

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: P367892

Luminaire Tested: **MSA-SA3B-760-U-T3**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367892
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-SA3B-760-U-T3
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14679 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

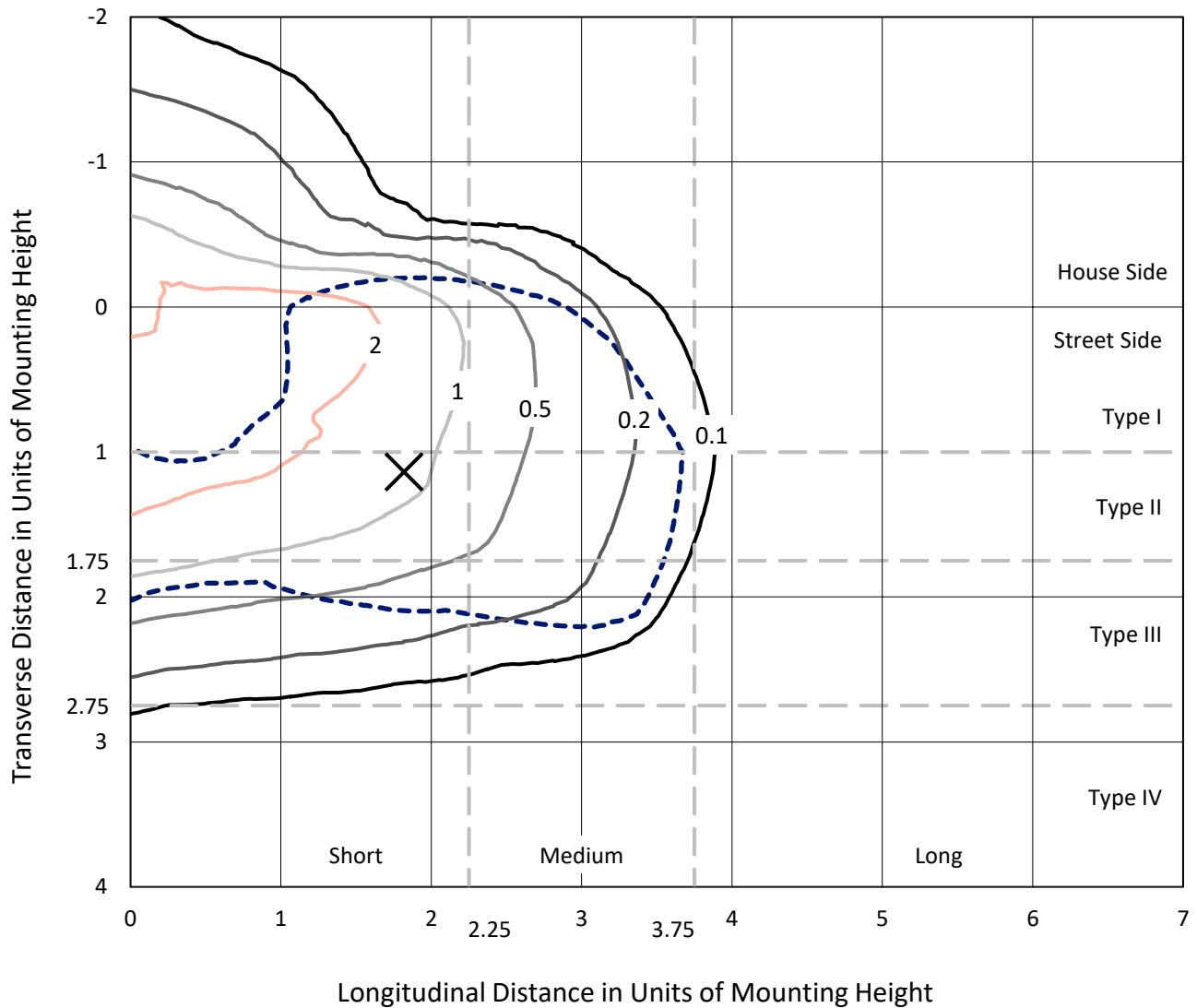
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

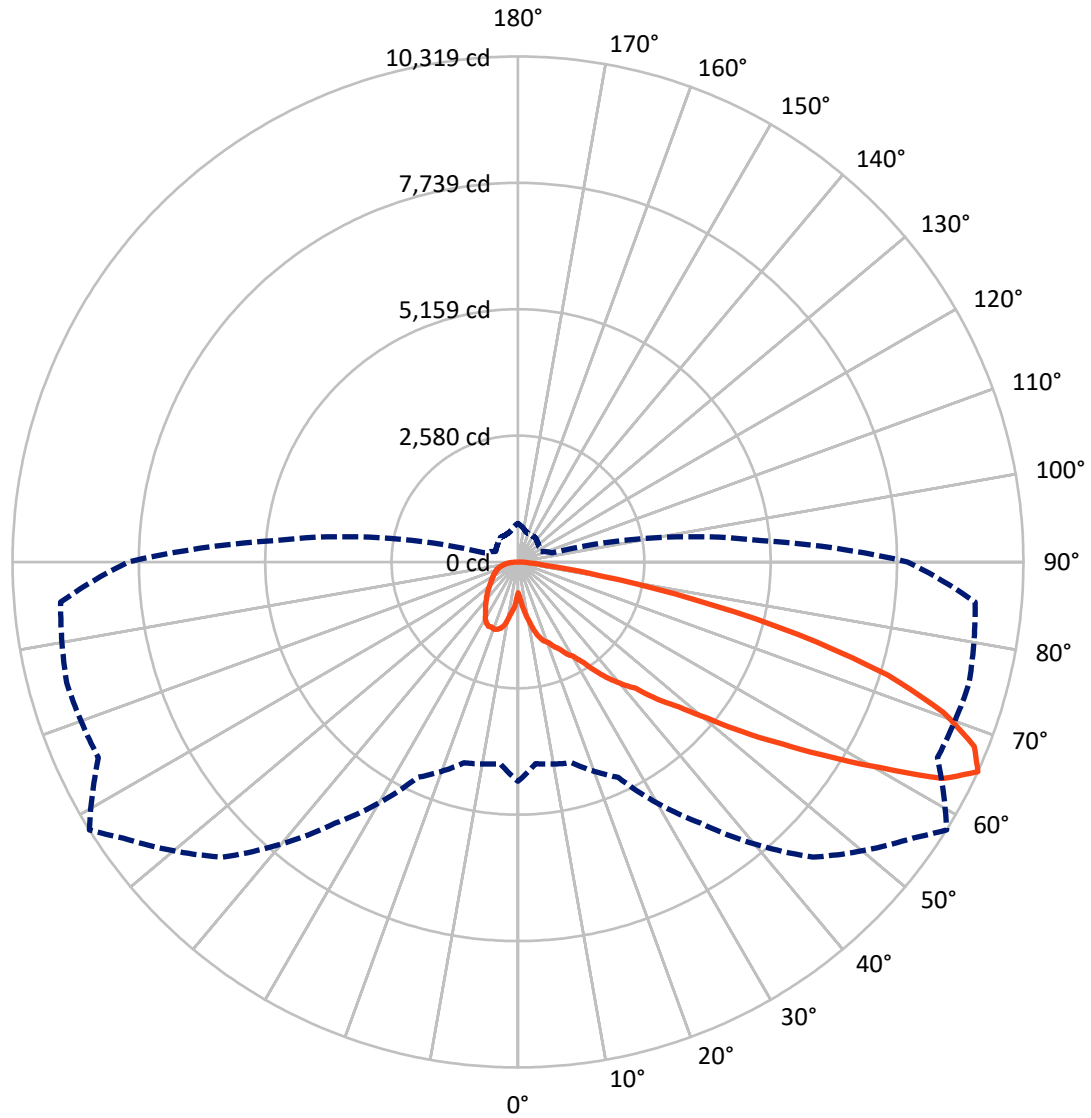
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type 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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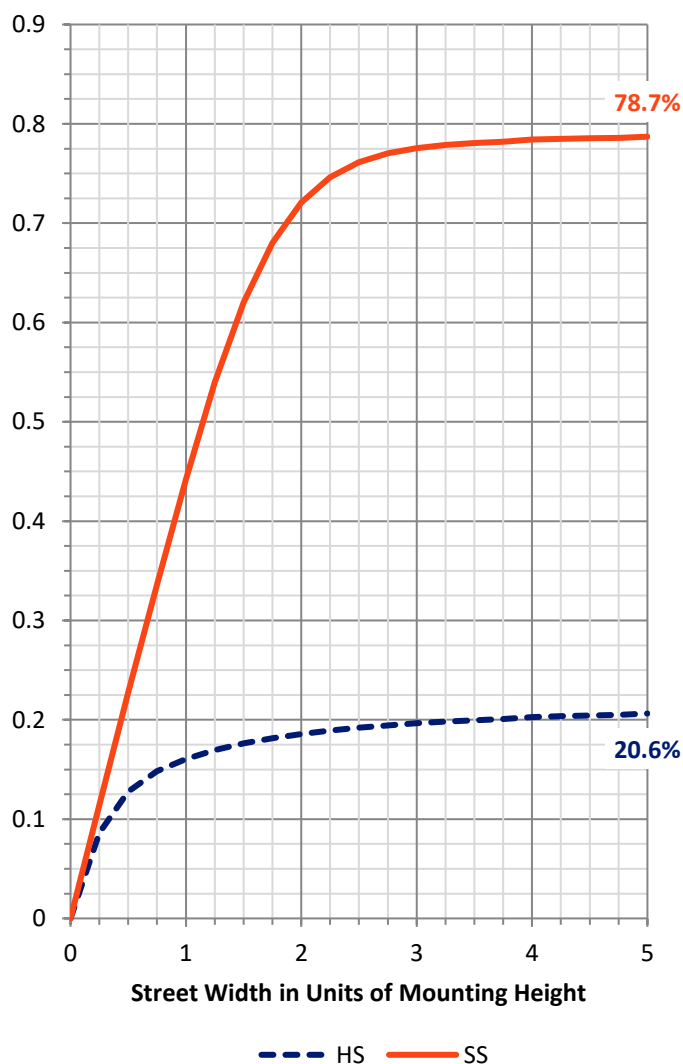
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3091.8	0.0	3091.8
	% Fixture	21.1	0.0	21.1
Street Side	Lumens	11587.2	0.0	11587.2
	% Fixture	78.9	0.0	78.9
Total	Lumens	14679.0	0.0	14679.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	0.7
10°-20°	418.9	2.9
20°-30°	803.9	5.5
30°-40°	1327.1	9.0
40°-50°	2205.8	15.0
50°-60°	3642.9	24.8
60°-70°	4086.6	27.8
70°-80°	1858.1	12.7
80°-90°	239.6	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°	14679.0	100.0
0°-180°	14679.0	100.0

Coefficient of Utilization



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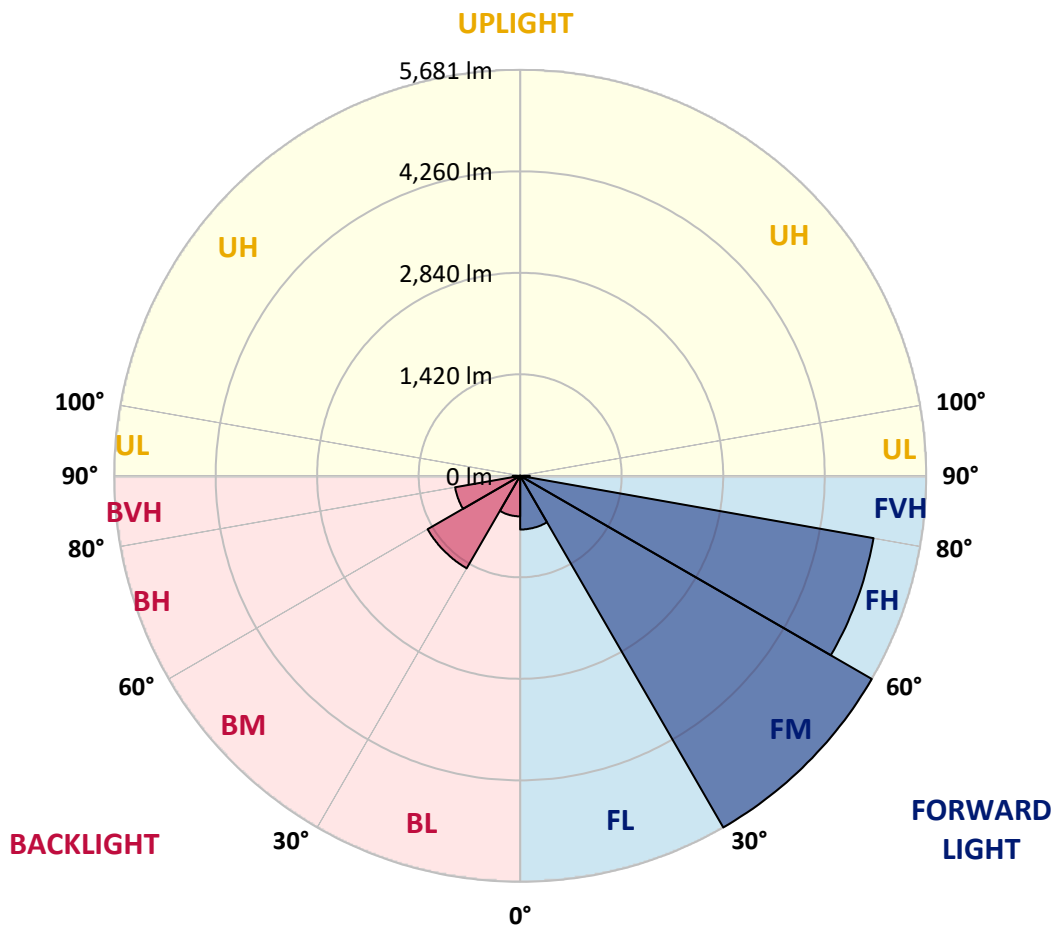
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	751.2	5.1			
FM (30°-60°)	5680.5	38.7			
FH (60°-80°)	5020.5	34.2			G3/7500
FVH (80°-90°)	134.9	0.9			G2/225
BL (0°-30°)	567.6	3.9	B2/1000		
BM (30°-60°)	1495.3	10.2	B2/2500		
BH (60°-80°)	924.2	6.3	B2/1000		G2/1000
BVH (80°-90°)	104.7	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2
2.5°	752.5	729.9	692.0	701.2	723.2	735.4	728.1	718.3	705.4	703.0	759.2
5°	974.4	931.0	913.3	905.9	879.0	863.2	890.7	887.0	901.7	928.6	983.6
7.5°	1136.4	1105.8	1076.5	1073.4	1021.5	1003.1	1039.8	1059.4	1085.7	1086.3	1160.9
10°	1223.2	1196.9	1196.3	1168.8	1164.5	1199.4	1200.0	1214.7	1217.7	1248.9	1234.2
12.5°	1317.3	1315.5	1349.1	1348.5	1387.6	1445.1	1416.4	1416.4	1424.9	1387.0	1433.5
15°	1541.7	1561.3	1498.3	1508.7	1508.7	1564.9	1563.1	1574.1	1600.4	1590.6	1569.8
17.5°	1775.2	1787.4	1717.8	1653.0	1657.8	1645.6	1689.6	1693.9	1668.8	1782.5	1757.5
20°	1925.6	1973.3	1826.6	1745.3	1761.2	1775.2	1777.0	1750.8	1737.9	1912.8	1878.5
22.5°	2111.4	2071.1	1936.6	1846.7	1870.6	1851.6	1848.0	1868.1	1885.9	1951.9	2007.5
25°	2235.5	2232.5	2071.1	1972.7	1946.4	1940.9	1978.2	1970.2	2012.4	2132.2	2097.4
27.5°	2415.9	2472.1	2186.0	2210.5	2094.9	1973.3	2093.1	2129.2	2205.0	2185.4	2263.0
30°	2765.5	2723.3	2424.4	2417.7	2286.9	2184.8	2267.9	2237.4	2373.7	2369.4	2426.9
32.5°	3051.0	3080.3	2704.4	2634.1	2536.9	2414.0	2359.0	2444.0	2517.3	2637.8	2670.2
35°	3353.0	3346.3	2991.1	2849.3	2688.5	2637.8	2705.6	2741.1	2896.9	3007.6	2930.6
37.5°	3822.5	3769.3	3362.8	3094.4	2974.0	2955.6	3071.8	3020.4	3189.1	3215.4	3258.8
40°	4258.9	4098.8	3702.6	3395.2	3203.8	3272.3	3276.0	3282.7	3373.1	3444.7	3659.2
42.5°	4674.0	4561.5	4048.0	3817.0	3535.1	3468.5	3510.1	3524.1	3752.8	3898.9	4196.0
45°	5241.3	4939.9	4544.4	4307.2	3991.8	3906.8	3877.5	3998.5	4219.2	4551.7	4806.6
47.5°	5721.1	5449.1	5071.9	4759.6	4406.9	4649.5	4483.3	4415.4	4711.9	5123.9	5529.8
50°	6119.1	5819.6	5449.7	5269.4	5213.2	5429.6	4998.0	5005.9	5277.3	5858.7	6323.9
52.5°	6427.2	6107.5	5779.8	5688.1	6002.3	6127.1	5815.3	5768.2	5966.3	6653.4	7212.1
55°	6715.1	6375.8	6122.8	6309.8	6839.2	6853.3	6831.3	6570.2	6808.6	7504.9	8131.5
57.5°	6789.1	6423.5	6255.4	6523.8	7239.6	7796.5	8015.4	7503.1	7745.8	8279.4	8918.9
60°	6408.2	6095.3	6028.0	6392.4	7456.0	8270.3	8841.8	8535.6	8444.5	8901.1	9470.2
62.5°	5628.2	5265.1	5319.5	5825.7	7228.0	8457.9	9494.7	9733.7	9182.3	9395.7	9711.1
65°	4479.6	4133.0	4243.0	4851.9	6512.2	8520.3	9828.5	10318.7	9448.8	9535.7	9370.0
67.5°	3159.2	2844.4	2983.1	3770.5	5417.3	7721.9	9885.9	10046.1	9165.2	9136.5	8438.4
70°	1789.9	1592.4	1742.8	2399.3	3823.7	6151.5	9435.4	9224.5	8656.6	8249.5	7060.5
72.5°	821.0	753.1	825.3	1221.4	2201.3	4093.3	7703.0	7894.3	7459.1	6949.9	5371.5
75°	436.5	412.6	443.2	610.1	1030.0	2227.0	5473.0	5903.3	5671.6	5271.2	3504.0
77.5°	324.6	306.3	320.9	395.5	550.2	871.1	3109.7	3652.5	3740.5	3371.9	1945.8
80°	248.8	234.1	248.8	298.9	380.8	413.8	1329.6	1702.5	1939.0	1566.8	773.3
82.5°	184.6	174.8	197.4	224.3	267.7	258.6	471.9	587.5	757.4	517.8	301.4
85°	146.7	134.5	143.0	152.2	171.2	141.8	215.8	241.5	255.5	214.0	111.3
87.5°	57.5	53.2	103.9	81.9	69.7	42.8	64.8	73.4	75.2	72.1	32.4
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°	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2	630.2
2.5°	765.3	759.2	723.2	734.8	753.7	757.4	765.3	743.3	732.3	772.7	774.5
5°	988.5	955.5	938.3	940.2	928.0	909.0	937.7	956.7	964.0	994.0	1005.0
7.5°	1161.5	1121.7	1093.0	1060.0	1013.5	983.6	1033.7	1070.4	1089.9	1152.3	1176.8
10°	1238.5	1206.7	1200.6	1159.0	1157.8	1157.2	1154.7	1141.9	1184.1	1178.0	1195.1
12.5°	1397.4	1390.7	1332.6	1316.1	1318.0	1316.1	1264.8	1262.3	1262.9	1319.2	1299.0
15°	1545.4	1546.6	1493.4	1433.5	1379.7	1363.2	1343.0	1333.9	1347.3	1379.1	1359.5
17.5°	1728.1	1734.3	1582.0	1487.3	1416.4	1414.5	1366.3	1309.4	1391.3	1410.9	1389.5
20°	1846.1	1820.4	1633.4	1474.5	1454.3	1399.3	1339.4	1261.1	1332.0	1379.7	1393.2
22.5°	1958.0	1913.4	1681.1	1497.1	1400.5	1335.1	1277.0	1226.3	1248.9	1302.1	1293.5
25°	2033.8	2021.6	1747.1	1551.5	1398.7	1253.2	1174.9	1142.5	1154.1	1236.7	1228.7
27.5°	2214.7	2082.7	1735.5	1565.5	1340.0	1141.3	1102.2	1067.3	1055.7	1145.0	1169.4
30°	2335.8	2281.4	1813.1	1543.5	1266.0	1049.6	992.1	984.8	988.5	1089.9	1096.7
32.5°	2541.2	2400.0	1940.3	1459.2	1158.4	981.7	915.7	918.8	935.3	1009.3	1024.5
35°	2755.1	2670.8	1957.4	1398.7	1071.0	909.6	882.7	861.3	870.5	935.3	938.3
37.5°	3152.5	2860.9	2062.5	1305.1	1006.8	882.1	830.8	811.8	816.7	853.4	879.7
40°	3502.1	3242.9	2013.6	1214.7	927.3	845.4	781.2	767.2	752.5	788.6	805.1
42.5°	4062.7	3515.6	1997.1	1115.0	890.1	795.9	751.9	714.6	700.5	731.1	761.1
45°	4623.3	3804.7	1907.3	1014.1	837.5	792.2	709.1	673.7	677.3	704.8	735.4
47.5°	5248.0	4192.9	1755.0	916.3	780.0	774.5	666.3	651.0	662.0	692.6	723.2
50°	5986.5	4604.9	1629.1	828.3	739.1	721.3	660.8	642.5	652.9	688.9	718.9
52.5°	6794.0	5056.7	1537.4	747.0	692.6	679.2	668.1	650.4	662.6	693.8	725.0
55°	7596.6	5469.3	1475.1	691.4	652.9	661.4	683.4	670.6	676.7	699.9	731.1
57.5°	8192.0	5686.9	1349.7	632.1	620.5	651.0	685.3	663.9	667.5	699.9	733.6
60°	8538.0	5728.5	1143.7	583.8	594.8	630.2	666.3	638.8	636.4	689.5	731.7
62.5°	8500.1	5487.0	907.2	539.8	565.5	599.1	637.6	611.3	618.0	690.8	735.4
65°	7957.3	4993.7	721.3	502.5	530.0	564.8	613.7	603.4	635.8	739.7	788.0
67.5°	7003.7	4273.0	579.5	467.6	497.0	541.6	630.2	657.8	671.8	789.8	839.3
70°	5675.9	3320.0	482.9	437.1	470.7	552.6	677.9	672.4	660.8	766.0	805.1
72.5°	4100.6	2275.9	424.9	407.1	438.3	519.6	679.2	649.8	635.1	699.3	727.4
75°	2565.6	1357.7	371.1	369.2	388.8	465.8	648.6	622.3	582.6	614.4	651.0
77.5°	1465.3	695.0	312.4	328.9	340.5	404.1	580.7	556.9	521.4	534.9	571.0
80°	559.3	336.2	263.5	292.2	289.1	342.3	492.1	486.6	446.2	450.5	472.5
82.5°	263.5	188.3	218.8	251.2	234.7	272.6	399.8	398.0	362.5	328.3	346.0
85°	97.8	100.3	160.2	191.3	163.2	176.1	289.1	281.2	247.0	208.5	230.5
87.5°	22.0	36.1	78.9	99.6	56.9	54.4	116.8	101.5	97.8	58.1	61.1
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)