

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: P597056

Luminaire Tested: **MSA-SA3C-835-U-SL4**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597056
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-835-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: 14619 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

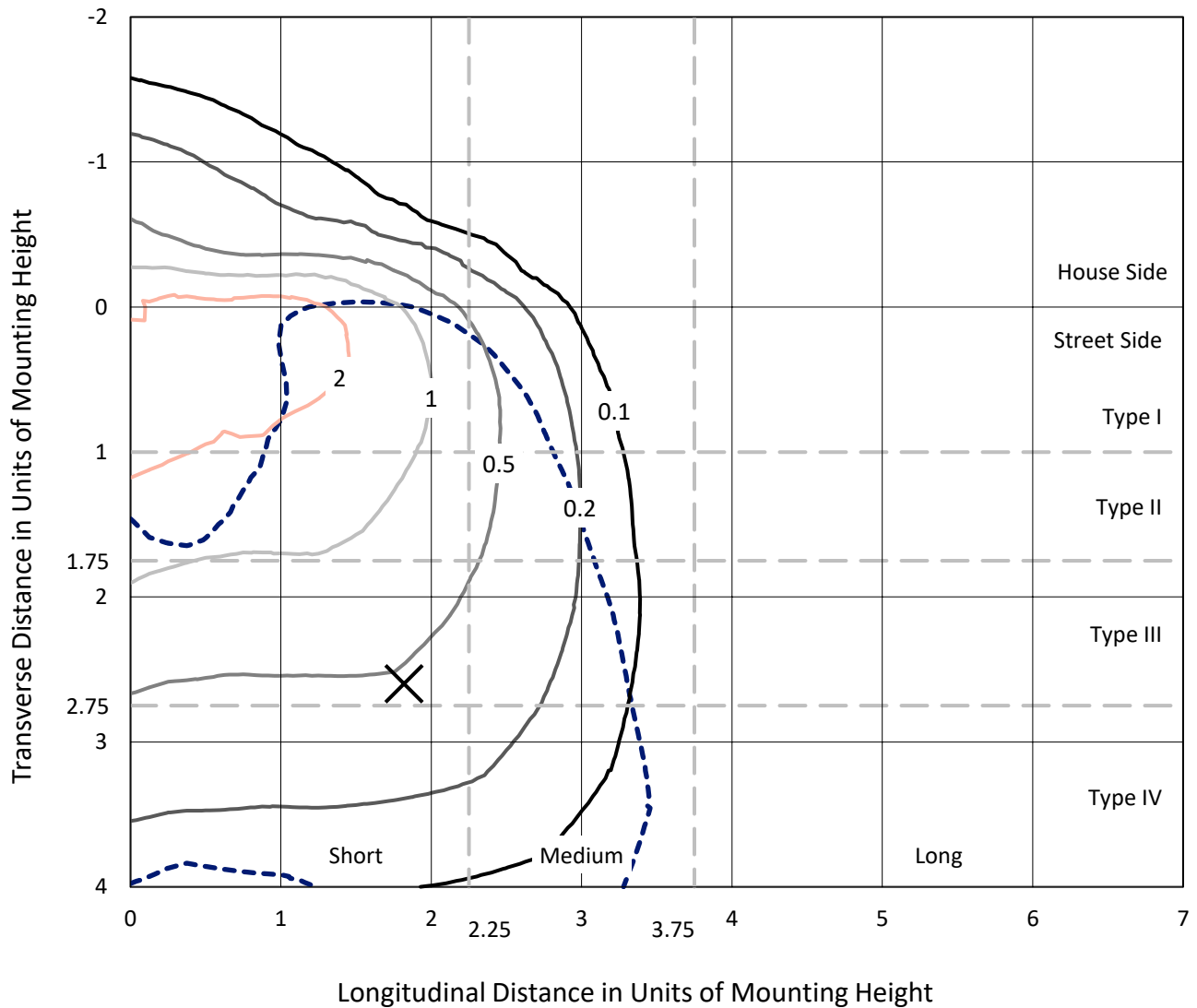
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

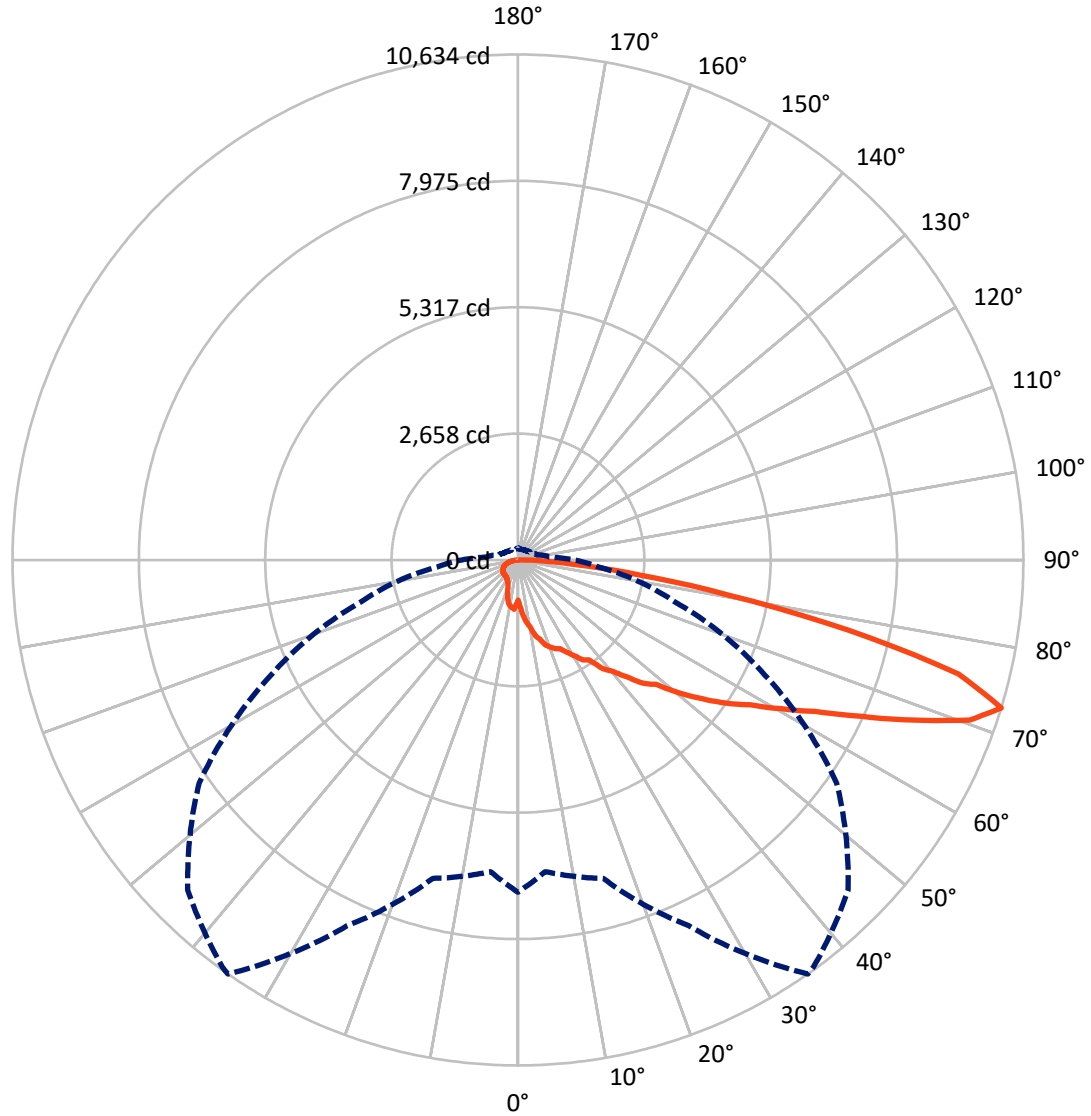
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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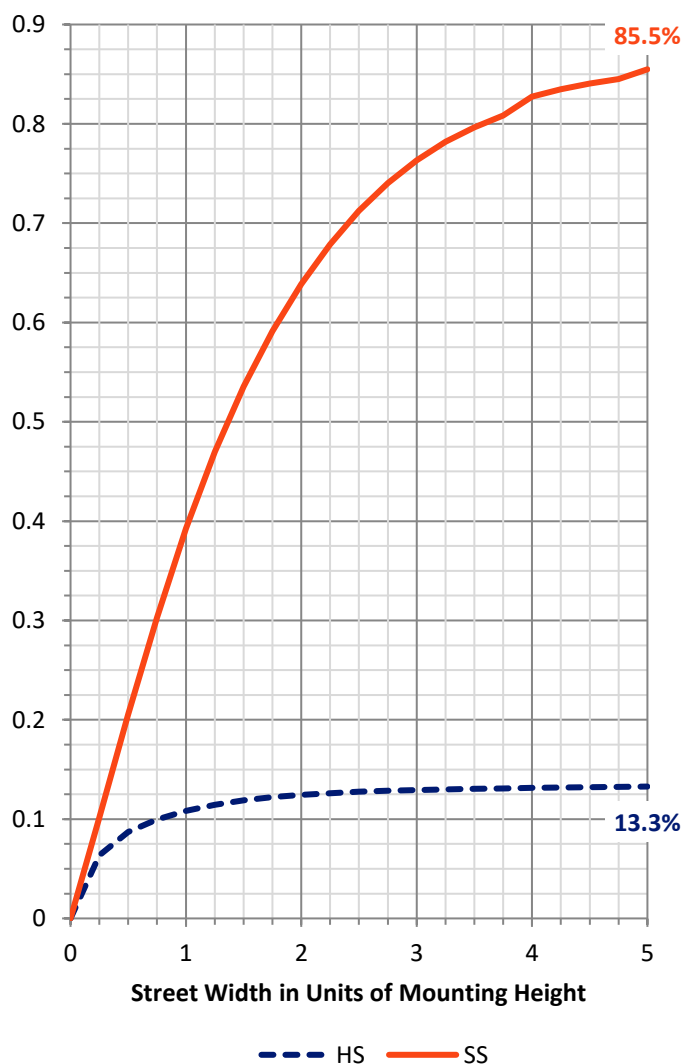
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1961.8	0.0	1961.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	12657.2	0.0	12657.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	14619.0	0.0	14619.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.3	0.8
10°-20°	395.5	2.7
20°-30°	687.2	4.7
30°-40°	1148.6	7.9
40°-50°	1993.6	13.6
50°-60°	3013.7	20.6
60°-70°	3904.3	26.7
70°-80°	2880.9	19.7
80°-90°	482.8	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°	14619.0	100.0
0°-180°	14619.0	100.0

Coefficient of Utilization



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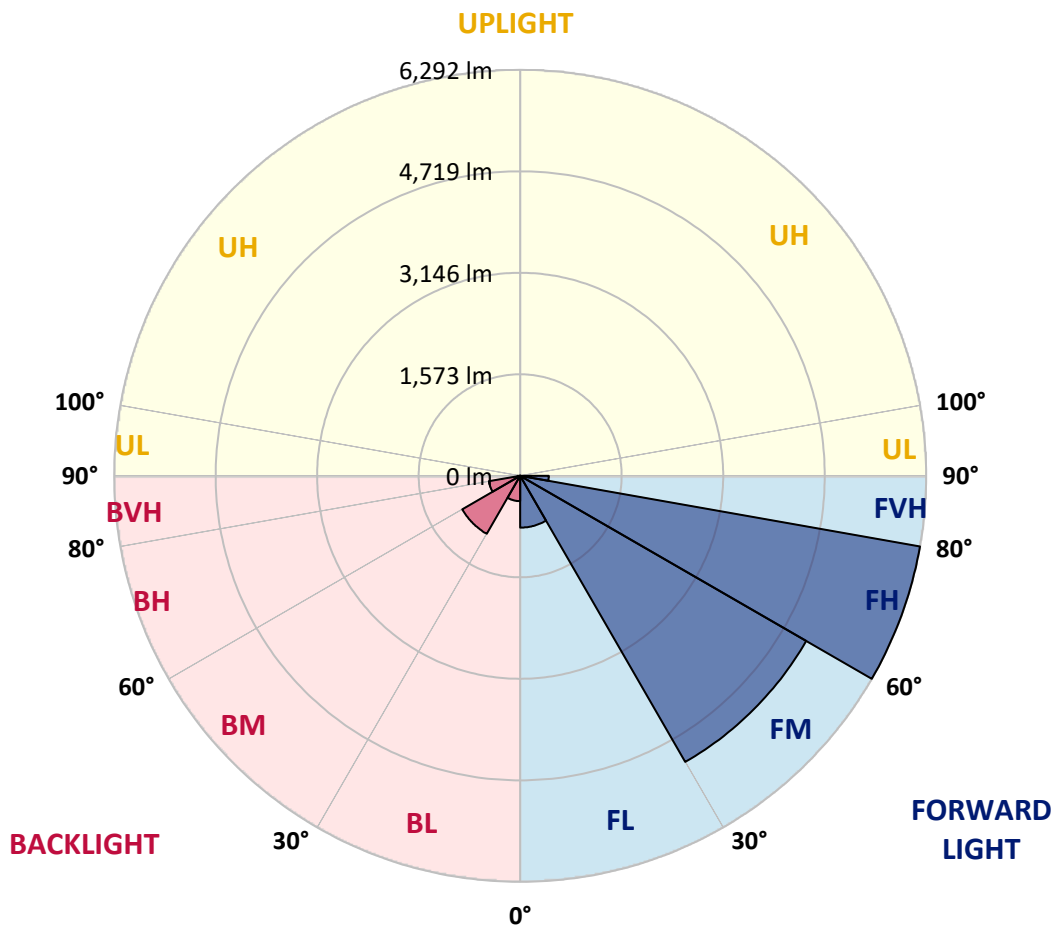
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	802.9	5.5			
FM (30°-60°)	5119.1	35.0			
FH (60°-80°)	6291.9	43.0			G3/7500
FVH (80°-90°)	443.3	3.0			G3/500
BL (0°-30°)	392.1	2.7	B1/500		
BM (30°-60°)	1036.9	7.1	B2/2500		
BH (60°-80°)	493.3	3.4	B1/500		G1/500
BVH (80°-90°)	39.5	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8
2.5°	1053.9	1003.3	959.6	957.8	998.3	1013.9	1007.7	994.0	977.7	943.4	1018.3
5°	1320.3	1247.9	1234.2	1218.0	1181.2	1191.1	1131.2	1176.8	1191.1	1224.2	1274.1
7.5°	1477.5	1435.1	1402.0	1388.3	1324.7	1317.2	1272.9	1337.8	1365.2	1360.9	1435.1
10°	1539.3	1500.6	1503.1	1458.2	1437.6	1446.3	1451.3	1452.6	1469.4	1483.1	1445.7
12.5°	1571.1	1586.1	1641.0	1610.4	1636.6	1647.2	1699.7	1646.0	1647.9	1577.4	1616.0
15°	1731.5	1768.9	1737.1	1735.8	1727.7	1745.2	1790.1	1753.9	1782.0	1759.6	1709.6
17.5°	1924.9	1936.1	1875.0	1850.0	1882.5	1876.9	1865.6	1871.2	1801.4	1931.1	1870.0
20°	1984.2	2028.5	1948.0	1850.0	1957.4	1971.7	1969.2	1944.9	1825.1	2012.3	1953.0
22.5°	2156.4	2096.5	2032.9	1970.5	2025.4	2033.5	2019.8	1961.7	1921.8	1992.9	2039.7
25°	2234.4	2220.0	2138.9	2131.4	2070.9	2042.2	2065.9	2049.1	2009.8	2136.4	2084.6
27.5°	2412.8	2396.0	2209.4	2286.2	2198.2	2190.7	2065.3	2121.5	2160.8	2151.4	2228.8
30°	2615.0	2634.3	2361.7	2438.4	2336.7	2323.0	2197.0	2268.1	2294.9	2303.7	2400.4
32.5°	2839.6	2892.7	2621.9	2558.8	2504.6	2513.9	2407.2	2277.4	2381.6	2585.7	2627.5
35°	3083.0	3104.8	2820.9	2726.1	2584.4	2574.4	2576.3	2592.5	2698.0	2930.7	2963.2
37.5°	3532.8	3431.8	3182.8	2942.6	2895.2	2802.2	2865.2	2915.1	3020.6	3377.5	3513.5
40°	3809.9	3735.0	3355.6	3216.5	3085.5	3094.2	3212.1	3211.5	3460.5	3828.6	4036.4
42.5°	4066.3	3984.6	3627.1	3487.3	3363.1	3393.7	3427.4	3486.7	3964.0	4557.4	4652.2
45°	4272.9	4093.8	3836.7	3805.5	3703.2	3662.6	3805.5	3900.4	4566.1	5147.0	5201.9
47.5°	4413.3	4266.0	4014.5	3987.1	3911.6	4010.8	4400.8	4461.9	5032.8	5739.2	5734.8
50°	4626.6	4425.1	4198.0	4183.6	4396.4	4449.4	4924.9	4918.7	5487.1	6230.8	6127.9
52.5°	4872.5	4618.5	4372.1	4526.2	4850.6	4876.9	5289.3	5457.1	5983.1	6705.0	6436.1
55°	5155.1	4871.2	4632.9	4838.8	5321.7	5244.4	5661.8	6071.7	6604.0	7204.8	6658.9
57.5°	5505.2	5160.8	4967.9	5281.2	5751.6	5820.3	6195.3	6711.3	7103.8	7515.6	6821.1
60°	5874.6	5470.2	5293.7	5591.9	6353.8	6432.4	6799.3	7242.9	7664.1	7808.2	6790.5
62.5°	6227.1	5789.7	5630.0	5998.1	7021.4	7216.1	7486.9	7769.5	8130.2	7879.3	6420.5
65°	6619.6	6181.5	6081.1	6633.3	7926.8	8120.2	8474.0	8389.1	8289.9	7627.3	5808.4
67.5°	7035.1	6590.2	6609.0	7370.2	8994.3	9027.4	9570.9	9006.8	8102.1	6959.6	4780.8
70°	7258.5	6803.0	6995.8	8155.7	10080.7	10033.2	10144.3	9172.8	7336.5	5501.4	3295.1
72.5°	6987.7	6581.5	6934.7	8486.4	10633.5	10582.3	9822.3	8187.6	5736.0	3421.2	1708.4
75°	5916.4	5524.5	6064.9	7564.9	9572.8	9620.2	8359.2	6088.6	3283.9	1375.8	709.4
77.5°	4020.2	3818.0	4281.0	5638.7	7110.6	7274.7	6202.1	3560.3	1378.9	569.7	429.3
80°	2124.6	2028.5	2370.4	3248.3	4502.5	4624.8	3647.0	1773.3	706.3	368.8	306.4
82.5°	1154.3	1113.8	1297.2	1670.3	2558.2	2664.9	1891.2	1178.0	476.1	230.9	187.2
85°	775.6	760.0	881.7	897.3	1209.9	1244.8	990.8	907.2	285.8	112.9	123.5
87.5°	388.1	372.5	464.2	409.9	461.7	462.4	454.2	579.0	72.4	37.4	22.5
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°	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8
2.5°	1019.5	997.7	922.2	921.6	932.8	925.3	930.9	900.4	887.3	947.2	944.0
5°	1267.3	1201.7	1138.7	1116.9	1091.3	1035.8	1038.9	1039.5	1030.2	1065.7	1068.2
7.5°	1412.6	1334.0	1276.0	1159.9	1068.8	997.7	1007.1	1017.7	1007.1	1054.5	1072.0
10°	1433.9	1371.5	1302.2	1173.0	1112.5	1048.2	983.4	926.0	919.1	897.3	904.1
12.5°	1559.9	1508.1	1363.3	1221.7	1151.2	1052.6	934.1	868.5	813.6	823.0	805.5
15°	1663.5	1626.7	1453.2	1267.9	1099.4	977.1	851.1	761.2	711.9	706.3	688.8
17.5°	1803.9	1751.4	1461.3	1236.1	1032.6	886.0	743.8	642.1	620.8	612.1	603.4
20°	1871.2	1777.0	1432.0	1136.2	954.7	777.5	637.7	550.3	544.1	559.7	556.6
22.5°	1929.9	1798.2	1405.8	1075.7	833.0	667.6	565.3	507.9	501.0	521.0	524.7
25°	1964.2	1858.8	1377.1	1013.9	757.5	585.9	511.0	478.6	479.8	506.0	502.9
27.5°	2119.0	1880.0	1304.7	940.9	670.8	525.4	484.8	468.0	461.1	497.3	500.4
30°	2216.3	2018.5	1288.5	863.6	606.5	481.1	461.1	454.2	453.0	496.7	499.8
32.5°	2397.2	2064.7	1296.0	779.3	548.5	467.3	443.6	443.0	455.5	497.3	502.3
35°	2648.1	2259.3	1259.8	731.3	516.6	446.1	429.9	434.9	456.1	501.7	508.5
37.5°	3137.3	2442.8	1271.0	686.4	506.0	439.3	426.2	429.3	463.6	512.9	531.6
40°	3524.7	2775.4	1253.5	663.9	491.7	438.0	418.1	430.5	463.0	519.1	536.0
42.5°	4086.3	3040.5	1255.4	641.4	491.1	433.0	416.8	431.8	461.7	513.5	536.6
45°	4568.0	3278.3	1282.2	628.3	484.8	441.1	414.9	433.7	453.6	493.6	519.1
47.5°	4963.0	3543.5	1309.7	615.8	482.3	448.6	413.1	420.5	439.9	471.1	494.2
50°	5284.9	3730.0	1344.6	613.4	482.3	444.9	408.1	407.4	423.7	448.6	470.5
52.5°	5535.8	3861.7	1368.3	616.5	482.3	430.5	401.8	396.8	406.8	424.9	446.8
55°	5717.3	3902.2	1349.0	624.6	481.7	417.4	390.6	386.2	391.2	403.7	424.3
57.5°	5790.3	3795.5	1233.6	610.2	481.7	408.1	376.9	371.9	376.9	386.2	406.8
60°	5607.5	3452.4	1067.0	573.4	472.3	395.6	361.3	358.2	365.6	373.8	393.7
62.5°	5148.9	2996.2	889.1	529.7	453.0	385.0	346.3	346.9	358.8	370.0	390.0
65°	4436.3	2444.7	741.3	485.4	428.7	368.1	330.7	335.1	351.9	366.9	386.9
67.5°	3491.0	1811.3	624.0	442.4	394.3	340.7	313.2	314.5	326.3	340.7	360.0
70°	2333.6	1152.4	512.9	391.8	349.4	305.1	286.4	282.0	278.9	291.4	308.2
72.5°	1183.6	680.7	421.2	335.1	300.7	266.4	252.1	240.8	232.1	239.6	252.7
75°	620.2	476.1	340.1	278.3	248.3	226.5	215.9	200.9	194.7	199.0	208.4
77.5°	438.6	372.5	275.2	220.3	202.2	179.7	181.6	166.0	161.0	163.5	173.5
80°	336.9	295.1	211.5	166.6	156.0	134.2	140.4	131.0	124.8	123.5	131.0
82.5°	229.6	222.1	150.4	116.7	109.2	93.6	102.3	98.6	90.5	85.5	89.2
85°	154.7	147.3	91.7	67.4	64.3	48.7	62.4	59.9	53.0	45.5	46.2
87.5°	26.8	49.3	26.2	16.8	15.6	5.6	14.4	13.7	12.5	6.2	5.0
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)