

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: P401510

Luminaire Tested: **ENT-SA1D-740-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401510  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1D-740-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 4000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4338 lumens  
Efficiency: N/A  
Efficacy: 100.6 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 - G1

Input Watts (W): 43.1  
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

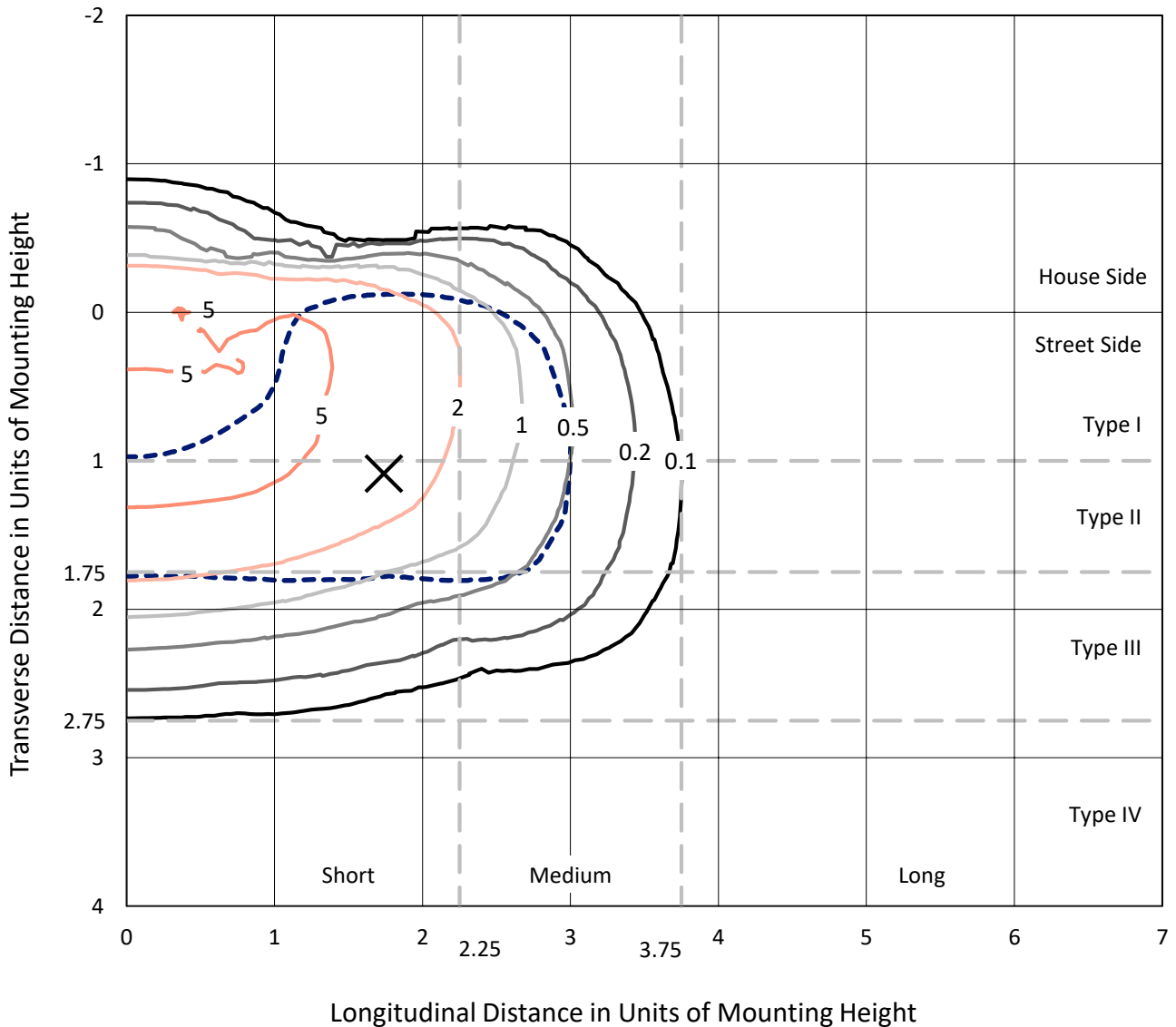


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

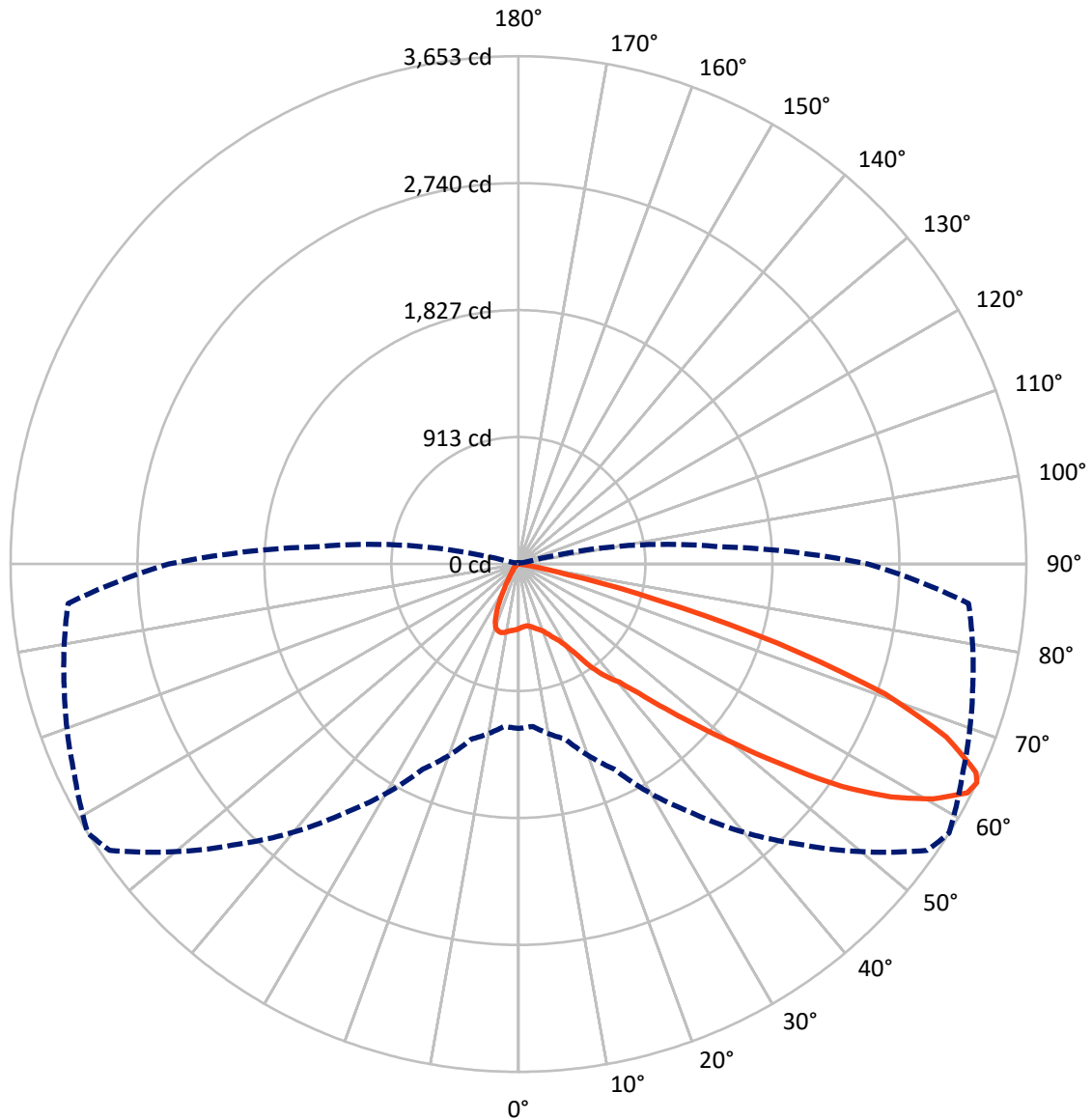


Based on 10 foot mounting height. Maximum calculated value = 6.9 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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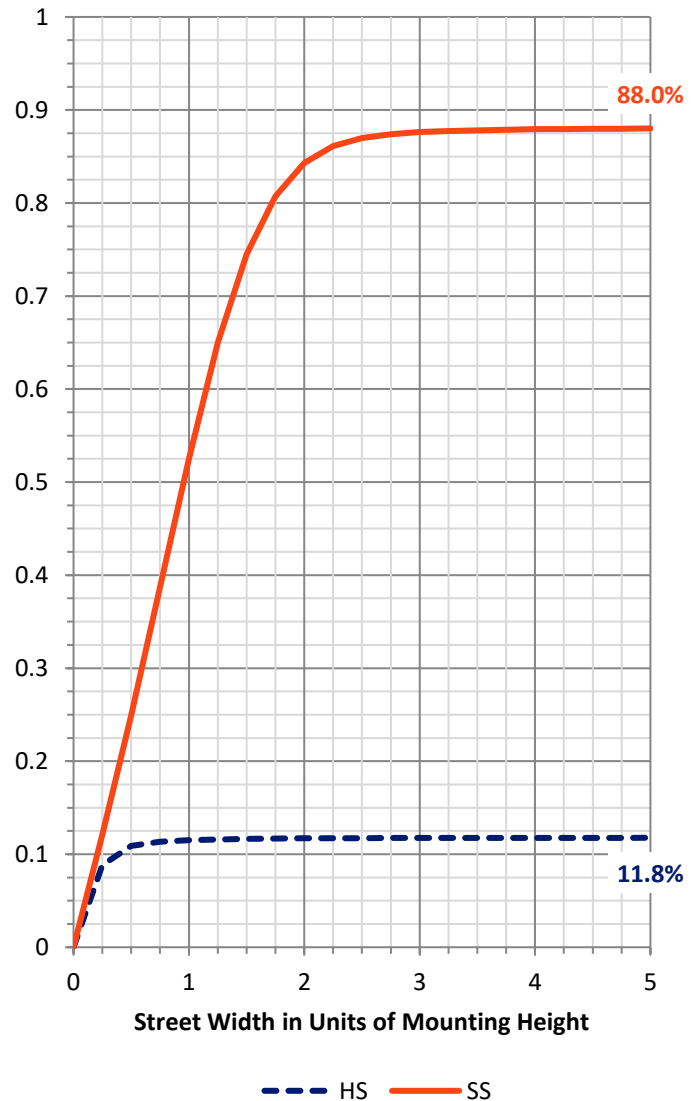
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	517.2	0.0	517.2
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	3820.8	0.0	3820.8
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	4338.0	0.0	4338.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.9	1.0
10°-20°	128.0	3.0
20°-30°	230.0	5.3
30°-40°	403.1	9.3
40°-50°	737.1	17.0
50°-60°	1261.0	29.1
60°-70°	1223.2	28.2
70°-80°	303.0	7.0
80°-90°	8.6	0.2
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°	4338.0	100.0
0°-180°	4338.0	100.0



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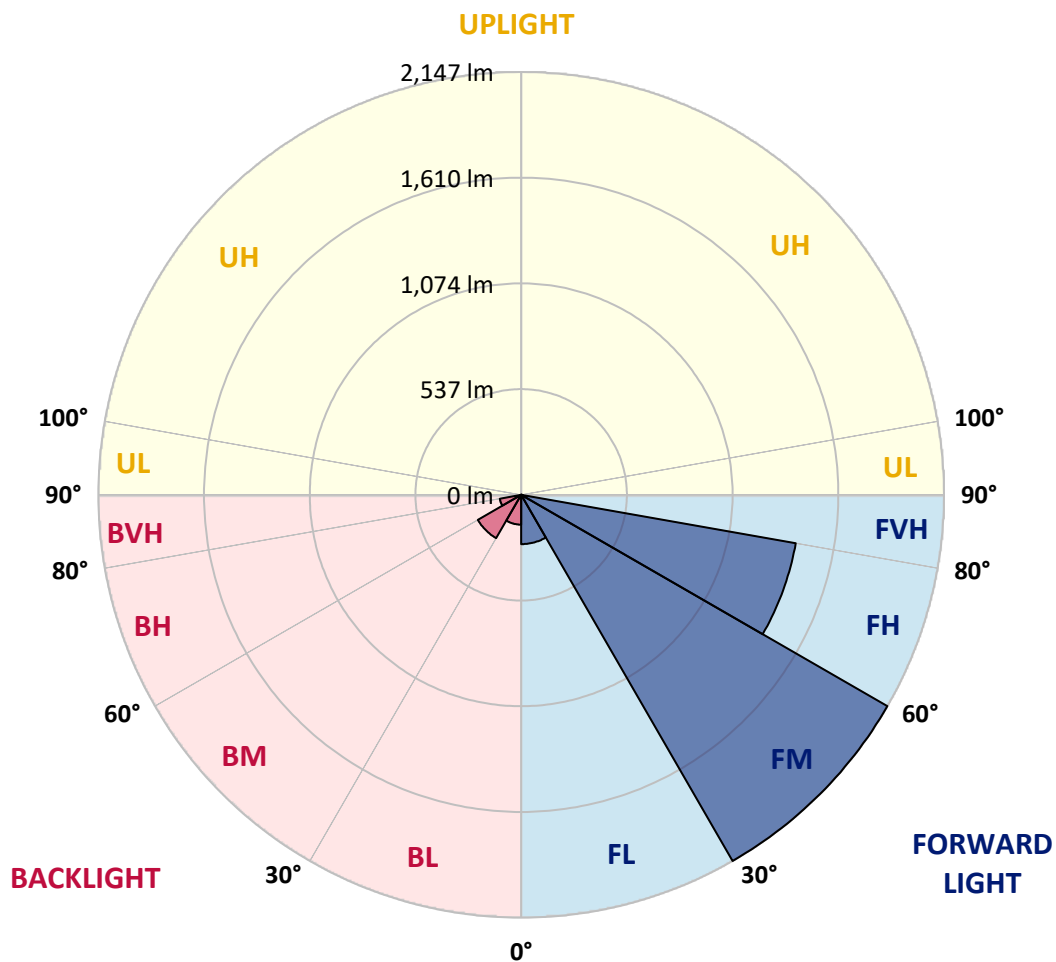
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	250.5	5.8			
FM	(30°-60°)	2147.2	49.5			
FH	(60°-80°)	1415.8	32.6			G1/1800
FVH	(80°-90°)	7.3	0.2			G0/10
BL	(0°-30°)	151.4	3.5	B1/500		
BM	(30°-60°)	254.0	5.9	B1/1000		
BH	(60°-80°)	110.4	2.5	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-G1**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7
2.5°	445.4	445.4	447.0	447.8	450.2	452.6	455.8	456.6	458.3	462.3	463.9
5°	421.3	422.1	423.7	427.8	433.4	439.8	447.8	450.2	456.6	464.7	470.3
7.5°	411.7	412.5	414.9	419.7	427.0	436.6	446.2	449.4	458.3	471.1	479.1
10°	410.1	410.1	413.3	420.5	429.4	441.4	451.8	455.8	467.9	483.1	496.0
12.5°	410.1	410.1	414.1	422.9	433.4	448.6	463.1	468.7	482.3	501.6	517.6
15°	417.3	418.9	421.3	427.0	439.0	455.8	475.9	482.3	499.2	522.5	542.5
17.5°	468.7	467.1	459.1	451.8	449.4	463.9	487.9	496.8	521.7	551.3	573.0
20°	568.2	567.4	553.0	517.6	486.3	478.3	506.4	516.8	553.0	592.3	608.3
22.5°	688.6	692.6	670.1	622.8	558.6	517.6	533.7	548.1	594.7	642.0	651.7
25°	808.2	813.0	792.1	732.7	654.1	582.6	571.4	584.3	637.2	684.6	680.6
27.5°	949.4	945.4	924.5	857.1	765.6	670.1	622.0	624.4	665.3	718.3	705.4
30°	1052.9	1047.3	1027.3	981.5	895.6	786.5	694.2	687.0	699.0	757.6	744.0
32.5°	1147.6	1151.6	1136.4	1075.4	994.3	906.1	802.5	783.3	778.5	828.2	805.8
35°	1241.5	1240.7	1235.1	1181.3	1101.9	1018.4	931.8	918.1	916.5	964.7	903.7
37.5°	1353.9	1348.3	1337.8	1283.3	1219.9	1140.4	1048.1	1026.5	1022.4	1032.1	960.6
40°	1474.3	1481.5	1464.6	1407.7	1338.6	1279.3	1150.0	1117.1	1089.9	1117.9	1072.2
42.5°	1653.2	1658.9	1629.2	1589.8	1500.8	1445.4	1314.6	1269.6	1256.8	1299.3	1248.0
45°	1877.9	1867.5	1847.5	1820.2	1746.3	1662.1	1525.6	1483.1	1469.5	1542.5	1458.2
47.5°	2052.9	2051.3	2052.1	2046.5	2035.2	1934.1	1772.0	1743.1	1729.5	1834.6	1741.5
50°	2163.7	2170.1	2197.4	2267.2	2318.5	2276.0	2085.8	2050.5	2040.1	2149.2	2023.2
52.5°	2247.1	2262.4	2308.1	2446.1	2610.7	2625.1	2467.8	2418.1	2394.0	2424.5	2249.5
55°	2289.7	2296.9	2366.7	2570.5	2828.2	2931.7	2865.9	2824.1	2727.0	2669.3	2515.2
57.5°	2190.1	2178.9	2299.3	2558.5	2940.5	3178.9	3207.0	3159.6	3003.9	2959.0	2837.8
60°	1929.3	1924.5	2060.1	2371.5	2842.6	3236.7	3459.8	3430.1	3287.2	3180.5	3066.5
62.5°	1471.9	1479.9	1623.5	1940.5	2493.5	3070.5	3600.2	3624.3	3472.6	3313.7	3235.8
64°	1182.1	1172.5	1304.1	1626.8	2187.7	2849.0	3589.8	3653.2	3528.8	3383.5	3251.1
65°	992.7	971.9	1097.9	1390.0	1929.3	2688.5	3515.9	3617.9	3532.8	3400.4	3195.7
67.5°	522.5	533.7	587.5	844.3	1302.5	2032.8	3166.0	3320.1	3354.6	3170.0	2784.8
70°	234.3	235.9	270.5	431.0	720.7	1318.6	2546.5	2796.1	2815.3	2604.2	2017.6
72.5°	77.8	78.6	119.6	172.5	302.6	610.7	1719.8	1947.0	1988.7	1688.5	1094.7
75°	48.2	49.8	63.4	93.1	140.4	213.5	871.6	1025.6	1034.5	748.8	398.1
77.5°	30.5	32.1	38.5	55.4	77.0	81.1	285.7	345.9	391.6	269.7	123.6
80°	19.3	19.3	24.9	33.7	40.1	34.5	77.8	102.7	123.6	90.7	41.7
82.5°	7.2	7.2	12.8	18.5	16.9	12.0	20.9	27.3	47.3	44.9	20.1
85°	0.0	0.0	0.8	1.6	0.8	1.6	4.0	5.6	8.8	12.8	6.4
87.5°	0.0	0.0	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6
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°	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7	464.7
2.5°	466.3	467.9	471.1	471.9	472.7	470.3	472.7	470.3	471.9	471.9	471.9
5°	473.5	475.9	478.3	479.1	478.3	472.7	474.3	470.3	469.5	469.5	469.5
7.5°	483.1	485.5	489.6	487.1	482.3	474.3	473.5	467.9	465.5	465.5	466.3
10°	500.8	503.2	504.8	500.0	490.4	478.3	469.5	457.4	451.8	449.4	449.4
12.5°	523.3	525.7	524.9	516.8	499.2	474.3	449.4	426.1	409.3	402.9	396.5
15°	547.3	550.5	548.9	532.1	498.4	454.2	406.1	351.5	317.8	296.1	292.1
17.5°	575.4	578.6	570.6	540.1	486.3	411.7	320.2	246.4	197.4	179.0	178.2
20°	609.9	608.3	589.1	540.9	464.7	333.1	214.3	154.1	133.2	128.4	127.6
22.5°	649.3	642.0	606.7	536.1	405.3	226.3	138.0	122.0	119.6	118.0	118.0
25°	671.7	658.9	613.1	522.5	312.2	144.5	117.2	114.0	110.8	107.5	106.7
27.5°	689.4	670.1	615.5	477.5	207.9	110.8	105.9	102.7	97.9	93.1	92.3
30°	721.5	692.6	619.6	398.9	127.6	94.7	92.3	86.7	79.5	74.6	73.0
32.5°	779.3	737.5	635.6	298.5	93.1	83.5	77.0	69.8	61.8	57.0	57.0
35°	841.1	780.1	643.6	196.6	81.1	73.0	63.4	54.6	47.3	43.3	42.5
37.5°	898.0	841.1	641.2	120.4	72.2	62.6	52.2	43.3	36.9	33.7	33.7
40°	1014.4	947.8	608.3	82.7	63.4	53.0	42.5	33.7	29.7	27.3	27.3
42.5°	1180.5	1065.0	535.3	70.6	55.4	44.1	33.7	28.1	24.9	22.5	22.5
45°	1366.7	1194.2	427.0	63.4	48.2	36.9	28.1	23.3	20.1	19.3	19.3
47.5°	1610.7	1350.7	313.8	57.0	41.7	31.3	23.3	19.3	17.7	16.9	16.9
50°	1824.2	1477.5	214.3	49.8	36.9	26.5	20.1	17.7	16.1	15.2	15.2
52.5°	2018.4	1565.8	141.2	43.3	32.9	21.7	18.5	16.1	15.2	14.4	14.4
55°	2247.1	1633.2	95.5	37.7	28.9	20.1	17.7	16.1	14.4	14.4	13.6
57.5°	2441.3	1673.3	68.2	32.1	25.7	18.5	16.9	15.2	13.6	12.8	12.8
60°	2554.5	1625.9	49.8	28.1	22.5	16.9	15.2	13.6	12.8	12.0	12.0
62.5°	2585.8	1534.5	38.5	24.1	19.3	15.2	13.6	12.0	11.2	10.4	10.4
64°	2513.6	1436.5	32.9	20.9	16.9	13.6	12.8	11.2	9.6	8.0	8.0
65°	2411.6	1345.9	29.7	19.3	15.2	12.8	12.0	10.4	8.0	6.4	6.4
67.5°	2009.6	1073.0	24.1	16.1	12.0	11.2	9.6	8.0	5.6	4.0	4.0
70°	1426.9	750.4	18.5	12.8	10.4	10.4	8.8	6.4	3.2	1.6	1.6
72.5°	755.2	390.0	15.2	10.4	8.0	8.0	7.2	4.0	2.4	1.6	0.8
75°	264.0	128.4	12.8	8.8	7.2	5.6	4.8	3.2	2.4	1.6	0.8
77.5°	80.3	42.5	11.2	8.8	6.4	4.8	5.6	4.8	4.8	3.2	2.4
80°	25.7	15.2	6.4	5.6	6.4	6.4	5.6	4.8	5.6	4.0	3.2
82.5°	9.6	5.6	2.4	3.2	3.2	4.0	4.0	3.2	2.4	0.8	0.0
85°	3.2	2.4	1.6	2.4	2.4	2.4	1.6	1.6	0.8	0.0	0.0
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8	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)