	2320.3	2112.9	1906.9	2094.5	2224.1	2188.6	2507.2	3089.2
32.5°	3012.1	3100.8	2730.3	2518.8	2363.3	2175.0	2063.1	2207.7	2271.2	2618.4	3214.7
35°	3388.0	3452.1	3074.8	2921.3	2575.4	2300.5	2271.2	2364.0	2391.2	2750.8	3357.3
37.5°	4045.7	3948.8	3627.5	3366.2	3184.7	2748.7	2604.1	2530.4	2593.9	2930.2	3648.6
40°	4531.4	4470.0	4074.3	3918.1	3500.6	3245.4	2867.4	2798.5	2869.5	3114.4	3851.2
42.5°	5117.5	4989.9	4617.4	4511.6	4081.8	3589.9	3206.5	3230.4	3186.1	3478.0	4206.7
45°	5647.6	5359.7	5152.3	5176.1	4946.9	4282.4	3772.1	3760.5	3723.7	4004.7	4580.5
47.5°	6004.4	5752.6	5550.7	5484.5	5457.2	5500.2	4589.4	4383.4	4356.1	4558.0	5169.3
50°	6196.1	5920.5	5670.8	5684.4	6238.4	6655.2	5432.7	5140.0	5150.2	5361.0	5974.4
52.5°	6067.1	5755.4	5492.0	5747.9	6844.2	7425.5	6828.5	6128.5	6366.0	6312.1	7054.3
55°	5471.5	5200.7	5013.8	5471.5	6910.4	8254.4	8547.1	7616.5	7563.3	7440.5	8155.5
57.5°	4469.3	4236.0	4120.7	4603.7	6186.5	8922.3	10273.1	9298.2	8844.5	8330.1	9069.7
60°	3330.0	3158.1	3038.0	3293.2	4874.6	8273.5	11403.6	10883.1	10357.7	9187.7	9891.1
62.5°	2466.3	2326.4	2198.9	2222.0	3356.6	7115.7	11837.5	12562.0	12260.5	10093.0	10666.1
65°	1968.3	1840.7	1751.3	1700.1	2078.8	5353.5	11233.7	13938.1	14286.1	10945.8	11225.5
67.5°	1607.4	1499.6	1455.2	1513.9	1630.5	3051.7	9620.9	14773.2	15278.0	11850.5	11363.4
70°	1307.9	1219.2	1214.4	1372.7	1501.6	1860.5	7076.9	14196.7	14576.7	12004.7	10537.2
72.5°	911.5	872.6	934.7	1159.1	1488.0	1549.4	4064.1	11748.1	11761.8	10602.7	8667.2
75°	515.8	509.6	607.9	924.4	1449.1	1533.7	2265.7	8302.2	8308.3	8019.0	6004.4
77.5°	283.8	265.4	354.1	624.9	1244.4	1498.2	1461.4	5668.7	5523.4	4462.5	2742.6
80°	131.0	123.5	191.7	400.5	910.1	1417.0	1171.4	3115.8	2809.5	1453.8	669.3
82.5°	53.9	51.2	88.0	257.2	575.1	1141.4	987.2	1382.2	1109.3	276.3	206.7
85°	9.6	10.2	36.2	155.6	322.0	526.0	800.3	656.3	482.3	76.4	113.3
87.5°	0.0	0.0	7.5	37.5	77.8	144.0	324.7	183.5	126.2	22.5	33.4
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°	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5	1145.5
2.5°	1399.3	1387.7	1270.3	1275.8	1284.0	1276.5	1275.1	1242.4	1212.3	1311.3	1309.9
5°	1769.7	1687.2	1606.0	1574.6	1507.1	1418.4	1419.1	1391.1	1362.4	1402.7	1402.7
7.5°	2033.8	1919.8	1816.8	1633.3	1454.5	1292.8	1278.5	1240.3	1196.6	1249.2	1259.4
10°	2095.2	1996.2	1863.2	1593.7	1424.5	1266.9	1093.6	951.0	884.9	854.2	848.7
12.5°	2284.1	2210.5	1913.0	1614.9	1371.3	1104.5	820.7	651.5	536.2	527.4	515.1
15°	2410.3	2358.5	1962.1	1562.3	1146.2	794.1	515.8	395.7	349.3	345.2	339.1
17.5°	2606.1	2516.1	1915.0	1395.2	896.5	524.0	346.6	312.5	317.9	330.2	320.7
20°	2686.0	2510.0	1812.7	1153.0	629.7	351.4	300.9	282.4	296.8	308.4	302.9
22.5°	2767.8	2527.7	1722.0	950.4	411.4	290.6	268.1	258.6	259.9	271.5	272.2
25°	2767.2	2576.8	1616.9	740.2	306.3	258.6	242.2	229.9	225.1	233.3	231.3
27.5°	2901.6	2520.2	1425.2	549.2	269.5	231.3	215.6	200.6	183.5	191.7	191.7
30°	2902.2	2612.3	1291.5	394.3	247.0	206.0	192.4	169.2	149.4	156.2	156.9
32.5°	2979.3	2532.5	1168.0	301.5	229.2	191.0	161.0	139.9	128.3	132.4	132.4
35°	3067.3	2600.7	978.3	266.1	211.5	169.9	137.8	120.8	111.9	115.3	115.3
37.5°	3358.0	2586.4	846.7	247.7	199.9	153.5	125.5	106.4	102.3	104.4	107.1
40°	3463.0	2688.0	667.9	236.7	180.8	138.5	110.5	96.2	90.7	92.1	92.8
42.5°	3730.5	2710.5	533.5	227.9	163.7	120.1	98.2	88.0	81.2	81.2	83.2
45°	4025.9	2767.2	424.4	220.4	149.4	107.8	88.7	80.5	70.3	68.9	71.6
47.5°	4453.6	2984.1	345.9	205.4	132.4	100.3	81.9	69.6	61.4	58.7	61.4
50°	5169.3	3352.5	305.6	186.9	120.1	94.1	72.3	59.4	53.2	49.8	51.9
52.5°	6179.0	3989.0	284.5	169.9	109.2	84.6	64.8	51.9	45.7	43.0	44.3
55°	7300.6	4719.0	274.3	152.8	99.6	74.4	56.6	45.7	40.3	36.8	37.5
57.5°	8337.6	5405.4	264.0	136.4	90.1	66.2	49.8	40.3	34.8	31.4	32.1
60°	9359.6	5953.2	239.5	117.3	81.2	59.4	43.7	34.8	31.4	27.3	27.3
62.5°	10263.6	6280.7	204.0	101.7	73.0	52.5	38.9	31.4	28.7	24.6	24.6
65°	10879.0	6295.7	164.4	87.3	64.1	45.0	34.1	29.3	26.6	21.8	21.1
67.5°	10887.8	5886.3	131.7	77.8	56.6	39.6	30.7	28.0	24.6	20.5	19.1
70°	9745.1	4863.0	109.8	68.2	49.1	34.8	26.6	26.6	23.9	19.8	17.7
72.5°	7795.3	3716.2	92.1	59.4	43.7	30.0	24.6	25.2	23.2	19.8	17.7
75°	5239.6	2131.3	76.4	50.5	38.2	25.2	23.9	24.6	23.9	19.8	17.1
77.5°	2413.1	678.8	59.4	41.6	32.7	21.1	23.2	23.2	21.8	17.7	15.0
80°	543.7	167.1	43.0	30.7	26.6	15.7	21.1	19.1	17.1	12.3	8.9
82.5°	197.8	51.2	25.9	19.1	16.4	6.1	13.6	13.6	12.3	8.9	5.5
85°	113.3	26.6	14.3	12.3	8.9	2.7	7.5	8.2	6.8	6.1	2.7
87.5°	36.8	6.1	6.8	7.5	6.8	1.4	2.7	2.7	2.0	1.4	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

(END OF REPORT)