

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: P367299

Luminaire Tested: **MSA-SA2B-730-U-T4FT-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367299  
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-SA2B-730-U-T4FT-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 6793 lumens  
Efficiency: N/A  
Efficacy: 79.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

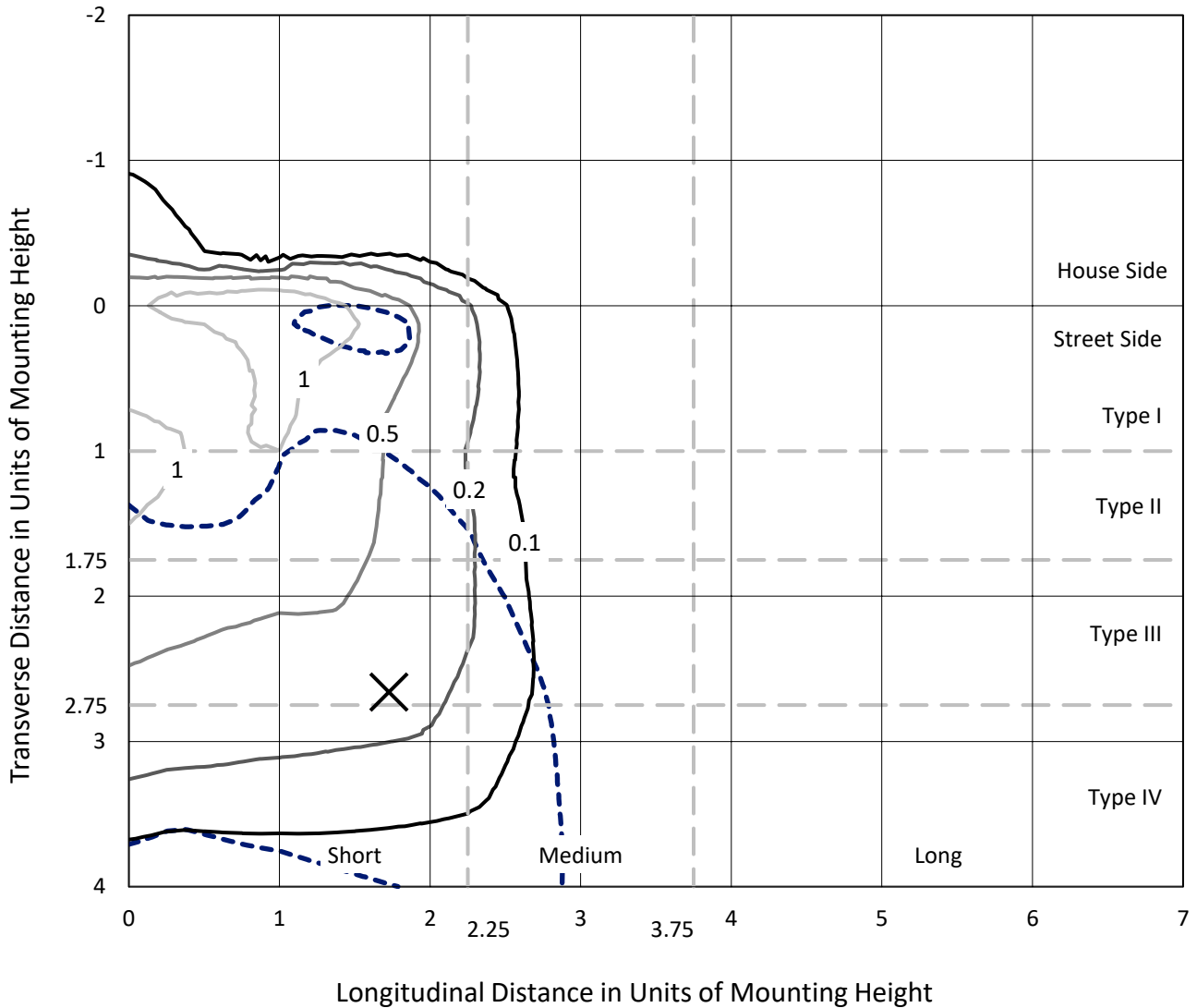
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

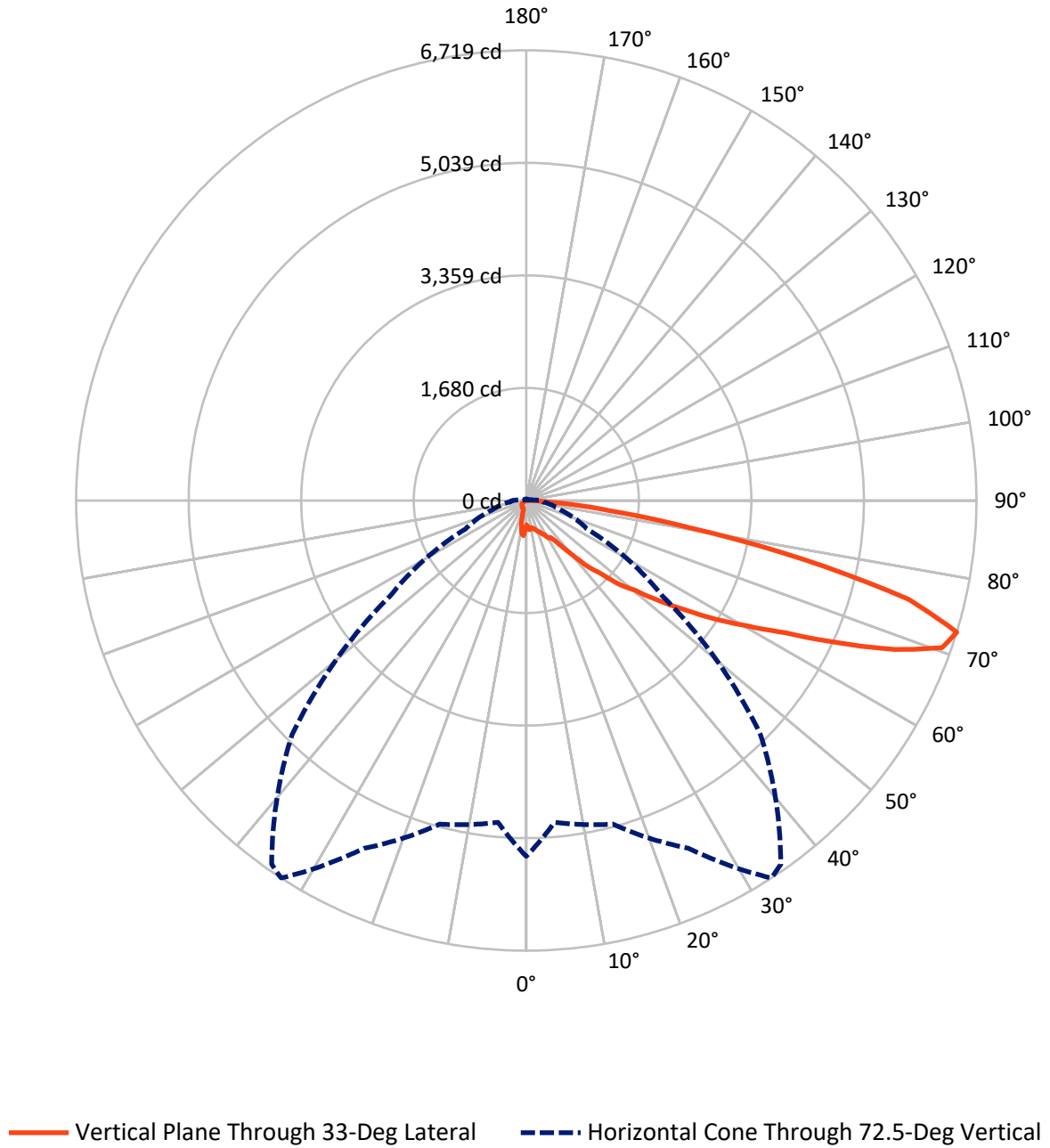
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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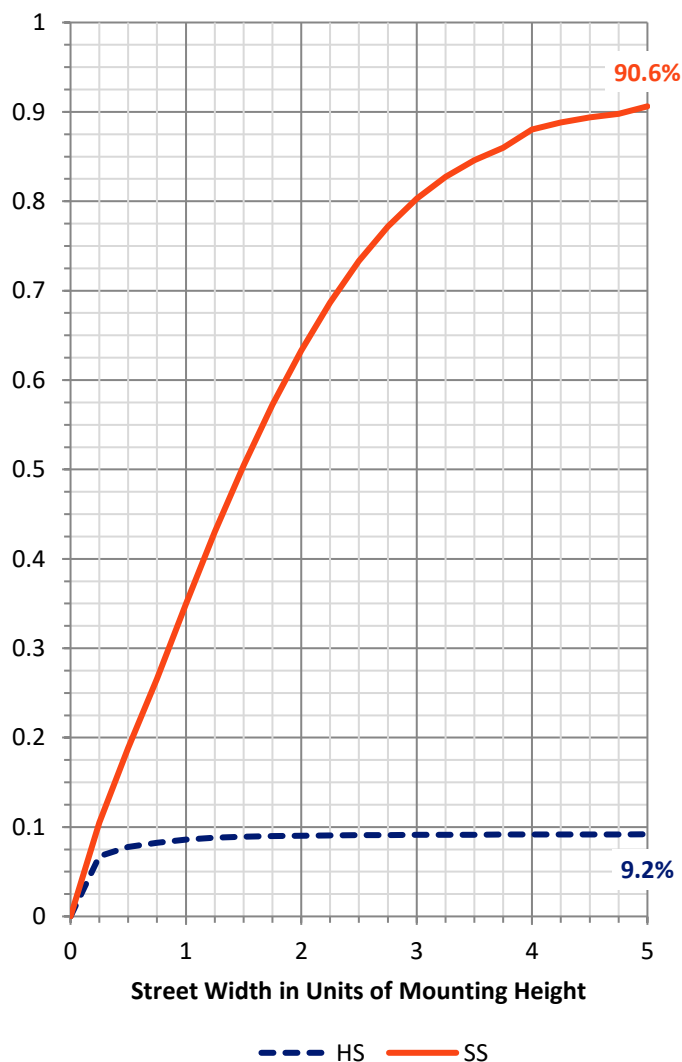
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	628.1	0.0	628.1
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	6164.9	0.0	6164.9
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	6793.0	0.0	6793.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.8	0.7
10°-20°	139.3	2.1
20°-30°	236.3	3.5
30°-40°	432.5	6.4
40°-50°	912.8	13.4
50°-60°	1527.2	22.5
60°-70°	2044.3	30.1
70°-80°	1335.3	19.7
80°-90°	118.4	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°	6793.0	100.0
0°-180°	6793.0	100.0

**Coefficient of Utilization**

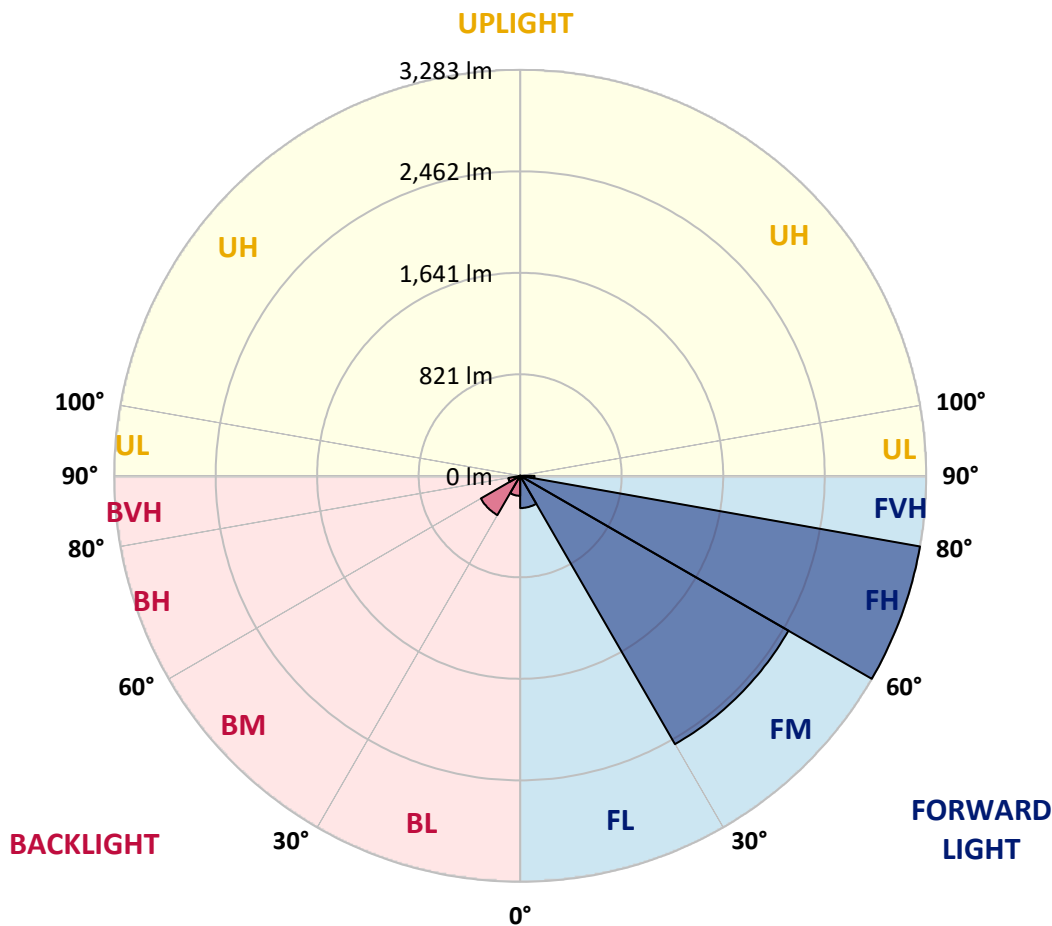


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	260.8	3.8			
FM (30°-60°)	2505.4	36.9			
FH (60°-80°)	3282.7	48.3			G2/5000
FVH (80°-90°)	116.1	1.7			G2/225
BL (0°-30°)	161.7	2.4	B1/500		
BM (30°-60°)	367.2	5.4	B1/1000		
BH (60°-80°)	96.9	1.4	B0/110		G0/110
BVH (80°-90°)	2.3	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3
2.5°	430.7	414.1	390.0	391.5	395.6	399.0	408.1	404.3	397.1	396.8	430.7
5°	456.4	437.9	436.4	438.6	437.5	443.5	436.0	460.5	481.2	506.1	546.1
7.5°	443.9	435.2	424.3	435.6	435.2	432.2	437.1	486.9	537.1	568.7	634.7
10°	408.1	398.3	406.6	410.3	407.7	420.9	453.7	494.4	554.4	620.8	652.8
12.5°	397.9	403.9	406.9	406.9	432.2	439.0	489.2	527.6	598.9	651.3	744.5
15°	437.5	449.2	428.4	423.9	431.8	435.6	491.4	537.8	629.1	724.9	803.0
17.5°	500.5	499.7	467.7	449.9	462.4	471.4	502.4	556.7	610.2	782.6	895.7
20°	543.8	544.6	486.9	449.9	491.0	496.3	530.6	574.0	616.3	811.6	956.4
22.5°	599.7	579.7	515.9	480.1	508.0	512.9	550.6	585.0	647.2	808.2	1034.1
25°	645.3	632.5	552.1	527.3	552.1	545.4	579.7	631.3	680.4	862.2	1079.8
27.5°	716.2	694.3	577.8	582.3	580.8	585.7	593.6	672.8	738.8	864.8	1185.4
30°	782.2	769.4	635.1	635.1	649.8	640.4	646.1	741.9	795.4	925.9	1304.2
32.5°	850.5	851.2	702.6	666.8	655.1	694.0	732.0	775.4	863.7	1030.7	1486.0
35°	1031.1	1016.0	832.0	742.6	733.2	730.9	792.0	909.3	984.7	1167.3	1730.7
37.5°	1395.1	1342.7	1110.3	914.6	879.1	867.1	936.5	1056.8	1131.8	1367.9	2135.4
40°	1768.5	1672.3	1414.3	1193.7	1078.6	1026.6	1107.3	1209.5	1343.0	1589.7	2509.9
42.5°	2096.2	1977.4	1643.2	1494.6	1344.9	1322.3	1246.5	1412.8	1644.7	1912.5	2876.9
45°	2415.6	2181.8	1846.9	1729.2	1547.4	1560.3	1534.6	1678.7	1958.2	2266.3	3202.4
47.5°	2635.5	2425.4	2096.6	1943.8	1871.0	1796.0	1999.6	2149.4	2237.2	2491.1	3483.7
50°	2872.4	2659.7	2311.2	2204.4	2108.6	2184.4	2448.8	2468.8	2461.7	2700.8	3675.3
52.5°	3178.2	2927.4	2557.4	2436.8	2491.1	2566.5	2871.6	2875.4	2661.2	2877.3	3813.4
55°	3461.1	3183.1	2885.6	2771.7	2885.2	2948.9	3287.2	3163.1	2777.3	2997.2	3881.2
57.5°	3859.7	3538.0	3321.9	3121.3	3351.3	3290.2	3652.7	3468.3	2907.8	3076.8	3856.3
60°	4363.6	3985.0	3768.5	3556.1	3802.8	3844.3	4009.5	3620.6	2958.4	3102.8	3706.6
62.5°	4876.2	4495.2	4210.5	4066.4	4346.3	4482.8	4339.9	3696.4	2897.6	3051.9	3367.6
65°	5512.0	5024.4	4691.7	4607.3	5125.8	5326.5	4730.6	3714.9	2780.3	2771.7	2707.6
67.5°	5947.6	5472.8	5167.7	5309.1	5935.6	5951.8	5081.3	3720.6	2385.5	2170.1	1777.1
70°	6051.0	5542.6	5406.1	5822.4	6581.6	6377.6	5194.5	3433.9	1769.2	1288.0	812.4
72.5°	5311.8	4822.2	4999.9	5725.5	6718.9	6625.4	4944.4	2477.5	996.1	515.2	249.3
75°	3258.2	2962.1	3750.7	4854.3	5897.9	5837.5	3857.5	1280.0	401.3	205.9	93.2
77.5°	1416.9	1315.9	1957.4	3220.9	4238.0	4184.1	2260.3	471.4	207.4	144.8	47.1
80°	468.8	454.8	741.5	1525.2	2482.4	2434.9	952.3	196.1	147.8	116.2	26.4
82.5°	111.3	110.5	258.7	701.9	1264.6	1225.0	292.3	108.2	107.1	91.6	14.0
85°	27.9	28.7	71.7	287.0	513.7	453.0	76.2	53.9	75.4	62.2	7.2
87.5°	0.0	0.0	18.5	41.1	77.7	48.7	8.3	14.3	21.1	22.3	3.8
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°	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3	361.3
2.5°	438.2	434.1	400.2	408.5	421.3	420.1	428.4	422.0	416.4	444.3	441.6
5°	557.4	534.8	524.2	538.9	531.0	512.5	528.0	525.4	520.8	530.3	537.4
7.5°	646.8	626.1	616.6	585.7	540.8	505.4	511.0	497.8	485.4	500.1	515.2
10°	676.2	664.9	663.8	603.4	561.2	509.9	449.2	396.8	382.8	364.3	372.6
12.5°	756.2	763.0	720.4	649.8	568.4	469.9	362.1	287.8	257.6	238.0	239.1
15°	821.8	845.6	783.7	657.0	500.1	358.3	241.0	174.2	155.4	150.5	149.0
17.5°	919.5	942.5	803.3	606.1	403.2	242.9	155.0	135.8	136.9	140.3	139.5
20°	991.9	988.5	786.4	515.9	297.2	159.2	129.7	127.1	133.1	142.9	140.7
22.5°	1061.7	1038.3	775.8	432.6	192.3	127.9	125.2	124.8	130.5	139.9	142.6
25°	1111.5	1115.2	758.1	338.7	139.9	118.8	121.1	124.5	130.1	140.3	138.8
27.5°	1254.0	1148.4	684.1	245.9	118.0	113.9	119.6	126.3	128.2	141.1	141.4
30°	1346.4	1273.6	635.9	165.6	109.0	105.2	116.5	125.6	127.9	144.4	145.6
32.5°	1507.5	1327.6	580.1	123.0	101.5	102.6	109.8	121.8	132.4	150.1	150.9
35°	1707.7	1500.7	479.0	110.5	98.8	96.9	100.3	114.3	131.6	150.9	154.6
37.5°	2089.0	1604.4	379.8	107.1	98.8	95.4	98.8	107.1	129.4	158.4	166.3
40°	2344.4	1815.6	273.8	106.4	96.9	93.9	95.0	103.3	123.0	153.9	165.6
42.5°	2658.9	1904.6	201.8	104.5	95.0	90.5	91.3	101.8	116.5	144.4	153.1
45°	2916.5	1969.5	158.8	103.7	90.5	89.0	90.5	100.7	110.5	124.1	132.0
47.5°	3112.2	2044.9	127.5	98.8	89.4	89.0	87.1	94.3	100.3	103.7	109.0
50°	3255.5	2027.9	105.6	91.3	85.6	87.9	84.5	85.6	87.1	85.2	91.3
52.5°	3343.4	1966.8	87.9	82.2	81.1	83.0	78.8	75.4	72.8	71.3	75.1
55°	3375.5	1844.3	74.7	70.5	73.2	73.9	70.5	64.5	60.0	57.7	60.7
57.5°	3314.8	1657.6	64.9	58.5	64.5	64.5	60.0	53.6	48.3	44.5	47.5
60°	3160.9	1451.3	57.7	48.7	55.1	55.4	50.2	43.4	39.2	35.5	37.3
62.5°	2874.3	1226.5	50.5	42.2	47.5	47.9	41.5	35.1	32.1	27.9	29.4
65°	2301.0	938.0	43.0	37.3	41.1	40.0	34.3	29.8	26.0	22.3	23.0
67.5°	1493.5	578.9	37.3	33.9	34.7	33.6	29.0	26.0	21.9	18.9	19.2
70°	668.7	249.3	32.8	30.5	30.2	28.3	24.5	24.1	21.5	18.9	18.9
72.5°	206.3	93.9	28.3	27.5	26.0	23.8	21.5	23.0	21.1	18.1	17.7
75°	81.5	43.0	23.4	23.4	22.6	19.6	19.2	20.7	19.6	16.6	15.8
77.5°	42.6	27.2	19.2	20.0	19.6	15.1	17.3	18.9	18.1	14.0	11.7
80°	25.3	16.6	14.3	16.2	15.8	10.6	13.2	12.1	8.7	4.1	1.1
82.5°	14.0	7.5	6.4	9.4	9.4	3.8	6.8	6.0	3.4	0.0	0.0
85°	6.8	5.3	4.9	5.3	3.8	1.1	3.4	3.4	1.9	0.0	0.0
87.5°	3.4	3.0	2.3	1.9	1.5	0.0	1.1	1.5	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)