

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: P367386

Luminaire Tested: **MSA-SA2B-830-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-10)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-830-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7904 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

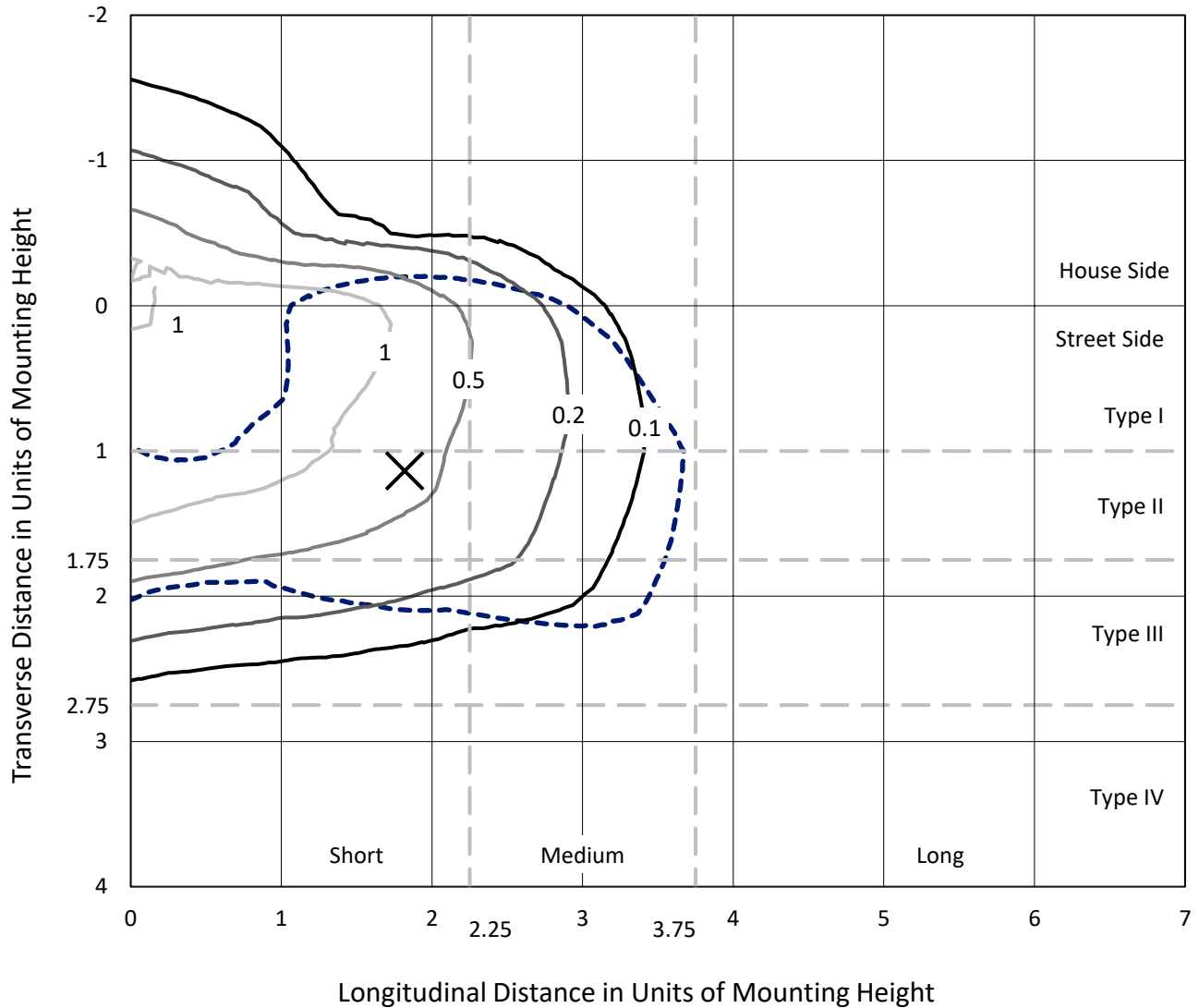
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

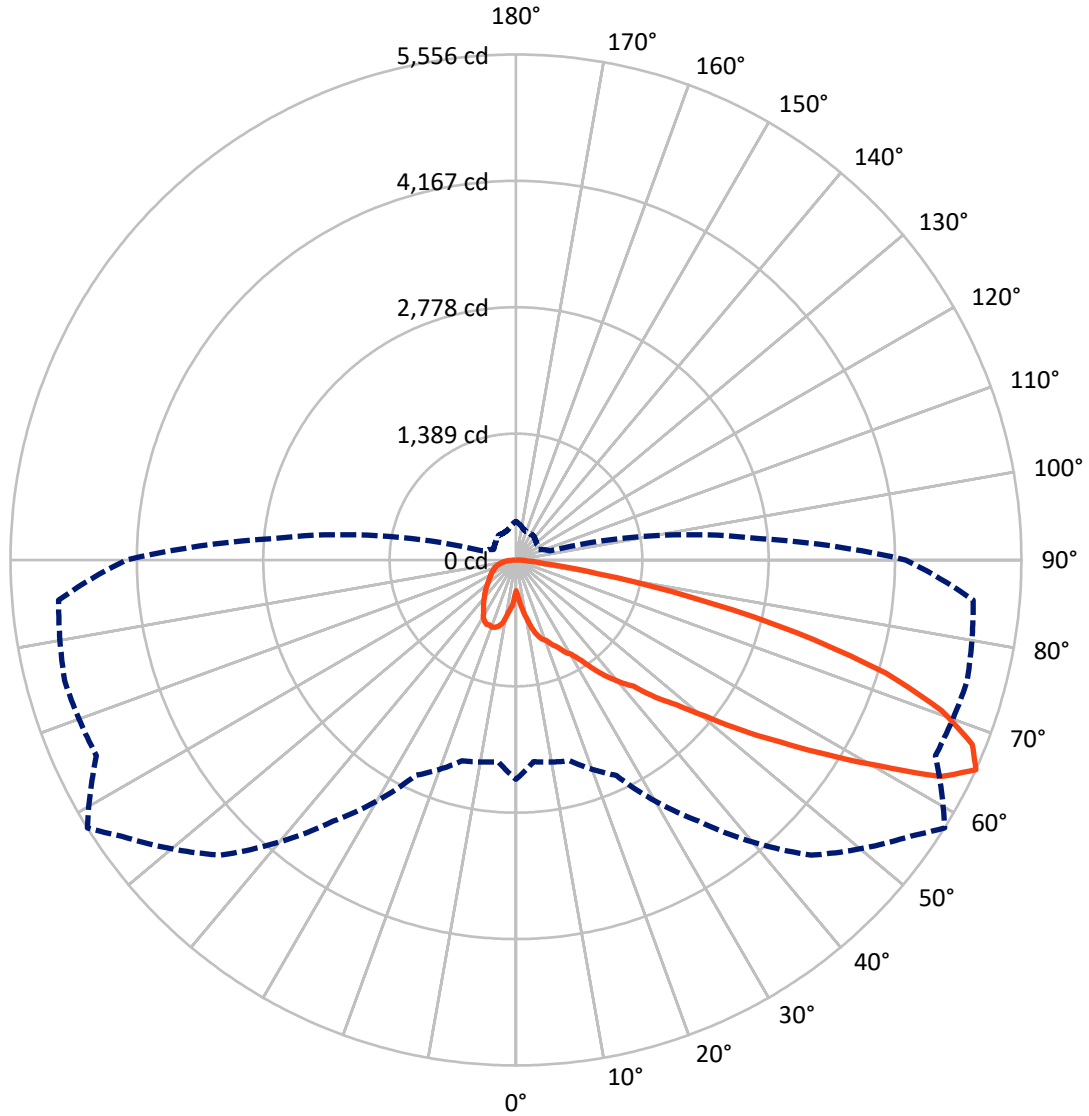
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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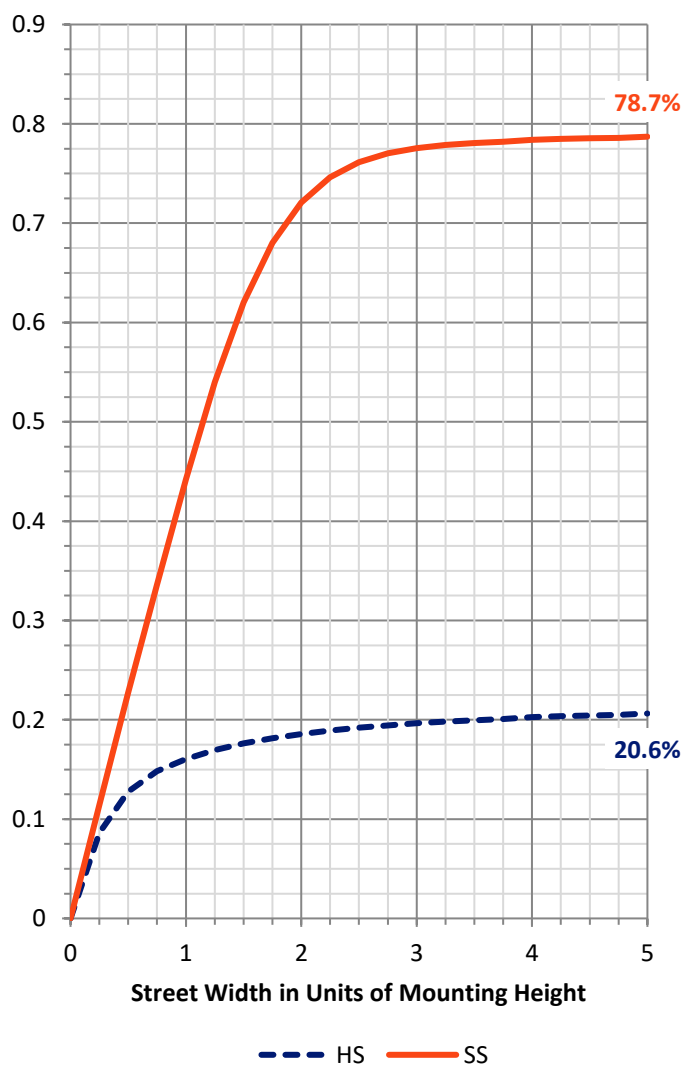
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1664.8	0.0	1664.8
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	6239.2	0.0	6239.2
	% Fixture	78.9	0.0	78.9
Total	Lumens	7904.0	0.0	7904.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	0.7
10°-20°	225.6	2.9
20°-30°	432.8	5.5
30°-40°	714.6	9.0
40°-50°	1187.7	15.0
50°-60°	1961.5	24.8
60°-70°	2200.5	27.8
70°-80°	1000.5	12.7
80°-90°	129.0	1.6
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°	7904.0	100.0
0°-180°	7904.0	100.0

Coefficient of Utilization



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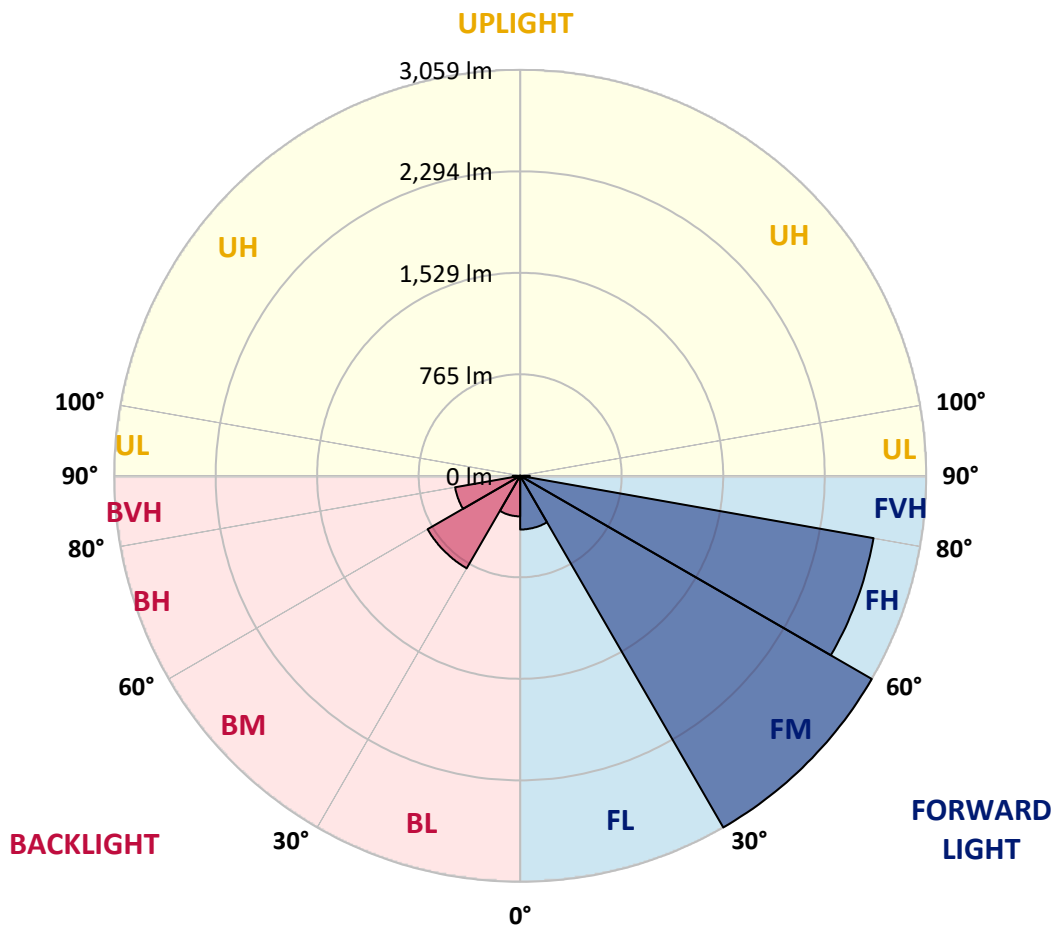
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	404.5	5.1			
FM (30°-60°)	3058.7	38.7			
FH (60°-80°)	2703.3	34.2			G2/5000
FVH (80°-90°)	72.7	0.9			G1/100
BL (0°-30°)	305.6	3.9	B1/500		
BM (30°-60°)	805.2	10.2	B1/1000		
BH (60°-80°)	497.7	6.3	B1/500		G1/500
BVH (80°-90°)	56.4	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4
2.5°	405.2	393.0	372.6	377.5	389.4	396.0	392.0	386.8	379.8	378.5	408.8
5°	524.7	501.3	491.8	487.8	473.3	464.8	479.6	477.6	485.5	500.0	529.6
7.5°	611.9	595.4	579.6	578.0	550.0	540.1	559.9	570.4	584.6	584.9	625.1
10°	658.6	644.5	644.2	629.3	627.0	645.8	646.1	654.0	655.7	672.5	664.6
12.5°	709.3	708.3	726.5	726.1	747.2	778.1	762.7	762.7	767.3	746.9	771.9
15°	830.1	840.7	806.8	812.4	812.4	842.6	841.7	847.6	861.7	856.5	845.3
17.5°	955.9	962.5	924.9	890.0	892.7	886.1	909.8	912.1	898.6	959.8	946.3
20°	1036.8	1062.5	983.5	939.7	948.3	955.9	956.9	942.7	935.8	1029.9	1011.5
22.5°	1136.9	1115.2	1042.8	994.4	1007.2	997.0	995.0	1005.9	1015.5	1051.0	1081.0
25°	1203.7	1202.1	1115.2	1062.2	1048.0	1045.1	1065.2	1060.9	1083.6	1148.1	1129.3
27.5°	1300.8	1331.1	1177.1	1190.2	1128.0	1062.5	1127.0	1146.5	1187.3	1176.7	1218.5
30°	1489.1	1466.4	1305.4	1301.8	1231.4	1176.4	1221.2	1204.7	1278.1	1275.8	1306.8
32.5°	1642.8	1658.6	1456.2	1418.3	1366.0	1299.8	1270.2	1316.0	1355.5	1420.3	1437.8
35°	1805.4	1801.8	1610.6	1534.2	1447.6	1420.3	1456.9	1475.9	1559.9	1619.5	1578.0
37.5°	2058.2	2029.6	1810.7	1666.2	1601.4	1591.5	1654.0	1626.4	1717.2	1731.4	1754.7
40°	2293.2	2207.0	1993.7	1828.1	1725.1	1762.0	1764.0	1767.6	1816.3	1854.8	1970.3
42.5°	2516.7	2456.2	2179.7	2055.3	1903.5	1867.6	1890.0	1897.6	2020.7	2099.4	2259.3
45°	2822.2	2659.9	2447.0	2319.2	2149.4	2103.6	2087.8	2153.0	2271.8	2450.9	2588.2
47.5°	3080.6	2934.1	2731.0	2562.8	2372.9	2503.6	2414.0	2377.5	2537.1	2759.0	2977.6
50°	3294.9	3133.6	2934.4	2837.3	2807.1	2923.6	2691.2	2695.5	2841.6	3154.6	3405.1
52.5°	3460.8	3288.6	3112.2	3062.8	3232.0	3299.1	3131.3	3105.9	3212.6	3582.6	3883.4
55°	3615.8	3433.1	3296.8	3397.6	3682.6	3690.2	3678.3	3537.8	3666.2	4041.1	4378.5
57.5°	3655.6	3458.8	3368.3	3512.8	3898.2	4198.1	4315.9	4040.1	4170.8	4458.1	4802.4
60°	3450.6	3282.0	3245.8	3442.0	4014.7	4453.2	4760.9	4596.0	4547.0	4792.9	5099.3
62.5°	3030.6	2835.0	2864.3	3136.9	3892.0	4554.2	5112.5	5241.2	4944.3	5059.2	5229.0
65°	2412.1	2225.4	2284.7	2612.5	3506.5	4587.8	5292.2	5556.2	5087.8	5134.5	5045.3
67.5°	1701.1	1531.6	1606.3	2030.2	2917.0	4157.9	5323.1	5409.4	4935.1	4919.6	4543.7
70°	963.8	857.5	938.4	1291.9	2058.9	3312.3	5080.6	4967.0	4661.2	4442.0	3801.8
72.5°	442.1	405.5	444.4	657.7	1185.3	2204.0	4147.7	4250.7	4016.4	3742.2	2892.3
75°	235.0	222.2	238.6	328.5	554.6	1199.1	2947.0	3178.7	3053.9	2838.3	1886.7
77.5°	174.8	164.9	172.8	213.0	296.2	469.0	1674.4	1966.7	2014.1	1815.6	1047.7
80°	134.0	126.1	134.0	161.0	205.1	222.8	715.9	916.7	1044.1	843.6	416.4
82.5°	99.4	94.1	106.3	120.8	144.2	139.2	254.1	316.3	407.8	278.8	162.3
85°	79.0	72.4	77.0	82.0	92.2	76.4	116.2	130.0	137.6	115.2	59.9
87.5°	30.9	28.6	56.0	44.1	37.5	23.0	34.9	39.5	40.5	38.8	17.4
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°	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4	339.4
2.5°	412.1	408.8	389.4	395.6	405.9	407.8	412.1	400.3	394.3	416.1	417.0
5°	532.2	514.5	505.3	506.2	499.7	489.5	504.9	515.1	519.1	535.2	541.1
7.5°	625.4	604.0	588.5	570.8	545.7	529.6	556.6	576.4	586.9	620.5	633.6
10°	666.9	649.8	646.5	624.1	623.4	623.1	621.8	614.9	637.6	634.3	643.5
12.5°	752.5	748.8	717.6	708.7	709.7	708.7	681.0	679.7	680.0	710.3	699.5
15°	832.1	832.8	804.1	771.9	742.9	734.0	723.2	718.2	725.5	742.6	732.0
17.5°	930.5	933.8	851.9	800.8	762.7	761.7	735.7	705.1	749.2	759.7	748.2
20°	994.1	980.2	879.5	793.9	783.1	753.4	721.2	679.1	717.2	742.9	750.2
22.5°	1054.3	1030.3	905.2	806.1	754.1	718.9	687.6	660.3	672.5	701.1	696.5
25°	1095.1	1088.5	940.7	835.4	753.1	674.8	632.6	615.2	621.4	665.9	661.6
27.5°	1192.5	1121.4	934.5	843.0	721.5	614.5	593.5	574.7	568.5	616.5	629.7
30°	1257.7	1228.4	976.3	831.1	681.7	565.2	534.2	530.3	532.2	586.9	590.5
32.5°	1368.3	1292.3	1044.7	785.7	623.8	528.6	493.1	494.7	503.6	543.4	551.7
35°	1483.5	1438.1	1054.0	753.1	576.7	489.8	475.3	463.8	468.7	503.6	505.3
37.5°	1697.5	1540.5	1110.6	702.8	542.1	475.0	447.3	437.1	439.8	459.5	473.7
40°	1885.7	1746.2	1084.2	654.0	499.3	455.2	420.7	413.1	405.2	424.6	433.5
42.5°	2187.6	1893.0	1075.4	600.4	479.3	428.6	404.9	384.8	377.2	393.7	409.8
45°	2489.4	2048.7	1027.0	546.1	450.9	426.6	381.8	362.7	364.7	379.5	396.0
47.5°	2825.8	2257.7	945.0	493.4	420.0	417.0	358.8	350.6	356.5	372.9	389.4
50°	3223.4	2479.5	877.2	446.0	398.0	388.4	355.8	345.9	351.5	371.0	387.1
52.5°	3658.3	2722.8	827.8	402.2	372.9	365.7	359.8	350.2	356.8	373.6	390.4
55°	4090.4	2945.0	794.3	372.3	351.5	356.1	368.0	361.1	364.4	376.9	393.7
57.5°	4411.0	3062.2	726.8	340.3	334.1	350.6	369.0	357.5	359.4	376.9	395.0
60°	4597.3	3084.5	615.9	314.3	320.3	339.4	358.8	344.0	342.7	371.3	394.0
62.5°	4576.9	2954.5	488.5	290.6	304.5	322.6	343.3	329.2	332.8	371.9	396.0
65°	4284.6	2688.9	388.4	270.6	285.4	304.1	330.5	324.9	342.3	398.3	424.3
67.5°	3771.2	2300.8	312.0	251.8	267.6	291.6	339.4	354.2	361.7	425.3	451.9
70°	3056.2	1787.7	260.0	235.3	253.5	297.6	365.0	362.1	355.8	412.4	433.5
72.5°	2208.0	1225.5	228.8	219.2	236.0	279.8	365.7	349.9	342.0	376.6	391.7
75°	1381.5	731.1	199.8	198.8	209.3	250.8	349.2	335.1	313.7	330.8	350.6
77.5°	789.0	374.3	168.2	177.1	183.3	217.6	312.7	299.9	280.8	288.0	307.4
80°	301.2	181.0	141.9	157.3	155.7	184.3	265.0	262.0	240.3	242.6	254.4
82.5°	141.9	101.4	117.8	135.3	126.4	146.8	215.3	214.3	195.2	176.8	186.3
85°	52.7	54.0	86.2	103.0	87.9	94.8	155.7	151.4	133.0	112.2	124.1
87.5°	11.8	19.4	42.5	53.7	30.6	29.3	62.9	54.6	52.7	31.3	32.9
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)