

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: P596340

Luminaire Tested: **MSA-SA3B-722-U-T4FT**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596340  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3B-722-U-T4FT  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10831 lumens  
Efficiency: N/A  
Efficacy: 86.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

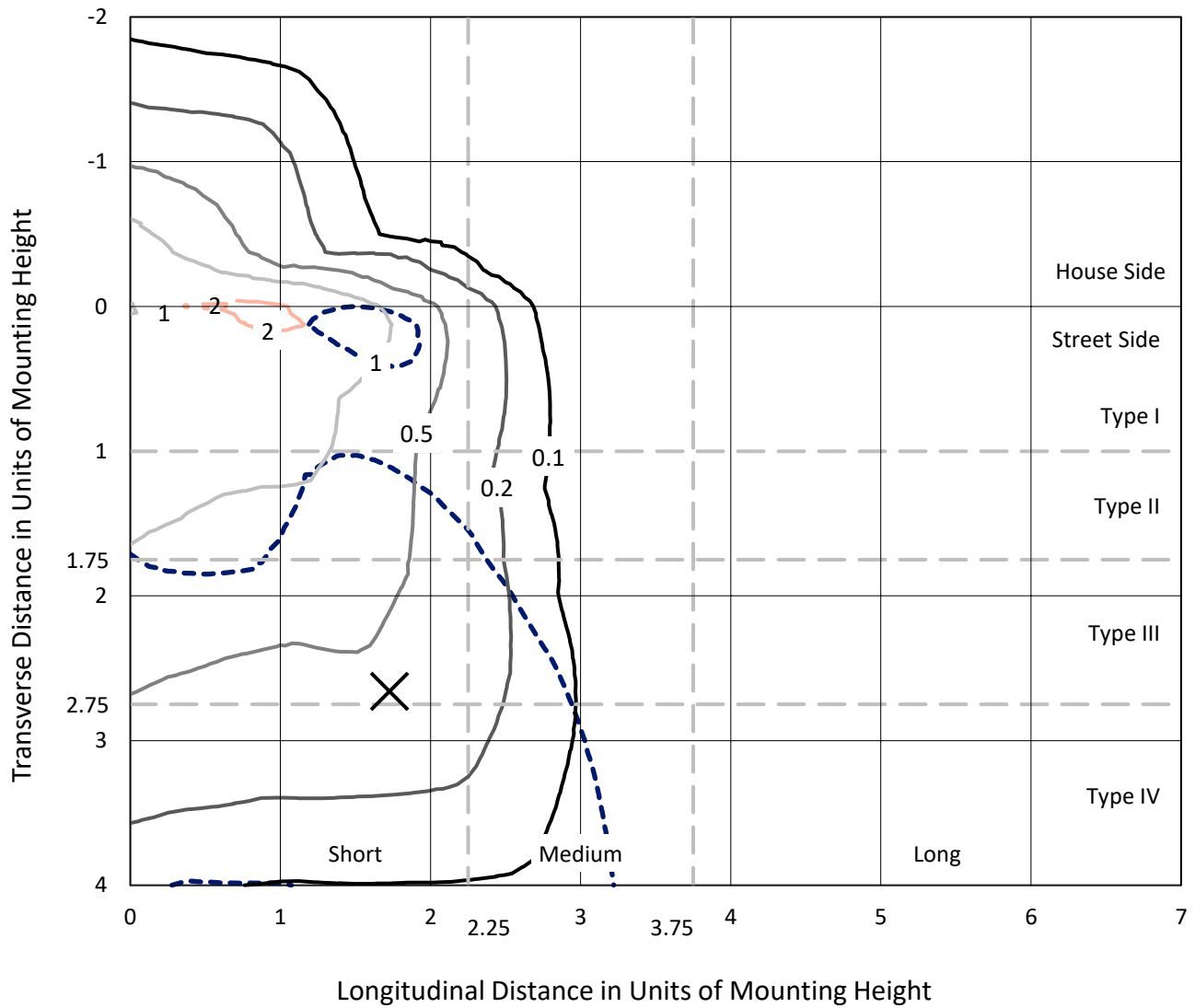
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

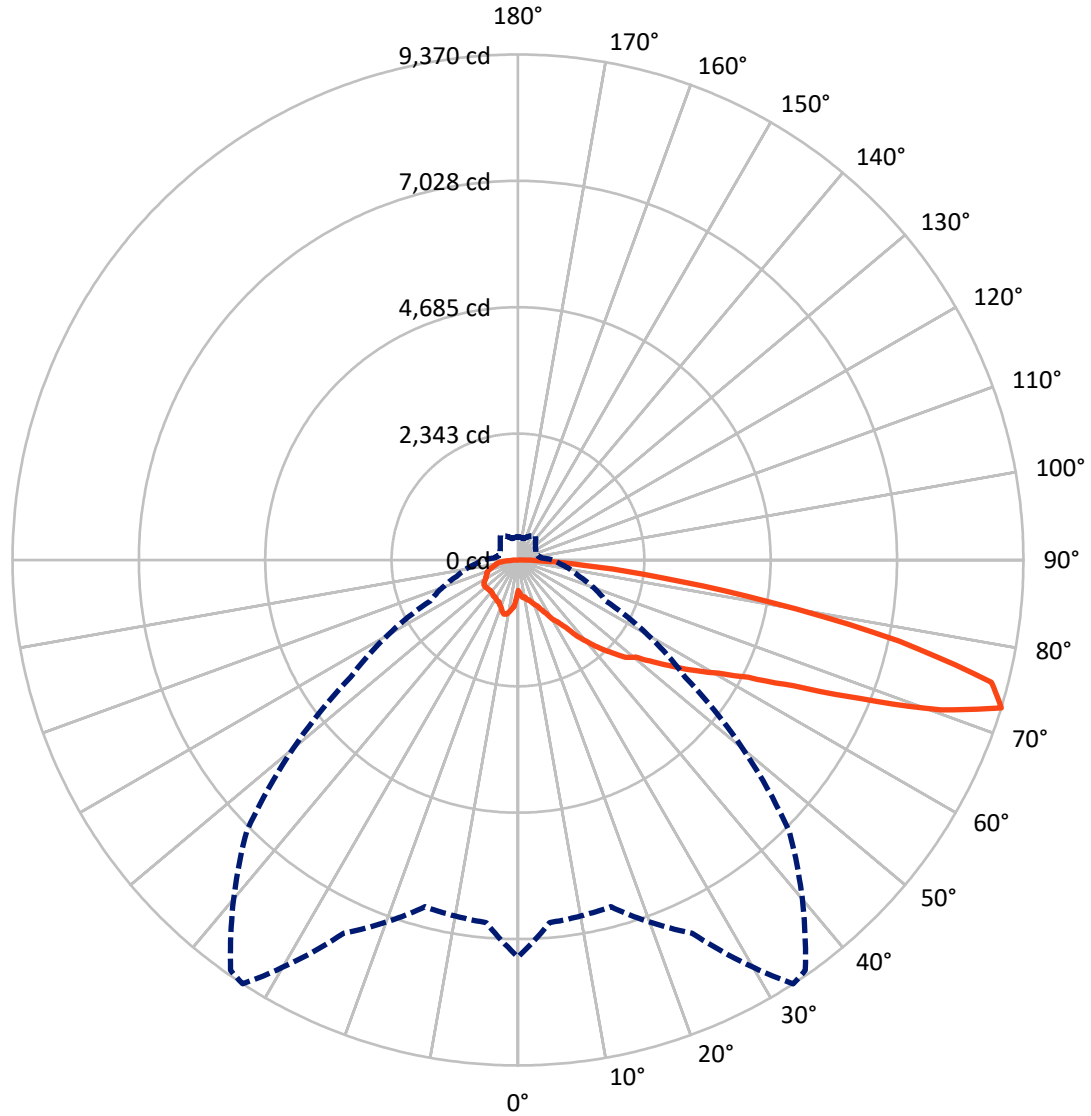
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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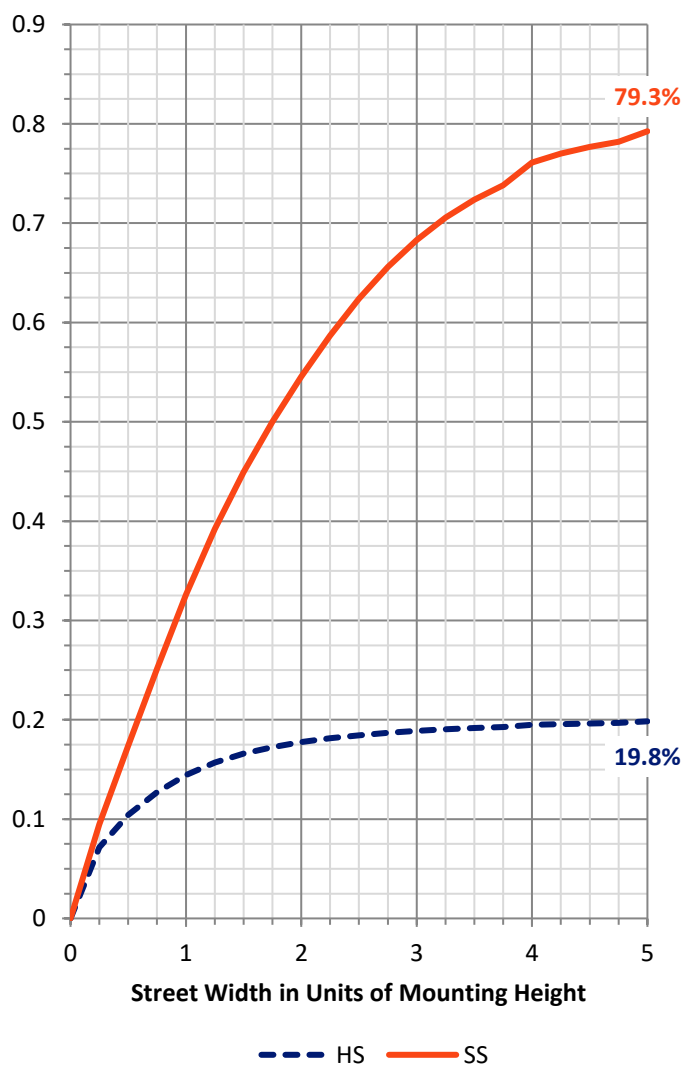
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2191.1	0.0	2191.1
	% Fixture	20.2	0.0	20.2
<b>Street Side</b>	Lumens	8639.9	0.0	8639.9
	% Fixture	79.8	0.0	79.8
<b>Total</b>	Lumens	10831.0	0.0	10831.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	0.7
10°-20°	288.6	2.7
20°-30°	526.2	4.9
30°-40°	890.3	8.2
40°-50°	1481.1	13.7
50°-60°	2173.6	20.1
60°-70°	2780.5	25.7
70°-80°	2262.2	20.9
80°-90°	350.4	3.2
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°	10831.0	100.0
0°-180°	10831.0	100.0

**Coefficient of Utilization**



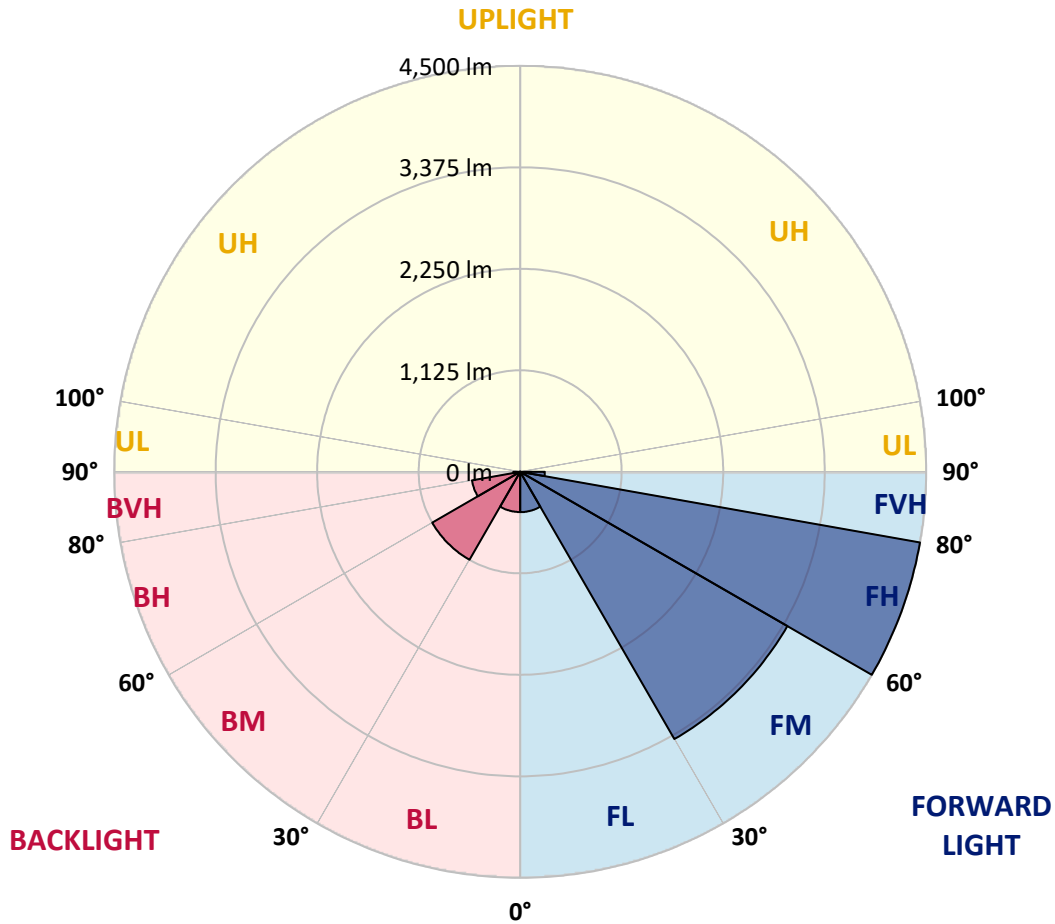
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	447.0	4.1			
FM (30°-60°)	3419.6	31.6			
FH (60°-80°)	4499.9	41.5			G2/5000
FVH (80°-90°)	273.5	2.5			G3/500
BL (0°-30°)	445.9	4.1	B1/500		
BM (30°-60°)	1125.3	10.4	B2/2500		
BH (60°-80°)	542.9	5.0	B2/1000		G2/1000
BVH (80°-90°)	76.9	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-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9
2.5°	643.9	623.7	590.4	589.5	607.9	612.0	624.1	625.0	629.5	622.3	673.5
5°	710.4	688.8	675.8	680.3	671.7	682.1	682.1	711.7	751.3	797.1	862.2
7.5°	726.1	710.4	695.5	706.8	708.6	698.7	708.1	777.8	849.2	895.0	999.3
10°	694.6	678.9	690.1	693.7	693.3	715.8	764.7	820.5	900.0	984.5	1040.6
12.5°	688.8	700.0	705.4	711.7	754.4	761.1	835.3	892.8	972.8	1046.9	1192.9
15°	775.5	790.3	757.1	754.9	768.8	775.1	851.9	909.9	1026.7	1151.1	1282.3
17.5°	899.1	904.5	844.7	814.2	824.5	829.4	863.1	935.9	1007.8	1237.9	1401.4
20°	1018.6	1022.2	909.9	841.6	878.0	883.4	914.8	956.6	1013.2	1286.4	1481.8
22.5°	1144.0	1121.0	997.9	911.7	932.8	934.1	952.6	975.5	1055.9	1278.8	1579.8
25°	1281.0	1266.6	1111.6	1028.9	1028.0	1009.6	1010.5	1043.3	1101.3	1360.5	1644.0
27.5°	1463.0	1464.8	1239.7	1195.2	1125.5	1113.4	1052.7	1113.9	1179.9	1361.4	1782.9
30°	1698.9	1655.3	1418.0	1346.2	1277.4	1251.8	1169.6	1221.7	1250.4	1439.2	1933.9
32.5°	1890.7	1878.1	1604.1	1495.3	1383.0	1412.6	1321.9	1276.1	1327.7	1573.1	2162.6
35°	2074.5	2033.2	1800.9	1659.3	1541.2	1523.2	1464.3	1472.0	1503.4	1742.4	2461.4
37.5°	2348.6	2326.1	2079.4	1853.0	1797.7	1724.5	1687.2	1711.0	1686.3	1959.5	2909.3
40°	2655.0	2524.7	2312.2	2110.4	2007.1	1955.4	1968.5	1946.0	1927.1	2203.0	3311.0
42.5°	2948.4	2829.8	2466.7	2376.0	2241.2	2262.8	2191.3	2207.0	2260.5	2548.5	3682.6
45°	3267.9	3011.3	2630.7	2550.8	2454.2	2481.6	2538.6	2521.6	2609.2	2956.1	4032.6
47.5°	3427.4	3183.4	2832.0	2701.7	2700.4	2643.3	2990.6	3028.4	2891.3	3258.0	4388.0
50°	3581.0	3341.1	2981.7	2893.6	2829.8	2952.0	3424.2	3337.5	3146.6	3604.4	4778.9
52.5°	3794.9	3521.3	3153.3	3059.4	3138.5	3251.7	3770.2	3753.1	3396.8	3960.7	5118.6
55°	3958.0	3681.7	3411.7	3324.5	3475.5	3586.4	4122.5	4019.6	3611.2	4222.2	5333.8
57.5°	4243.8	3960.3	3793.1	3599.5	3870.9	3869.1	4462.2	4382.6	3840.3	4437.0	5420.5
60°	4698.0	4365.1	4190.3	3967.0	4257.7	4361.5	4850.4	4621.2	4002.5	4572.7	5264.2
62.5°	5335.6	4940.2	4656.7	4435.6	4790.2	4978.0	5329.8	4795.1	4012.8	4534.0	4853.1
65°	6124.2	5643.4	5271.8	5038.2	5623.2	5891.4	5909.4	4902.5	3917.6	4134.6	3988.6
67.5°	6893.4	6352.9	5965.1	6009.6	6863.8	6990.9	6537.5	4992.4	3405.8	3320.0	2769.6
70°	7399.8	6813.9	6555.5	7027.3	8324.9	8194.6	7046.6	4755.6	2682.0	2152.2	1559.6
72.5°	7361.6	6748.3	6655.3	7632.1	9370.0	9288.7	7108.6	3781.9	1796.4	1176.8	777.8
75°	5997.5	5520.7	5731.9	7225.0	9069.0	9065.0	6171.8	2340.9	921.5	604.3	491.6
77.5°	3316.0	3130.8	3751.3	5470.4	7221.0	7257.8	4170.1	1061.7	496.9	428.2	370.2
80°	1161.5	1144.4	1625.6	2952.0	4750.2	4759.2	1939.2	485.7	361.3	324.0	271.8
82.5°	424.6	421.0	674.0	1371.3	2615.5	2609.6	735.5	302.4	267.8	229.2	179.3
85°	169.4	165.8	308.2	608.8	1201.5	1182.2	285.8	171.6	175.2	136.6	88.1
87.5°	46.7	48.5	104.7	190.5	368.0	341.0	71.9	58.0	71.0	55.7	27.9
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°	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9	567.9
2.5°	682.5	687.0	642.5	658.2	678.5	689.3	694.6	671.7	679.4	711.7	710.4
5°	875.7	857.7	840.7	858.2	846.5	829.9	856.8	855.5	873.0	890.5	894.6
7.5°	1019.9	996.6	988.5	949.0	909.4	869.4	904.0	925.6	930.1	973.7	992.1
10°	1072.1	1063.1	1066.2	1014.1	1009.2	1013.2	981.3	946.7	967.8	949.9	963.3
12.5°	1192.5	1215.0	1159.2	1123.7	1120.6	1095.9	1032.1	1009.6	985.8	1010.5	997.9
15°	1289.1	1330.9	1271.1	1208.7	1138.1	1099.9	1045.6	1011.4	995.7	1001.1	985.8
17.5°	1430.6	1469.7	1317.8	1222.1	1149.4	1093.2	1010.1	937.3	975.9	979.1	961.5
20°	1524.5	1527.2	1333.6	1188.9	1123.3	1025.8	944.9	881.1	925.6	971.0	990.7
22.5°	1616.2	1596.0	1352.9	1162.4	1028.5	934.1	894.6	890.5	923.8	962.0	966.5
25°	1684.9	1688.1	1364.1	1152.5	972.8	844.3	844.3	873.5	902.7	993.4	988.9
27.5°	1851.6	1729.0	1320.5	1107.1	895.5	791.7	844.7	883.8	897.7	996.1	1006.0
30°	1972.9	1893.0	1329.5	1029.4	817.3	767.0	810.6	859.5	898.2	1011.9	1008.3
32.5°	2176.5	1961.3	1350.6	920.2	758.9	757.5	796.2	847.9	894.1	994.8	1000.2
35°	2401.6	2162.6	1291.8	837.1	745.0	752.2	802.0	822.7	877.1	988.0	993.0
37.5°	2818.1	2267.7	1254.5	772.8	736.0	756.6	775.5	807.4	862.2	954.3	986.7
40°	3062.5	2484.3	1116.1	735.5	717.1	753.1	762.5	789.4	819.1	913.9	934.6
42.5°	3384.2	2552.6	997.9	694.2	707.7	738.2	766.5	773.3	793.0	850.1	887.8
45°	3652.5	2603.8	872.6	660.9	675.8	771.0	772.8	769.7	766.1	787.2	818.2
47.5°	3930.2	2741.3	757.1	624.1	663.6	798.0	776.0	747.2	732.4	735.1	763.8
50°	4236.6	2841.0	675.3	594.0	666.3	798.0	791.2	724.3	694.6	687.0	717.1
52.5°	4506.2	2852.7	613.3	569.7	655.1	770.6	801.6	709.9	660.0	641.6	669.9
55°	4653.1	2704.9	568.4	547.7	626.3	745.9	796.2	701.8	618.3	604.3	629.5
57.5°	4650.0	2459.6	530.2	517.2	593.5	711.3	766.1	657.8	592.6	584.6	609.3
60°	4482.4	2172.0	501.0	492.0	559.8	660.9	712.2	629.0	567.9	563.9	590.9
62.5°	4102.3	1875.0	472.7	465.5	528.4	625.4	686.6	597.1	542.3	541.9	567.5
65°	3359.5	1505.2	446.2	444.4	499.2	590.4	662.3	570.2	515.8	524.8	550.9
67.5°	2314.9	1057.7	417.9	423.3	472.2	556.7	643.9	552.2	488.0	506.4	529.7
70°	1270.2	654.2	386.4	397.2	438.1	517.6	615.1	523.0	451.6	479.9	496.0
72.5°	646.1	436.3	347.3	364.4	396.3	460.1	561.2	480.8	412.5	423.3	431.8
75°	434.0	328.5	303.7	322.6	345.5	405.3	497.8	441.2	375.2	373.8	383.3
77.5°	328.0	256.6	257.9	279.5	294.3	356.3	447.5	408.0	343.7	340.6	354.5
80°	239.9	194.6	207.6	230.0	243.5	319.9	414.7	371.1	301.0	288.5	300.1
82.5°	159.1	137.9	153.7	176.1	186.9	267.3	376.5	315.0	245.3	213.4	215.2
85°	75.0	72.3	91.7	102.4	116.4	165.8	281.7	217.9	156.4	129.4	135.2
87.5°	17.1	22.9	30.1	29.7	34.6	44.5	87.6	61.1	45.4	31.0	20.7
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)