

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: P367796

Luminaire Tested: **MSA-SA3B-727-U-SL4**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367796
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-727-U-SL4
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11975 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

Input Watts (W): 126
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



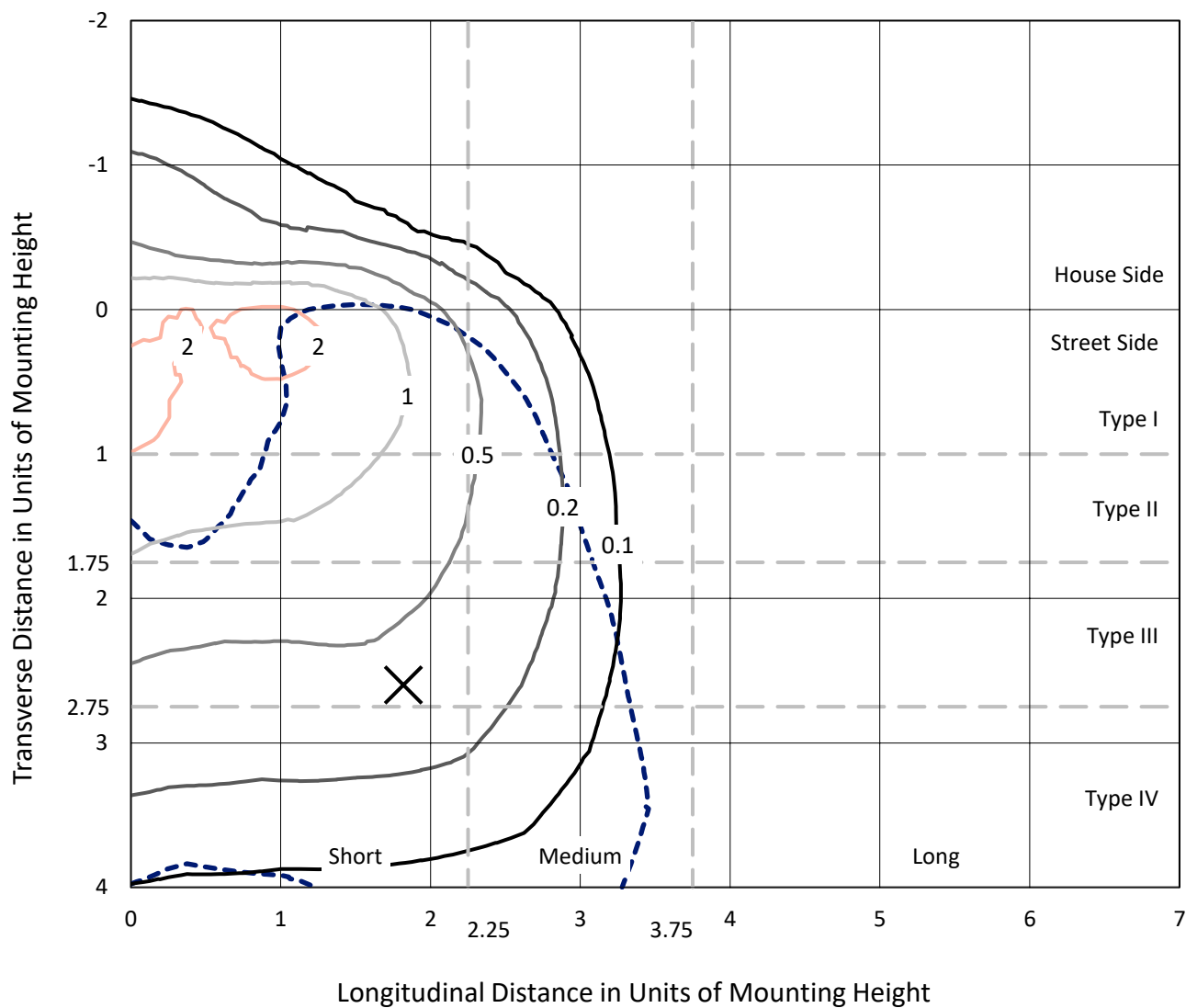
REPORT NUMBER: P367796

CATALOG NUMBER: MSA-SA3B-727-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



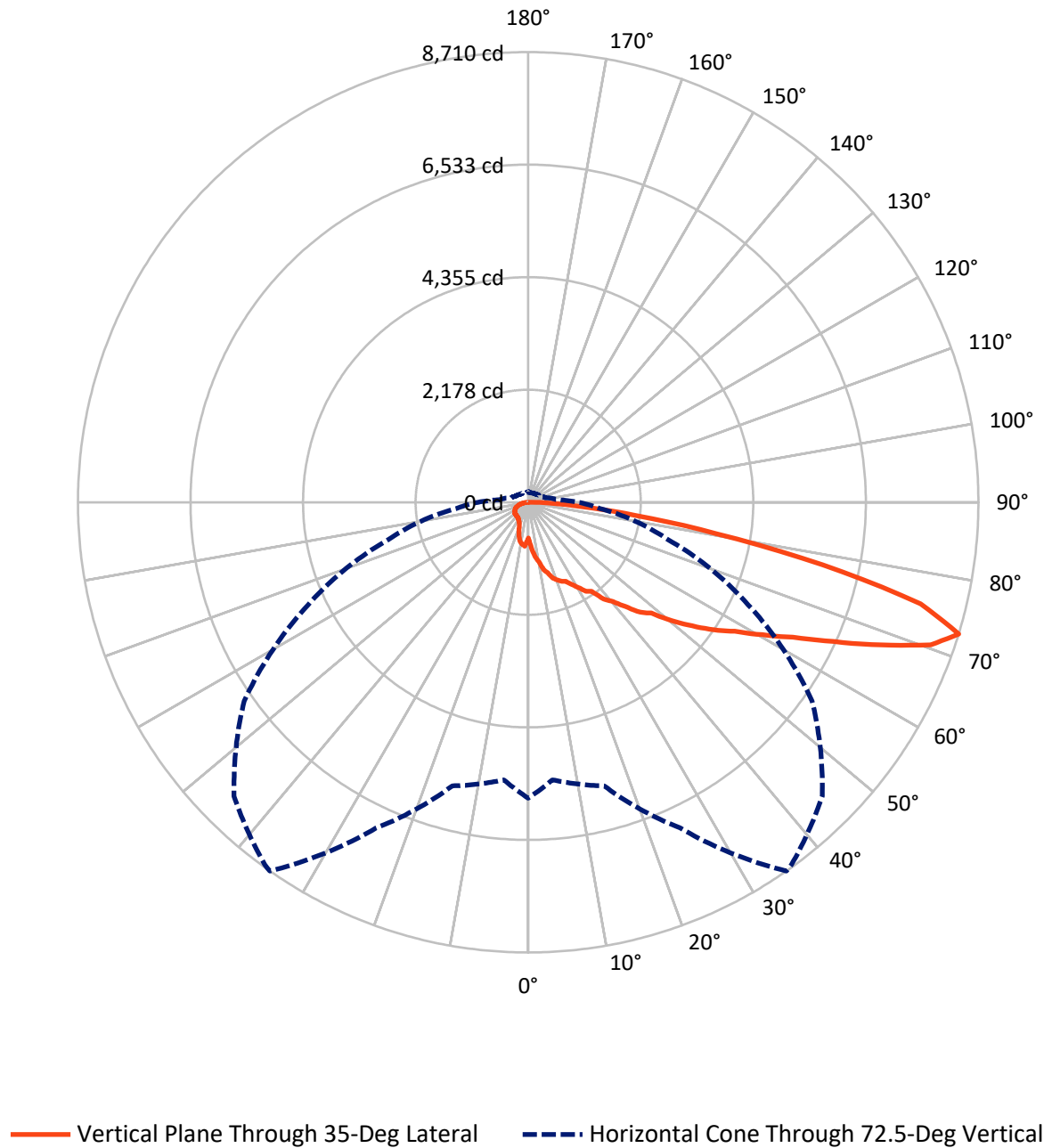
Based on 25 foot mounting height. Maximum calculated value = 2.4 fc

Type IV - Short - N/A

REPORT NUMBER: P367796

CATALOG NUMBER: MSA-SA3B-727-U-SL4

Luminous Intensity Polar Plot



REPORT NUMBER: P367796

CATALOG NUMBER: MSA-SA3B-727-U-SL4

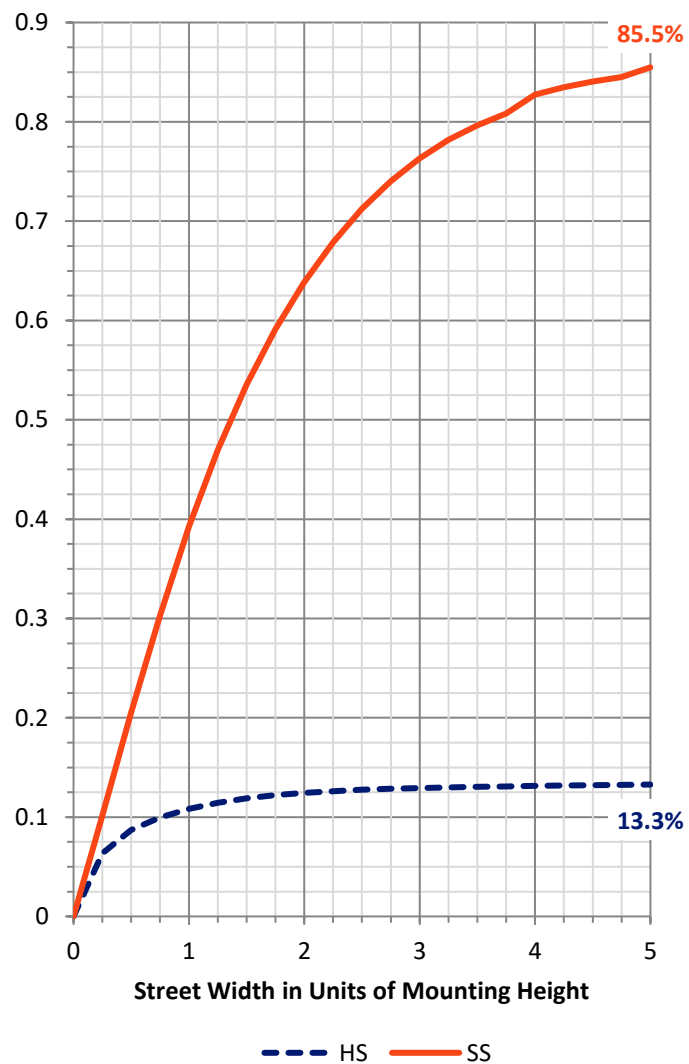
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1607.0	0.0	1607.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	10368.0	0.0	10368.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	11975.0	0.0	11975.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	0.8
10°-20°	324.0	2.7
20°-30°	562.9	4.7
30°-40°	940.9	7.9
40°-50°	1633.0	13.6
50°-60°	2468.7	20.6
60°-70°	3198.1	26.7
70°-80°	2359.9	19.7
80°-90°	395.5	3.3
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°	11975.0	100.0
0°-180°	11975.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367796

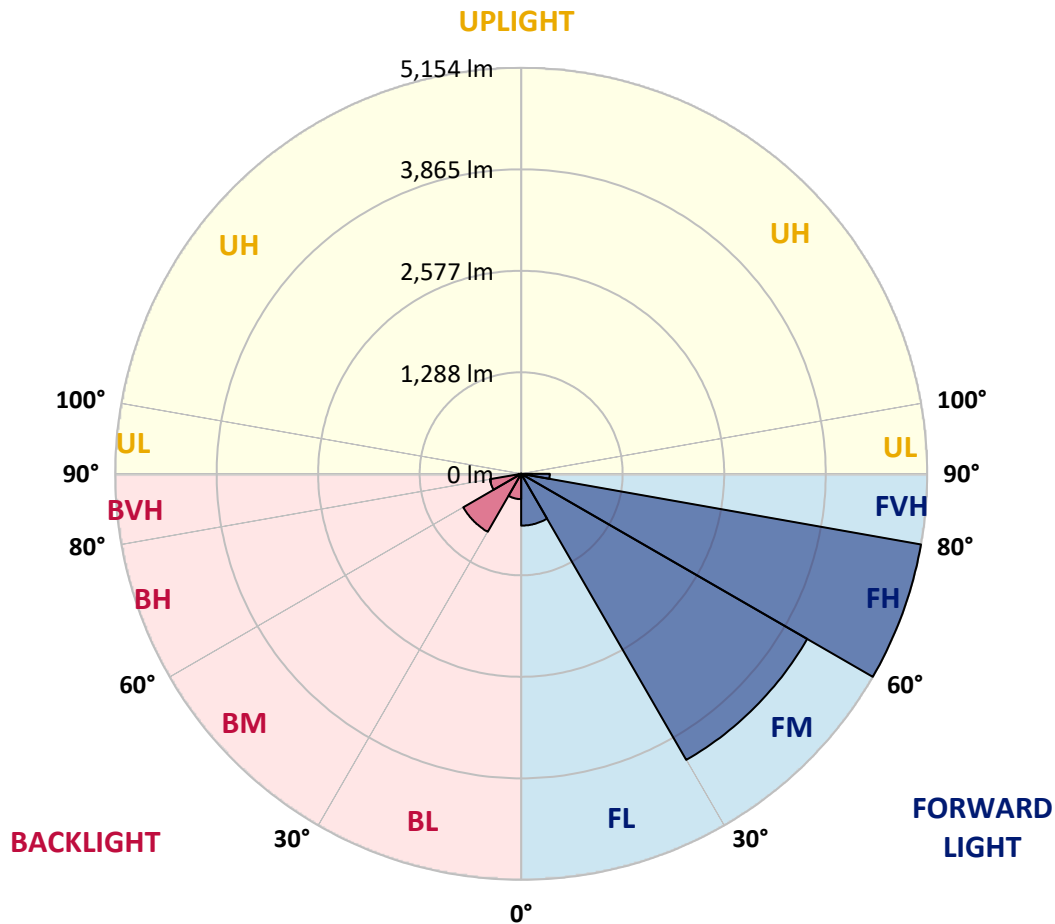
CATALOG NUMBER: MSA-SA3B-727-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	657.7	5.5			
FM	(30°-60°)	4193.2	35.0			
FH	(60°-80°)	5153.9	43.0			G3/7500
FVH	(80°-90°)	363.1	3.0			G3/500
BL	(0°-30°)	321.2	2.7	B1/500		
BM	(30°-60°)	849.3	7.1	B1/1000		
BH	(60°-80°)	404.1	3.4	B1/500		G1/500
BVH	(80°-90°)	32.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short



REPORT NUMBER: P367796

CATALOG NUMBER: MSA-SA3B-727-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
2.5°	863.3	821.9	786.1	784.6	817.8	830.6	825.4	814.2	800.9	772.8	834.1
5°	1081.5	1022.2	1011.0	997.7	967.5	975.7	926.6	963.9	975.7	1002.8	1043.7
7.5°	1210.3	1175.5	1148.5	1137.2	1085.1	1078.9	1042.7	1095.8	1118.3	1114.7	1175.5
10°	1260.9	1229.2	1231.3	1194.5	1177.6	1184.7	1188.8	1189.9	1203.7	1214.9	1184.2
12.5°	1287.0	1299.2	1344.2	1319.2	1340.6	1349.3	1392.3	1348.3	1349.8	1292.1	1323.8
15°	1418.3	1449.0	1422.9	1421.9	1415.3	1429.6	1466.4	1436.7	1459.7	1441.3	1400.4
17.5°	1576.8	1586.0	1535.9	1515.4	1542.0	1537.4	1528.2	1532.8	1475.6	1581.9	1531.8
20°	1625.3	1661.6	1595.7	1515.4	1603.3	1615.1	1613.1	1593.1	1495.0	1648.3	1599.8
22.5°	1766.4	1717.3	1665.2	1614.1	1659.1	1665.7	1654.5	1606.9	1574.2	1632.5	1670.8
25°	1830.3	1818.5	1752.1	1745.9	1696.4	1672.9	1692.3	1678.5	1646.3	1750.0	1707.6
27.5°	1976.5	1962.7	1809.8	1872.7	1800.6	1794.5	1691.8	1737.8	1770.0	1762.3	1825.7
30°	2142.1	2157.9	1934.5	1997.4	1914.1	1902.9	1799.6	1857.9	1879.9	1887.0	1966.2
32.5°	2326.1	2369.5	2147.7	2096.1	2051.6	2059.3	1971.9	1865.5	1950.9	2118.0	2152.3
35°	2525.4	2543.3	2310.7	2233.0	2117.0	2108.8	2110.4	2123.7	2210.0	2400.7	2427.3
37.5°	2893.9	2811.1	2607.2	2410.4	2371.5	2295.4	2347.0	2387.9	2474.3	2766.6	2878.1
40°	3120.8	3059.5	2748.7	2634.8	2527.4	2534.6	2631.2	2630.7	2834.6	3136.2	3306.4
42.5°	3330.9	3263.9	2971.1	2856.6	2754.9	2779.9	2807.5	2856.1	3247.1	3733.1	3810.8
45°	3500.1	3353.4	3142.8	3117.2	3033.4	3000.2	3117.2	3194.9	3740.3	4216.1	4261.1
47.5°	3615.1	3494.4	3288.5	3266.0	3204.1	3285.4	3604.8	3654.9	4122.6	4701.2	4697.6
50°	3789.9	3624.8	3438.7	3427.0	3601.3	3644.7	4034.2	4029.1	4494.7	5103.9	5019.6
52.5°	3991.2	3783.2	3581.3	3707.6	3973.4	3994.8	4332.7	4470.2	4901.0	5492.4	5272.1
55°	4222.8	3990.2	3795.0	3963.6	4359.2	4295.9	4637.8	4973.6	5409.6	5901.8	5454.5
57.5°	4509.5	4227.4	4069.4	4326.0	4711.4	4767.6	5074.8	5497.5	5819.0	6156.3	5587.4
60°	4812.1	4480.9	4336.2	4580.6	5204.6	5269.0	5569.5	5932.9	6277.9	6396.0	5562.4
62.5°	5100.9	4742.6	4611.7	4913.3	5751.5	5911.0	6132.8	6364.3	6659.7	6454.3	5259.3
65°	5422.3	5063.5	4981.3	5433.6	6493.1	6651.6	6941.4	6871.8	6790.6	6247.8	4757.9
67.5°	5762.7	5398.3	5413.7	6037.2	7367.6	7394.7	7839.9	7377.8	6636.7	5700.9	3916.1
70°	5945.7	5572.6	5730.5	6680.7	8257.5	8218.6	8309.6	7513.8	6009.6	4506.4	2699.2
72.5°	5723.9	5391.2	5680.5	6951.6	8710.3	8668.4	8045.9	6706.8	4698.6	2802.4	1399.4
75°	4846.3	4525.4	4968.0	6196.7	7841.4	7880.3	6847.3	4987.4	2690.0	1127.0	581.1
77.5°	3293.1	3127.5	3506.7	4618.9	5824.6	5959.0	5080.4	2916.4	1129.5	466.6	351.6
80°	1740.3	1661.6	1941.7	2660.8	3688.2	3788.3	2987.4	1452.6	578.6	302.1	251.0
82.5°	945.6	912.3	1062.6	1368.2	2095.5	2182.9	1549.2	965.0	390.0	189.1	153.3
85°	635.3	622.5	722.2	735.0	991.0	1019.7	811.6	743.2	234.1	92.5	101.2
87.5°	317.9	305.1	380.3	335.8	378.2	378.7	372.1	474.3	59.3	30.7	18.4
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: P367796

CATALOG NUMBER: MSA-SA3B-727-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0	692.0
2.5°	835.2	817.3	755.4	754.9	764.1	758.0	762.6	737.5	726.8	775.9	773.3
5°	1038.1	984.4	932.8	914.9	893.9	848.4	851.0	851.5	843.8	873.0	875.0
7.5°	1157.1	1092.7	1045.2	950.2	875.5	817.3	824.9	833.6	824.9	863.8	878.1
10°	1174.5	1123.4	1066.7	960.9	911.3	858.7	805.5	758.5	752.9	735.0	740.6
12.5°	1277.8	1235.3	1116.8	1000.7	943.0	862.2	765.1	711.5	666.5	674.2	659.8
15°	1362.6	1332.5	1190.4	1038.6	900.6	800.4	697.2	623.6	583.2	578.6	564.3
17.5°	1477.6	1434.7	1197.0	1012.5	845.9	725.8	609.2	525.9	508.6	501.4	494.2
20°	1532.8	1455.6	1173.0	930.7	782.0	636.8	522.4	450.8	445.7	458.5	455.9
22.5°	1580.9	1473.0	1151.5	881.2	682.3	546.9	463.1	416.0	410.4	426.8	429.8
25°	1609.0	1522.6	1128.0	830.6	620.5	479.9	418.6	392.0	393.0	414.5	412.0
27.5°	1735.7	1540.0	1068.7	770.8	549.4	430.4	397.1	383.3	377.7	407.4	409.9
30°	1815.5	1653.4	1055.4	707.4	496.8	394.1	377.7	372.1	371.1	406.8	409.4
32.5°	1963.7	1691.3	1061.6	638.4	449.3	382.8	363.4	362.9	373.1	407.4	411.4
35°	2169.1	1850.7	1031.9	599.0	423.2	365.4	352.2	356.2	373.6	410.9	416.6
37.5°	2569.9	2001.0	1041.1	562.2	414.5	359.8	349.1	351.6	379.8	420.1	435.5
40°	2887.2	2273.4	1026.8	543.8	402.8	358.8	342.4	352.7	379.2	425.2	439.0
42.5°	3347.2	2490.6	1028.3	525.4	402.2	354.7	341.4	353.7	378.2	420.6	439.6
45°	3741.8	2685.4	1050.3	514.7	397.1	361.4	339.9	355.2	371.6	404.3	425.2
47.5°	4065.4	2902.6	1072.8	504.5	395.1	367.5	338.4	344.5	360.3	385.9	404.8
50°	4329.1	3055.4	1101.4	502.4	395.1	364.4	334.3	333.8	347.0	367.5	385.4
52.5°	4534.6	3163.2	1120.9	505.0	395.1	352.7	329.2	325.1	333.2	348.1	366.0
55°	4683.3	3196.5	1105.0	511.6	394.6	341.9	320.0	316.4	320.5	330.7	347.6
57.5°	4743.1	3109.1	1010.5	499.9	394.6	334.3	308.7	304.6	308.7	316.4	333.2
60°	4593.3	2828.0	874.0	469.7	386.9	324.0	295.9	293.4	299.5	306.2	322.5
62.5°	4217.7	2454.3	728.3	433.9	371.1	315.4	283.7	284.2	293.9	303.1	319.4
65°	3634.0	2002.5	607.2	397.6	351.1	301.6	270.9	274.5	288.3	300.5	316.9
67.5°	2859.7	1483.7	511.1	362.4	323.0	279.1	256.6	257.6	267.3	279.1	294.9
70°	1911.5	944.0	420.1	321.0	286.2	249.9	234.6	231.0	228.5	238.7	252.5
72.5°	969.6	557.6	345.0	274.5	246.4	218.2	206.5	197.3	190.1	196.3	207.0
75°	508.0	390.0	278.6	228.0	203.4	185.5	176.8	164.6	159.5	163.0	170.7
77.5°	359.3	305.1	225.4	180.4	165.6	147.2	148.7	136.0	131.9	133.9	142.1
80°	276.0	241.8	173.3	136.5	127.8	109.9	115.0	107.3	102.2	101.2	107.3
82.5°	188.1	182.0	123.2	95.6	89.4	76.7	83.8	80.8	74.1	70.0	73.1
85°	126.8	120.6	75.1	55.2	52.6	39.9	51.1	49.1	43.4	37.3	37.8
87.5°	22.0	40.4	21.5	13.8	12.8	4.6	11.8	11.2	10.2	5.1	4.1
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)