

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: P367681

Luminaire Tested: **MSA-SA3A-730-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-730-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: 8756 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

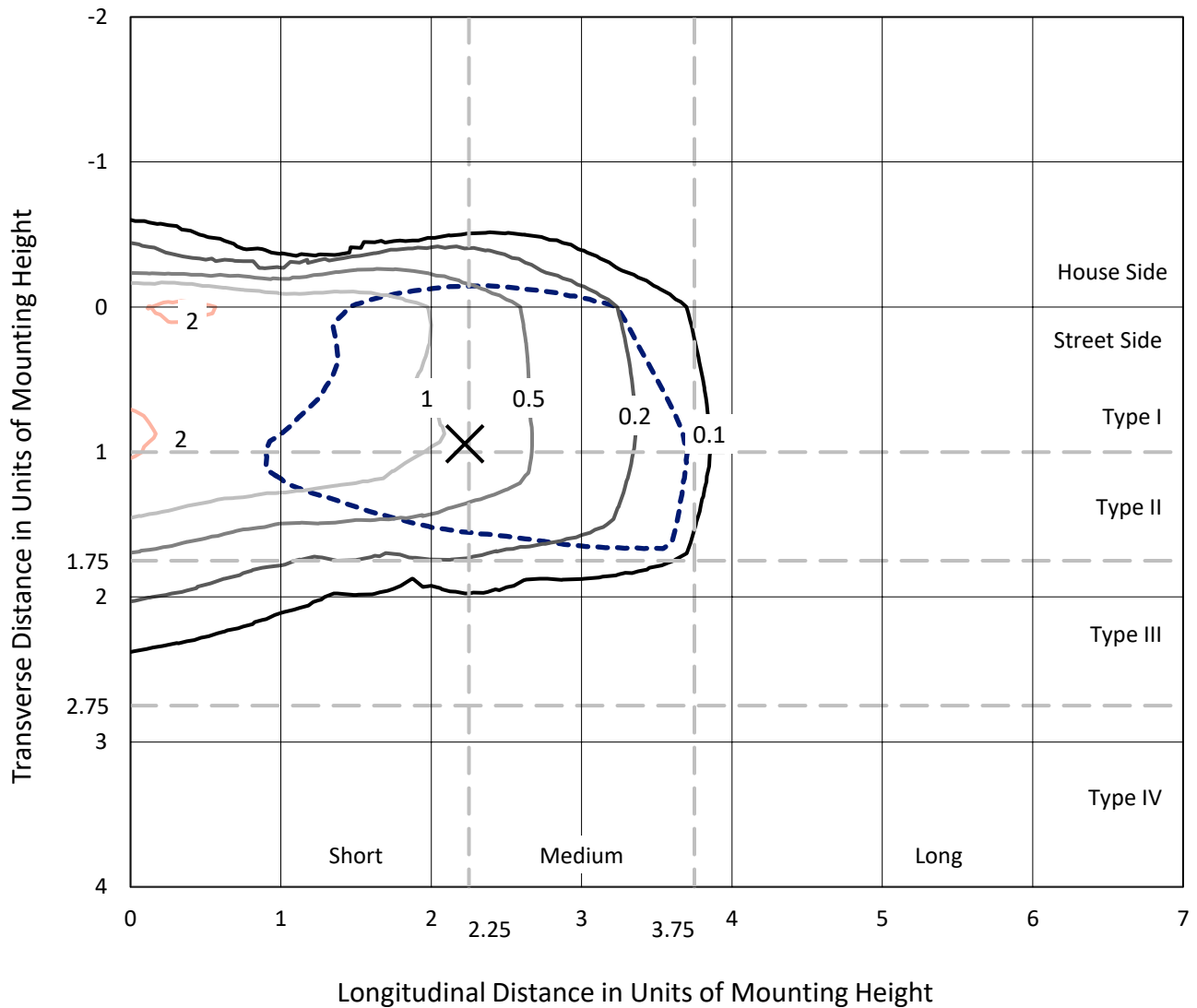
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

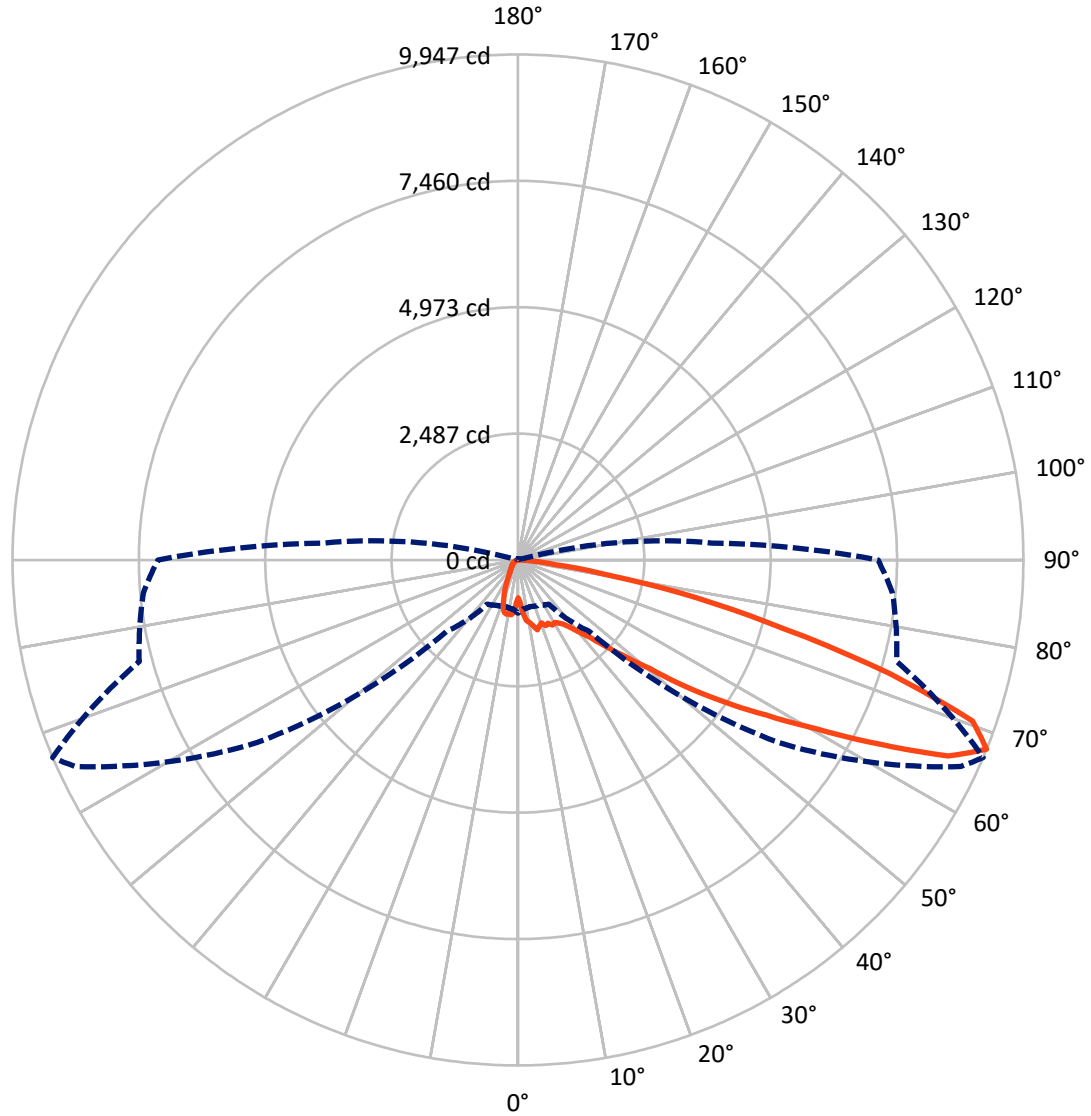
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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

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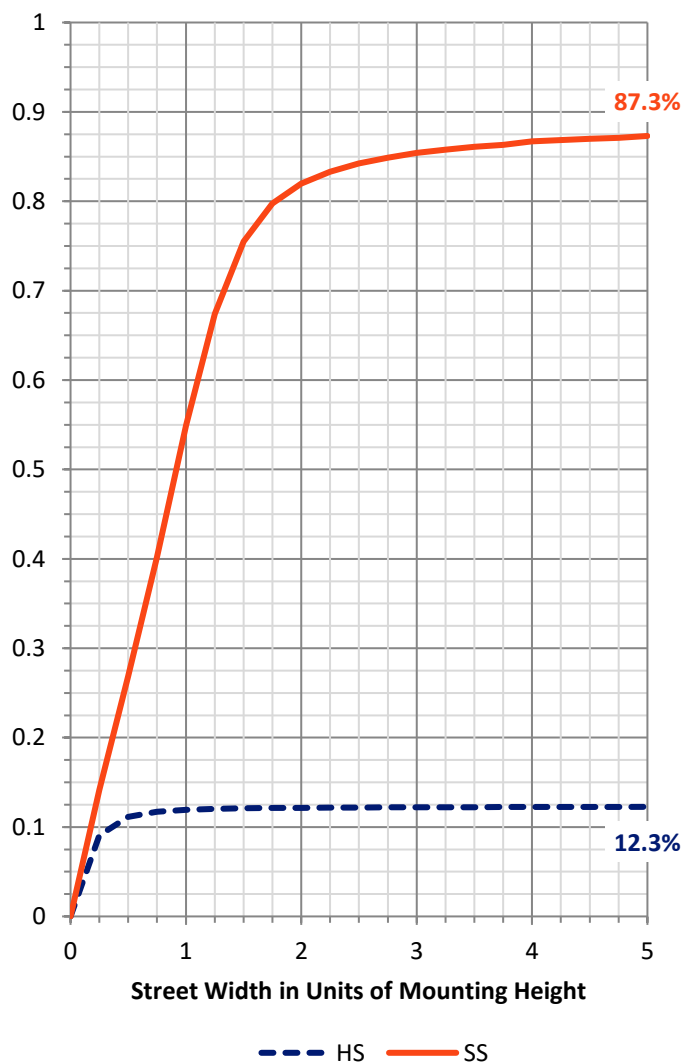
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1082.9	0.0	1082.9
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	7673.1	0.0	7673.1
	% Fixture	87.6	0.0	87.6
Total	Lumens	8756.0	0.0	8756.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.6	1.1
10°-20°	277.0	3.2
20°-30°	434.1	5.0
30°-40°	699.9	8.0
40°-50°	1286.1	14.7
50°-60°	2172.1	24.8
60°-70°	2401.3	27.4
70°-80°	1256.8	14.4
80°-90°	135.0	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°	8756.0	100.0
0°-180°	8756.0	100.0

Coefficient of Utilization



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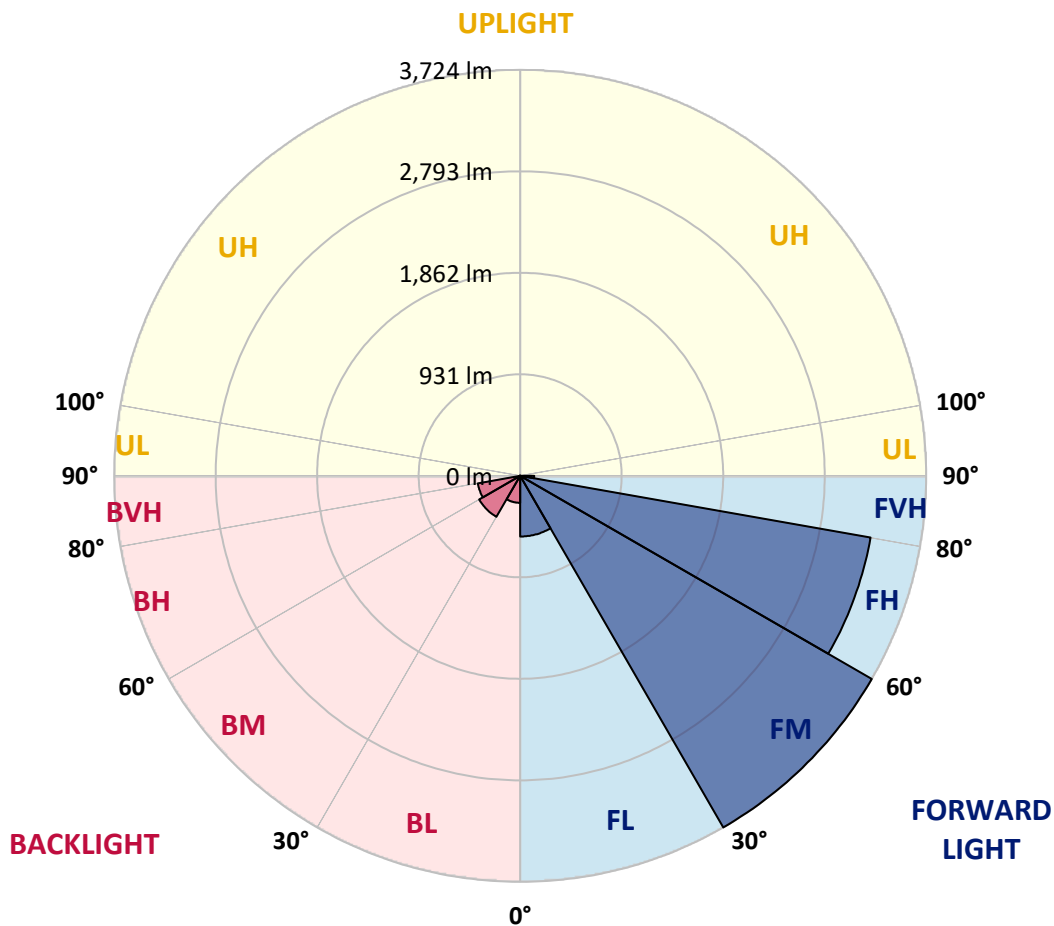
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	556.7	6.4			
FM (30°-60°)	3724.0	42.5			
FH (60°-80°)	3263.2	37.3			G2/5000
FVH (80°-90°)	129.2	1.5			G2/225
BL (0°-30°)	247.9	2.8	B1/500		
BM (30°-60°)	434.2	5.0	B1/1000		
BH (60°-80°)	395.0	4.5	B1/500		G1/500
BVH (80°-90°)	5.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8
2.5°	880.3	850.6	800.0	814.6	843.9	868.4	856.8	834.2	834.6	811.5	894.6
5°	1024.3	984.3	955.0	965.2	963.9	963.0	1017.6	1038.5	1047.4	1085.6	1142.0
7.5°	1065.6	1051.4	1020.7	1030.0	999.4	1001.6	1097.6	1188.2	1202.4	1225.9	1326.3
10°	1049.6	1022.0	1033.1	1033.1	1033.6	1083.3	1147.7	1234.4	1251.7	1342.3	1352.9
12.5°	1032.3	1033.6	1077.6	1069.6	1130.0	1219.3	1241.0	1338.3	1329.9	1408.5	1525.3
15°	1096.7	1130.4	1102.0	1113.1	1118.9	1223.7	1258.8	1388.0	1425.3	1524.8	1600.8
17.5°	1207.3	1211.7	1152.6	1136.6	1178.4	1208.1	1278.8	1341.0	1365.8	1627.0	1734.5
20°	1227.2	1255.7	1195.7	1103.3	1191.7	1232.6	1281.9	1311.6	1322.3	1658.5	1810.0
22.5°	1347.6	1316.1	1220.1	1150.0	1175.3	1219.7	1250.3	1340.1	1404.0	1599.0	1882.4
25°	1409.4	1400.9	1309.4	1249.5	1223.7	1220.1	1290.3	1358.3	1378.7	1660.8	1900.2
27.5°	1557.3	1538.2	1360.9	1353.4	1268.6	1193.9	1291.7	1413.8	1452.0	1602.6	1966.8
30°	1758.5	1751.4	1515.5	1510.6	1375.6	1241.5	1363.6	1448.0	1424.9	1632.3	2011.2
32.5°	1961.0	2018.8	1777.6	1639.9	1538.6	1416.0	1343.2	1437.3	1478.7	1704.7	2092.9
35°	2205.8	2247.5	2001.9	1901.9	1676.8	1497.7	1478.7	1539.1	1556.8	1790.9	2185.8
37.5°	2633.9	2570.9	2361.7	2191.5	2073.4	1789.6	1695.4	1647.4	1688.7	1907.7	2375.4
40°	2950.2	2910.2	2652.6	2550.9	2279.0	2112.9	1866.9	1822.0	1868.2	2027.6	2507.4
42.5°	3331.7	3248.7	3006.2	2937.3	2657.5	2337.2	2087.6	2103.2	2074.3	2264.4	2738.8
45°	3676.9	3489.4	3354.4	3369.9	3220.7	2788.1	2455.8	2448.3	2424.3	2607.3	2982.2
47.5°	3909.2	3745.3	3613.8	3570.7	3552.9	3580.9	2987.9	2853.8	2836.0	2967.5	3365.5
50°	4034.0	3854.5	3692.0	3700.8	4061.5	4332.9	3536.9	3346.4	3353.1	3490.3	3889.6
52.5°	3950.0	3747.0	3575.6	3742.2	4455.9	4834.4	4445.7	3990.0	4144.6	4109.5	4592.7
55°	3562.3	3385.9	3264.2	3562.3	4499.0	5374.0	5564.6	4958.7	4924.1	4844.1	5309.6
57.5°	2909.8	2757.9	2682.8	2997.3	4027.8	5808.9	6688.3	6053.6	5758.3	5423.3	5904.8
60°	2168.0	2056.1	1977.9	2144.0	3173.6	5386.5	7424.3	7085.4	6743.4	5981.7	6439.6
62.5°	1605.7	1514.6	1431.6	1446.7	2185.3	4632.7	7706.8	8178.5	7982.2	6571.1	6944.2
65°	1281.4	1198.4	1140.2	1106.9	1353.4	3485.4	7313.7	9074.4	9301.0	7126.3	7308.4
67.5°	1046.5	976.3	947.4	985.6	1061.6	1986.8	6263.7	9618.1	9946.8	7715.3	7398.1
70°	851.5	793.7	790.6	893.7	977.6	1211.3	4607.4	9242.8	9490.2	7815.7	6860.2
72.5°	593.4	568.1	608.5	754.6	968.7	1008.7	2645.9	7648.6	7657.5	6902.9	5642.8
75°	335.8	331.8	395.8	601.9	943.4	998.5	1475.1	5405.1	5409.1	5220.8	3909.2
77.5°	184.8	172.8	230.5	406.9	810.2	975.4	951.4	3690.6	3596.0	2905.3	1785.6
80°	85.3	80.4	124.8	260.7	592.5	922.5	762.6	2028.5	1829.1	946.5	435.7
82.5°	35.1	33.3	57.3	167.5	374.4	743.1	642.7	899.9	722.2	179.9	134.6
85°	6.2	6.7	23.5	101.3	209.6	342.5	521.0	427.3	314.0	49.7	73.7
87.5°	0.0	0.0	4.9	24.4	50.6	93.7	211.4	119.5	82.2	14.7	21.8
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°	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8
2.5°	911.0	903.4	827.0	830.6	835.9	831.0	830.2	808.8	789.3	853.7	852.8
5°	1152.2	1098.4	1045.6	1025.2	981.2	923.4	923.9	905.7	887.0	913.2	913.2
7.5°	1324.1	1249.9	1182.8	1063.3	947.0	841.7	832.4	807.5	779.1	813.3	819.9
10°	1364.1	1299.6	1213.0	1037.6	927.4	824.8	712.0	619.2	576.1	556.1	552.6
12.5°	1487.1	1439.1	1245.5	1051.4	892.8	719.1	534.3	424.2	349.1	343.3	335.4
15°	1569.3	1535.5	1277.4	1017.2	746.2	517.0	335.8	257.6	227.4	224.8	220.8
17.5°	1696.7	1638.1	1246.8	908.3	583.6	341.1	225.6	203.4	207.0	215.0	208.8
20°	1748.7	1634.1	1180.2	750.7	410.0	228.7	195.9	183.9	193.2	200.8	197.2
22.5°	1802.0	1645.7	1121.1	618.7	267.8	189.2	174.6	168.3	169.2	176.8	177.2
25°	1801.6	1677.6	1052.7	481.9	199.4	168.3	157.7	149.7	146.6	151.9	150.6
27.5°	1889.1	1640.8	927.9	357.6	175.4	150.6	140.4	130.6	119.5	124.8	124.8
30°	1889.5	1700.7	840.8	256.7	160.8	134.1	125.3	110.2	97.3	101.7	102.2
32.5°	1939.7	1648.8	760.4	196.3	149.2	124.4	104.8	91.1	83.5	86.2	86.2
35°	1997.0	1693.2	636.9	173.2	137.7	110.6	89.7	78.6	72.8	75.1	75.1
37.5°	2186.2	1683.9	551.2	161.2	130.1	99.9	81.7	69.3	66.6	68.0	69.7
40°	2254.6	1750.0	434.8	154.1	117.7	90.2	72.0	62.6	59.1	60.0	60.4
42.5°	2428.7	1764.7	347.3	148.4	106.6	78.2	64.0	57.3	52.9	52.9	54.2
45°	2621.1	1801.6	276.3	143.5	97.3	70.2	57.7	52.4	45.7	44.9	46.6
47.5°	2899.6	1942.8	225.2	133.7	86.2	65.3	53.3	45.3	40.0	38.2	40.0
50°	3365.5	2182.7	199.0	121.7	78.2	61.3	47.1	38.6	34.6	32.4	33.8
52.5°	4022.9	2597.1	185.2	110.6	71.1	55.1	42.2	33.8	29.8	28.0	28.9
55°	4753.1	3072.3	178.6	99.5	64.8	48.4	36.9	29.8	26.2	24.0	24.4
57.5°	5428.2	3519.2	171.9	88.8	58.6	43.1	32.4	26.2	22.7	20.4	20.9
60°	6093.6	3875.8	155.9	76.4	52.9	38.6	28.4	22.7	20.4	17.8	17.8
62.5°	6682.1	4089.1	132.8	66.2	47.5	34.2	25.3	20.4	18.7	16.0	16.0
65°	7082.8	4098.8	107.0	56.9	41.8	29.3	22.2	19.1	17.3	14.2	13.8
67.5°	7088.5	3832.3	85.7	50.6	36.9	25.8	20.0	18.2	16.0	13.3	12.4
70°	6344.6	3166.1	71.5	44.4	32.0	22.7	17.3	17.3	15.5	12.9	11.5
72.5°	5075.1	2419.4	60.0	38.6	28.4	19.5	16.0	16.4	15.1	12.9	11.5
75°	3411.2	1387.6	49.7	32.9	24.9	16.4	15.5	16.0	15.5	12.9	11.1
77.5°	1571.0	442.0	38.6	27.1	21.3	13.8	15.1	15.1	14.2	11.5	9.8
80°	354.0	108.8	28.0	20.0	17.3	10.2	13.8	12.4	11.1	8.0	5.8
82.5°	128.8	33.3	16.9	12.4	10.7	4.0	8.9	8.9	8.0	5.8	3.6
85°	73.7	17.3	9.3	8.0	5.8	1.8	4.9	5.3	4.4	4.0	1.8
87.5°	24.0	4.0	4.4	4.9	4.4	0.9	1.8	1.8	1.3	0.9	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)