

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: P596678

Luminaire Tested: **MSA-SA3B-827-U-SL2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-827-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 10735 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

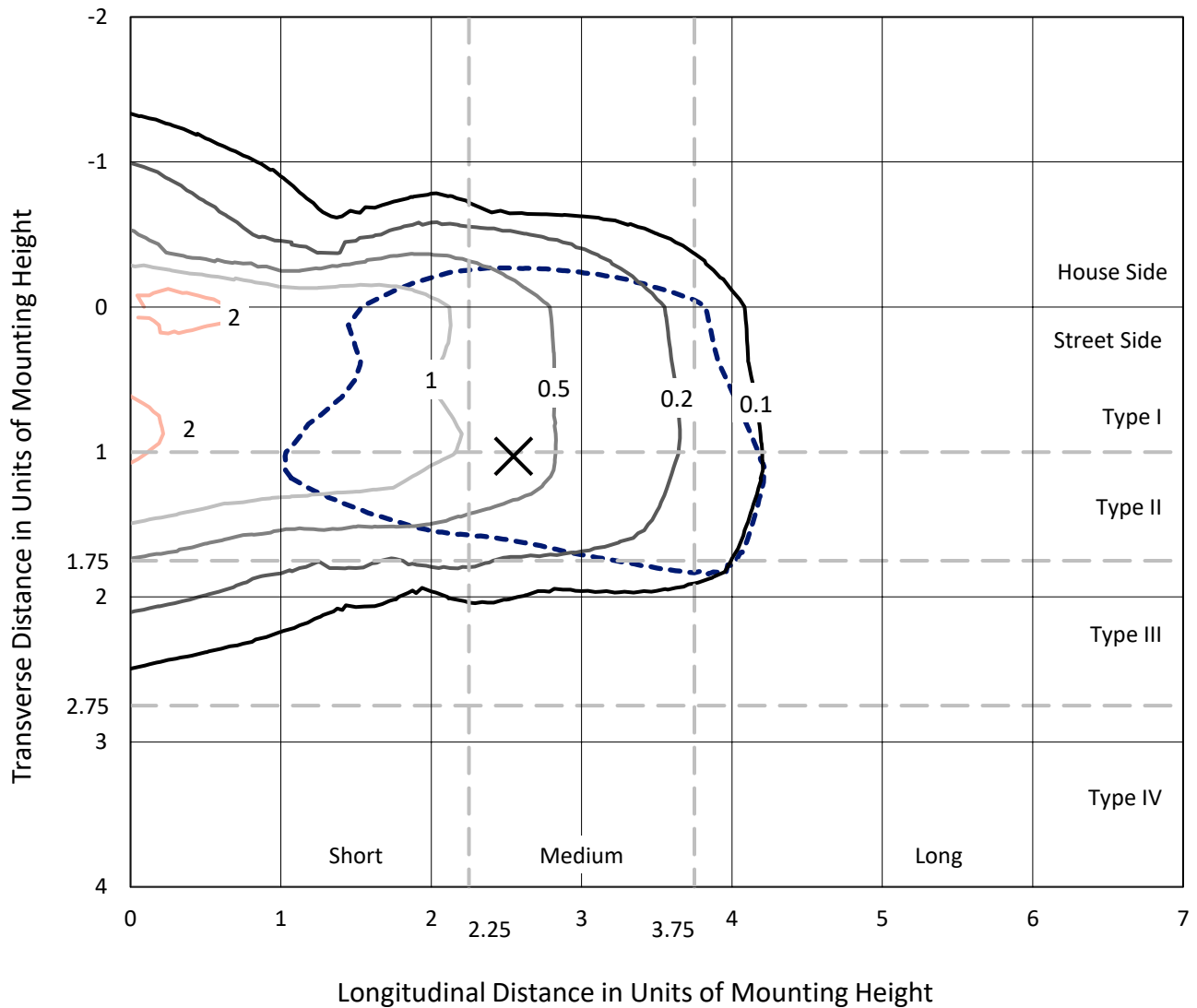
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

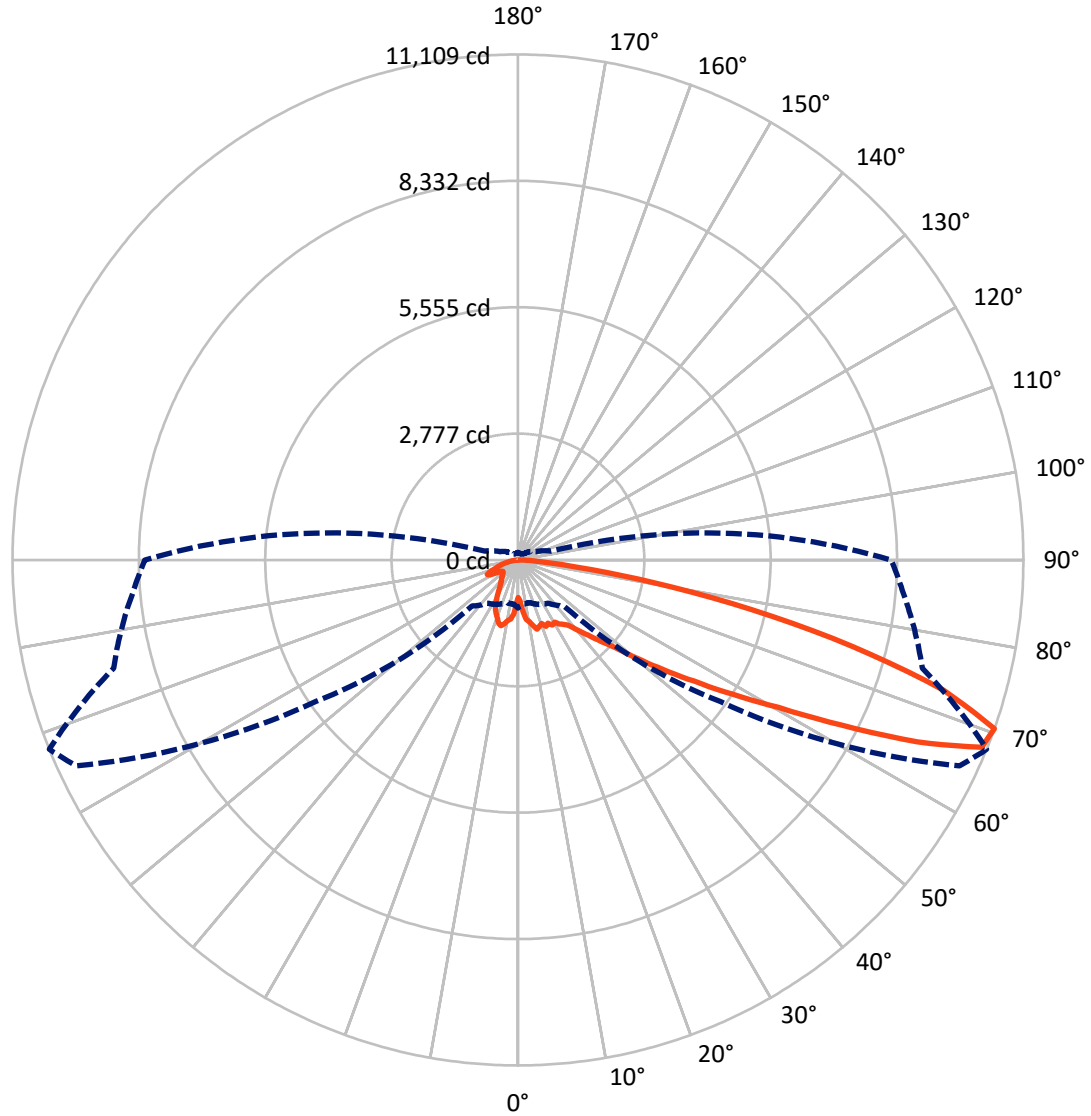
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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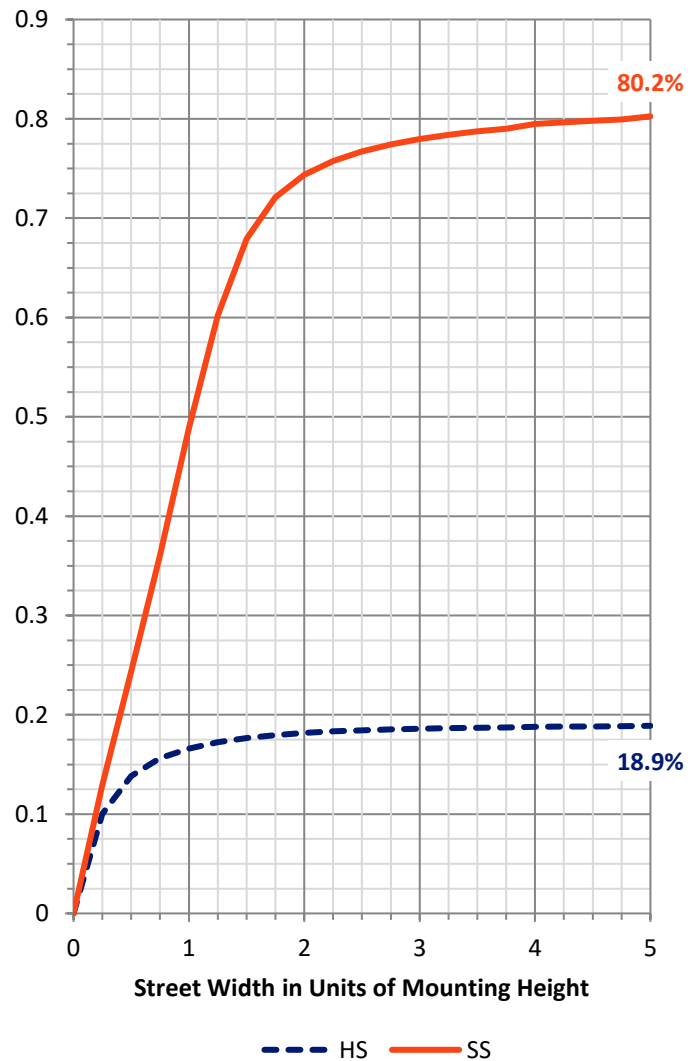
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2049.6	0.0	2049.6
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	8685.4	0.0	8685.4
	% Fixture	80.9	0.0	80.9
Total	Lumens	10735.0	0.0	10735.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.9	1.0
10°-20°	358.3	3.3
20°-30°	545.0	5.1
30°-40°	832.5	7.8
40°-50°	1431.4	13.3
50°-60°	2369.3	22.1
60°-70°	2921.0	27.2
70°-80°	1876.4	17.5
80°-90°	291.1	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°	10735.0	100.0
0°-180°	10735.0	100.0



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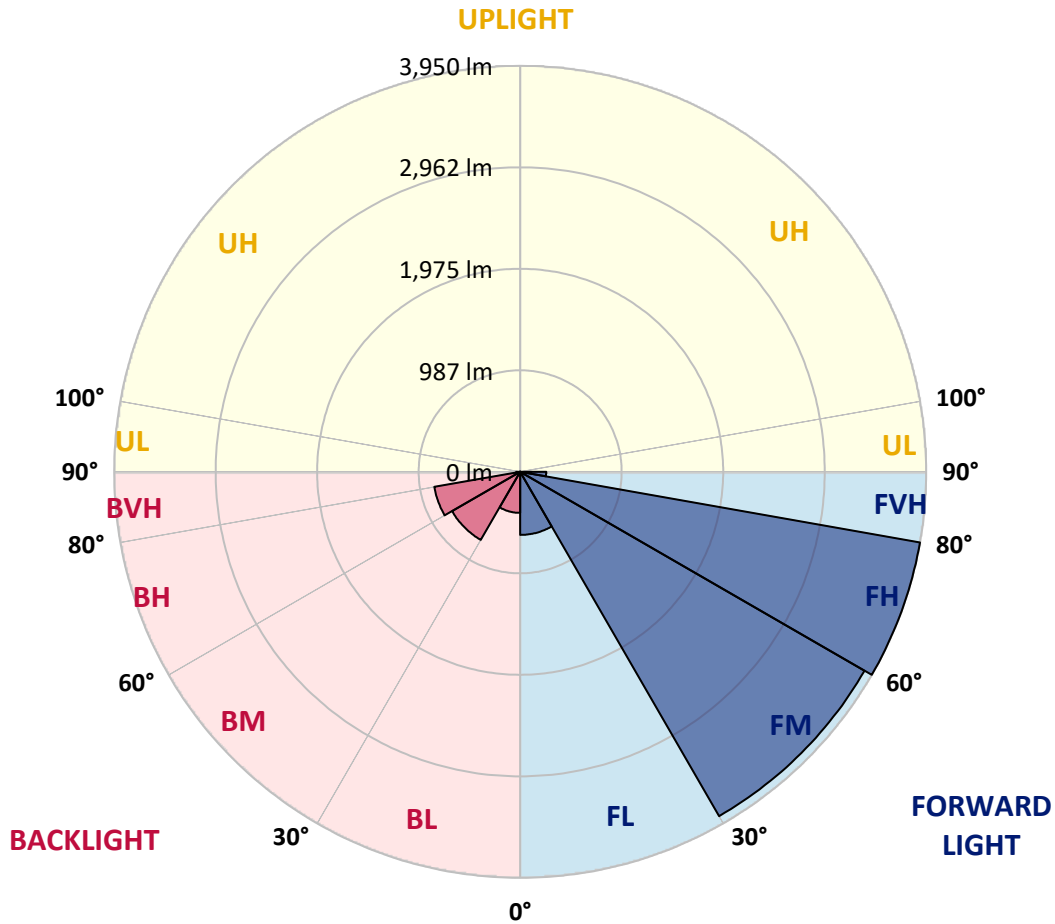
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	613.9	5.7			
FM (30°-60°)	3868.2	36.0			
FH (60°-80°)	3949.6	36.8			G2/5000
FVH (80°-90°)	253.7	2.4			G3/500
BL (0°-30°)	399.4	3.7	B1/500		
BM (30°-60°)	765.0	7.1	B1/1000		
BH (60°-80°)	847.8	7.9	B2/1000		G2/1000
BVH (80°-90°)	37.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1
2.5°	945.7	907.6	868.9	887.8	917.9	944.4	939.0	942.2	905.8	900.8	996.5
5°	1114.2	1048.6	1047.3	1048.2	1050.9	1020.3	1094.9	1133.5	1142.1	1181.6	1275.5
7.5°	1172.6	1146.1	1119.2	1132.6	1098.5	1101.6	1193.3	1293.9	1317.8	1346.5	1475.0
10°	1160.5	1135.3	1143.4	1145.7	1152.0	1202.7	1261.6	1358.2	1378.4	1470.1	1503.3
12.5°	1162.3	1157.8	1195.5	1196.9	1264.3	1355.5	1378.9	1467.8	1475.9	1543.3	1682.1
15°	1223.9	1254.9	1233.7	1245.0	1258.0	1367.2	1400.9	1528.5	1577.0	1663.7	1767.9
17.5°	1343.8	1352.8	1289.4	1272.8	1315.5	1348.8	1425.6	1480.8	1531.6	1773.8	1917.5
20°	1371.7	1395.9	1320.4	1234.6	1324.9	1371.2	1424.7	1449.8	1489.4	1790.0	1993.9
22.5°	1491.2	1440.9	1349.7	1275.1	1304.7	1349.7	1388.3	1483.1	1586.9	1743.7	2070.3
25°	1559.0	1529.8	1448.5	1368.5	1343.4	1344.7	1419.3	1504.2	1540.1	1811.5	2085.6
27.5°	1723.0	1676.3	1493.4	1478.1	1383.3	1309.7	1424.2	1556.3	1619.2	1758.5	2160.2
30°	1928.3	1892.8	1652.9	1632.7	1488.0	1359.5	1487.1	1595.0	1586.0	1793.1	2211.8
32.5°	2094.6	2153.9	1911.7	1752.2	1649.3	1526.2	1467.4	1588.2	1677.6	1873.5	2299.4
35°	2331.8	2387.5	2113.4	2005.6	1782.3	1603.5	1605.3	1680.8	1736.0	1967.4	2397.4
37.5°	2742.4	2693.5	2472.9	2302.6	2159.7	1892.8	1812.9	1786.4	1830.8	2082.4	2589.2
40°	3038.5	2997.2	2737.5	2640.4	2362.3	2207.3	1988.1	1962.9	2041.6	2201.0	2746.0
42.5°	3389.4	3315.7	3074.0	2994.0	2703.3	2423.9	2202.8	2217.2	2255.4	2424.8	2958.1
45°	3746.6	3567.8	3430.7	3424.5	3230.4	2844.4	2547.4	2535.8	2537.1	2754.1	3196.2
47.5°	4030.1	3869.2	3712.4	3637.9	3539.9	3571.8	3048.0	2910.9	2869.6	3085.7	3553.4
50°	4221.9	4036.8	3859.4	3841.8	4103.3	4275.4	3517.9	3371.4	3397.0	3560.1	4029.6
52.5°	4226.0	4006.3	3821.2	3943.8	4559.8	4806.0	4327.5	3918.2	4000.0	4111.0	4651.0
55°	3932.1	3704.4	3583.9	3863.4	4738.2	5435.5	5465.1	4794.3	4700.0	4740.9	5393.7
57.5°	3312.6	3082.5	3012.5	3347.2	4399.8	6042.4	6839.0	5841.2	5564.4	5393.7	6154.8
60°	2493.5	2294.5	2250.9	2464.3	3647.7	5864.1	7951.4	7144.1	6580.2	6122.9	6918.1
62.5°	1869.9	1727.1	1661.5	1692.0	2524.1	5284.0	8682.0	8790.3	7991.9	6919.0	7663.9
65°	1519.5	1404.0	1345.6	1306.1	1569.8	4085.8	8549.9	10175.9	9640.8	7755.1	8244.4
67.5°	1269.2	1166.8	1139.8	1178.5	1240.9	2370.4	7516.5	10950.9	10987.3	8580.0	8583.6
70°	1053.6	977.6	967.8	1077.4	1159.6	1430.5	5429.2	10707.4	11109.0	9198.7	8504.1
72.5°	814.1	773.2	771.9	943.9	1152.0	1219.4	3233.1	9249.9	9789.5	9001.0	7725.9
75°	564.8	536.4	558.0	775.9	1125.5	1236.9	1845.2	7204.7	7608.6	7659.4	6188.9
77.5°	388.6	364.8	388.2	561.2	1005.1	1266.5	1290.8	5209.5	5254.4	5136.2	3544.9
80°	270.5	253.8	271.8	397.2	782.2	1253.5	1099.0	3279.8	3009.3	2292.3	1134.9
82.5°	167.6	162.6	182.4	283.0	550.8	1140.3	1041.4	1692.5	1292.1	632.6	405.3
85°	88.1	80.9	106.0	184.7	344.6	895.0	975.8	772.3	498.7	224.6	162.6
87.5°	26.1	23.4	40.9	74.6	146.0	401.2	558.5	327.5	186.0	66.0	50.8
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°	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1	823.1
2.5°	1003.3	998.3	931.8	940.4	954.7	958.3	957.9	933.6	908.0	979.4	977.2
5°	1277.8	1233.3	1200.0	1192.9	1152.0	1111.1	1125.5	1120.5	1114.2	1146.6	1150.6
7.5°	1475.5	1413.9	1375.3	1276.0	1181.6	1099.9	1125.9	1134.0	1117.8	1176.2	1193.8
10°	1527.6	1479.0	1437.3	1309.7	1257.5	1209.9	1139.4	1059.0	1048.2	1014.5	1018.5
12.5°	1661.9	1655.2	1512.7	1400.4	1332.6	1237.8	1085.5	988.0	904.4	908.5	884.2
15°	1767.9	1771.5	1600.4	1443.1	1261.1	1116.5	937.2	815.9	730.1	713.0	695.5
17.5°	1910.4	1903.2	1607.5	1391.9	1161.4	949.3	729.6	609.2	594.9	604.7	589.5
20°	1972.4	1909.0	1561.7	1264.7	1005.5	721.1	551.3	487.5	515.3	554.9	555.8
22.5°	2028.1	1919.8	1537.9	1162.3	797.9	524.3	442.5	430.9	463.7	517.1	521.6
25°	2025.8	1969.7	1495.2	1059.0	618.7	409.3	384.6	393.1	432.2	487.9	491.1
27.5°	2127.8	1931.5	1384.2	923.3	465.9	350.4	356.7	372.5	390.9	443.9	454.2
30°	2126.9	2002.5	1328.5	758.4	374.3	321.2	337.4	350.9	366.2	414.7	420.5
32.5°	2177.2	1956.2	1294.8	589.9	335.6	314.1	318.1	331.6	353.6	386.4	390.4
35°	2237.9	2008.8	1187.0	468.6	321.2	307.8	310.9	318.5	338.8	368.9	372.9
37.5°	2432.4	2018.6	1144.3	394.9	320.3	305.1	304.6	308.7	331.6	359.0	371.1
40°	2508.4	2108.9	1019.9	368.9	317.2	305.1	298.8	301.0	319.9	354.9	364.4
42.5°	2690.3	2139.0	927.8	359.9	317.2	299.7	289.8	293.4	315.4	346.4	361.2
45°	2877.7	2181.7	818.1	358.1	316.7	299.2	280.4	288.4	306.4	332.5	348.6
47.5°	3144.5	2335.4	708.5	352.7	313.2	301.5	278.1	277.7	293.4	315.8	331.1
50°	3579.9	2575.3	623.6	345.9	313.6	299.7	273.6	267.3	277.7	297.4	312.3
52.5°	4186.0	2984.2	590.4	342.4	310.0	292.5	266.0	256.1	261.9	277.7	292.0
55°	4889.6	3536.3	623.2	342.4	302.8	281.3	255.2	243.5	246.7	257.4	271.4
57.5°	5711.8	4222.4	781.8	337.4	293.8	267.8	242.2	228.7	229.6	239.0	251.6
60°	6570.3	4988.9	1137.1	333.4	287.5	252.9	226.9	213.0	211.6	220.6	231.8
62.5°	7430.3	5696.0	1510.9	342.8	285.7	240.4	210.7	196.8	196.3	204.4	213.9
65°	8114.1	6179.5	1603.9	381.0	297.4	226.0	194.1	181.1	180.2	186.9	197.2
67.5°	8449.7	6249.6	1218.5	428.6	322.1	212.5	177.9	165.8	164.9	172.1	181.1
70°	8201.3	5770.6	752.1	433.6	320.8	196.8	161.3	151.0	149.2	156.8	163.5
72.5°	7282.0	5047.7	571.5	383.7	277.7	174.3	144.7	135.7	133.0	139.7	146.0
75°	5844.8	4007.6	457.8	309.6	218.8	146.9	128.0	119.5	116.4	122.7	128.0
77.5°	3404.7	2254.5	334.7	241.7	165.3	120.0	109.2	101.5	97.9	104.7	108.7
80°	1107.0	751.2	210.3	173.4	120.9	93.9	88.5	83.1	79.5	84.0	85.4
82.5°	397.6	279.5	116.4	106.5	80.4	67.4	66.9	63.8	59.3	61.1	61.1
85°	176.1	127.6	69.2	57.1	48.1	35.9	42.2	40.0	35.5	34.6	33.2
87.5°	49.4	42.2	25.2	19.3	15.7	5.8	13.5	12.1	9.9	9.0	6.3
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)