

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: P367132

Luminaire Tested: **MSA-SA2A-727-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367132
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-727-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6603 lumens
Efficiency: N/A
Efficacy: 100.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

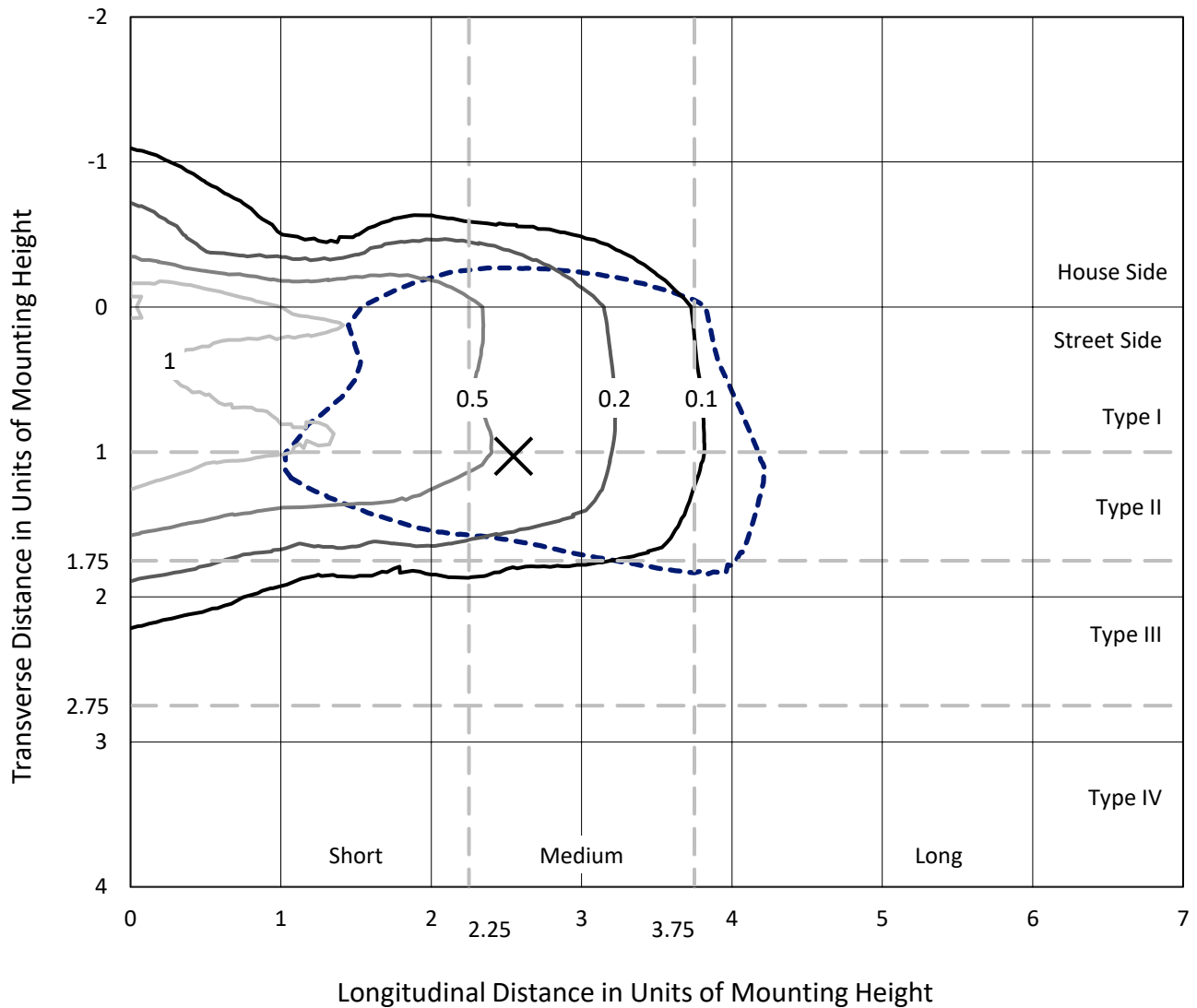
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

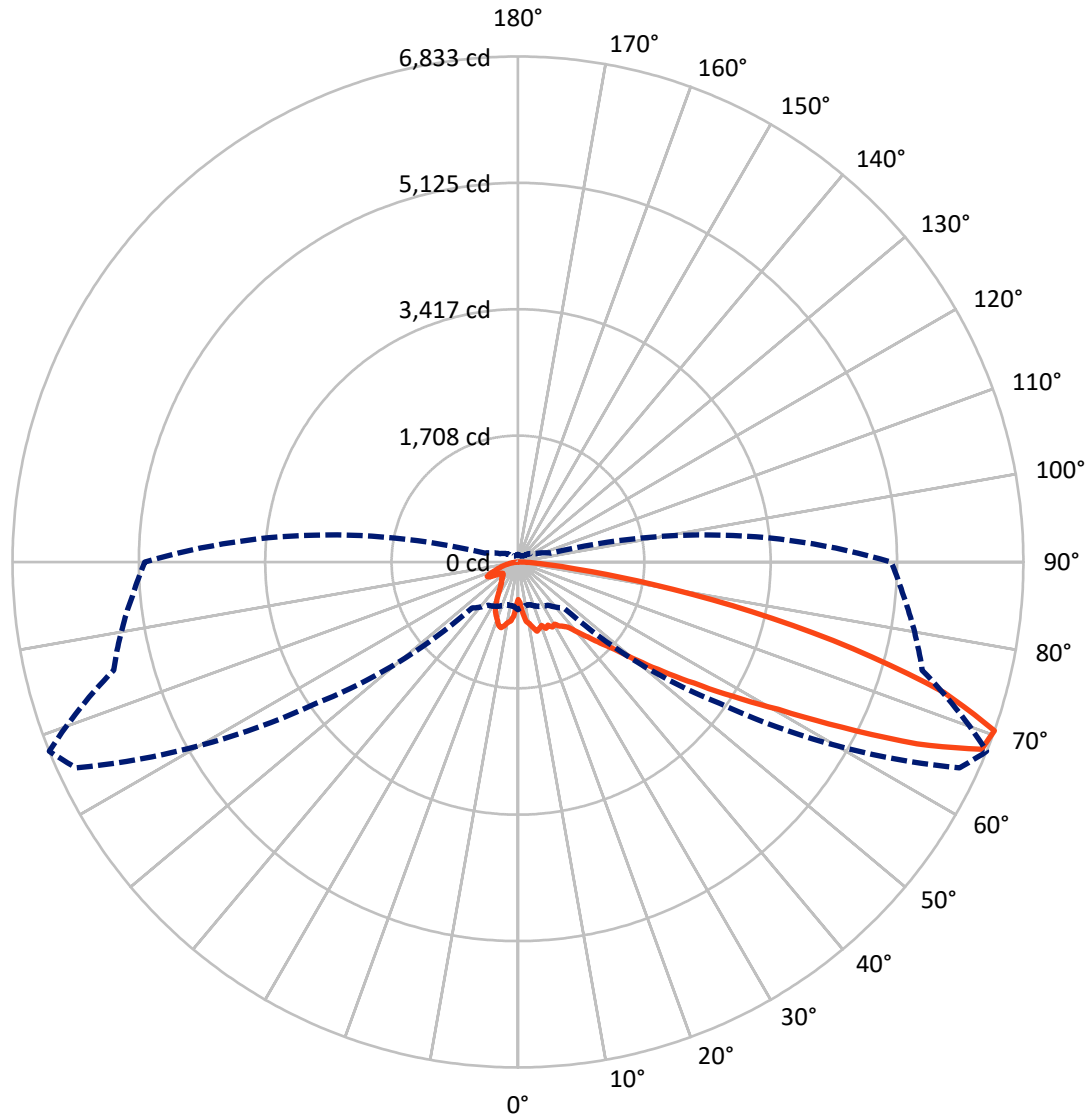
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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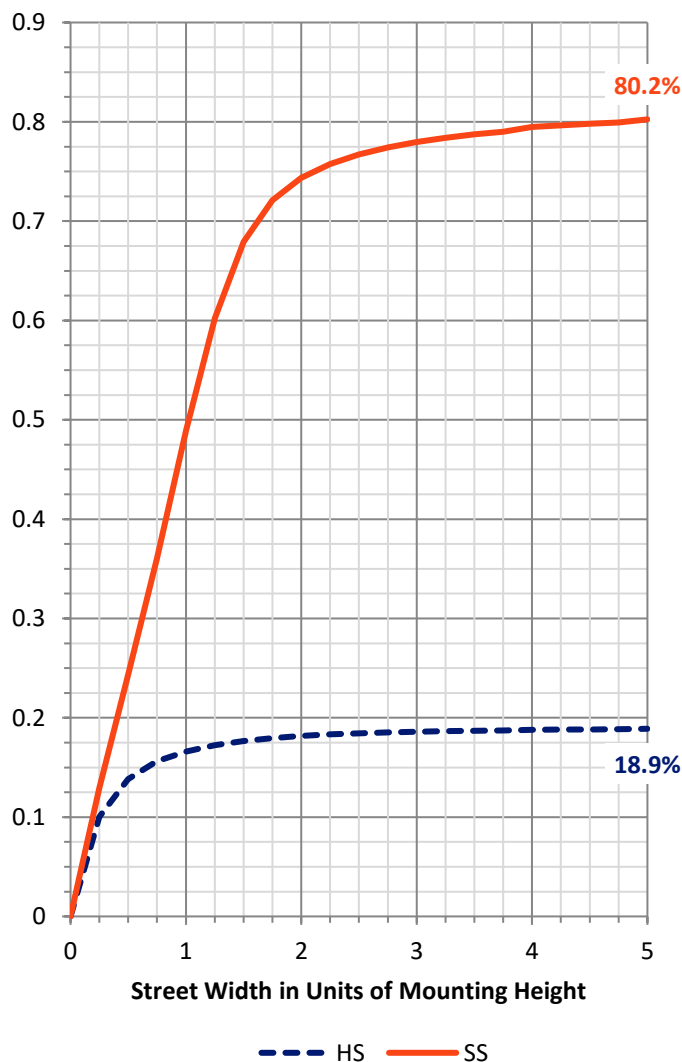
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1260.7	0.0	1260.7
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	5342.3	0.0	5342.3
	% Fixture	80.9	0.0	80.9
Total	Lumens	6603.0	0.0	6603.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.6	1.0
10°-20°	220.4	3.3
20°-30°	335.2	5.1
30°-40°	512.1	7.8
40°-50°	880.5	13.3
50°-60°	1457.3	22.1
60°-70°	1796.7	27.2
70°-80°	1154.2	17.5
80°-90°	179.0	2.7
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°	6603.0	100.0
0°-180°	6603.0	100.0

Coefficient of Utilization



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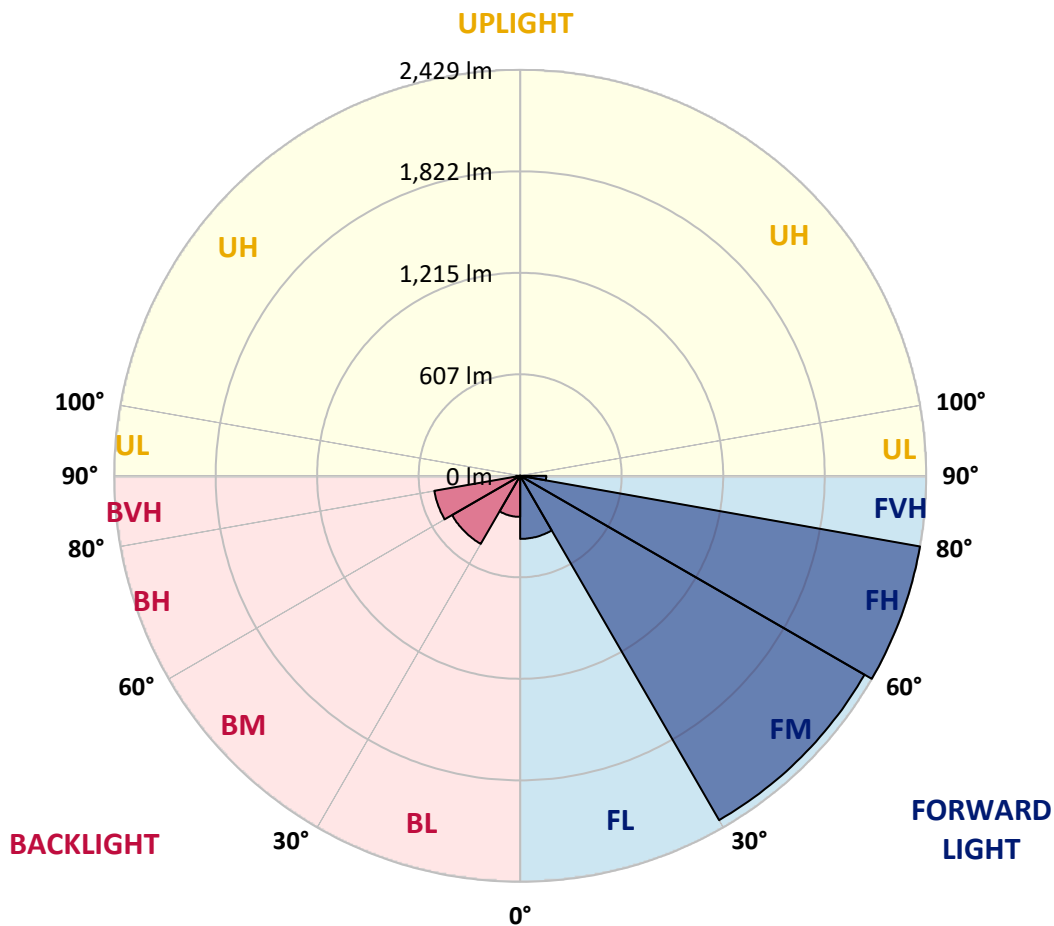
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	377.6	5.7			
FM (30°-60°)	2379.3	36.0			
FH (60°-80°)	2429.4	36.8			G2/5000
FVH (80°-90°)	156.0	2.4			G2/225
BL (0°-30°)	245.7	3.7	B1/500		
BM (30°-60°)	470.6	7.1	B1/1000		
BH (60°-80°)	521.5	7.9	B2/1000		G2/1000
BVH (80°-90°)	23.0	0.3			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3
2.5°	581.7	558.2	534.5	546.1	564.6	580.9	577.6	579.5	557.1	554.1	612.9
5°	685.4	645.0	644.2	644.7	646.4	627.6	673.5	697.2	702.5	726.8	784.6
7.5°	721.3	705.0	688.4	696.7	675.7	677.6	734.0	795.9	810.5	828.2	907.3
10°	713.8	698.3	703.3	704.7	708.6	739.8	776.0	835.4	847.8	904.2	924.7
12.5°	714.9	712.2	735.4	736.2	777.7	833.8	848.1	902.8	907.8	949.3	1034.7
15°	752.8	771.8	758.9	765.8	773.8	840.9	861.7	940.1	970.0	1023.3	1087.4
17.5°	826.6	832.1	793.1	782.9	809.2	829.6	876.9	910.9	942.1	1091.0	1179.5
20°	843.7	858.6	812.2	759.4	815.0	843.4	876.3	891.8	916.1	1101.0	1226.4
22.5°	917.2	886.3	830.2	784.3	802.5	830.2	853.9	912.2	976.1	1072.5	1273.4
25°	958.9	941.0	891.0	841.8	826.3	827.1	873.0	925.2	947.3	1114.2	1282.8
27.5°	1059.8	1031.1	918.6	909.2	850.9	805.6	876.0	957.3	996.0	1081.6	1328.7
30°	1186.1	1164.3	1016.7	1004.3	915.3	836.2	914.7	981.0	975.5	1102.9	1360.5
32.5°	1288.3	1324.8	1175.9	1077.8	1014.5	938.8	902.6	976.9	1031.9	1152.4	1414.4
35°	1434.3	1468.5	1300.0	1233.6	1096.3	986.3	987.4	1033.8	1067.8	1210.1	1474.6
37.5°	1686.8	1656.7	1521.0	1416.3	1328.4	1164.3	1115.1	1098.8	1126.1	1280.9	1592.6
40°	1869.0	1843.5	1683.8	1624.1	1453.1	1357.7	1222.9	1207.4	1255.7	1353.8	1689.1
42.5°	2084.8	2039.5	1890.8	1841.6	1662.8	1490.9	1354.9	1363.8	1387.3	1491.5	1819.5
45°	2304.5	2194.5	2110.2	2106.3	1987.0	1749.6	1566.9	1559.7	1560.6	1694.0	1966.0
47.5°	2478.9	2379.9	2283.5	2237.6	2177.4	2197.0	1874.8	1790.5	1765.1	1898.0	2185.7
50°	2596.9	2483.0	2373.9	2363.1	2523.9	2629.8	2163.8	2073.7	2089.5	2189.8	2478.6
52.5°	2599.4	2464.2	2350.4	2425.8	2804.7	2956.1	2661.8	2410.1	2460.4	2528.6	2860.8
55°	2418.6	2278.5	2204.5	2376.3	2914.4	3343.3	3361.5	2948.9	2890.9	2916.1	3317.6
57.5°	2037.5	1896.0	1852.9	2058.8	2706.3	3716.6	4206.6	3592.8	3422.6	3317.6	3785.7
60°	1533.7	1411.3	1384.5	1515.8	2243.7	3606.9	4890.9	4394.3	4047.4	3766.1	4255.3
62.5°	1150.2	1062.3	1021.9	1040.7	1552.5	3250.2	5340.2	5406.8	4915.7	4255.8	4714.0
65°	934.6	863.6	827.7	803.4	965.6	2513.1	5259.0	6259.1	5929.9	4770.1	5071.0
67.5°	780.7	717.7	701.1	724.9	763.3	1458.0	4623.4	6735.8	6758.2	5277.5	5279.7
70°	648.0	601.3	595.3	662.7	713.3	879.9	3339.4	6586.0	6833.1	5658.0	5230.8
72.5°	500.7	475.6	474.8	580.6	708.6	750.0	1988.6	5689.5	6021.4	5536.4	4752.1
75°	347.4	330.0	343.2	477.3	692.3	760.8	1135.0	4431.6	4680.0	4711.2	3806.7
77.5°	239.0	224.4	238.8	345.2	618.2	779.0	794.0	3204.3	3231.9	3159.2	2180.4
80°	166.4	156.1	167.2	244.3	481.1	771.0	676.0	2017.4	1851.0	1409.9	698.1
82.5°	103.1	100.0	112.2	174.1	338.8	701.4	640.6	1041.0	794.8	389.1	249.3
85°	54.2	49.7	65.2	113.6	212.0	550.5	600.2	475.0	306.7	138.2	100.0
87.5°	16.0	14.4	25.1	45.9	89.8	246.8	343.5	201.5	114.4	40.6	31.2
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°	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3	506.3
2.5°	617.1	614.1	573.2	578.4	587.2	589.5	589.2	574.3	558.5	602.4	601.1
5°	785.9	758.6	738.1	733.7	708.6	683.4	692.3	689.2	685.4	705.2	707.7
7.5°	907.5	869.7	845.9	784.8	726.8	676.5	692.5	697.5	687.6	723.5	734.3
10°	939.6	909.7	884.0	805.6	773.5	744.2	700.8	651.4	644.7	624.0	626.5
12.5°	1022.2	1018.1	930.5	861.4	819.7	761.3	667.7	607.7	556.3	558.8	543.9
15°	1087.4	1089.7	984.4	887.6	775.7	686.7	576.5	501.9	449.1	438.6	427.8
17.5°	1175.0	1170.6	988.8	856.1	714.4	583.9	448.8	374.7	365.9	372.0	362.6
20°	1213.2	1174.2	960.6	777.9	618.5	443.5	339.1	299.8	317.0	341.3	341.8
22.5°	1247.4	1180.8	946.0	714.9	490.8	322.5	272.2	265.0	285.2	318.1	320.8
25°	1246.1	1211.5	919.7	651.4	380.5	251.8	236.6	241.8	265.8	300.1	302.1
27.5°	1308.8	1188.0	851.4	567.9	286.6	215.6	219.4	229.1	240.4	273.0	279.4
30°	1308.2	1231.7	817.2	466.5	230.2	197.6	207.5	215.8	225.2	255.1	258.7
32.5°	1339.2	1203.2	796.4	362.8	206.4	193.2	195.7	203.9	217.5	237.7	240.1
35°	1376.5	1235.6	730.1	288.2	197.6	189.3	191.2	195.9	208.4	226.9	229.4
37.5°	1496.2	1241.6	703.9	242.9	197.0	187.6	187.4	189.9	203.9	220.8	228.3
40°	1542.9	1297.2	627.3	226.9	195.1	187.6	183.8	185.2	196.8	218.3	224.1
42.5°	1654.8	1315.7	570.7	221.4	195.1	184.3	178.2	180.5	194.0	213.1	222.2
45°	1770.0	1342.0	503.2	220.3	194.8	184.0	172.4	177.4	188.5	204.5	214.4
47.5°	1934.2	1436.5	435.8	216.9	192.6	185.4	171.1	170.8	180.5	194.3	203.7
50°	2202.0	1584.0	383.6	212.8	192.9	184.3	168.3	164.4	170.8	182.9	192.1
52.5°	2574.8	1835.5	363.1	210.6	190.7	179.9	163.6	157.5	161.1	170.8	179.6
55°	3007.5	2175.2	383.3	210.6	186.3	173.0	157.0	149.8	151.7	158.3	166.9
57.5°	3513.3	2597.1	480.9	207.5	180.7	164.7	149.0	140.7	141.2	147.0	154.8
60°	4041.4	3068.6	699.4	205.1	176.9	155.6	139.6	131.0	130.2	135.7	142.6
62.5°	4570.3	3503.6	929.4	210.9	175.8	147.8	129.6	121.0	120.8	125.7	131.5
65°	4990.9	3800.9	986.6	234.3	182.9	139.0	119.4	111.4	110.8	115.0	121.3
67.5°	5197.3	3844.0	749.5	263.6	198.1	130.7	109.4	102.0	101.4	105.8	111.4
70°	5044.5	3549.5	462.6	266.7	197.3	121.0	99.2	92.9	91.7	96.4	100.6
72.5°	4479.1	3104.8	351.5	236.0	170.8	107.2	89.0	83.5	81.8	85.9	89.8
75°	3595.1	2465.1	281.6	190.4	134.6	90.4	78.8	73.5	71.6	75.4	78.8
77.5°	2094.2	1386.7	205.9	148.7	101.7	73.8	67.2	62.5	60.2	64.4	66.9
80°	680.9	462.1	129.3	106.7	74.3	57.8	54.4	51.1	48.9	51.7	52.5
82.5°	244.6	171.9	71.6	65.5	49.5	41.5	41.2	39.2	36.5	37.6	37.6
85°	108.3	78.5	42.6	35.1	29.6	22.1	26.0	24.6	21.8	21.3	20.4
87.5°	30.4	26.0	15.5	11.9	9.7	3.6	8.3	7.5	6.1	5.5	3.9
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)