

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: P367672

Luminaire Tested: **MSA-SA3A-727-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367672
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-727-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9796 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

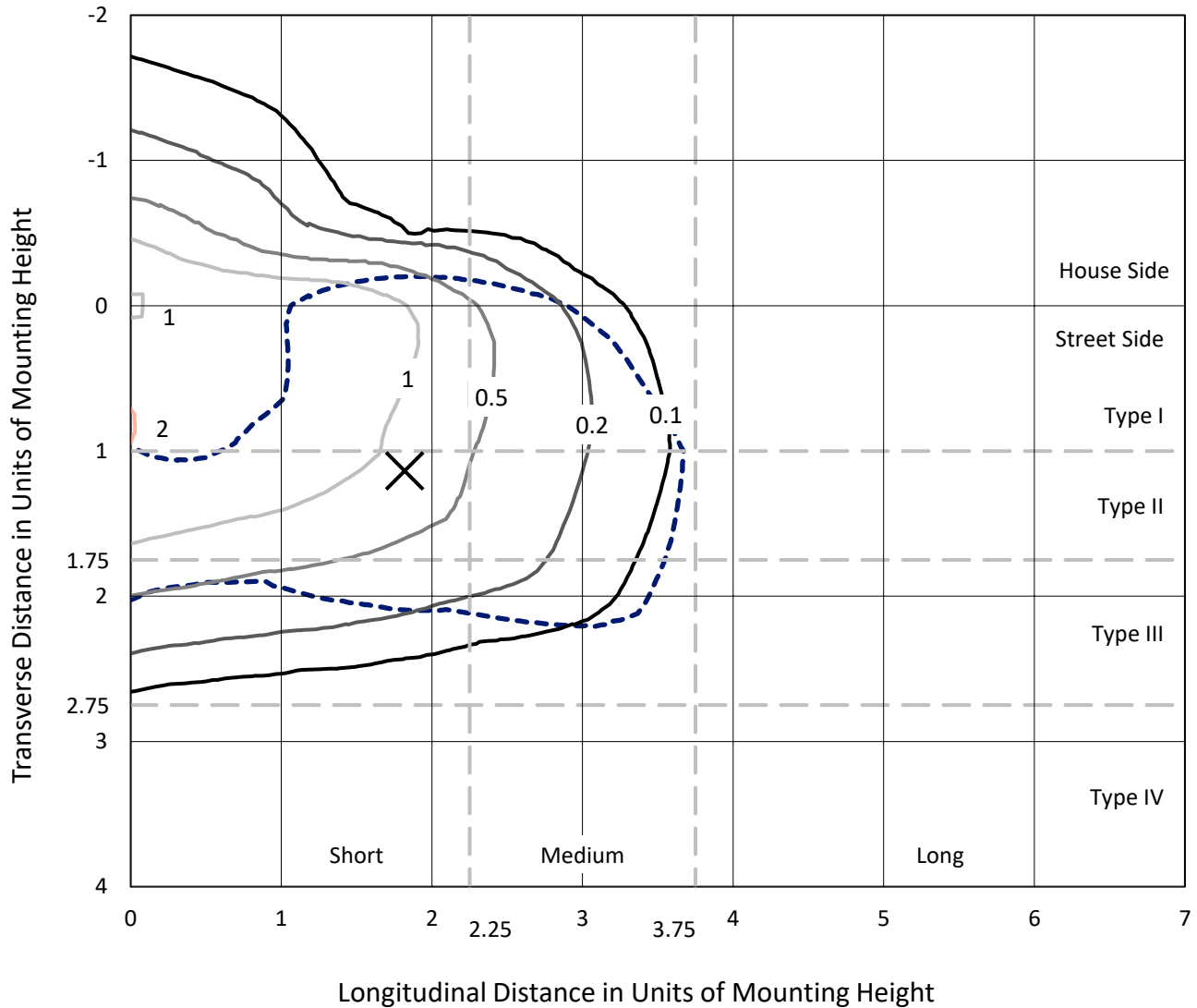
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

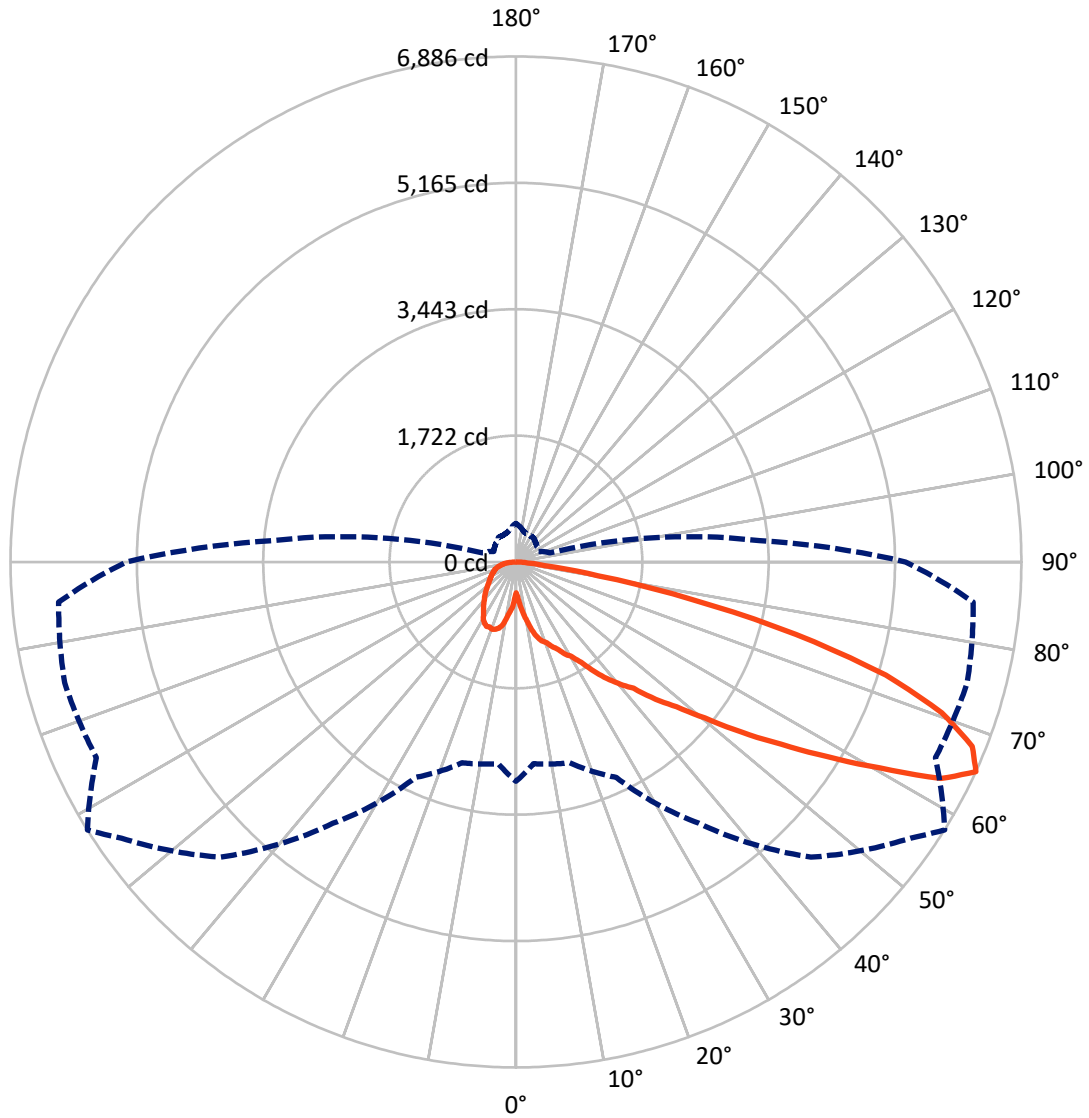
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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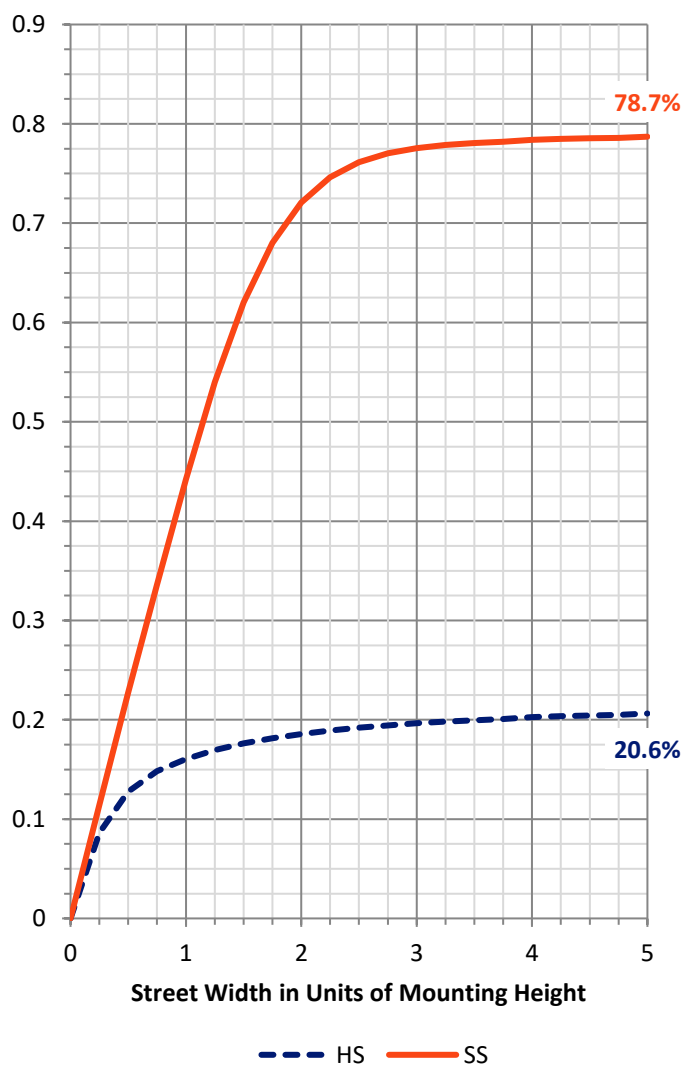
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2063.3	0.0	2063.3
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	7732.7	0.0	7732.7
	% Fixture	78.9	0.0	78.9
Total	Lumens	9796.0	0.0	9796.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	0.7
10°-20°	279.6	2.9
20°-30°	536.4	5.5
30°-40°	885.6	9.0
40°-50°	1472.1	15.0
50°-60°	2431.1	24.8
60°-70°	2727.2	27.8
70°-80°	1240.0	12.7
80°-90°	159.9	1.6
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°	9796.0	100.0
0°-180°	9796.0	100.0

Coefficient of Utilization



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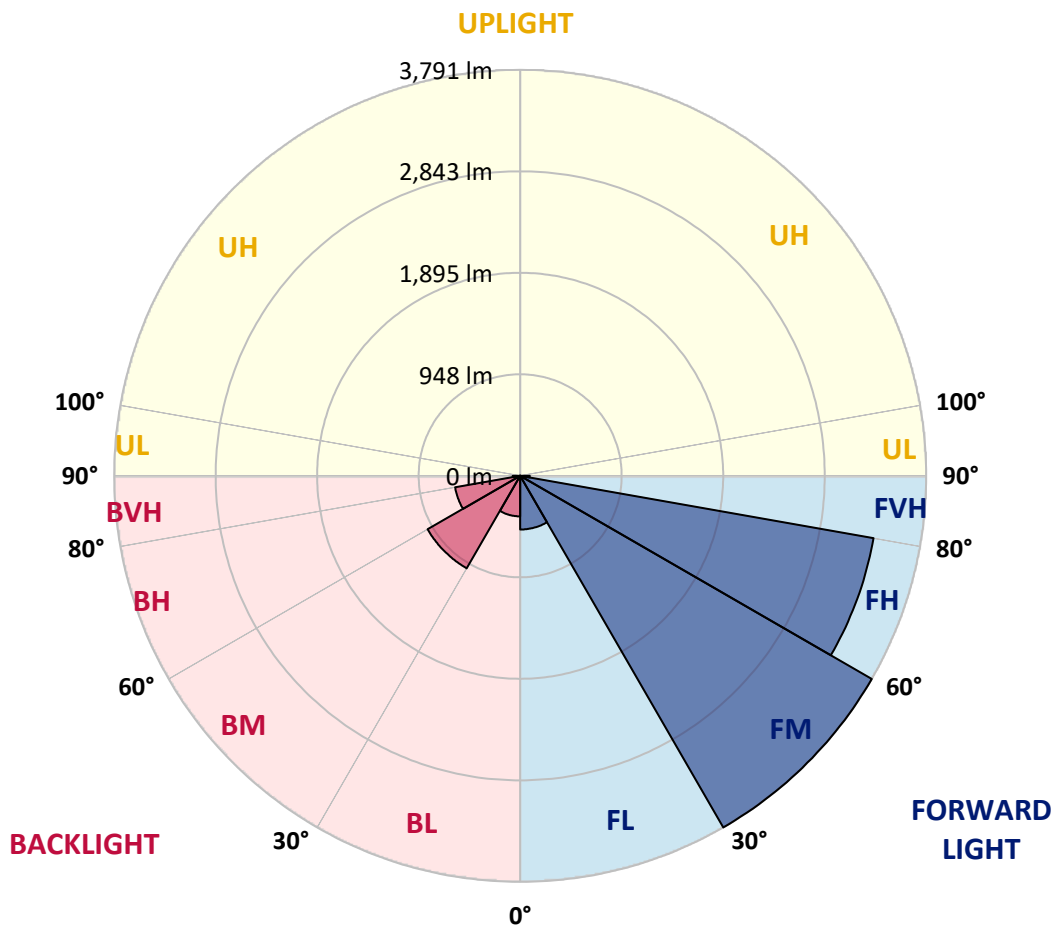
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	501.3	5.1			
FM (30°-60°)	3790.9	38.7			
FH (60°-80°)	3350.4	34.2			G2/5000
FVH (80°-90°)	90.1	0.9			G1/100
BL (0°-30°)	378.8	3.9	B1/500		
BM (30°-60°)	997.9	10.2	B1/1000		
BH (60°-80°)	616.8	6.3	B2/1000		G2/1000
BVH (80°-90°)	69.9	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6
2.5°	502.2	487.1	461.8	467.9	482.6	490.8	485.9	479.3	470.8	469.1	506.7
5°	650.3	621.3	609.5	604.6	586.6	576.0	594.4	591.9	601.7	619.7	656.4
7.5°	758.4	738.0	718.4	716.4	681.7	669.4	693.9	707.0	724.5	724.9	774.7
10°	816.3	798.8	798.4	780.0	777.1	800.4	800.8	810.6	812.6	833.4	823.6
12.5°	879.1	877.9	900.3	899.9	926.0	964.4	945.2	945.2	950.9	925.6	956.6
15°	1028.8	1041.9	999.9	1006.8	1006.8	1044.3	1043.1	1050.5	1068.0	1061.5	1047.6
17.5°	1184.7	1192.8	1146.3	1103.1	1106.4	1098.2	1127.6	1130.4	1113.7	1189.6	1172.9
20°	1285.0	1316.9	1219.0	1164.7	1175.3	1184.7	1185.9	1168.4	1159.8	1276.5	1253.6
22.5°	1409.1	1382.1	1292.4	1232.4	1248.3	1235.7	1233.2	1246.7	1258.5	1302.6	1339.7
25°	1491.9	1489.8	1382.1	1316.5	1298.9	1295.2	1320.1	1314.8	1343.0	1422.9	1399.7
27.5°	1612.2	1649.7	1458.8	1475.1	1398.0	1316.9	1396.8	1420.9	1471.5	1458.4	1510.2
30°	1845.6	1817.4	1617.9	1613.4	1526.1	1458.0	1513.5	1493.1	1584.1	1581.2	1619.6
32.5°	2036.1	2055.7	1804.8	1757.9	1693.0	1611.0	1574.3	1631.0	1679.9	1760.3	1781.9
35°	2237.6	2233.1	1996.1	1901.5	1794.2	1760.3	1805.6	1829.2	1933.3	2007.1	1955.7
37.5°	2550.9	2515.4	2244.1	2065.0	1984.7	1972.4	2049.9	2015.7	2128.3	2145.8	2174.8
40°	2842.2	2735.3	2470.9	2265.7	2138.1	2183.8	2186.2	2190.7	2251.1	2298.8	2442.0
42.5°	3119.2	3044.1	2701.4	2547.2	2359.2	2314.7	2342.4	2351.8	2504.4	2601.9	2800.2
45°	3497.8	3296.6	3032.7	2874.4	2663.9	2607.2	2587.6	2668.4	2815.7	3037.6	3207.7
47.5°	3818.0	3636.5	3384.8	3176.3	2940.9	3102.9	2991.9	2946.6	3144.5	3419.4	3690.3
50°	4083.6	3883.7	3636.9	3516.5	3479.0	3623.4	3335.4	3340.7	3521.8	3909.8	4220.2
52.5°	4289.2	4075.8	3857.2	3796.0	4005.7	4088.9	3880.8	3849.4	3981.6	4440.1	4813.0
55°	4481.3	4254.9	4086.0	4210.9	4564.1	4573.5	4558.8	4384.6	4543.7	5008.4	5426.5
57.5°	4530.7	4286.7	4174.5	4353.6	4831.3	5203.0	5349.0	5007.2	5169.1	5525.3	5952.0
60°	4276.5	4067.7	4022.8	4265.9	4975.8	5519.1	5900.6	5696.2	5635.4	5940.1	6319.9
62.5°	3756.0	3513.7	3550.0	3887.8	4823.6	5644.4	6336.3	6495.8	6127.8	6270.2	6480.7
65°	2989.5	2758.1	2831.6	3237.9	4345.9	5686.0	6559.0	6886.2	6305.7	6363.6	6253.0
67.5°	2108.3	1898.2	1990.8	2516.2	3615.2	5153.2	6597.4	6704.2	6116.4	6097.2	5631.3
70°	1194.5	1062.7	1163.1	1601.2	2551.7	4105.2	6296.7	6156.0	5777.0	5505.3	4711.8
72.5°	547.9	502.6	550.7	815.1	1469.0	2731.6	5140.6	5268.3	4977.8	4638.0	3584.6
75°	291.3	275.4	295.8	407.1	687.4	1486.2	3652.4	3939.6	3785.0	3517.7	2338.4
77.5°	216.6	204.4	214.2	263.9	367.2	581.3	2075.2	2437.5	2496.2	2250.2	1298.5
80°	166.0	156.2	166.0	199.5	254.2	276.2	887.3	1136.1	1294.0	1045.6	516.1
82.5°	123.2	116.7	131.8	149.7	178.7	172.6	314.9	392.0	505.4	345.5	201.1
85°	97.9	89.7	95.5	101.6	114.2	94.6	144.0	161.1	170.5	142.8	74.2
87.5°	38.3	35.5	69.4	54.7	46.5	28.6	43.2	49.0	50.2	48.1	21.6
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°	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6	420.6
2.5°	510.8	506.7	482.6	490.4	503.0	505.4	510.8	496.1	488.7	515.6	516.9
5°	659.7	637.6	626.2	627.4	619.3	606.6	625.8	638.4	643.3	663.3	670.7
7.5°	775.1	748.6	729.4	707.4	676.4	656.4	689.8	714.3	727.4	769.0	785.3
10°	826.5	805.3	801.2	773.5	772.7	772.2	770.6	762.0	790.2	786.1	797.5
12.5°	932.6	928.1	889.3	878.3	879.5	878.3	844.0	842.4	842.8	880.4	866.9
15°	1031.3	1032.1	996.6	956.6	920.7	909.7	896.3	890.1	899.1	920.3	907.3
17.5°	1153.3	1157.4	1055.8	992.5	945.2	944.0	911.8	873.8	928.5	941.5	927.3
20°	1232.0	1214.9	1090.0	984.0	970.5	933.8	893.8	841.6	888.9	920.7	929.7
22.5°	1306.7	1276.9	1121.9	999.1	934.6	891.0	852.2	818.3	833.4	868.9	863.2
25°	1357.2	1349.1	1165.9	1035.4	933.4	836.3	784.1	762.5	770.2	825.3	820.0
27.5°	1478.0	1389.9	1158.2	1044.8	894.2	761.6	735.5	712.3	704.5	764.1	780.4
30°	1558.8	1522.5	1210.0	1030.1	844.9	700.4	662.1	657.2	659.7	727.4	731.9
32.5°	1695.8	1601.6	1294.8	973.8	773.1	655.2	611.1	613.1	624.2	673.5	683.7
35°	1838.6	1782.3	1306.3	933.4	714.7	607.0	589.1	574.8	580.9	624.2	626.2
37.5°	2103.8	1909.2	1376.4	871.0	671.9	588.7	554.4	541.8	545.0	569.5	587.0
40°	2337.1	2164.2	1343.8	810.6	618.9	564.2	521.4	512.0	502.2	526.3	537.3
42.5°	2711.2	2346.1	1332.8	744.1	594.0	531.1	501.8	476.9	467.5	487.9	507.9
45°	3085.3	2539.1	1272.8	676.8	558.9	528.7	473.2	449.6	452.0	470.4	490.8
47.5°	3502.2	2798.1	1171.2	611.5	520.5	516.9	444.7	434.5	441.8	462.2	482.6
50°	3995.0	3073.1	1087.2	552.8	493.2	481.4	441.0	428.8	435.7	459.8	479.7
52.5°	4533.9	3374.6	1026.0	498.5	462.2	453.2	445.9	434.1	442.2	463.0	483.8
55°	5069.6	3649.9	984.4	461.4	435.7	441.4	456.1	447.5	451.6	467.1	487.9
57.5°	5466.9	3795.2	900.8	421.8	414.1	434.5	457.3	443.0	445.5	467.1	489.5
60°	5697.8	3822.9	763.3	389.6	396.9	420.6	444.7	426.3	424.7	460.2	488.3
62.5°	5672.5	3661.8	605.4	360.2	377.4	399.8	425.5	407.9	412.4	461.0	490.8
65°	5310.3	3332.5	481.4	335.3	353.7	376.9	409.6	402.6	424.3	493.6	525.8
67.5°	4673.9	2851.6	386.7	312.1	331.7	361.4	420.6	439.0	448.3	527.1	560.1
70°	3787.8	2215.6	322.3	291.7	314.1	368.8	452.4	448.7	441.0	511.2	537.3
72.5°	2736.5	1518.8	283.5	271.7	292.5	346.8	453.2	433.6	423.9	466.7	485.5
75°	1712.2	906.1	247.6	246.4	259.5	310.9	432.8	415.3	388.8	410.0	434.5
77.5°	977.9	463.8	208.5	219.5	227.2	269.7	387.6	371.6	348.0	357.0	381.0
80°	373.3	224.4	175.8	195.0	193.0	228.5	328.4	324.7	297.8	300.7	315.3
82.5°	175.8	125.6	146.0	167.7	156.7	181.9	266.8	265.6	241.9	219.1	230.9
85°	65.3	66.9	106.9	127.7	108.9	117.5	193.0	187.7	164.8	139.1	153.8
87.5°	14.7	24.1	52.6	66.5	37.9	36.3	77.9	67.7	65.3	38.8	40.8
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)