

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: P401843

Luminaire Tested: **ENT-SA1F-735-U-T4W-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401843  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1F-735-U-T4W-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3500K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5455 lumens  
Efficiency: N/A  
Efficacy: 82.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

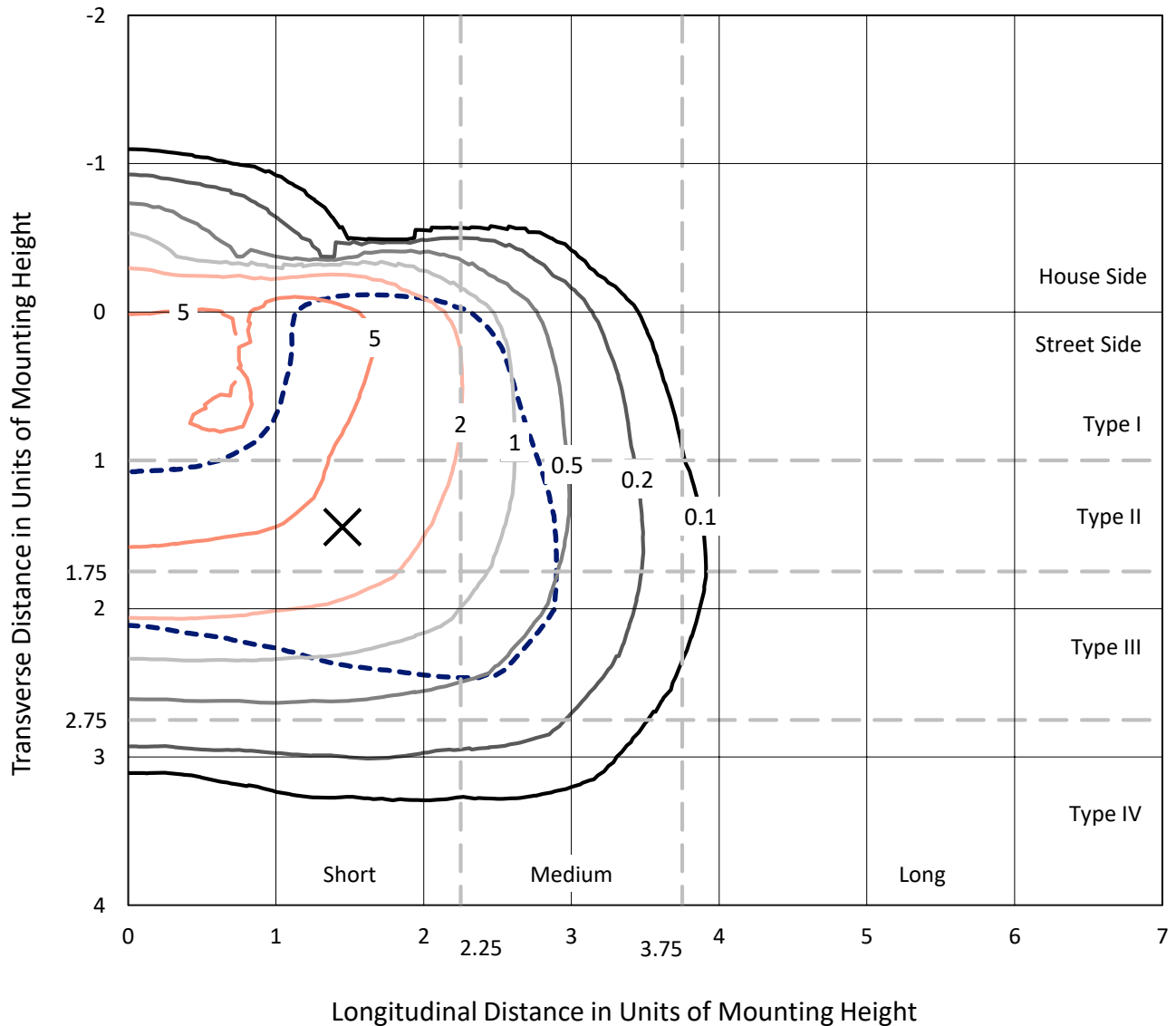
Input Watts (W): 66.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

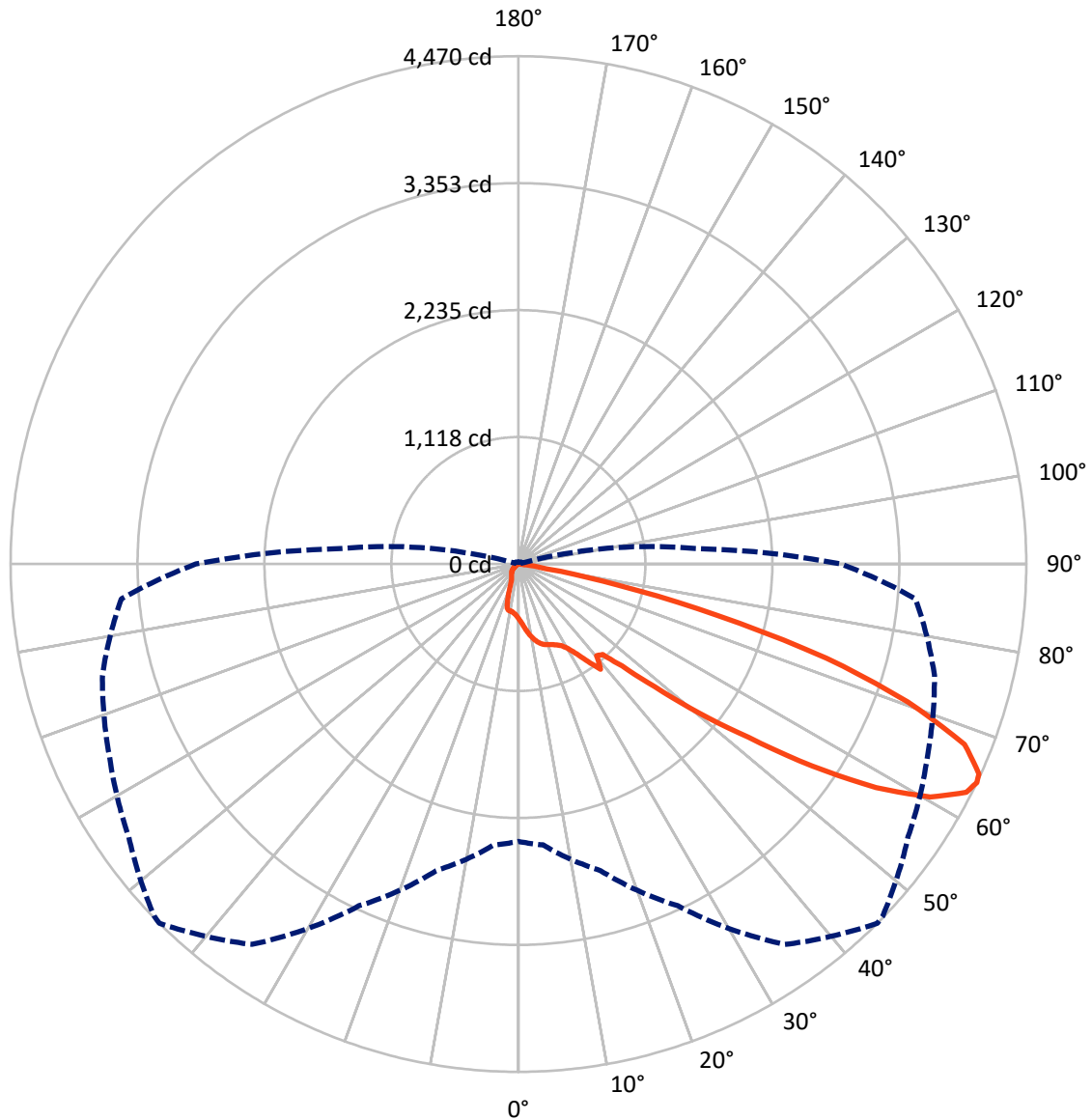
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.2 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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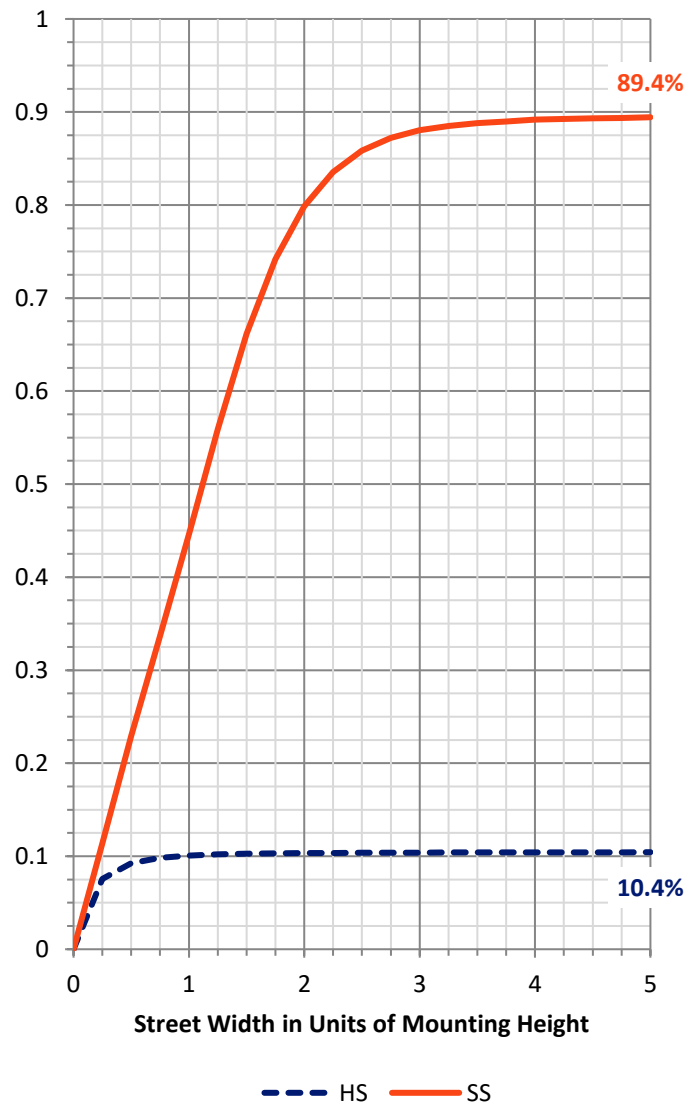
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	575.6	0.0	575.6
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	4879.4	0.0	4879.4
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	5455.0	0.0	5455.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.0	0.9
10°-20°	152.9	2.8
20°-30°	248.9	4.6
30°-40°	395.4	7.2
40°-50°	753.2	13.8
50°-60°	1552.1	28.5
60°-70°	1733.5	31.8
70°-80°	547.5	10.0
80°-90°	22.3	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°	5455.0	100.0
0°-180°	5455.0	100.0



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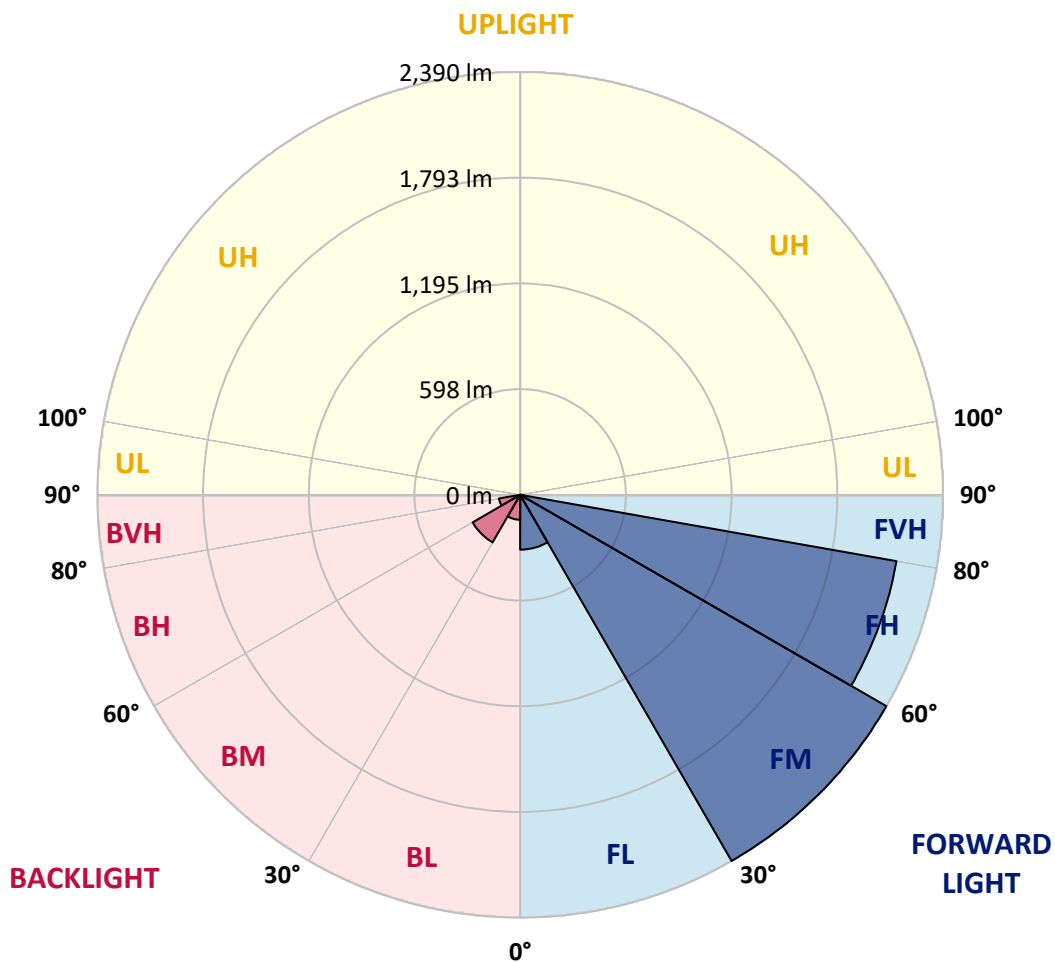
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	309.9	5.7			
FM	(30°-60°)	2390.2	43.8			
FH	(60°-80°)	2159.7	39.6			G2/5000
FVH	(80°-90°)	19.6	0.4			G1/100
BL	(0°-30°)	141.0	2.6	B1/500		
BM	(30°-60°)	310.6	5.7	B1/1000		
BH	(60°-80°)	121.3	2.2	B1/500		G1/500
BVH	(80°-90°)	2.7	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°	46°	55°	65°	75°	85°
0°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5
2.5°	533.4	535.5	532.4	528.2	524.1	516.8	517.8	508.5	501.2	496.0	487.7
5°	601.0	600.0	593.7	584.4	575.0	561.5	559.4	544.9	529.3	512.6	497.0
7.5°	669.6	666.5	660.3	647.8	630.1	612.5	607.3	586.5	563.6	538.6	511.6
10°	725.8	723.7	716.4	702.9	682.1	655.1	655.1	626.0	595.8	565.7	533.4
12.5°	771.5	769.5	761.1	744.5	719.6	695.6	692.5	666.5	633.3	597.9	558.4
15°	799.6	797.5	788.2	769.5	747.6	725.8	722.7	697.7	667.6	627.0	581.3
17.5°	806.9	804.8	797.5	780.9	764.3	745.6	741.4	719.6	693.6	652.0	605.2
20°	803.8	799.6	795.5	781.9	768.4	755.9	753.9	738.3	715.4	680.0	630.1
22.5°	795.5	791.3	788.2	778.8	771.5	770.5	768.4	759.1	744.5	714.4	667.6
25°	792.3	789.2	786.1	779.9	778.8	789.2	788.2	787.1	780.9	754.9	706.0
27.5°	810.0	809.0	801.7	791.3	796.5	814.2	815.2	820.4	816.3	799.6	762.2
30°	872.4	867.2	850.6	827.7	841.2	864.1	868.2	884.9	885.9	888.0	837.1
32.5°	956.6	948.3	920.2	891.1	899.4	942.1	943.1	969.1	1024.2	989.9	877.6
35°	1014.9	1004.5	961.8	946.2	987.8	1055.4	1064.8	1117.8	1122.0	997.2	874.5
37.5°	1178.1	1162.5	1084.5	989.9	1030.5	1176.0	1186.4	1177.1	1089.7	986.8	919.2
40°	1396.5	1381.9	1312.3	1153.2	1038.8	1060.6	1065.8	1093.9	1110.5	1059.6	1062.7
42.5°	1680.3	1661.6	1589.9	1395.4	1168.8	1088.7	1099.1	1156.3	1265.5	1289.4	1412.1
45°	1970.5	1960.1	1887.3	1677.2	1405.8	1280.0	1285.2	1354.9	1550.4	1701.1	1805.1
47.5°	2254.3	2256.4	2194.0	2016.2	1751.1	1611.7	1605.5	1695.9	1943.4	2050.5	2156.6
50°	2654.7	2652.6	2541.3	2431.1	2224.2	2058.8	2048.4	2099.4	2337.5	2377.0	2541.3
52.5°	3110.1	3108.0	2940.6	2888.6	2801.3	2535.1	2563.2	2519.5	2691.1	2761.8	2994.7
55°	3326.4	3307.7	3237.0	3302.5	3406.4	3139.2	3135.1	2968.7	3102.8	3163.1	3380.5
57.5°	3304.5	3311.8	3379.4	3596.7	3937.8	3714.2	3720.5	3411.6	3489.6	3527.1	3686.2
60°	3180.8	3186.0	3343.0	3704.9	4203.0	4164.5	4142.6	3825.5	3774.5	3758.9	3834.9
62.5°	2827.3	2829.3	3084.1	3548.9	4200.9	4424.4	4403.6	4116.6	3957.6	3857.7	3719.4
64°	2442.5	2482.0	2794.0	3319.1	4087.5	4470.2	4458.7	4187.4	3974.2	3791.2	3507.3
65°	2126.4	2185.7	2563.2	3115.3	3959.6	4454.6	4441.1	4174.9	3951.3	3666.4	3287.9
67.5°	1450.5	1481.7	1820.7	2451.9	3472.0	4235.2	4231.0	4014.7	3702.8	3167.3	2579.8
70°	855.8	878.6	1129.2	1711.5	2668.2	3638.3	3693.4	3615.5	3073.7	2275.1	1642.9
72.5°	266.2	279.7	498.1	950.4	1749.0	2834.5	2906.3	2850.1	2237.7	1421.4	910.9
75°	99.8	104.0	164.3	412.8	870.3	1812.4	1834.2	1899.8	1363.2	750.7	398.3
77.5°	55.1	56.2	81.1	154.9	382.7	890.1	910.9	902.6	724.8	354.6	126.9
80°	27.0	28.1	39.5	68.6	148.7	251.6	298.4	394.1	255.8	174.7	40.6
82.5°	9.4	8.3	17.7	31.2	49.9	67.6	75.9	109.2	107.1	95.7	14.6
85°	0.0	0.0	1.0	1.0	1.0	2.1	2.1	13.5	27.0	31.2	4.2
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1	2.1
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°	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5	483.5
2.5°	483.5	481.4	474.2	466.9	461.7	455.4	454.4	450.2	449.2	449.2	449.2
5°	488.7	482.5	469.0	457.5	447.1	437.8	433.6	429.4	426.3	425.3	425.3
7.5°	500.2	490.8	469.0	452.3	436.7	425.3	419.0	414.9	411.8	411.8	411.8
10°	516.8	502.2	475.2	452.3	433.6	419.0	409.7	403.4	399.3	398.3	399.3
12.5°	537.6	518.9	485.6	457.5	435.7	417.0	397.2	360.8	336.9	323.4	321.3
15°	557.3	535.5	497.0	464.8	438.8	397.2	325.5	269.3	231.9	220.4	218.4
17.5°	579.2	556.3	512.6	475.2	427.4	320.3	231.9	185.1	177.8	179.9	179.9
20°	606.2	579.2	529.3	485.6	368.1	227.7	169.5	163.3	165.3	169.5	169.5
22.5°	637.4	608.3	552.1	479.4	280.8	166.4	154.9	156.0	158.1	162.2	162.2
25°	678.0	647.8	577.1	432.6	195.5	145.6	146.6	147.7	150.8	154.9	156.0
27.5°	738.3	701.9	607.3	362.9	147.7	135.2	136.2	139.3	142.5	147.7	147.7
30°	802.7	758.0	634.3	279.7	128.9	123.7	124.8	127.9	133.1	137.3	139.3
32.5°	830.8	791.3	639.5	191.3	119.6	114.4	112.3	115.4	119.6	123.7	124.8
35°	846.4	829.8	614.5	138.3	112.3	106.1	101.9	100.9	101.9	105.0	105.0
37.5°	923.4	911.9	564.6	118.5	105.0	98.8	92.5	87.3	85.3	84.2	85.3
40°	1071.0	1046.1	499.1	109.2	98.8	91.5	83.2	74.9	67.6	64.5	64.5
42.5°	1396.5	1270.7	405.5	102.9	92.5	84.2	71.7	60.3	52.0	49.9	49.9
45°	1746.9	1549.3	304.7	97.7	86.3	75.9	60.3	47.8	40.6	38.5	38.5
47.5°	2083.8	1755.2	213.2	91.5	79.0	66.5	49.9	38.5	33.3	32.2	32.2
50°	2437.3	1934.1	148.7	84.2	71.7	57.2	40.6	31.2	28.1	28.1	28.1
52.5°	2781.5	2066.1	109.2	76.9	62.4	47.8	34.3	28.1	26.0	26.0	26.0
55°	3041.5	2117.1	83.2	67.6	53.0	40.6	31.2	27.0	25.0	23.9	23.9
57.5°	3215.1	2074.4	67.6	56.2	44.7	35.4	28.1	25.0	22.9	21.8	21.8
60°	3211.0	1933.0	54.1	45.8	36.4	30.2	26.0	22.9	20.8	19.8	19.8
62.5°	3022.8	1703.2	42.6	36.4	30.2	26.0	22.9	20.8	18.7	17.7	16.6
64°	2838.7	1560.8	36.4	31.2	27.0	23.9	20.8	18.7	16.6	14.6	14.6
65°	2639.1	1425.6	33.3	28.1	23.9	21.8	19.8	17.7	14.6	12.5	12.5
67.5°	2006.9	1055.4	27.0	21.8	18.7	17.7	15.6	13.5	10.4	8.3	8.3
70°	1302.9	683.2	22.9	17.7	15.6	15.6	14.6	11.4	8.3	7.3	6.2
72.5°	667.6	340.0	18.7	14.6	13.5	13.5	12.5	9.4	7.3	6.2	5.2
75°	282.8	138.3	15.6	12.5	11.4	10.4	9.4	8.3	6.2	5.2	5.2
77.5°	98.8	52.0	14.6	12.5	9.4	8.3	8.3	8.3	8.3	7.3	6.2
80°	33.3	19.8	9.4	9.4	10.4	11.4	11.4	10.4	11.4	9.4	7.3
82.5°	13.5	7.3	3.1	4.2	7.3	8.3	9.4	9.4	9.4	7.3	6.2
85°	3.1	2.1	2.1	3.1	3.1	4.2	4.2	5.2	5.2	4.2	4.2
87.5°	2.1	2.1	2.1	2.1	2.1	2.1	3.1	2.1	3.1	3.1	3.1
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)