

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: P368450

Luminaire Tested: **MSA-SA4C-727-U-RW**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-7)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-727-U-RW
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20665 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

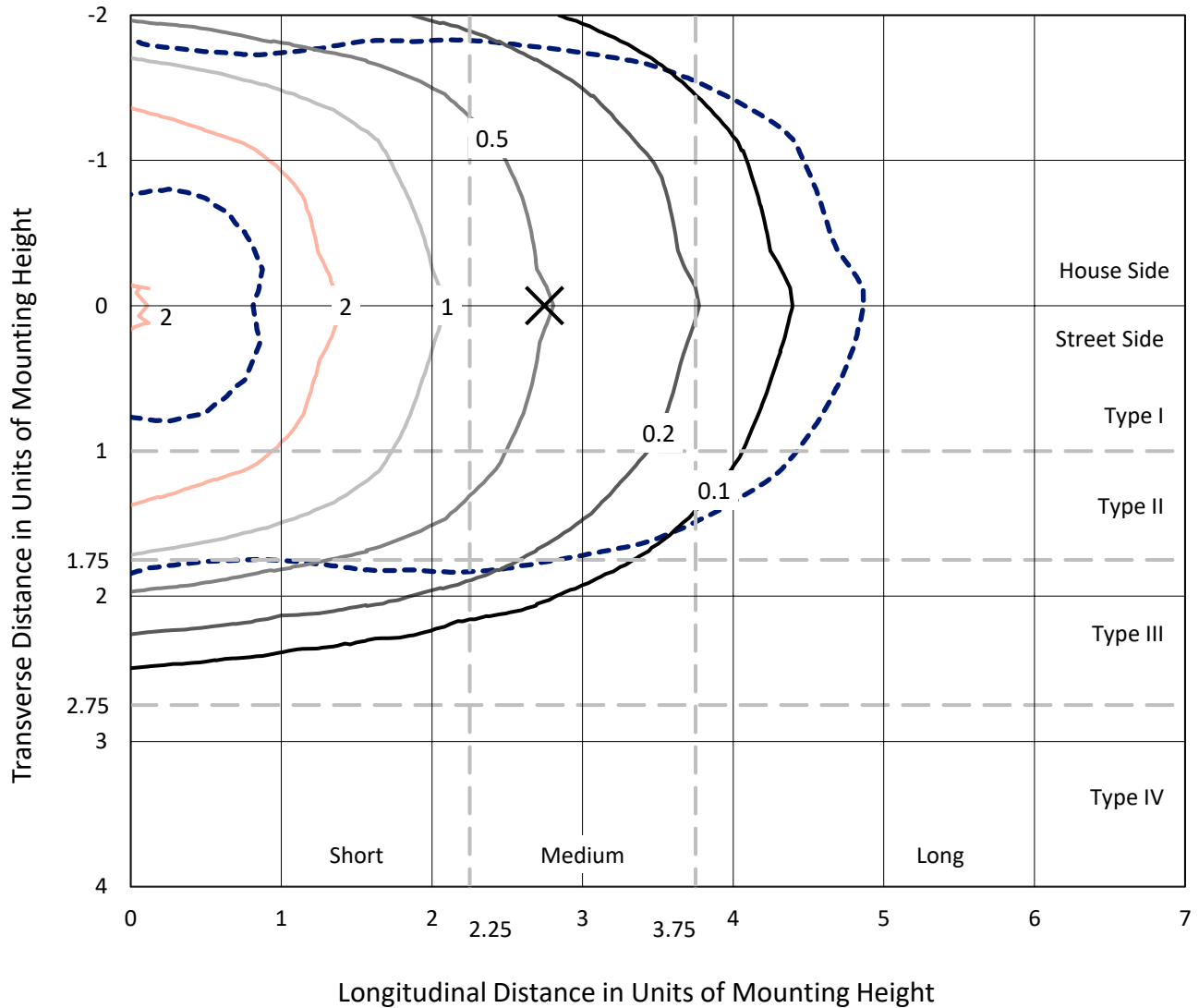
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368450
 CATALOG NUMBER: MSA-SA4C-727-U-RW

Iso-Footcandle Lines of Horizontal Illumination

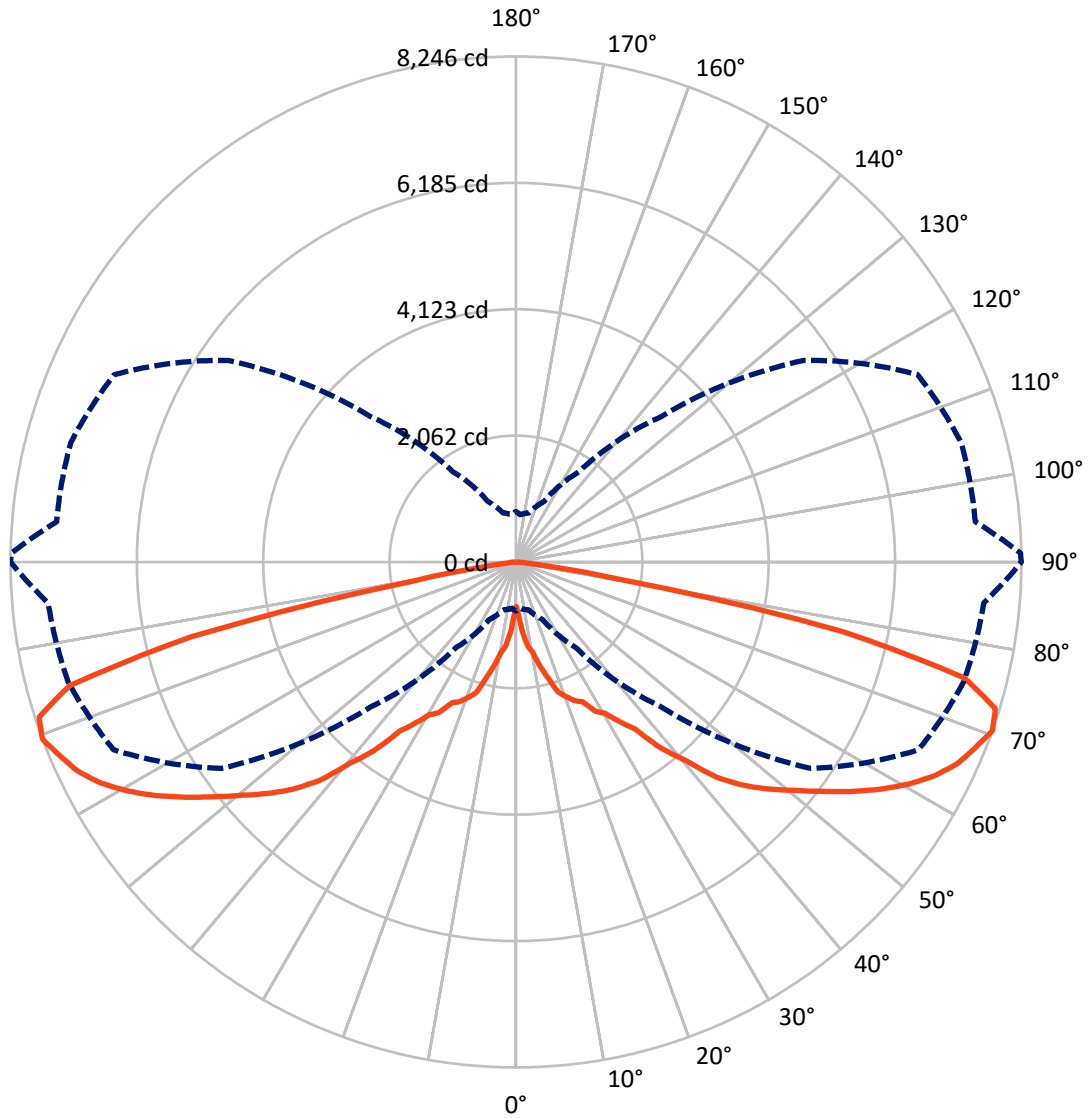
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - N/A

REPORT NUMBER: P368450
CATALOG NUMBER: MSA-SA4C-727-U-RW

Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P368450
 CATALOG NUMBER: MSA-SA4C-727-U-RW

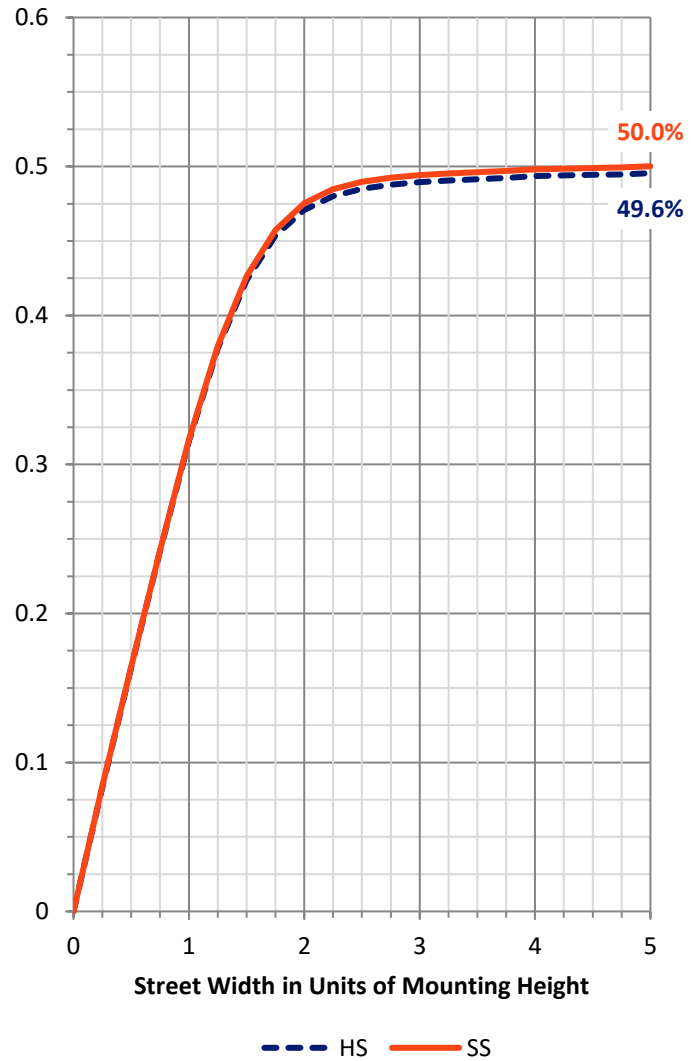
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10294.2	0.0	10294.2
	% Fixture	49.8	0.0	49.8
Street Side	Lumens	10370.8	0.0	10370.8
	% Fixture	50.2	0.0	50.2
Total	Lumens	20665.0	0.0	20665.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	0.5
10°-20°	501.5	2.4
20°-30°	1084.2	5.2
30°-40°	2068.6	10.0
40°-50°	3757.9	18.2
50°-60°	5279.0	25.5
60°-70°	5040.4	24.4
70°-80°	2586.8	12.5
80°-90°	237.2	1.1
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°	20665.0	100.0
0°-180°	20665.0	100.0



REPORT NUMBER: P368450

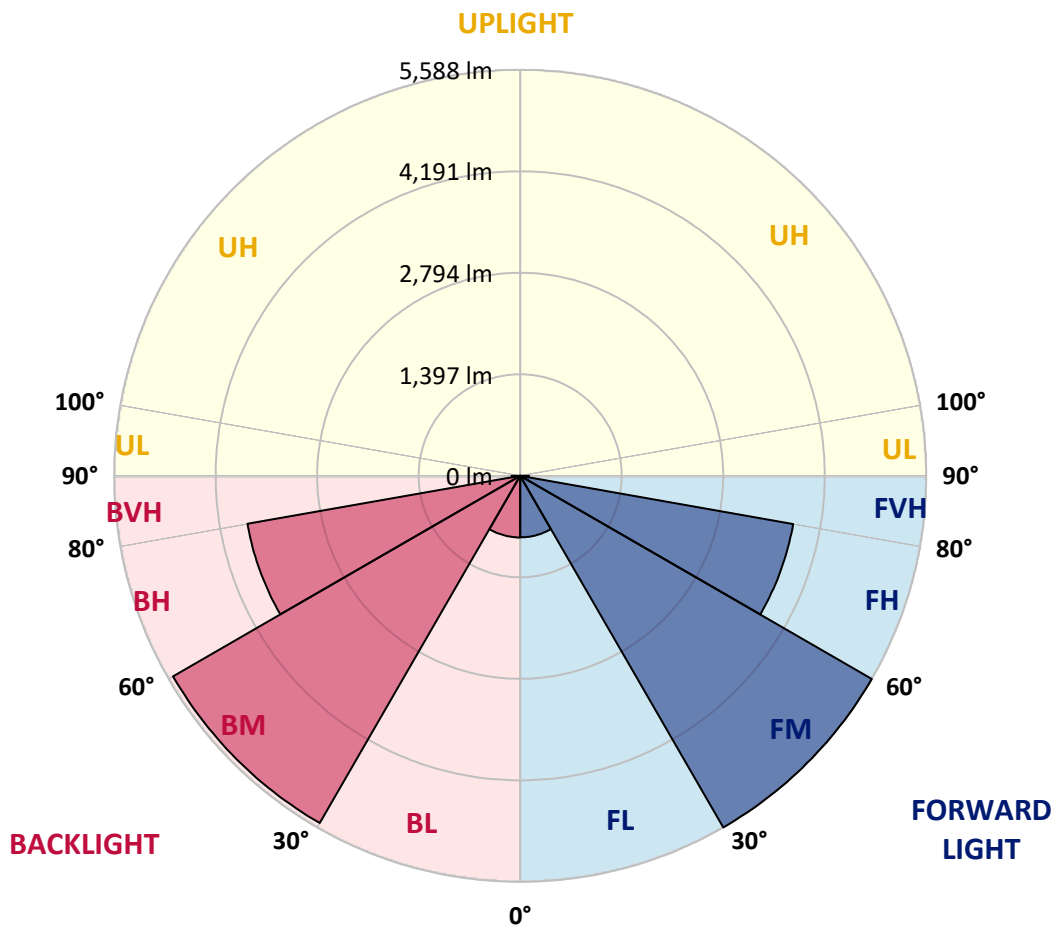
CATALOG NUMBER: MSA-SA4C-727-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	846.7	4.1			
FM (30°-60°)	5588.0	27.0			
FH (60°-80°)	3815.7	18.5			G2/5000
FVH (80°-90°)	120.3	0.6			G2/225
BL (0°-30°)	848.4	4.1	B2/1000		
BM (30°-60°)	5517.5	26.7	B4/8500		
BH (60°-80°)	3811.5	18.4	B4/5000		G4/5000
BVH (80°-90°)	116.8	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type III Short





REPORT NUMBER: P368450

CATALOG NUMBER: MSA-SA4C-727-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	878.6	845.9	804.9	829.1	839.2	856.8	854.3	845.9	809.9	870.2	876.9
5°	1099.7	1047.7	1028.5	1025.1	1030.2	1013.4	1067.8	1051.9	1081.2	1135.7	1148.2
7.5°	1252.1	1213.6	1172.5	1185.1	1133.2	1125.6	1196.0	1258.8	1274.7	1374.4	1381.1
10°	1324.1	1286.4	1297.3	1289.8	1283.9	1332.5	1365.2	1411.2	1477.4	1486.6	1500.8
12.5°	1385.3	1400.3	1448.1	1446.4	1525.1	1611.4	1598.8	1646.6	1657.5	1773.0	1737.9
15°	1540.2	1571.2	1567.8	1597.2	1631.5	1773.0	1773.9	1855.1	1929.7	1974.9	1963.2
17.5°	1767.2	1778.1	1732.8	1734.5	1834.2	1892.0	1956.5	1942.2	2136.5	2225.3	2231.2
20°	1902.9	1930.5	1878.6	1809.9	1986.6	2066.2	2102.2	2019.3	2227.0	2346.7	2346.7
22.5°	2139.9	2068.7	1990.0	1943.9	2099.7	2184.3	2180.1	2156.6	2267.2	2479.1	2459.0
25°	2270.5	2230.3	2191.0	2202.7	2281.4	2325.0	2382.8	2328.3	2432.2	2589.6	2523.5
27.5°	2518.4	2443.9	2250.4	2404.5	2404.5	2371.9	2494.1	2520.1	2452.3	2708.5	2758.0
30°	2799.0	2773.0	2499.2	2662.5	2612.2	2520.1	2754.6	2737.9	2624.0	2885.3	2862.7
32.5°	3064.5	3149.9	2890.3	2800.7	2876.1	2911.2	2788.1	2838.4	2860.1	3112.2	3101.3
35°	3471.5	3543.6	3199.3	3176.7	3051.1	3018.4	3112.2	3129.0	3130.7	3396.2	3347.6
37.5°	4175.9	4072.0	3732.0	3572.0	3586.3	3546.9	3565.3	3433.0	3451.4	3836.7	3861.0
40°	4691.0	4573.7	4195.2	4080.4	3799.0	3967.3	3818.3	3804.9	3768.0	4267.2	4253.8
42.5°	5259.6	5098.8	4680.1	4526.8	4227.8	4159.1	4090.5	4245.4	4235.4	4697.7	4799.8
45°	5689.3	5364.3	5145.7	5050.3	4871.0	4702.7	4637.4	4706.9	4675.1	5018.4	5196.8
47.5°	5960.6	5678.4	5427.1	5226.1	5054.4	5467.3	5136.5	5043.6	4979.1	5363.5	5535.2
50°	6176.7	5850.9	5554.5	5487.4	5623.1	5988.3	5466.5	5261.3	5340.0	5623.1	5856.8
52.5°	6235.4	5890.3	5624.0	5581.3	5948.1	6014.3	5929.7	5584.6	5563.7	5934.7	6216.9
55°	6056.1	5725.3	5598.8	5832.5	6237.9	6182.6	6311.6	6091.3	5943.1	6252.9	6608.1
57.5°	5594.7	5266.3	5236.2	5572.9	6083.8	6554.5	6618.1	6443.9	6249.6	6577.9	6996.7
60°	4836.7	4536.9	4613.1	4984.9	5755.5	6425.5	6763.8	6604.7	6544.4	6871.0	7356.8
62.5°	3656.6	3423.0	3626.5	4144.9	5155.8	6258.8	6964.8	6939.7	6852.6	7182.6	7675.1
65°	2331.7	2208.5	2416.3	2943.1	4225.3	5955.6	7061.2	7094.7	7175.1	7423.0	7921.3
67.5°	1355.1	1289.8	1416.3	1847.6	3009.2	4890.3	6881.9	7362.7	7404.5	7546.9	8082.9
70°	801.5	758.8	810.7	1037.7	1703.5	3331.7	5870.2	7245.4	7562.0	7660.8	8246.2
72.5°	611.4	571.2	548.6	613.9	889.4	1721.1	3969.0	6141.6	7435.5	7585.4	8177.6
75°	528.5	490.0	463.2	469.0	529.3	817.4	2151.6	4392.8	6335.9	6907.1	7553.6
77.5°	453.9	419.6	400.3	398.7	406.2	448.9	899.5	2381.9	3968.2	4964.8	5445.6
80°	363.5	336.7	332.5	332.5	321.6	318.3	447.2	906.2	1510.1	1790.6	1716.9
82.5°	265.5	238.7	265.5	262.1	245.4	232.0	284.8	392.0	465.7	367.7	290.6
85°	179.2	154.9	175.0	178.4	162.5	120.6	170.9	196.0	201.0	125.6	103.9
87.5°	62.8	61.1	98.8	86.3	70.4	41.0	62.8	67.8	71.2	44.4	30.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P368450
 CATALOG NUMBER: MSA-SA4C-727-U-RW

CANDELA DISTRIBUTION (continued):

	91°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3	725.3
2.5°	879.4	869.3	819.1	826.6	845.9	855.1	864.3	826.6	808.2	866.8	861.0
5°	1151.6	1114.7	1073.7	1067.8	1070.4	1034.3	1055.3	1046.1	1050.3	1087.9	1095.5
7.5°	1379.4	1335.0	1280.6	1237.9	1164.2	1105.5	1154.9	1180.1	1187.6	1254.6	1279.7
10°	1502.5	1464.8	1448.9	1368.5	1344.2	1336.7	1325.0	1284.8	1329.1	1313.2	1325.8
12.5°	1743.7	1736.2	1653.3	1600.5	1605.5	1619.8	1546.1	1505.9	1448.1	1538.5	1505.9
15°	1948.9	1981.6	1898.7	1802.3	1754.6	1778.9	1722.8	1664.2	1612.2	1639.9	1604.7
17.5°	2211.1	2210.2	2048.6	1945.6	1941.4	1939.7	1856.8	1727.8	1789.8	1770.5	1772.2
20°	2350.1	2327.5	2126.5	2007.5	2108.9	2072.9	1998.3	1832.5	1904.5	1928.0	1943.1
22.5°	2466.5	2453.9	2210.2	2123.1	2188.4	2189.3	2114.7	2027.6	2018.4	2091.3	2051.9
25°	2547.7	2598.0	2368.5	2347.6	2376.1	2347.6	2274.7	2217.8	2180.9	2289.8	2180.9
27.5°	2740.4	2669.2	2392.8	2511.7	2529.3	2386.1	2477.4	2410.4	2308.2	2443.1	2487.4
30°	2877.7	2919.6	2563.7	2742.9	2721.9	2589.6	2627.3	2624.8	2502.5	2765.5	2734.5
32.5°	3113.9	3063.7	2842.6	2828.3	2878.6	2872.7	2809.1	2840.0	2870.2	3061.1	3107.2
35°	3356.0	3409.6	3020.9	3117.3	3103.0	3012.6	3179.2	3160.0	3249.6	3641.5	3511.7
37.5°	3902.0	3646.6	3421.3	3408.7	3504.2	3518.4	3464.8	3549.4	3742.9	4044.4	4183.4
40°	4259.6	4143.2	3760.5	3775.6	3643.2	3871.0	3720.3	3992.5	4139.9	4648.3	4598.8
42.5°	4800.7	4516.8	4149.1	4199.3	4172.5	4062.8	4261.3	4401.2	4612.2	5000.0	5250.4
45°	5203.5	4814.1	4639.9	4608.9	4605.5	4796.5	4771.4	4995.0	5070.4	5361.8	5569.5
47.5°	5509.2	5178.4	4920.4	4955.6	4853.4	5398.7	5108.1	5177.6	5330.0	5604.7	5846.7
50°	5871.9	5503.4	5210.2	5297.3	5546.1	5755.5	5492.5	5373.5	5448.1	5772.2	6041.9
52.5°	6207.7	5819.9	5497.5	5570.4	5976.6	5881.1	5852.6	5551.9	5542.7	5803.2	6109.7
55°	6600.5	6163.3	5878.6	6109.7	6253.8	6135.7	6090.5	5724.5	5498.3	5643.2	5932.2
57.5°	6985.8	6503.4	6220.3	6268.0	6450.6	6333.3	5994.2	5430.5	5148.3	5176.7	5469.0
60°	7346.7	6815.8	6582.1	6536.0	6681.8	6222.0	5628.2	4892.0	4517.6	4448.9	4701.9
62.5°	7655.8	7077.1	6856.0	6730.3	6869.4	6226.1	5057.8	4027.6	3616.4	3383.6	3580.4
65°	7901.2	7294.0	7136.5	7071.2	7121.5	5847.6	4169.2	2957.3	2453.1	2195.1	2309.9
67.5°	8064.5	7415.4	7343.4	7428.8	6758.8	4870.2	3088.8	1892.8	1426.3	1285.6	1357.6
70°	8233.7	7522.6	7520.1	7229.5	5731.2	3357.6	1804.0	1091.3	830.0	775.5	820.8
72.5°	8176.7	7395.3	7433.0	6322.5	3971.5	1794.8	952.3	617.3	562.0	581.2	621.4
75°	7572.0	6723.6	6541.9	4545.2	2252.9	834.2	548.6	467.3	464.0	493.3	532.7
77.5°	5492.5	4682.6	4201.9	2576.2	965.7	451.4	403.7	390.3	390.3	413.7	448.9
80°	1810.7	1567.0	1633.2	996.7	456.4	311.6	314.9	320.8	319.1	325.0	354.3
82.5°	297.3	308.2	476.6	407.0	275.5	212.7	237.9	249.6	252.9	226.1	257.1
85°	105.5	118.9	202.7	188.4	159.1	107.2	156.6	175.0	172.5	150.8	166.7
87.5°	32.7	41.9	73.7	57.0	47.7	29.3	58.6	68.7	86.3	35.2	31.8
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)