

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: P597151

Luminaire Tested: **MSA-SA4C-835-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597151
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-835-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14649 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

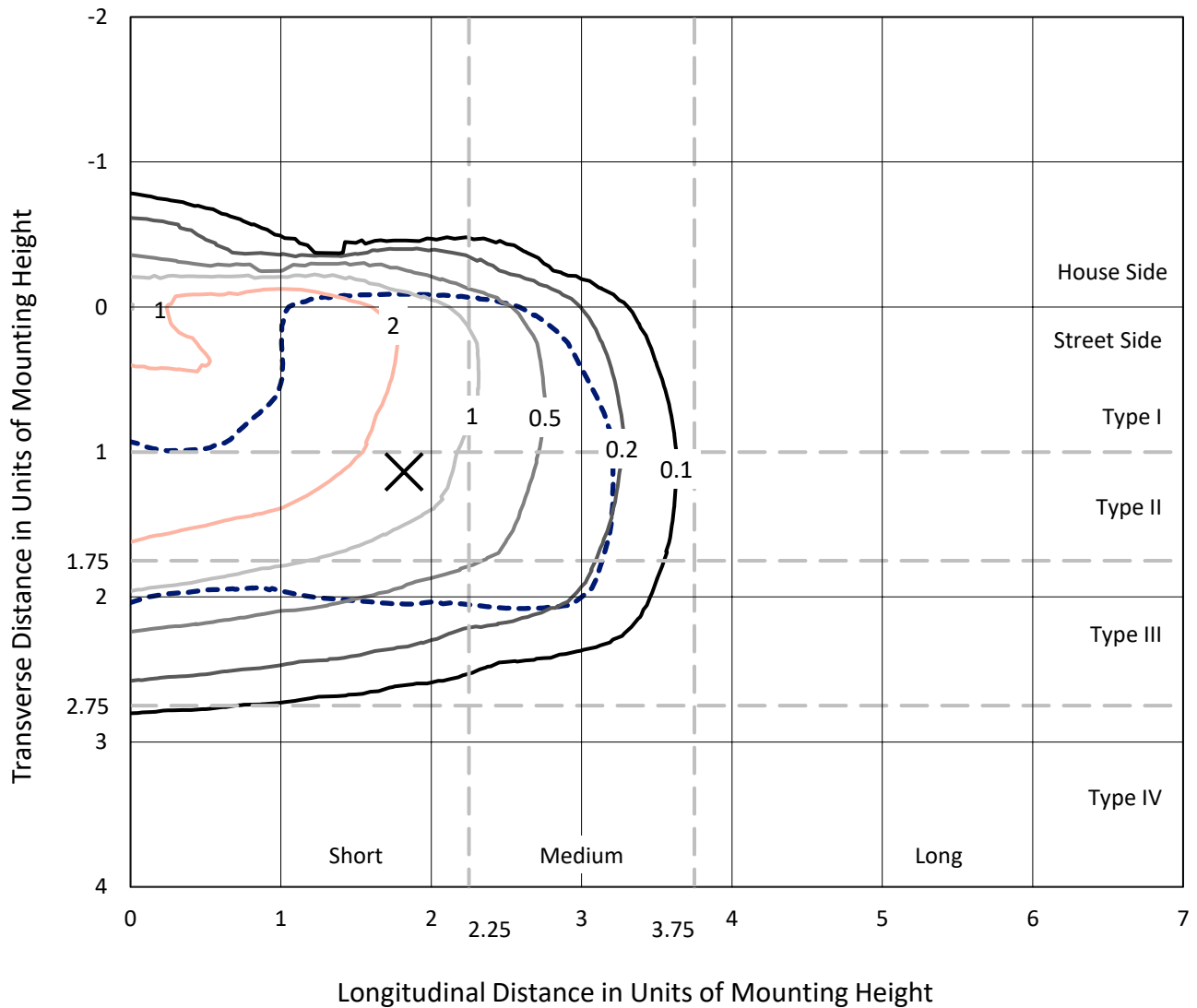
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

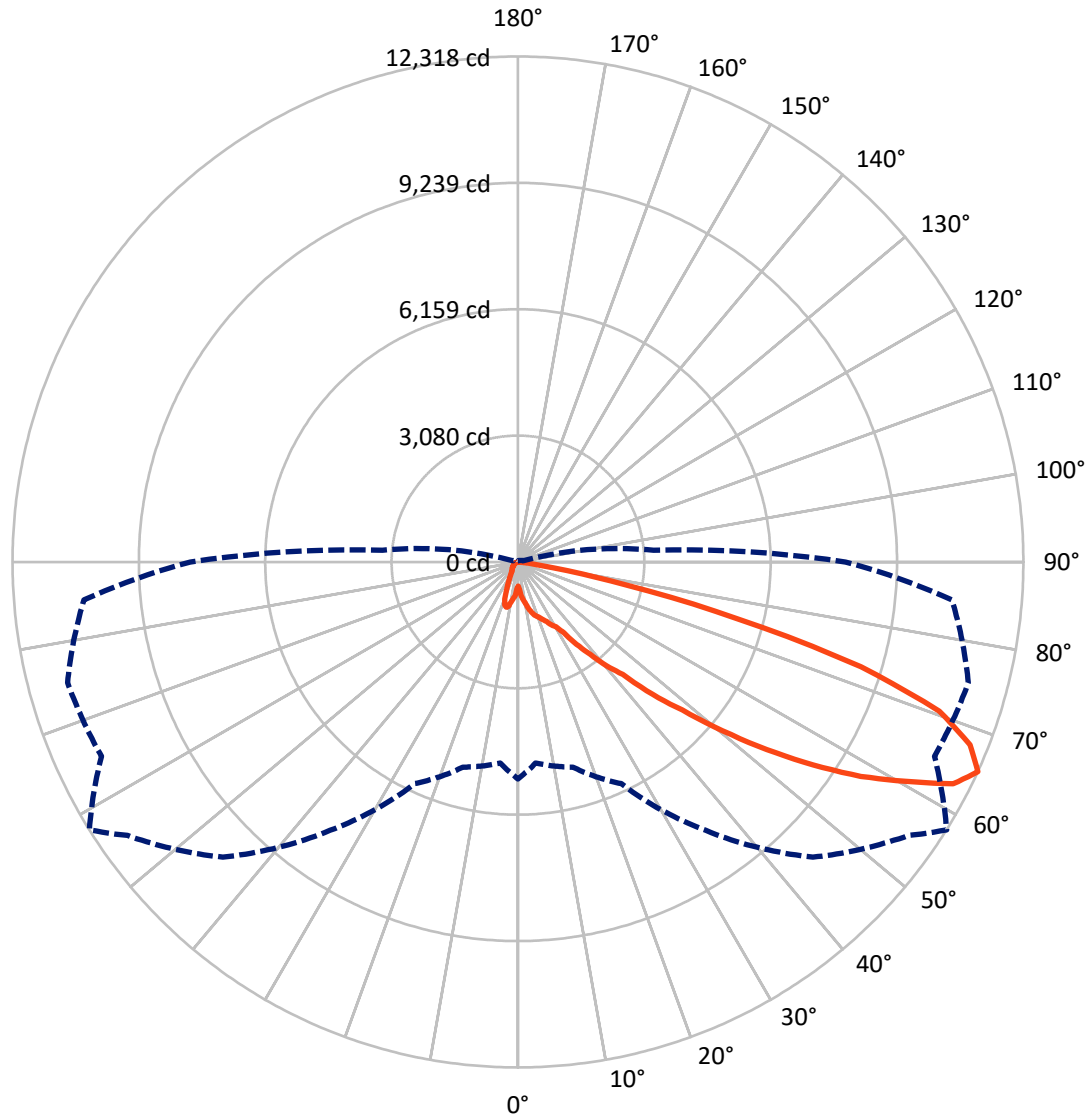
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 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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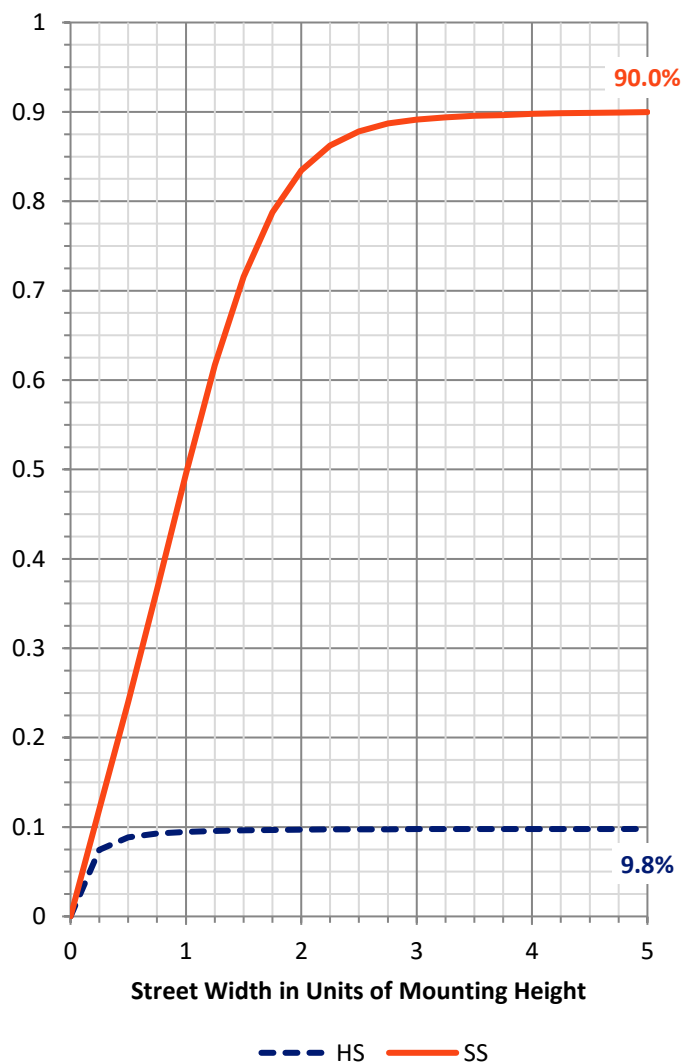
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1445.5	0.0	1445.5
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	13203.5	0.0	13203.5
	% Fixture	90.1	0.0	90.1
Total	Lumens	14649.0	0.0	14649.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	0.6
10°-20°	300.7	2.1
20°-30°	582.1	4.0
30°-40°	1161.3	7.9
40°-50°	2374.1	16.2
50°-60°	4210.9	28.7
60°-70°	4439.4	30.3
70°-80°	1439.3	9.8
80°-90°	58.8	0.4
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°	14649.0	100.0
0°-180°	14649.0	100.0

Coefficient of Utilization



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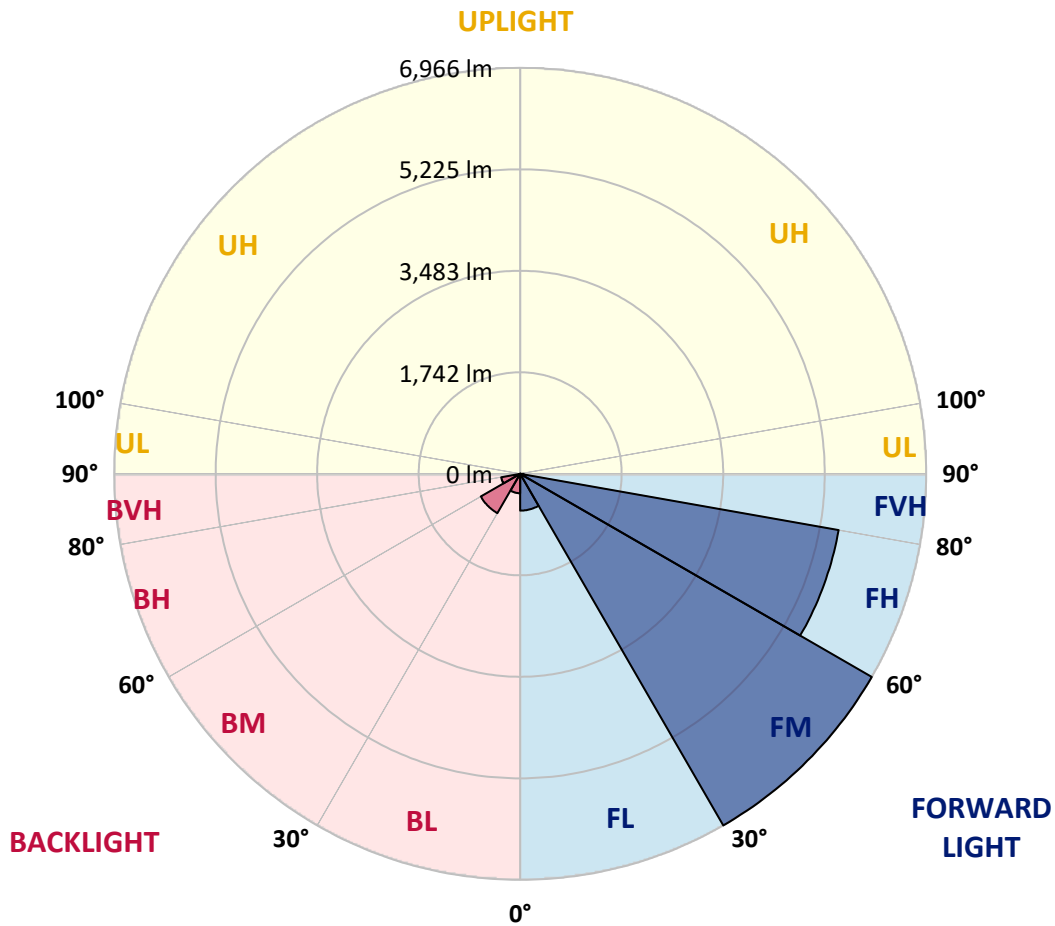
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	632.0	4.3			
FM (30°-60°)	6966.4	47.6			
FH (60°-80°)	5548.8	37.9			G3/7500
FVH (80°-90°)	56.4	0.4			G1/100
BL (0°-30°)	333.2	2.3	B1/500		
BM (30°-60°)	779.9	5.3	B1/1000		
BH (60°-80°)	329.9	2.3	B1/500		G1/500
BVH (80°-90°)	2.5	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4
2.5°	715.9	694.5	660.7	666.4	673.0	686.2	675.5	665.6	654.9	640.9	694.5
5°	864.4	828.9	825.6	818.2	812.4	811.6	824.8	820.7	826.4	852.8	880.0
7.5°	918.8	904.0	875.9	887.5	869.3	855.3	913.9	932.8	969.1	981.5	1052.4
10°	913.0	891.6	903.1	908.9	921.3	972.4	1009.5	1030.2	1061.5	1129.1	1115.1
12.5°	939.4	958.4	970.8	971.6	1035.1	1129.1	1155.5	1172.8	1228.9	1255.3	1324.6
15°	1027.7	1059.0	1039.2	1047.5	1068.1	1182.7	1244.6	1282.5	1361.7	1447.5	1464.8
17.5°	1153.9	1173.7	1132.4	1102.7	1159.6	1222.3	1334.5	1374.1	1424.4	1624.8	1661.9
20°	1313.1	1346.9	1257.8	1139.9	1214.9	1289.1	1411.2	1430.2	1483.8	1745.2	1803.8
22.5°	1685.0	1634.7	1498.6	1314.7	1292.4	1325.4	1441.7	1516.0	1606.7	1812.9	1949.0
25°	2052.1	2034.7	1834.3	1629.0	1480.5	1406.3	1560.5	1601.7	1750.2	1973.7	2048.8
27.5°	2460.3	2495.0	2160.1	2035.6	1744.4	1501.9	1634.7	1737.8	1913.5	2032.3	2212.9
30°	2998.9	2943.7	2551.1	2426.5	2094.1	1765.0	1826.9	1833.5	2091.7	2225.3	2396.8
32.5°	3421.2	3456.7	2963.5	2772.1	2506.5	2170.0	1971.2	2057.0	2241.8	2539.5	2702.0
35°	3878.1	3874.8	3394.0	3136.7	2789.4	2500.7	2399.3	2462.0	2693.7	3031.1	3074.0
37.5°	4561.1	4502.5	3935.0	3558.1	3262.8	3016.2	2938.7	2855.4	3094.6	3416.3	3577.1
40°	5205.2	5003.1	4478.6	4031.5	3653.8	3553.2	3272.7	3323.9	3394.8	3819.6	4264.1
42.5°	5856.0	5730.6	5029.5	4655.1	4190.7	3951.5	3768.4	3744.5	4081.9	4585.0	5044.4
45°	6714.6	6331.1	5770.2	5441.1	4903.3	4663.3	4515.7	4604.0	4907.5	5642.4	5948.3
47.5°	7435.4	7082.4	6600.8	6100.9	5536.8	5806.5	5529.4	5390.0	5806.5	6566.1	6972.7
50°	8054.9	7661.4	7174.0	6803.7	6712.1	6971.1	6410.2	6461.4	6731.9	7624.3	7853.6
52.5°	8505.2	8091.1	7665.6	7486.6	7861.9	7992.2	7710.9	7597.9	7843.7	8526.6	8638.0
55°	8844.2	8420.2	8087.8	8334.5	9060.3	9017.4	9116.3	8730.3	8965.4	9467.7	9414.9
57.5°	8864.8	8362.5	8167.8	8564.6	9560.9	10224.9	10514.4	9857.8	9991.4	10203.4	10084.6
60°	8216.5	7716.7	7701.0	8264.3	9706.1	10537.5	11170.9	10850.9	10671.9	10829.4	10604.3
62.5°	6924.9	6575.2	6738.5	7361.2	9165.8	10365.1	11520.6	11905.8	11208.8	11244.3	10924.3
65°	5287.7	4920.7	5176.4	5960.7	7984.7	10172.1	11619.6	12318.2	11198.9	11362.2	10617.5
67.5°	3502.0	3289.2	3578.7	4443.1	6348.4	8979.4	11568.4	11885.2	10843.4	10901.2	9478.4
70°	1807.9	1756.0	1990.2	2672.3	4268.3	6898.5	11066.1	10892.9	10121.8	9391.0	7310.9
72.5°	579.0	581.5	806.6	1220.7	2301.2	4199.8	8506.0	8743.5	8099.4	6869.6	4463.7
75°	256.5	252.4	337.3	512.2	959.2	1883.0	5284.4	5540.9	5042.7	3779.2	1876.4
77.5°	184.8	179.0	216.1	299.4	475.1	638.4	2477.7	2674.0	2286.3	1309.8	429.7
80°	130.3	129.5	156.7	210.3	296.9	283.7	782.7	877.6	702.7	317.5	126.2
82.5°	73.4	75.9	108.9	148.5	180.6	141.9	220.2	242.5	236.7	169.1	55.3
85°	35.5	39.6	70.9	107.2	94.9	55.3	78.4	85.0	99.0	98.1	28.0
87.5°	0.0	0.0	28.9	48.7	25.6	8.2	23.9	27.2	26.4	31.3	6.6
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°	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4	586.4
2.5°	705.2	700.2	637.6	642.5	656.5	650.8	655.7	644.2	631.0	684.6	683.7
5°	891.6	854.5	834.7	816.5	819.8	782.7	804.2	814.1	812.4	842.9	851.2
7.5°	1054.9	1005.4	965.8	927.9	870.1	818.2	850.4	871.0	885.0	937.8	958.4
10°	1131.6	1091.2	1075.5	1001.3	960.0	927.9	889.1	861.1	872.6	858.6	872.6
12.5°	1299.9	1272.6	1212.4	1137.4	1087.9	1021.9	877.6	757.2	682.9	683.7	678.8
15°	1453.3	1451.6	1361.7	1237.2	1093.7	905.6	680.4	528.7	458.6	438.8	432.2
17.5°	1653.7	1629.0	1464.8	1280.9	1022.7	701.1	463.5	362.1	355.5	367.0	362.1
20°	1781.5	1745.2	1516.0	1217.4	842.9	474.3	349.7	320.8	340.6	357.1	353.0
22.5°	1909.4	1854.9	1554.7	1139.9	599.6	347.2	315.9	310.9	323.3	343.9	347.2
25°	1979.5	1968.8	1630.6	994.7	410.7	304.3	304.3	302.7	306.8	321.7	319.2
27.5°	2183.2	2038.0	1573.7	776.1	317.5	279.6	283.7	282.1	267.2	282.1	282.9
30°	2310.2	2243.4	1577.8	552.6	279.6	247.4	258.2	245.0	222.7	235.1	232.6
32.5°	2565.9	2399.3	1565.4	372.8	254.9	235.9	219.4	200.4	183.9	188.9	184.8
35°	2863.7	2736.6	1398.0	299.4	237.5	208.7	182.3	163.3	146.0	150.1	149.3
37.5°	3455.8	3052.5	1259.4	269.7	226.0	191.4	160.8	134.4	125.4	127.8	130.3
40°	4004.3	3579.6	1001.3	256.5	206.2	170.7	132.8	113.8	108.0	109.7	112.2
42.5°	4824.2	3998.6	756.3	243.3	186.4	144.3	110.5	98.1	92.4	95.7	97.3
45°	5617.6	4354.9	565.0	231.8	169.9	124.5	93.2	85.0	78.4	80.8	84.1
47.5°	6410.2	4750.8	421.5	213.6	151.8	107.2	80.0	74.2	70.1	70.9	75.1
50°	7119.5	4935.5	331.6	191.4	136.9	93.2	72.6	66.8	65.2	66.0	69.3
52.5°	7640.8	4937.2	279.6	171.6	122.9	82.5	68.5	61.9	61.0	62.7	66.0
55°	8111.8	4805.2	242.5	154.2	110.5	75.1	65.2	59.4	59.4	61.0	64.3
57.5°	8424.4	4562.7	210.3	136.1	99.8	70.9	62.7	56.9	56.1	55.3	57.7
60°	8576.9	4232.0	178.2	119.6	89.9	68.5	61.0	50.3	49.5	47.8	49.5
62.5°	8480.4	3817.9	149.3	103.1	80.0	65.2	53.6	43.7	42.1	38.8	41.2
65°	7987.2	3314.8	126.2	88.3	69.3	55.3	45.4	37.1	33.0	28.9	28.0
67.5°	6978.5	2692.9	105.6	75.9	59.4	45.4	37.1	33.0	25.6	22.3	21.4
70°	5230.0	1838.4	87.4	65.2	49.5	38.8	31.3	29.7	23.9	21.4	19.8
72.5°	3068.2	992.2	73.4	56.9	42.1	32.2	25.6	27.2	23.9	19.8	18.1
75°	1225.6	329.9	58.6	45.4	33.8	23.1	21.4	22.3	21.4	18.1	14.8
77.5°	279.6	103.9	45.4	35.5	26.4	14.8	17.3	19.0	19.0	14.8	10.7
80°	87.4	41.2	26.4	22.3	19.0	8.2	12.4	13.2	9.1	4.1	0.0
82.5°	28.0	11.5	9.1	9.1	8.2	1.6	2.5	1.6	0.0	0.0	0.0
85°	10.7	7.4	5.8	5.8	3.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.1	3.3	2.5	3.3	1.6	0.0	0.0	0.0	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)