

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: P367959

Luminaire Tested: **MSA-SA3C-730-U-T4FT-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-730-U-T4FT-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 12416 lumens  
Efficiency: N/A  
Efficacy: 74.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

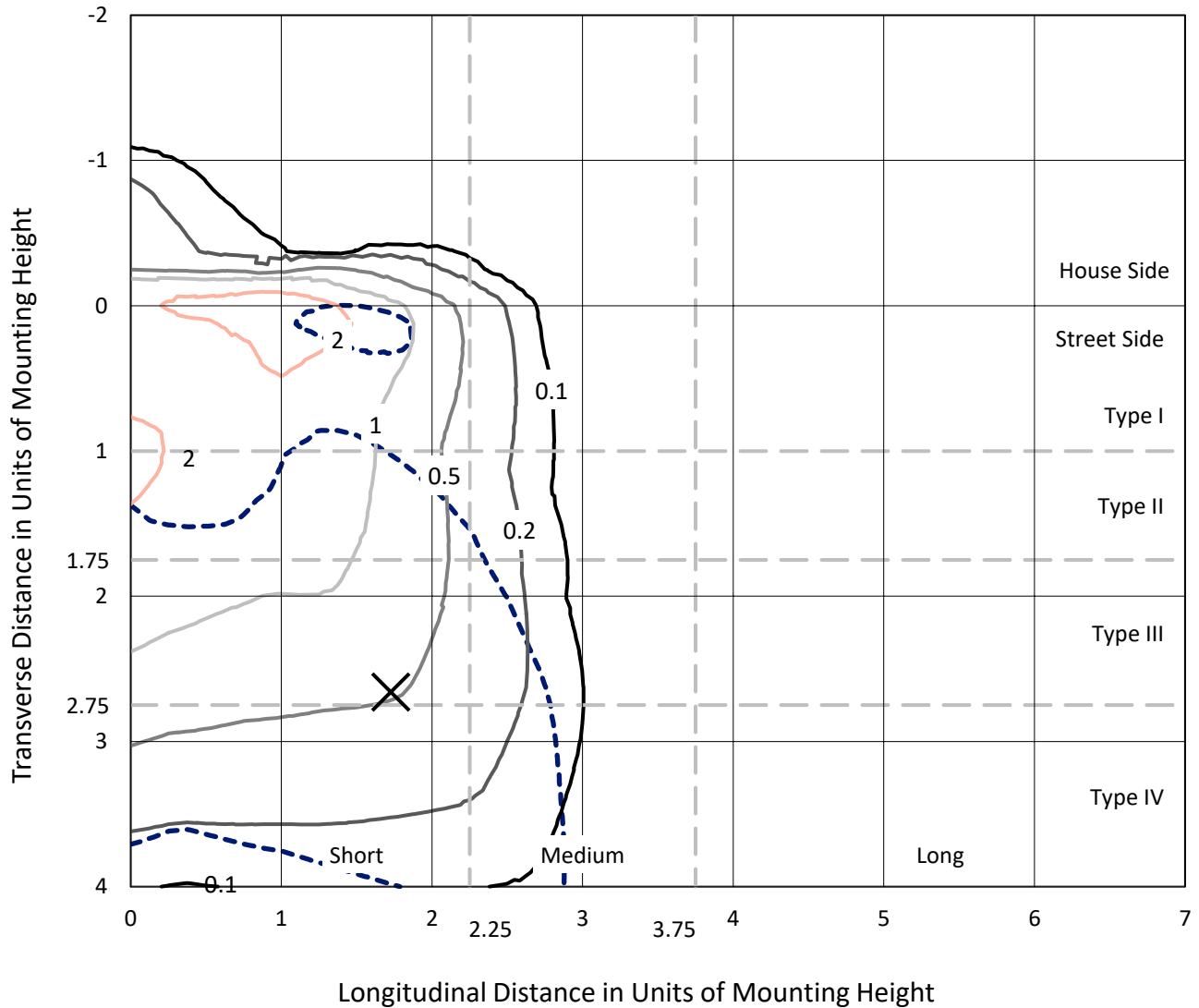
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

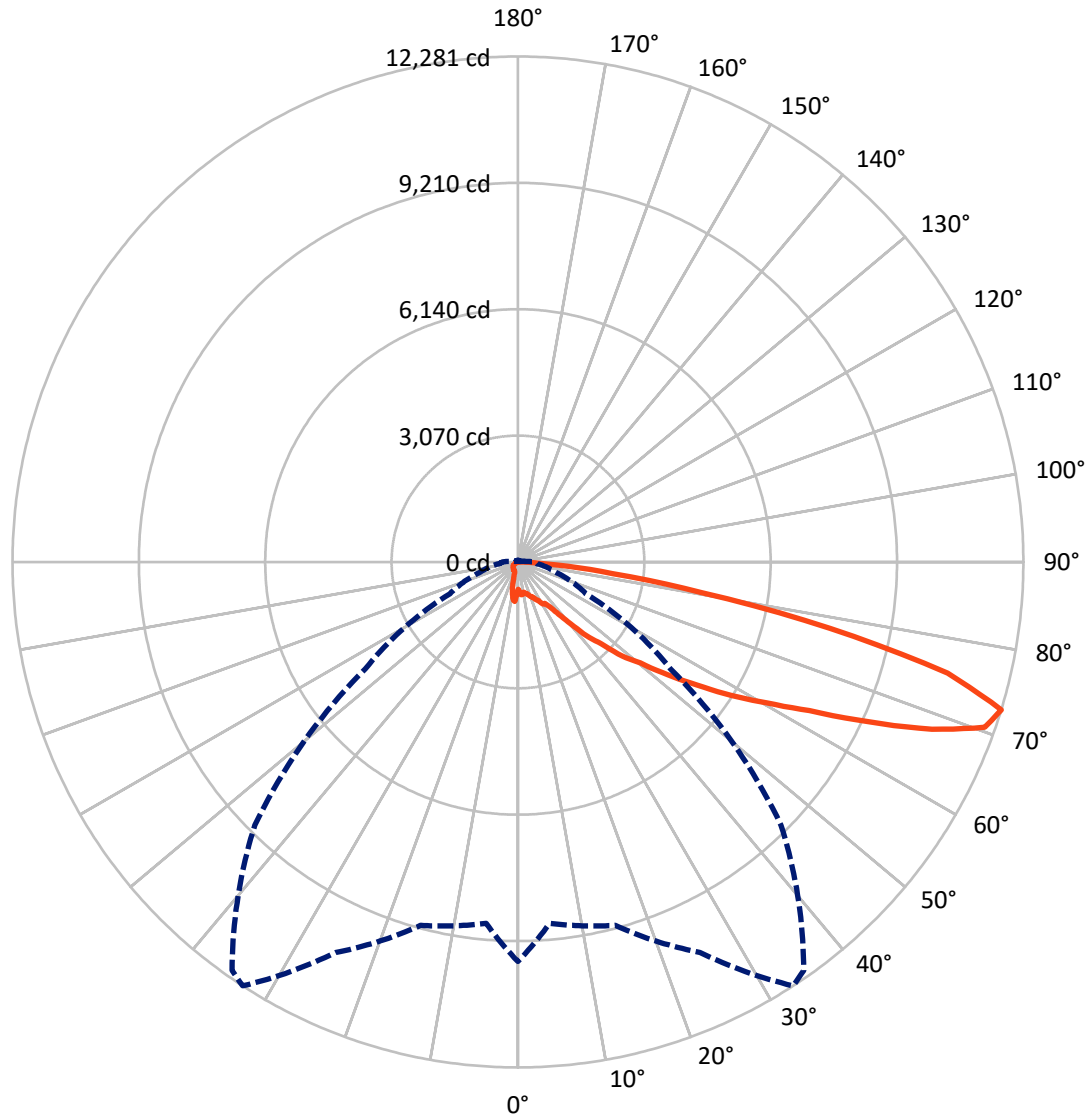
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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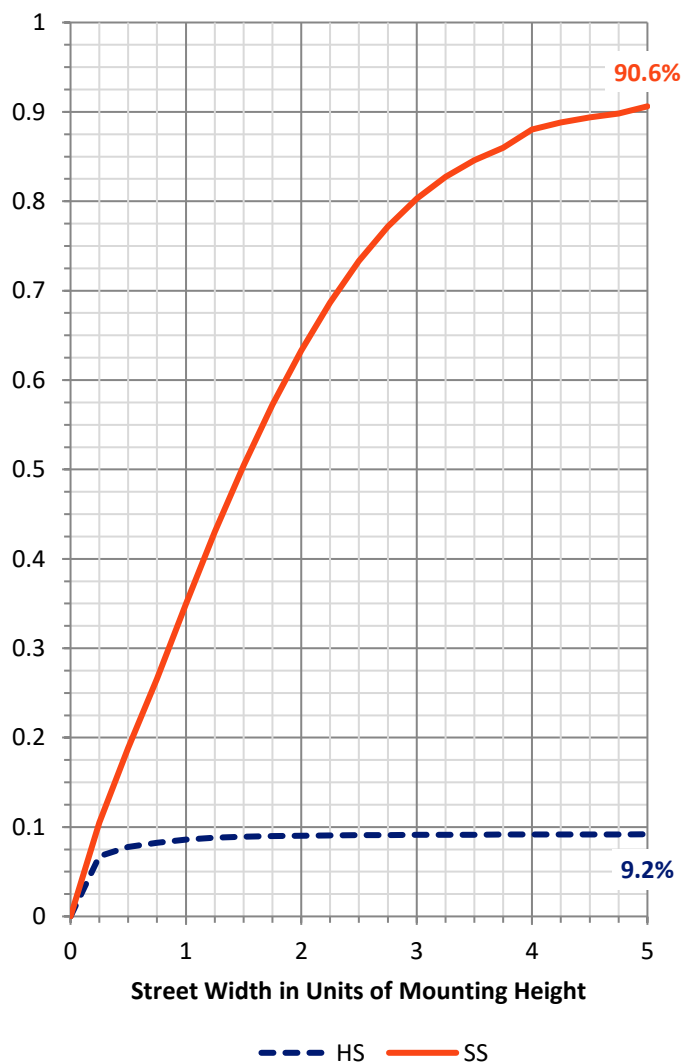
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1148.0	0.0	1148.0
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	11268.0	0.0	11268.0
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	12416.0	0.0	12416.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.5	0.7
10°-20°	254.7	2.1
20°-30°	431.9	3.5
30°-40°	790.5	6.4
40°-50°	1668.4	13.4
50°-60°	2791.4	22.5
60°-70°	3736.5	30.1
70°-80°	2440.7	19.7
80°-90°	216.4	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°	12416.0	100.0
0°-180°	12416.0	100.0

**Coefficient of Utilization**

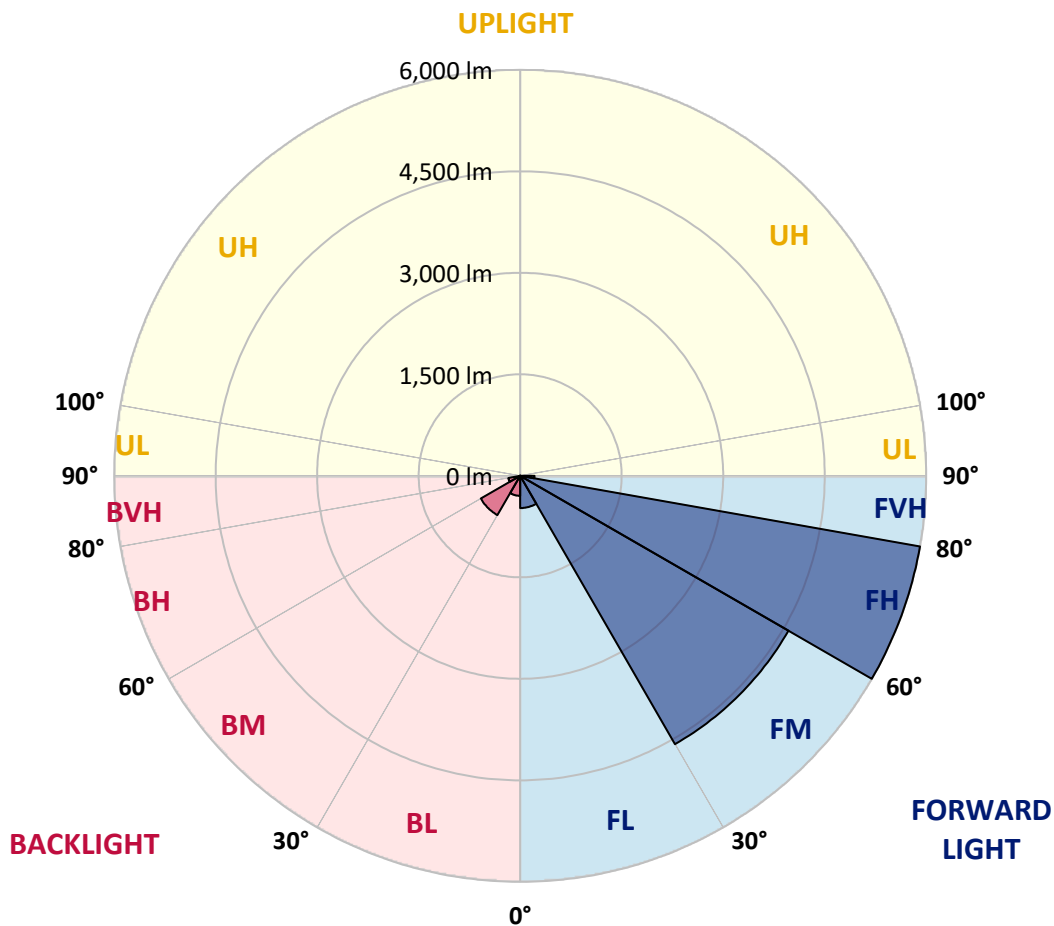


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	476.6	3.8			
FM (30°-60°)	4579.2	36.9			
FH (60°-80°)	5999.9	48.3			G3/7500
FVH (80°-90°)	212.2	1.7			G2/225
BL (0°-30°)	295.5	2.4	B1/500		
BM (30°-60°)	671.2	5.4	B1/1000		
BH (60°-80°)	177.2	1.4	B1/500		G1/500
BVH (80°-90°)	4.2	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°	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4
2.5°	787.2	756.9	712.8	715.5	723.1	729.3	745.9	739.0	725.9	725.2	787.2
5°	834.1	800.3	797.6	801.7	799.6	810.7	796.9	841.7	879.6	925.1	998.2
7.5°	811.4	795.5	775.5	796.2	795.5	790.0	798.9	889.9	981.6	1039.5	1160.2
10°	745.9	727.9	743.1	750.0	745.2	769.3	829.3	903.7	1013.3	1134.7	1193.2
12.5°	727.3	738.3	743.8	743.8	790.0	802.4	894.1	964.4	1094.7	1190.5	1360.8
15°	799.6	821.0	783.1	774.8	789.3	796.2	898.2	983.0	1149.8	1324.9	1467.6
17.5°	914.8	913.4	854.8	822.4	845.1	861.7	918.2	1017.5	1115.4	1430.4	1637.2
20°	994.0	995.4	889.9	822.4	897.5	907.2	969.9	1049.2	1126.4	1483.5	1748.2
22.5°	1096.0	1059.5	943.0	877.5	928.5	937.5	1006.4	1069.2	1182.9	1477.3	1890.2
25°	1179.5	1156.0	1009.2	963.7	1009.2	996.8	1059.5	1154.0	1243.6	1575.8	1973.6
27.5°	1309.1	1269.1	1056.1	1064.3	1061.6	1070.5	1085.0	1229.8	1350.4	1580.7	2166.6
30°	1429.7	1406.3	1160.8	1160.8	1187.7	1170.5	1180.8	1355.9	1453.8	1692.3	2383.7
32.5°	1554.5	1555.8	1284.2	1218.8	1197.4	1268.4	1338.0	1417.3	1578.6	1884.0	2716.0
35°	1884.7	1857.1	1520.7	1357.3	1340.1	1335.9	1447.6	1662.0	1799.9	2133.5	3163.4
37.5°	2549.9	2454.0	2029.4	1671.6	1606.8	1584.8	1711.6	1931.5	2068.7	2500.2	3903.0
40°	3232.3	3056.5	2585.0	2181.8	1971.5	1876.4	2023.9	2210.7	2454.7	2905.6	4587.6
42.5°	3831.3	3614.2	3003.5	2731.9	2458.2	2416.8	2278.3	2582.3	3006.2	3495.6	5258.3
45°	4415.2	3987.8	3375.7	3160.6	2828.4	2851.8	2804.9	3068.2	3579.0	4142.2	5853.2
47.5°	4817.1	4433.1	3832.0	3552.9	3419.8	3282.6	3654.9	3928.5	4089.2	4553.1	6367.4
50°	5250.0	4861.2	4224.3	4029.2	3854.1	3992.7	4475.9	4512.4	4499.3	4936.4	6717.6
52.5°	5809.1	5350.7	4674.4	4453.8	4553.1	4691.0	5248.6	5255.5	4864.0	5259.0	6969.9
55°	6326.1	5818.0	5274.1	5066.0	5273.4	5389.9	6008.3	5781.5	5076.3	5478.2	7094.0
57.5°	7054.7	6466.7	6071.7	5705.0	6125.5	6013.8	6676.3	6339.2	5314.8	5623.6	7048.5
60°	7975.7	7283.6	6887.9	6499.8	6950.6	7026.4	7328.4	6617.7	5407.2	5671.2	6774.8
62.5°	8912.5	8216.2	7695.8	7432.5	7943.9	8193.5	7932.2	6756.2	5296.2	5578.1	6155.1
65°	10074.7	9183.4	8575.4	8421.0	9368.8	9735.5	8646.4	6790.0	5081.8	5066.0	4948.8
67.5°	10870.9	10003.0	9445.3	9703.8	10848.8	10878.5	9287.5	6800.3	4360.1	3966.5	3248.2
70°	11059.8	10130.5	9881.0	10642.0	12029.7	11656.7	9494.3	6276.4	3233.7	2354.1	1484.8
72.5°	9708.7	8813.9	9138.6	10464.9	12280.6	12109.6	9037.2	4528.3	1820.5	941.6	455.7
75°	5955.2	5414.1	6855.5	8872.5	10779.9	10669.6	7050.6	2339.6	733.5	376.4	170.3
77.5°	2589.8	2405.1	3577.7	5887.0	7746.1	7647.5	4131.2	861.7	379.1	264.7	86.2
80°	856.8	831.3	1355.2	2787.7	4537.2	4450.4	1740.6	358.5	270.2	212.3	48.3
82.5°	203.4	202.0	472.9	1282.9	2311.4	2239.0	534.2	197.8	195.8	167.5	25.5
85°	51.0	52.4	131.0	524.6	938.9	827.9	139.2	98.6	137.9	113.7	13.1
87.5°	0.0	0.0	33.8	75.1	142.0	88.9	15.2	26.2	38.6	40.7	6.9
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°	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4
2.5°	801.0	793.4	731.4	746.6	770.0	767.9	783.1	771.4	761.0	812.0	807.2
5°	1018.8	977.5	958.2	985.1	970.6	936.8	965.1	960.2	952.0	969.2	982.3
7.5°	1182.2	1144.3	1127.1	1070.5	988.5	923.7	934.1	909.9	887.2	914.1	941.6
10°	1236.0	1215.3	1213.2	1102.9	1025.7	932.0	821.0	725.2	699.7	665.9	681.1
12.5°	1382.1	1394.5	1316.6	1187.7	1038.8	858.9	661.8	526.0	470.8	435.0	437.0
15°	1502.1	1545.5	1432.4	1200.8	914.1	654.9	440.5	318.5	284.0	275.0	272.3
17.5°	1680.6	1722.7	1468.3	1107.8	736.9	443.9	283.3	248.2	250.2	256.4	255.1
20°	1813.0	1806.8	1437.3	943.0	543.2	290.9	237.1	232.3	243.3	261.3	257.1
22.5°	1940.5	1897.8	1418.0	790.7	351.6	233.7	228.9	228.2	238.5	255.7	260.6
25°	2031.5	2038.4	1385.6	619.0	255.7	217.1	221.3	227.5	237.8	256.4	253.7
27.5°	2292.1	2099.0	1250.5	449.4	215.8	208.2	218.5	230.9	234.4	257.8	258.5
30°	2460.9	2327.9	1162.2	302.6	199.2	192.3	213.0	229.5	233.7	264.0	266.1
32.5°	2755.3	2426.5	1060.2	224.7	185.4	187.5	200.6	222.7	242.0	274.4	275.7
35°	3121.3	2742.9	875.5	202.0	180.6	177.2	183.4	208.9	240.6	275.7	282.6
37.5°	3818.3	2932.4	694.2	195.8	180.6	174.4	180.6	195.8	236.4	289.5	304.0
40°	4284.9	3318.5	500.5	194.4	177.2	171.6	173.7	188.9	224.7	281.3	302.6
42.5°	4859.8	3481.2	368.8	190.9	173.7	165.4	166.8	186.1	213.0	264.0	279.9
45°	5330.7	3599.7	290.2	189.6	165.4	162.7	165.4	184.1	202.0	226.8	241.3
47.5°	5688.4	3737.6	233.0	180.6	163.4	162.7	159.2	172.3	183.4	189.6	199.2
50°	5950.4	3706.6	193.0	166.8	156.5	160.6	154.4	156.5	159.2	155.8	166.8
52.5°	6111.0	3594.9	160.6	150.3	148.2	151.7	144.1	137.9	133.0	130.3	137.2
55°	6169.6	3370.9	136.5	128.9	133.7	135.1	128.9	117.9	109.6	105.5	111.0
57.5°	6058.6	3029.6	118.6	106.8	117.9	117.9	109.6	97.9	88.2	81.3	86.9
60°	5777.4	2652.6	105.5	88.9	100.6	101.3	91.7	79.3	71.7	64.8	68.2
62.5°	5253.5	2241.7	92.4	77.2	86.9	87.5	75.8	64.1	58.6	51.0	53.8
65°	4205.7	1714.4	78.6	68.2	75.1	73.1	62.7	54.5	47.6	40.7	42.0
67.5°	2729.8	1058.1	68.2	62.0	63.4	61.4	53.1	47.6	40.0	34.5	35.2
70°	1222.2	455.7	60.0	55.8	55.1	51.7	44.8	44.1	39.3	34.5	34.5
72.5°	377.1	171.6	51.7	50.3	47.6	43.4	39.3	42.0	38.6	33.1	32.4
75°	148.9	78.6	42.7	42.7	41.4	35.8	35.2	37.9	35.8	30.3	29.0
77.5°	77.9	49.6	35.2	36.5	35.8	27.6	31.7	34.5	33.1	25.5	21.4
80°	46.2	30.3	26.2	29.6	29.0	19.3	24.1	22.1	15.9	7.6	2.1
82.5°	25.5	13.8	11.7	17.2	17.2	6.9	12.4	11.0	6.2	0.0	0.0
85°	12.4	9.7	9.0	9.7	6.9	2.1	6.2	6.2	3.4	0.0	0.0
87.5°	6.2	5.5	4.1	3.4	2.8	0.0	2.1	2.8	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)