

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: P597131

Luminaire Tested: **MSA-SA4B-835-U-T4FT-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4B-835-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11994 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

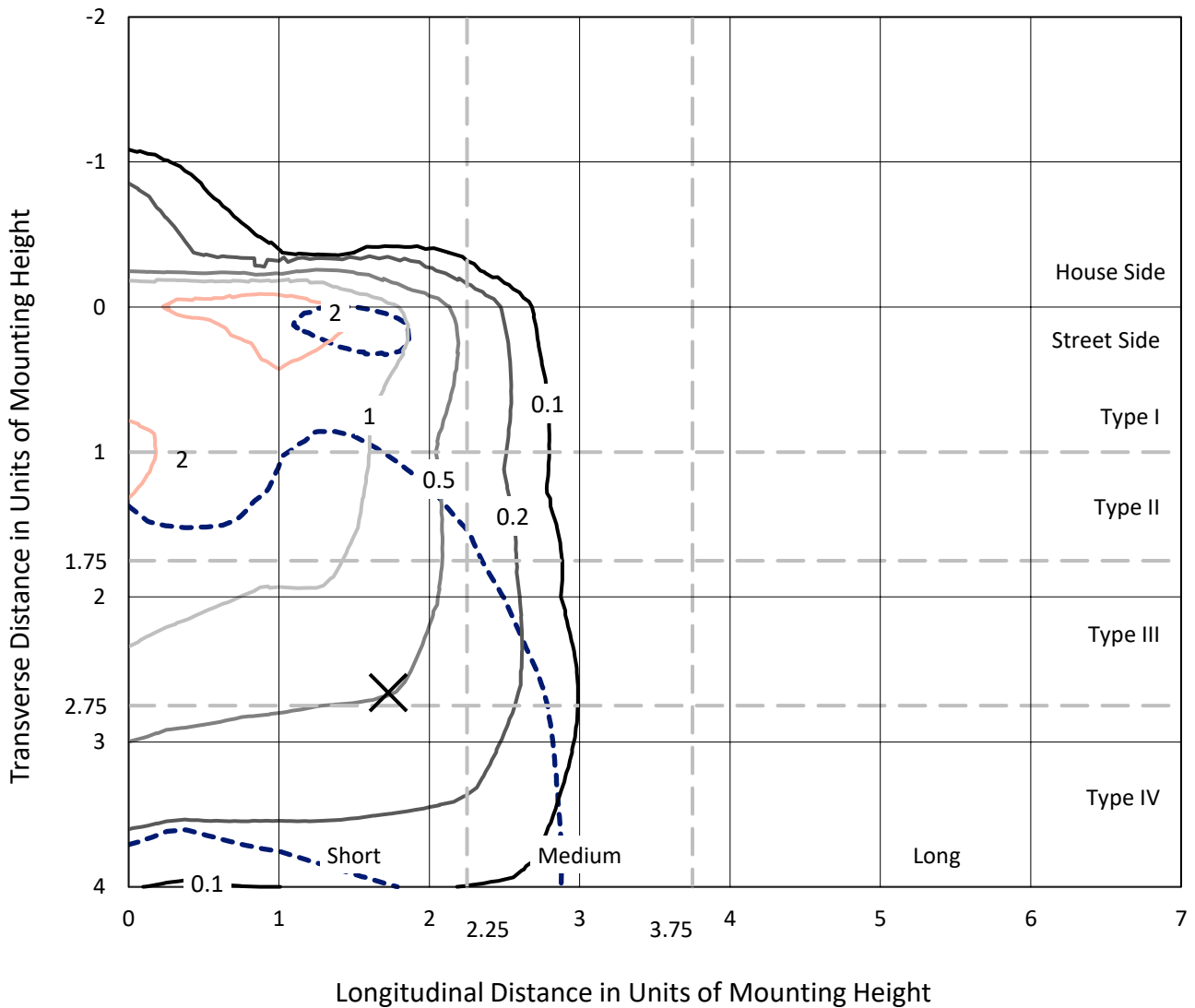
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

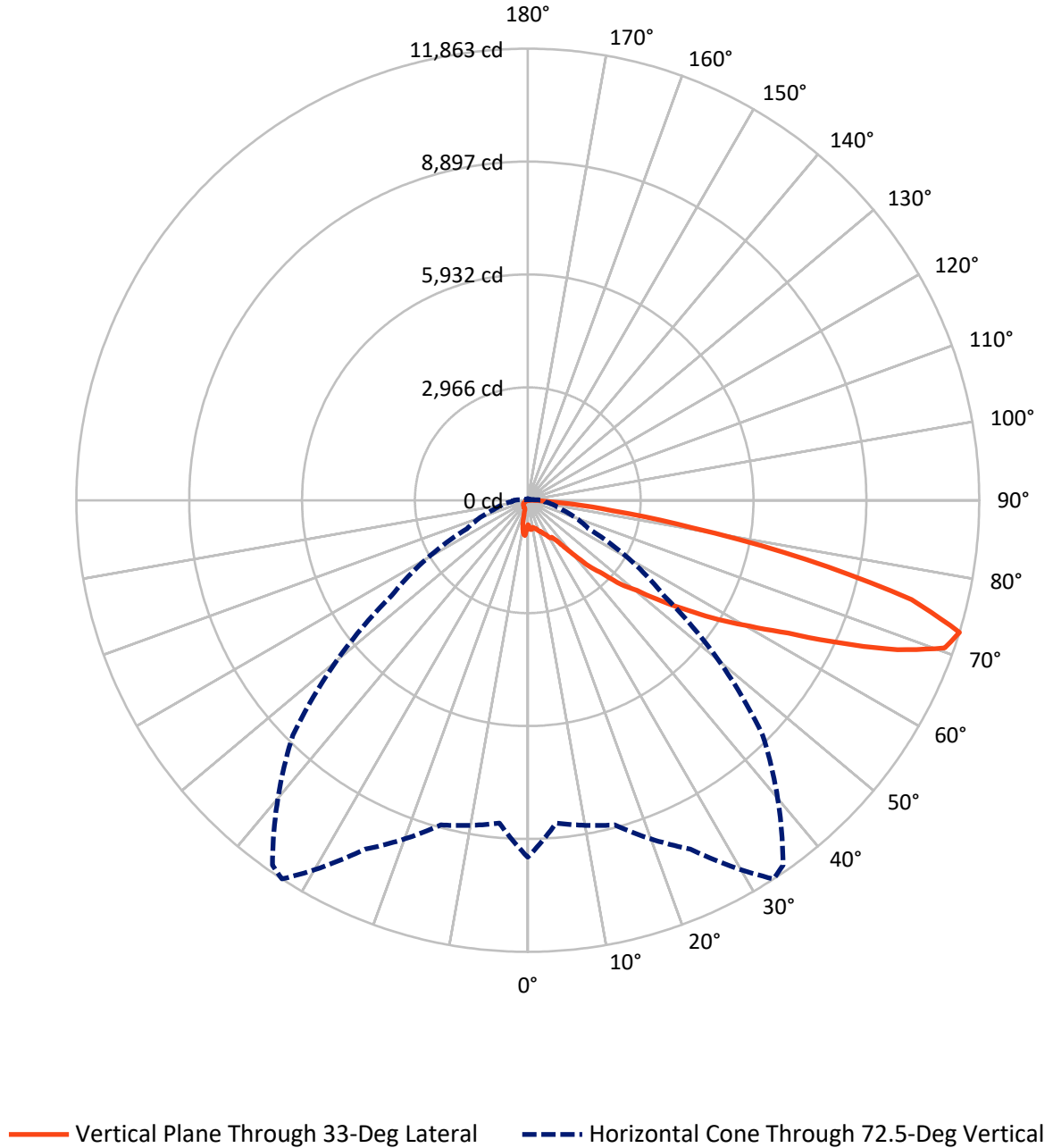
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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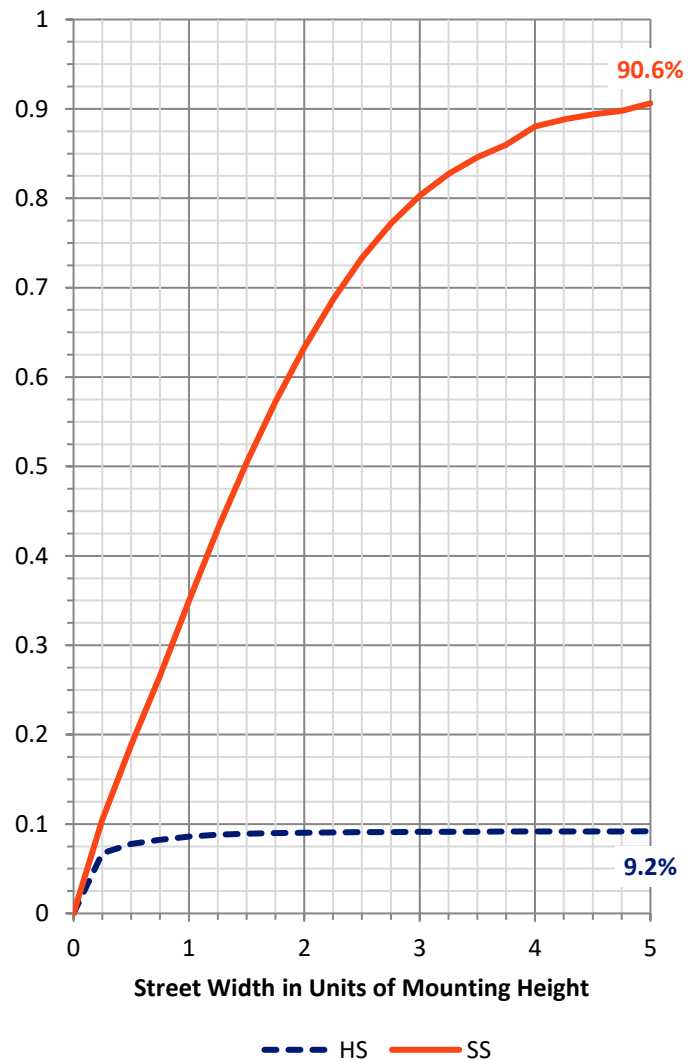
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1109.0	0.0	1109.0
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	10885.0	0.0	10885.0
	% Fixture	90.8	0.0	90.8
Total	Lumens	11994.0	0.0	11994.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	0.7
10°-20°	246.0	2.1
20°-30°	417.3	3.5
30°-40°	763.6	6.4
40°-50°	1611.7	13.4
50°-60°	2696.5	22.5
60°-70°	3609.5	30.1
70°-80°	2357.7	19.7
80°-90°	209.0	1.7
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°	11994.0	100.0
0°-180°	11994.0	100.0

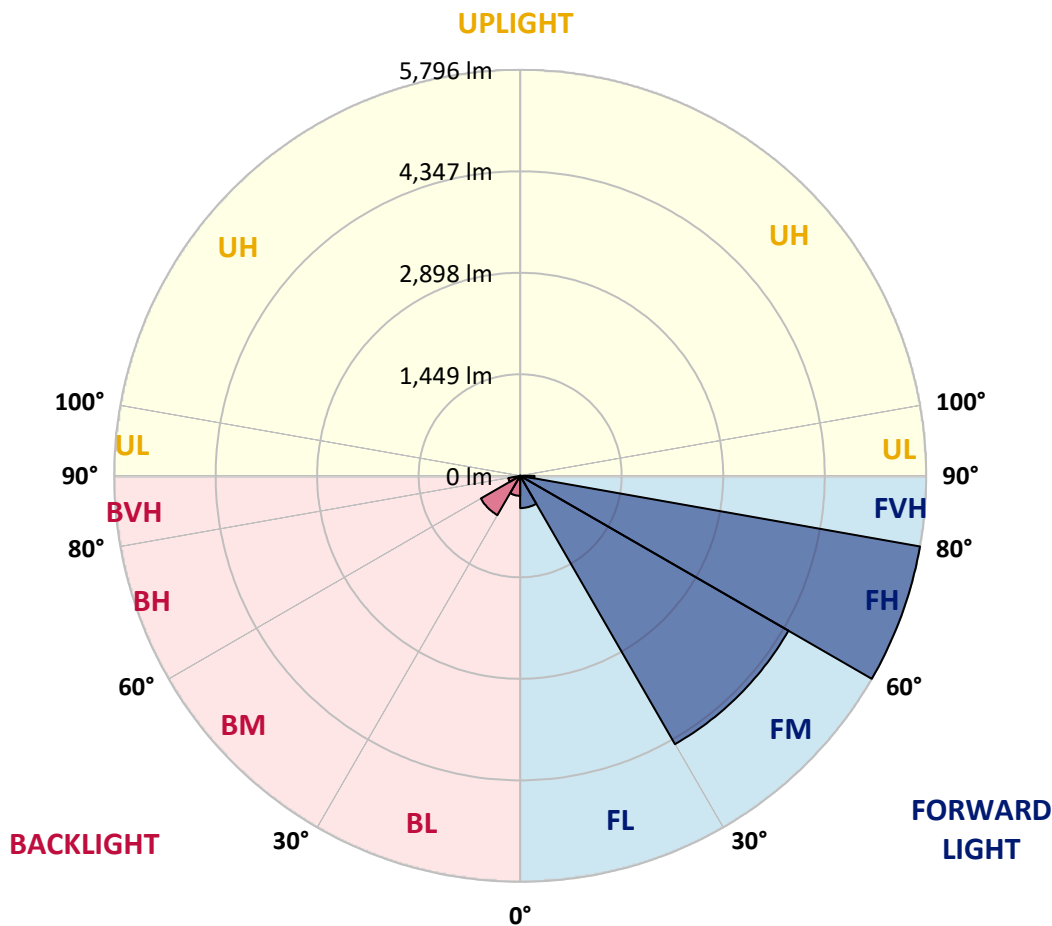


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	460.4	3.8			
FM (30°-60°)	4423.6	36.9			
FH (60°-80°)	5796.0	48.3			G3/7500
FVH (80°-90°)	205.0	1.7			G2/225
BL (0°-30°)	285.4	2.4	B1/500		
BM (30°-60°)	648.4	5.4	B1/1000		
BH (60°-80°)	171.2	1.4	B1/500		G1/500
BVH (80°-90°)	4.0	0.0			G0/10
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9
2.5°	760.5	731.2	688.6	691.2	698.5	704.5	720.5	713.9	701.2	700.5	760.5
5°	805.8	773.1	770.5	774.5	772.5	783.1	769.8	813.1	849.7	893.7	964.2
7.5°	783.8	768.5	749.1	769.1	768.5	763.1	771.8	859.7	948.3	1004.2	1120.7
10°	720.5	703.2	717.9	724.5	719.8	743.2	801.1	873.0	978.9	1096.1	1152.7
12.5°	702.5	713.2	718.5	718.5	763.1	775.1	863.7	931.6	1057.5	1150.0	1314.5
15°	772.5	793.1	756.5	748.5	762.5	769.1	867.7	949.6	1110.7	1279.9	1417.7
17.5°	883.7	882.3	825.7	794.4	816.4	832.4	887.0	982.9	1077.4	1381.8	1581.5
20°	960.2	961.6	859.7	794.4	867.0	876.3	936.9	1013.5	1088.1	1433.0	1688.7
22.5°	1058.8	1023.5	911.0	847.7	897.0	905.6	972.2	1032.8	1142.7	1427.0	1825.9
25°	1139.4	1116.7	974.9	930.9	974.9	962.9	1023.5	1114.7	1201.3	1522.3	1906.5
27.5°	1264.6	1225.9	1020.2	1028.2	1025.5	1034.2	1048.1	1188.0	1304.5	1526.9	2093.0
30°	1381.1	1358.5	1121.4	1121.4	1147.4	1130.7	1140.7	1309.8	1404.4	1634.8	2302.7
32.5°	1501.6	1503.0	1240.6	1177.3	1156.7	1225.3	1292.5	1369.1	1524.9	1819.9	2623.7
35°	1820.6	1794.0	1469.0	1311.2	1294.5	1290.5	1398.4	1605.5	1738.7	2061.0	3055.9
37.5°	2463.2	2370.6	1960.4	1614.8	1552.2	1530.9	1653.5	1865.9	1998.4	2415.3	3770.4
40°	3122.5	2952.6	2497.2	2107.6	1904.5	1812.6	1955.1	2135.6	2371.3	2806.8	4431.6
42.5°	3701.1	3491.4	2901.4	2639.0	2374.6	2334.7	2200.8	2494.5	2904.0	3376.8	5079.6
45°	4265.2	3852.3	3261.0	3053.2	2732.2	2754.9	2709.6	2964.0	3457.4	4001.5	5654.2
47.5°	4653.4	4282.5	3701.8	3432.1	3303.6	3171.1	3530.7	3795.0	3950.2	4398.3	6151.0
50°	5071.6	4696.0	4080.7	3892.2	3723.1	3856.9	4323.8	4359.0	4346.4	4768.6	6489.3
52.5°	5611.6	5168.8	4515.5	4302.4	4398.3	4531.5	5070.2	5076.9	4698.7	5080.2	6733.0
55°	6111.1	5620.3	5094.9	4893.8	5094.2	5206.7	5804.1	5585.0	4903.8	5292.0	6852.9
57.5°	6814.9	6246.9	5865.3	5511.1	5917.3	5809.4	6449.3	6123.7	5134.2	5432.5	6808.9
60°	7704.6	7036.0	6653.8	6278.9	6714.4	6787.6	7079.3	6392.7	5223.4	5478.4	6544.6
62.5°	8609.5	7937.0	7434.2	7179.8	7673.9	7915.0	7662.6	6526.6	5116.2	5388.5	5945.9
65°	9732.3	8871.2	8283.9	8134.8	9050.4	9404.6	8352.5	6559.2	4909.1	4893.8	4780.6
67.5°	10501.4	9663.0	9124.3	9374.0	10480.1	10508.7	8971.8	6569.2	4211.9	3831.6	3137.8
70°	10683.9	9786.2	9545.1	10280.3	11620.8	11260.5	9171.6	6063.1	3123.8	2274.1	1434.4
72.5°	9378.7	8514.3	8828.0	10109.2	11863.2	11698.0	8730.1	4374.4	1758.7	909.6	440.2
75°	5752.8	5230.1	6622.5	8570.9	10413.5	10307.0	6810.9	2260.1	708.5	363.6	164.5
77.5°	2501.8	2323.4	3456.1	5686.9	7482.8	7387.6	3990.8	832.4	366.3	255.7	83.2
80°	827.7	803.1	1309.2	2692.9	4383.0	4299.1	1681.4	346.3	261.0	205.1	46.6
82.5°	196.4	195.1	456.8	1239.3	2232.8	2162.9	516.1	191.1	189.1	161.8	24.6
85°	49.3	50.6	126.5	506.8	907.0	799.8	134.5	95.2	133.2	109.9	12.7
87.5°	0.0	0.0	32.6	72.6	137.2	85.9	14.7	25.3	37.3	39.3	6.7
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°	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9	637.9
2.5°	773.8	766.5	706.5	721.2	743.8	741.8	756.5	745.2	735.2	784.4	779.8
5°	984.2	944.3	925.6	951.6	937.6	905.0	932.3	927.6	919.6	936.3	948.9
7.5°	1142.0	1105.4	1088.8	1034.2	954.9	892.3	902.3	879.0	857.0	883.0	909.6
10°	1194.0	1174.0	1172.0	1065.5	990.9	900.3	793.1	700.5	675.9	643.3	657.9
12.5°	1335.1	1347.1	1271.9	1147.4	1003.5	829.7	639.3	508.1	454.8	420.2	422.2
15°	1451.0	1493.0	1383.8	1160.0	883.0	632.6	425.5	307.7	274.4	265.7	263.0
17.5°	1623.5	1664.1	1418.4	1070.1	711.9	428.8	273.7	239.7	241.7	247.7	246.4
20°	1751.3	1745.3	1388.4	911.0	524.7	281.0	229.1	224.4	235.1	252.4	248.4
22.5°	1874.5	1833.2	1369.8	763.8	339.6	225.7	221.1	220.4	230.4	247.1	251.7
25°	1962.4	1969.1	1338.5	598.0	247.1	209.8	213.8	219.8	229.7	247.7	245.1
27.5°	2214.1	2027.7	1208.0	434.2	208.4	201.1	211.1	223.1	226.4	249.1	249.7
30°	2377.3	2248.8	1122.7	292.3	192.4	185.8	205.8	221.7	225.7	255.0	257.0
32.5°	2661.6	2344.0	1024.2	217.1	179.1	181.1	193.8	215.1	233.7	265.0	266.4
35°	3015.2	2649.7	845.7	195.1	174.5	171.1	177.1	201.8	232.4	266.4	273.0
37.5°	3688.5	2832.8	670.6	189.1	174.5	168.5	174.5	189.1	228.4	279.7	293.7
40°	4139.3	3205.7	483.5	187.8	171.1	165.8	167.8	182.5	217.1	271.7	292.3
42.5°	4694.7	3362.8	356.3	184.5	167.8	159.8	161.2	179.8	205.8	255.0	270.4
45°	5149.5	3477.4	280.3	183.1	159.8	157.2	159.8	177.8	195.1	219.1	233.1
47.5°	5495.1	3610.6	225.1	174.5	157.8	157.2	153.8	166.5	177.1	183.1	192.4
50°	5748.1	3580.6	186.5	161.2	151.2	155.2	149.2	151.2	153.8	150.5	161.2
52.5°	5903.3	3472.7	155.2	145.2	143.2	146.5	139.2	133.2	128.5	125.9	132.5
55°	5959.9	3256.3	131.9	124.5	129.2	130.5	124.5	113.9	105.9	101.9	107.2
57.5°	5852.7	2926.7	114.5	103.2	113.9	113.9	105.9	94.6	85.2	78.6	83.9
60°	5581.0	2562.4	101.9	85.9	97.2	97.9	88.6	76.6	69.3	62.6	65.9
62.5°	5074.9	2165.5	89.2	74.6	83.9	84.6	73.3	61.9	56.6	49.3	51.9
65°	4062.7	1656.1	75.9	65.9	72.6	70.6	60.6	52.6	45.9	39.3	40.6
67.5°	2637.0	1022.2	65.9	59.9	61.3	59.3	51.3	45.9	38.6	33.3	34.0
70°	1180.7	440.2	57.9	53.9	53.3	49.9	43.3	42.6	38.0	33.3	33.3
72.5°	364.3	165.8	49.9	48.6	45.9	42.0	38.0	40.6	37.3	32.0	31.3
75°	143.8	75.9	41.3	41.3	40.0	34.6	34.0	36.6	34.6	29.3	28.0
77.5°	75.2	47.9	34.0	35.3	34.6	26.6	30.6	33.3	32.0	24.6	20.6
80°	44.6	29.3	25.3	28.6	28.0	18.6	23.3	21.3	15.3	7.3	2.0
82.5°	24.6	13.3	11.3	16.6	16.6	6.7	12.0	10.7	6.0	0.0	0.0
85°	12.0	9.3	8.7	9.3	6.7	2.0	6.0	6.0	3.3	0.0	0.0
87.5°	6.0	5.3	4.0	3.3	2.7	0.0	2.0	2.7	0.0	0.0	0.0
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)