

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: P596921

Luminaire Tested: **MSA-SA2A-835-U-SL3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-835-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5381 lumens
Efficiency: N/A
Efficacy: 81.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

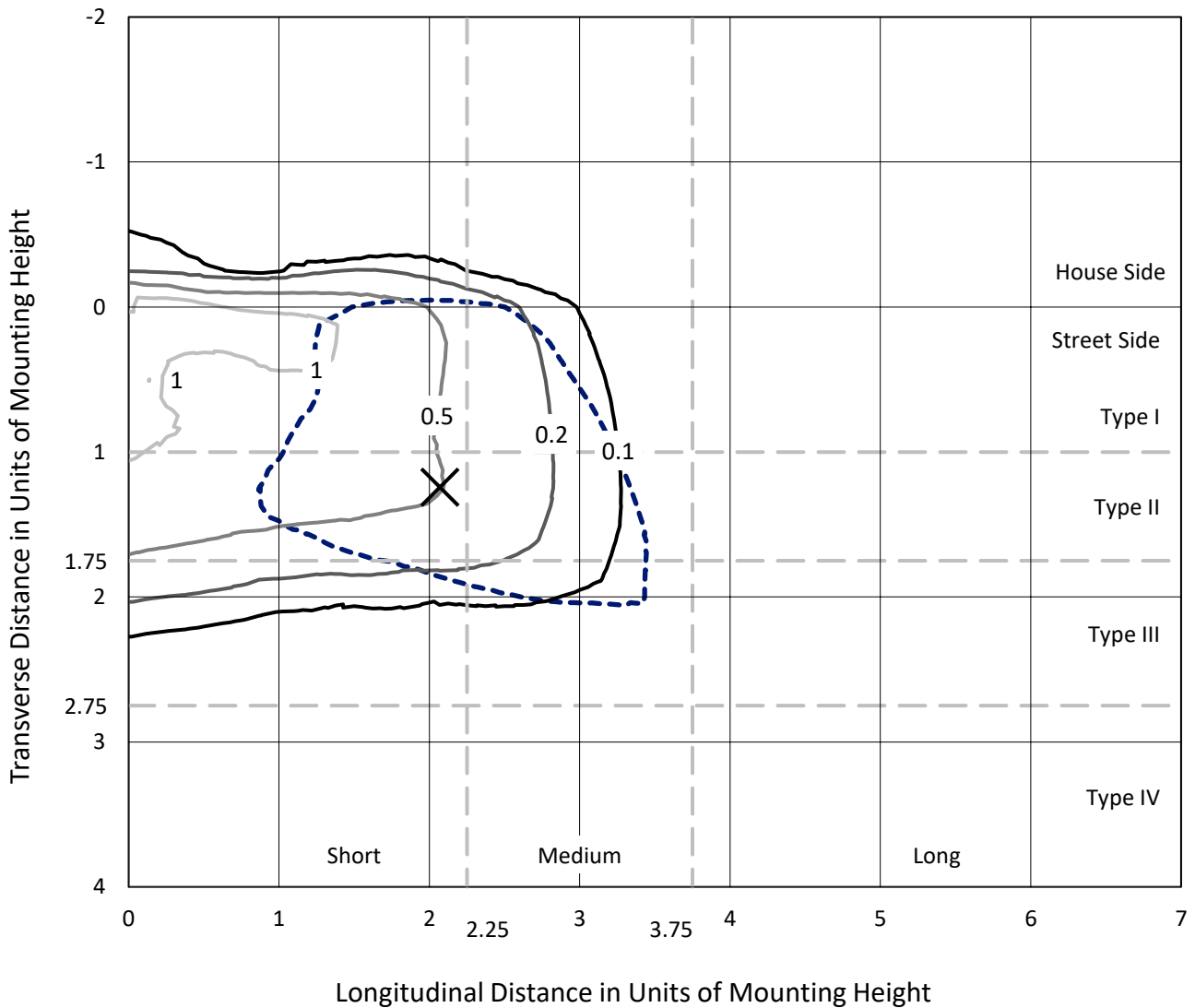
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

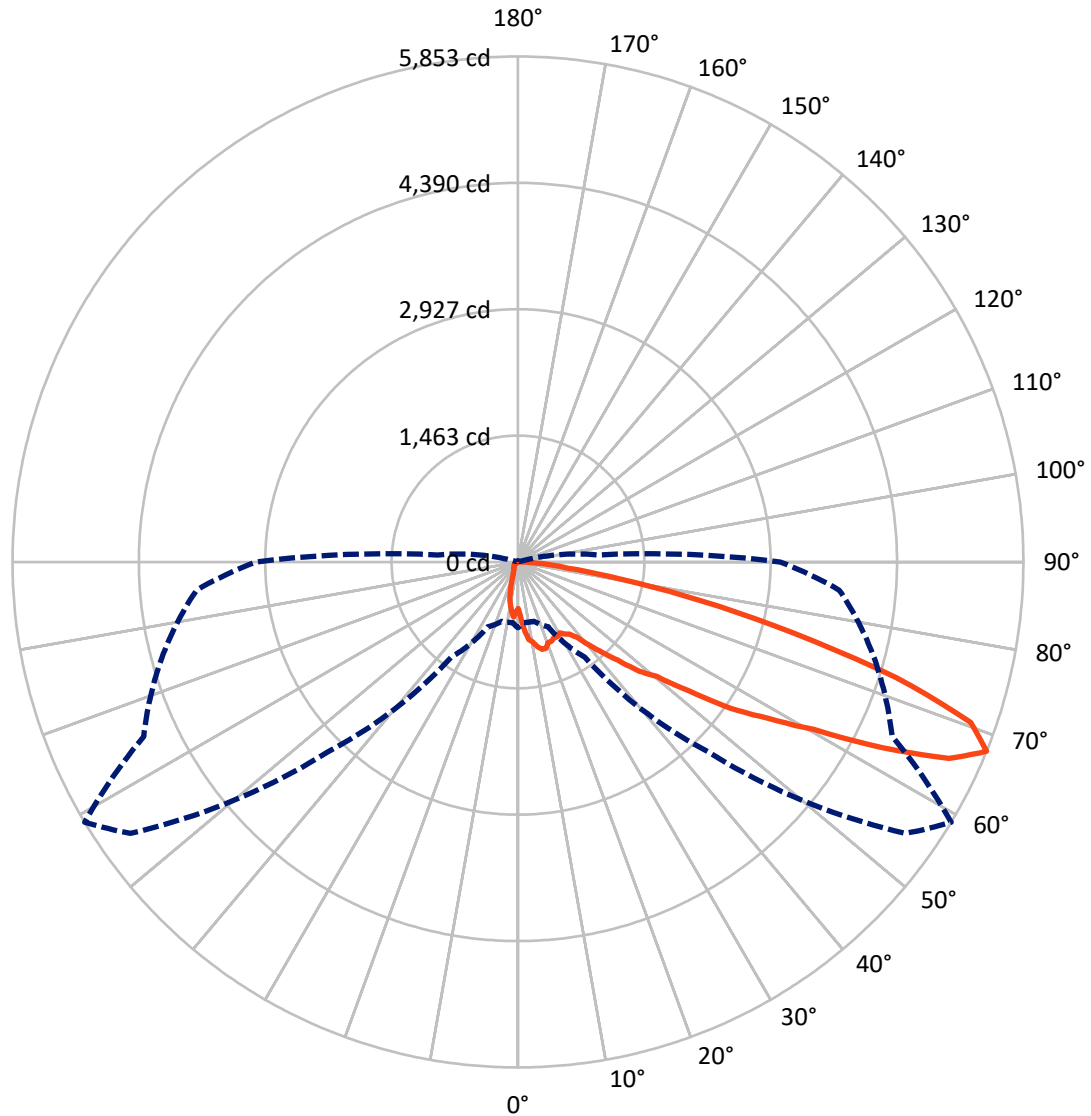
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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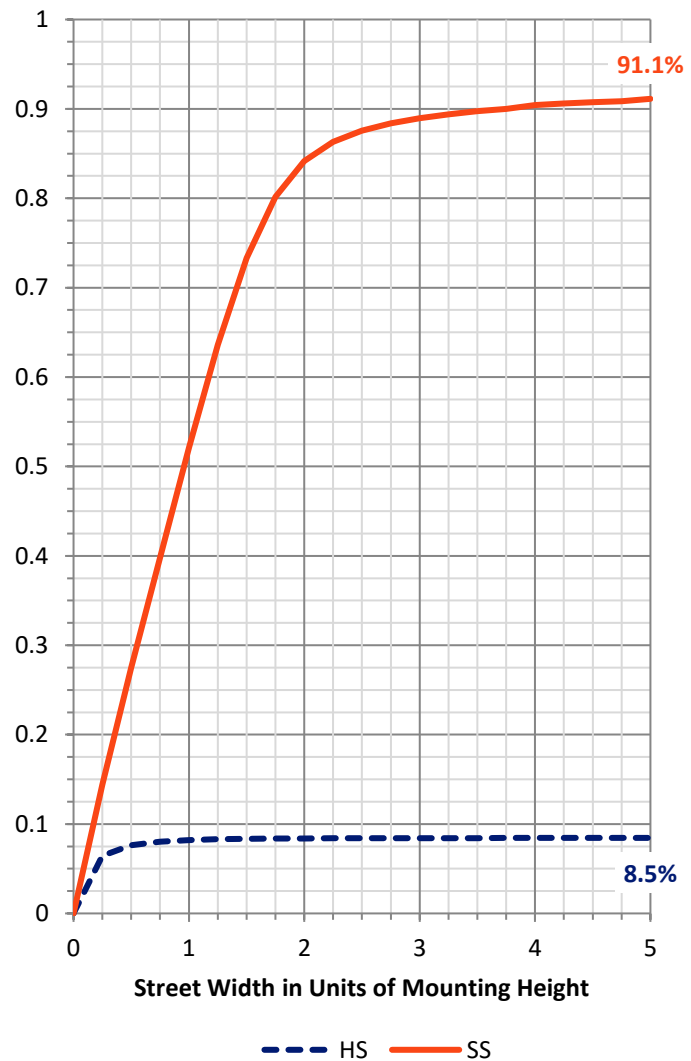
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	457.6	0.0	457.6
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	4923.4	0.0	4923.4
	% Fixture	91.5	0.0	91.5
Total	Lumens	5381.0	0.0	5381.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	1.2
10°-20°	184.3	3.4
20°-30°	274.2	5.1
30°-40°	423.0	7.9
40°-50°	754.9	14.0
50°-60°	1343.3	25.0
60°-70°	1564.5	29.1
70°-80°	695.8	12.9
80°-90°	75.6	1.4
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°	5381.0	100.0
0°-180°	5381.0	100.0



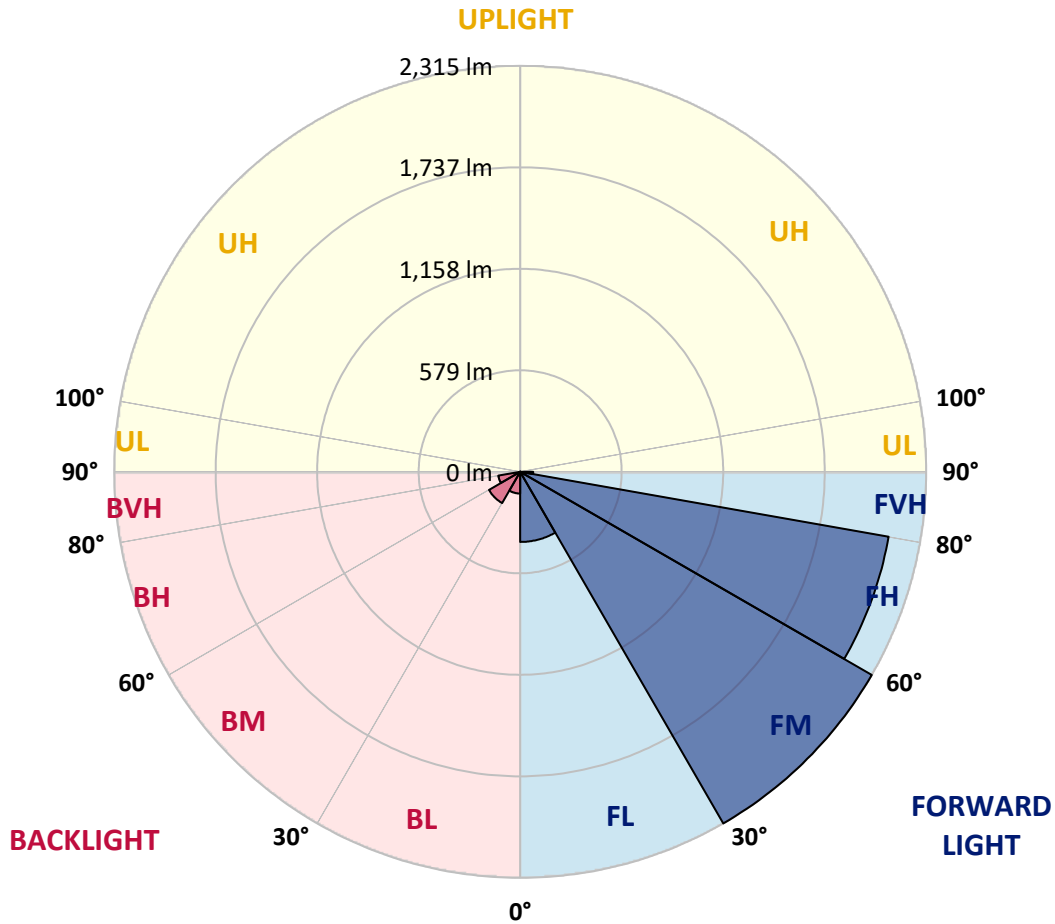
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	400.2	7.4			
FM (30°-60°)	2315.4	43.0			
FH (60°-80°)	2133.5	39.6			G2/5000
FVH (80°-90°)	74.2	1.4			G1/100
BL (0°-30°)	123.8	2.3	B1/500		
BM (30°-60°)	205.8	3.8	B0/220		
BH (60°-80°)	126.8	2.4	B1/500		G1/500
BVH (80°-90°)	1.3	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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4
2.5°	701.9	675.4	637.8	649.0	659.1	668.6	652.8	643.8	639.5	600.8	649.3
5°	861.8	828.8	811.7	807.3	796.4	772.2	812.5	794.5	800.5	808.1	823.9
7.5°	910.6	895.6	870.8	880.1	838.6	835.1	891.0	906.5	926.9	913.0	932.1
10°	885.5	859.6	871.3	868.1	866.4	902.9	942.2	943.0	973.5	988.2	923.6
12.5°	835.9	838.9	880.9	877.6	932.1	1005.1	1014.1	1004.6	1054.4	1028.8	1019.0
15°	868.9	893.4	870.2	878.1	897.5	988.8	1020.6	1050.1	1097.2	1112.5	1046.3
17.5°	908.7	911.1	868.9	859.1	907.8	950.3	1025.5	1049.8	1054.4	1188.2	1107.6
20°	887.1	908.1	857.7	795.9	871.6	929.4	1005.7	998.0	1029.1	1210.6	1121.5
22.5°	944.4	914.4	849.8	803.2	828.8	881.4	946.0	995.9	1042.4	1157.1	1139.4
25°	949.8	938.9	881.4	840.0	835.6	849.0	938.9	971.1	1044.1	1205.1	1124.2
27.5°	1011.1	998.6	880.9	885.0	844.1	802.9	904.6	980.0	1073.8	1175.9	1156.6
30°	1090.1	1091.2	939.5	952.3	894.0	827.7	932.6	953.3	1093.9	1222.5	1180.6
32.5°	1170.2	1203.2	1055.2	987.4	969.1	921.7	897.8	993.4	1071.9	1302.1	1240.5
35°	1292.0	1314.4	1150.6	1089.9	1018.2	964.2	992.6	1026.9	1151.2	1407.5	1319.3
37.5°	1498.3	1457.9	1321.7	1216.0	1198.8	1119.3	1133.4	1102.7	1232.1	1531.8	1475.1
40°	1614.3	1577.8	1436.2	1384.7	1275.1	1287.4	1242.7	1260.7	1349.5	1661.2	1617.1
42.5°	1735.3	1700.4	1576.2	1539.7	1435.3	1384.7	1364.5	1429.1	1529.6	1876.7	1820.6
45°	1856.8	1768.3	1715.7	1734.0	1687.1	1586.8	1563.4	1620.9	1726.3	2141.6	2035.3
47.5°	1959.3	1884.6	1845.1	1836.7	1818.4	1957.6	1862.3	1887.6	1934.2	2375.9	2302.9
50°	2144.0	2070.4	2008.6	1991.4	2080.3	2277.8	2130.7	2081.6	2174.8	2659.0	2612.9
52.5°	2410.7	2317.0	2218.7	2218.9	2386.5	2494.9	2564.7	2478.6	2496.0	2970.4	2950.0
55°	2625.2	2506.1	2424.6	2488.9	2738.8	2799.6	3065.8	2990.3	2967.7	3259.2	3234.1
57.5°	2654.6	2511.8	2473.1	2585.9	2927.9	3315.9	3602.2	3413.7	3379.1	3500.9	3550.7
60°	2380.0	2228.5	2257.6	2439.1	2989.5	3630.6	4094.8	3940.9	3721.0	3784.0	3818.3
62.5°	1775.1	1654.1	1735.9	1976.2	2752.1	3841.5	4665.1	4736.5	4117.7	3996.5	3989.1
65°	1151.7	1076.0	1129.6	1326.6	2082.7	3817.5	5174.6	5484.1	4430.2	4169.8	4042.8
67.5°	761.8	704.3	711.9	828.6	1346.8	3104.7	5479.2	5853.3	4781.7	4268.1	3735.2
70°	567.8	522.6	525.3	588.5	799.4	2047.6	5054.5	5562.1	4910.1	3927.3	3014.8
72.5°	409.5	379.3	404.6	474.9	637.0	1082.8	3767.3	4580.6	4281.5	3097.6	2031.2
75°	283.6	263.7	305.2	397.3	581.4	672.2	2489.5	3297.3	3000.9	1943.5	918.2
77.5°	157.2	151.2	210.9	323.7	527.8	550.9	1525.0	2166.6	1664.5	696.7	218.5
80°	68.7	66.5	102.2	243.0	443.6	497.8	858.5	1201.3	654.7	124.2	70.6
82.5°	29.4	28.3	43.6	146.3	322.3	416.3	529.4	578.2	225.3	38.4	40.1
85°	5.2	5.7	17.4	77.1	196.2	211.4	383.4	342.2	113.3	18.3	28.6
87.5°	0.0	0.0	2.7	15.0	36.8	60.5	166.2	119.9	21.5	6.0	4.9
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°	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4	538.4
2.5°	656.1	640.8	582.8	575.4	567.5	555.8	551.5	526.4	523.1	555.3	555.3
5°	816.6	762.1	706.8	663.2	624.2	570.3	555.0	539.2	526.4	523.1	533.2
7.5°	901.3	834.8	747.9	637.0	547.1	468.9	436.2	413.3	387.7	395.3	399.4
10°	896.7	826.1	715.2	572.7	473.0	386.6	303.5	255.0	228.1	214.7	213.1
12.5°	942.2	875.7	693.1	521.5	394.3	274.9	191.0	156.4	136.5	136.8	135.1
15°	968.6	896.1	667.5	456.6	277.6	176.8	132.4	124.8	122.1	125.1	123.4
17.5°	1015.2	917.7	609.5	359.9	191.0	133.5	121.8	118.8	122.3	128.6	127.0
20°	1011.7	880.3	526.9	253.7	141.1	120.2	115.3	110.6	118.0	124.5	123.4
22.5°	1008.4	843.8	449.3	187.2	118.0	109.5	105.4	103.5	107.4	115.0	116.6
25°	979.5	825.8	370.5	140.6	106.8	99.4	97.5	95.9	97.3	103.5	103.3
27.5°	1014.9	780.3	286.1	118.0	98.9	90.2	88.6	85.8	83.1	88.6	89.4
30°	1007.6	786.6	224.2	103.8	91.0	79.3	79.8	74.1	69.2	74.1	74.1
32.5°	1034.3	740.8	179.6	94.3	83.1	74.7	67.8	61.8	58.3	61.3	61.8
35°	1073.2	742.7	140.6	88.3	76.3	66.5	58.3	52.3	49.0	50.4	51.2
37.5°	1203.7	729.7	117.4	83.6	73.8	61.6	53.1	45.2	43.0	44.7	45.5
40°	1288.7	764.5	103.5	81.2	67.6	56.7	45.5	39.8	37.9	38.7	40.1
42.5°	1449.0	783.9	96.7	78.5	61.8	48.5	39.0	35.7	33.0	34.1	35.1
45°	1620.3	816.8	91.5	75.5	57.5	42.5	34.3	31.6	28.1	28.3	29.4
47.5°	1830.9	895.3	85.6	70.3	51.5	38.7	30.5	26.4	23.2	22.9	24.2
50°	2113.8	1000.2	80.1	63.8	47.7	35.4	26.7	21.5	18.8	18.0	19.1
52.5°	2415.7	1135.9	74.4	59.1	43.0	31.1	22.9	17.4	15.0	14.4	15.3
55°	2714.8	1266.1	68.9	56.1	38.1	26.7	19.3	14.4	12.3	11.7	12.3
57.5°	3055.7	1407.0	61.8	50.1	33.5	23.2	16.1	12.0	10.1	9.5	9.8
60°	3312.3	1456.6	55.9	43.6	29.2	20.4	13.6	9.5	8.2	7.6	7.9
62.5°	3434.1	1375.7	50.1	37.9	25.6	17.7	11.4	7.9	6.8	6.3	6.3
65°	3402.5	1196.4	44.4	32.4	22.1	14.7	9.0	6.8	6.0	5.2	4.9
67.5°	3037.4	936.2	37.9	27.2	18.5	12.0	7.6	6.5	5.4	4.9	4.1
70°	2408.8	677.9	30.8	22.6	15.5	9.8	6.0	6.0	5.2	4.9	3.8
72.5°	1578.9	426.7	25.1	18.3	12.8	7.6	4.6	5.4	4.9	4.9	3.5
75°	684.2	152.6	20.2	14.7	10.6	5.2	4.1	4.9	5.2	4.9	4.1
77.5°	160.2	47.4	15.8	11.7	8.7	3.5	4.1	4.9	5.2	4.6	3.5
80°	60.2	20.2	10.4	7.6	6.8	2.2	3.5	3.0	2.7	1.9	0.5
82.5°	36.5	8.4	5.4	3.8	3.3	0.5	1.6	1.1	0.5	0.5	0.0
85°	25.9	4.1	3.0	2.7	1.6	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	3.5	1.1	1.4	1.4	1.1	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)