

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: P401461

Luminaire Tested: **ENT-SA1D-730-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401461  
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-730-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K, 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: 3951 lumens  
Efficiency: N/A  
Efficacy: 91.7 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

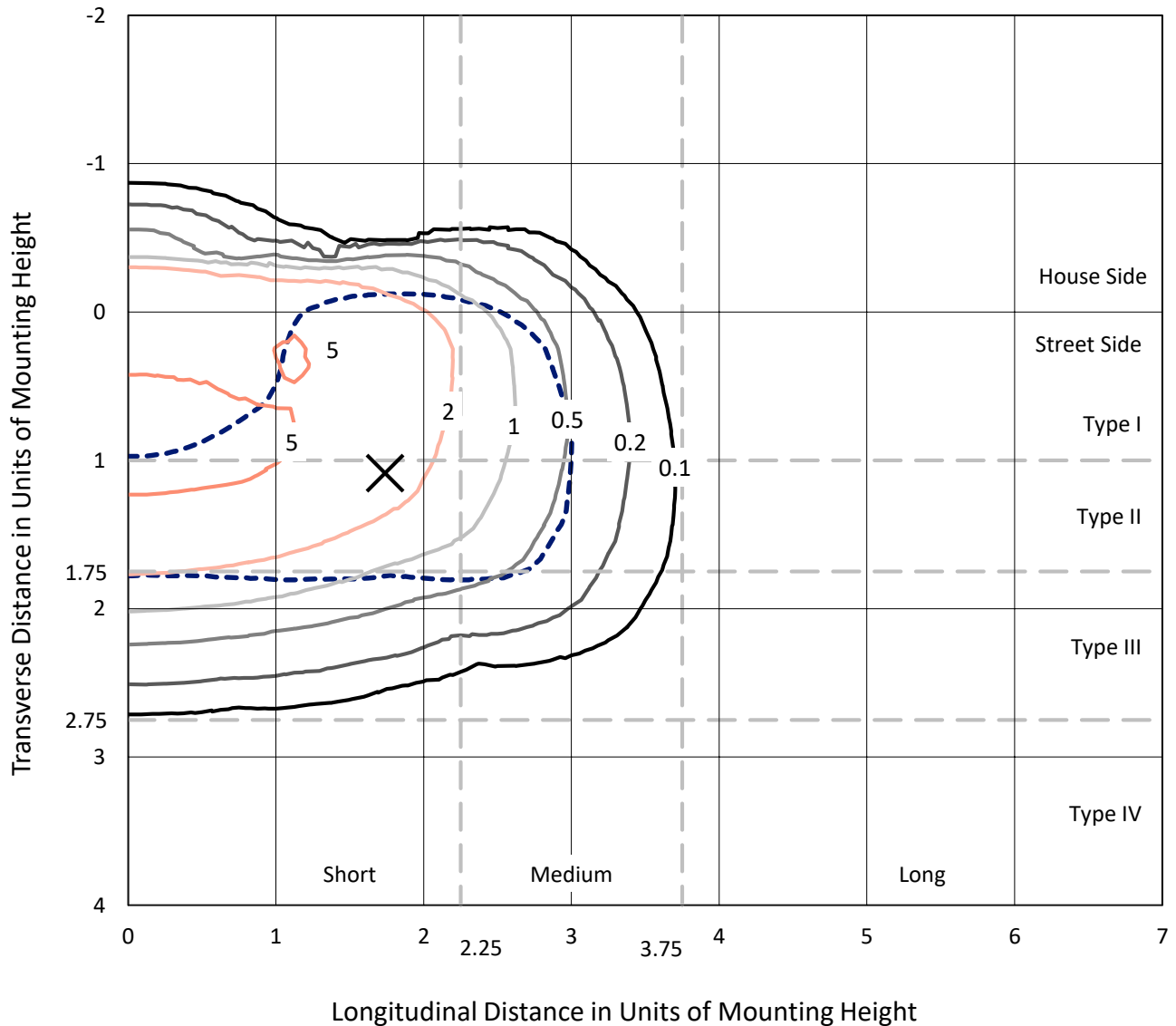


REPORT NUMBER: P401461

CATALOG NUMBER: ENT-SA1D-730-U-T3-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

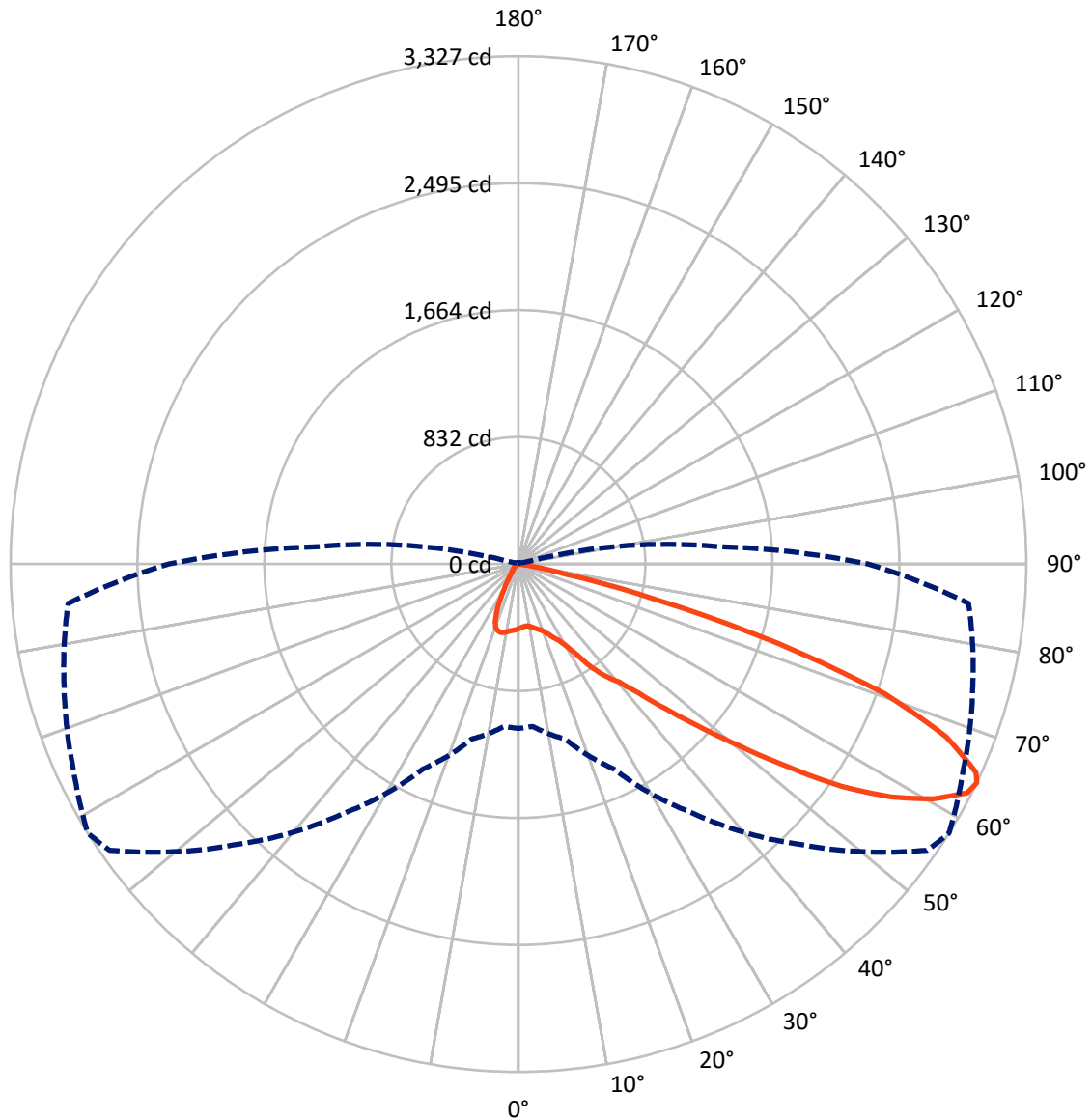


Based on 10 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P401461

CATALOG NUMBER: ENT-SA1D-730-U-T3-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P401461

CATALOG NUMBER: ENT-SA1D-730-U-T3-HSS

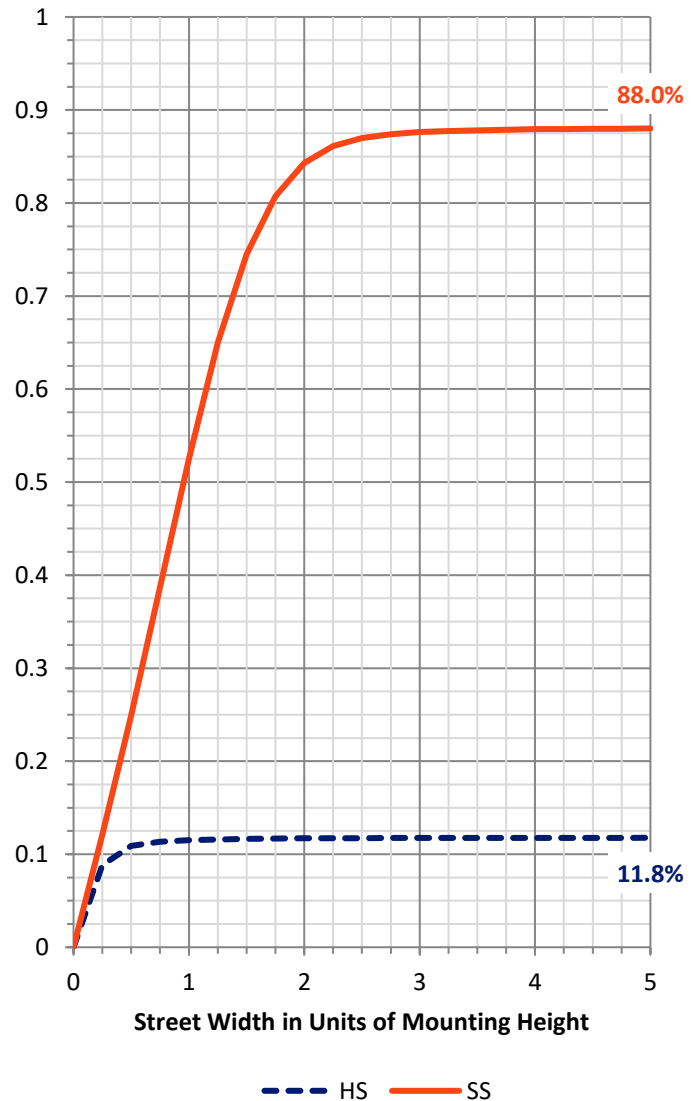
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	471.0	0.0	471.0
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	3480.0	0.0	3480.0
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	3951.0	0.0	3951.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.0	1.0
10°-20°	116.6	3.0
20°-30°	209.5	5.3
30°-40°	367.2	9.3
40°-50°	671.3	17.0
50°-60°	1148.5	29.1
60°-70°	1114.1	28.2
70°-80°	276.0	7.0
80°-90°	7.9	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°	3951.0	100.0
0°-180°	3951.0	100.0



REPORT NUMBER: P401461

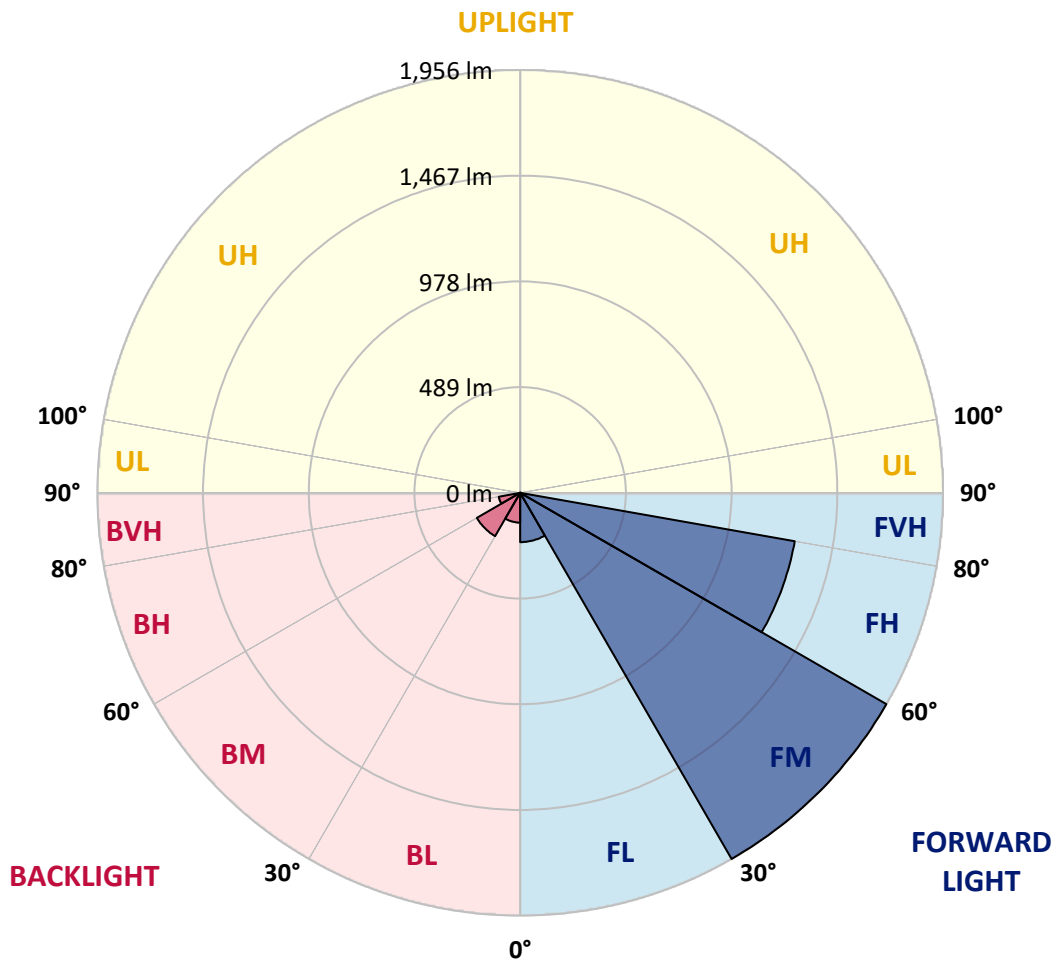
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	228.1	5.8			
FM	(30°-60°)	1955.7	49.5			
FH	(60°-80°)	1289.5	32.6			G1/1800
FVH	(80°-90°)	6.7	0.2			G0/10
BL	(0°-30°)	137.9	3.5	B1/500		
BM	(30°-60°)	231.3	5.9	B1/1000		
BH	(60°-80°)	100.6	2.5	B0/110		G0/110
BVH	(80°-90°)	1.2	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-G1**

Type III Short





REPORT NUMBER: P401461

CATALOG NUMBER: ENT-SA1D-730-U-T3-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2
2.5°	405.7	405.7	407.1	407.9	410.1	412.3	415.2	415.9	417.4	421.0	422.5
5°	383.7	384.5	385.9	389.6	394.7	400.6	407.9	410.1	415.9	423.2	428.3
7.5°	375.0	375.7	377.9	382.3	388.9	397.6	406.4	409.3	417.4	429.1	436.4
10°	373.5	373.5	376.4	383.0	391.1	402.0	411.5	415.2	426.1	440.0	451.7
12.5°	373.5	373.5	377.2	385.2	394.7	408.6	421.8	426.9	439.3	456.8	471.5
15°	380.1	381.6	383.7	388.9	399.8	415.2	433.5	439.3	454.6	475.8	494.1
17.5°	426.9	425.4	418.1	411.5	409.3	422.5	444.4	452.5	475.1	502.2	521.9
20°	517.5	516.8	503.6	471.5	443.0	435.6	461.2	470.7	503.6	539.4	554.1
22.5°	627.2	630.8	610.3	567.2	508.7	471.5	486.1	499.2	541.6	584.8	593.5
25°	736.1	740.4	721.4	667.4	595.7	530.7	520.4	532.1	580.4	623.5	619.8
27.5°	864.7	861.1	842.0	780.6	697.3	610.3	566.5	568.7	606.0	654.2	642.5
30°	959.0	953.9	935.6	893.9	815.7	716.3	632.3	625.7	636.7	690.0	677.6
32.5°	1045.3	1048.9	1035.0	979.5	905.6	825.2	730.9	713.4	709.0	754.3	733.9
35°	1130.8	1130.0	1124.9	1076.0	1003.6	927.6	848.6	836.2	834.7	878.6	823.0
37.5°	1233.1	1228.0	1218.5	1168.8	1111.0	1038.7	954.6	934.9	931.2	940.0	874.9
40°	1342.7	1349.3	1334.0	1282.1	1219.2	1165.1	1047.4	1017.5	992.6	1018.2	976.5
42.5°	1505.7	1510.9	1483.8	1448.0	1366.9	1316.4	1197.3	1156.4	1144.7	1183.4	1136.6
45°	1710.4	1700.9	1682.6	1657.8	1590.5	1513.8	1389.5	1350.8	1338.4	1404.9	1328.1
47.5°	1869.8	1868.3	1869.0	1863.9	1853.7	1761.6	1613.9	1587.6	1575.2	1670.9	1586.2
50°	1970.6	1976.5	2001.3	2064.9	2111.7	2073.0	1899.7	1867.6	1858.1	1957.5	1842.7
52.5°	2046.6	2060.5	2102.2	2227.9	2377.8	2390.9	2247.7	2202.3	2180.4	2208.2	2048.8
55°	2085.4	2092.0	2155.6	2341.2	2575.9	2670.1	2610.2	2572.2	2483.8	2431.1	2290.8
57.5°	1994.8	1984.5	2094.2	2330.3	2678.2	2895.3	2920.9	2877.7	2735.9	2695.0	2584.6
60°	1757.2	1752.8	1876.3	2159.9	2589.0	2947.9	3151.1	3124.1	2994.0	2896.7	2792.9
62.5°	1340.6	1347.9	1478.7	1767.4	2271.0	2796.6	3279.0	3301.0	3162.8	3018.1	2947.2
64°	1076.7	1067.9	1187.8	1481.6	1992.6	2594.9	3269.5	3327.3	3214.0	3081.7	2961.1
65°	904.2	885.2	999.9	1266.0	1757.2	2448.7	3202.3	3295.1	3217.6	3097.0	2910.6
67.5°	475.8	486.1	535.1	769.0	1186.3	1851.5	2883.6	3023.9	3055.4	2887.2	2536.4
70°	213.4	214.9	246.3	392.5	656.4	1200.9	2319.3	2546.6	2564.2	2371.9	1837.6
72.5°	70.9	71.6	108.9	157.2	275.6	556.2	1566.4	1773.3	1811.3	1537.9	997.0
75°	43.9	45.3	57.7	84.8	127.9	194.4	793.8	934.1	942.2	682.0	362.5
77.5°	27.8	29.2	35.1	50.4	70.2	73.8	260.2	315.0	356.7	245.6	112.6
80°	17.5	17.5	22.7	30.7	36.5	31.4	70.9	93.6	112.6	82.6	38.0
82.5°	6.6	6.6	11.7	16.8	15.3	11.0	19.0	24.9	43.1	40.9	18.3
85°	0.0	0.0	0.7	1.5	0.7	1.5	3.7	5.1	8.0	11.7	5.8
87.5°	0.0	0.0	0.0	0.0	0.7	0.7	1.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P401461

CATALOG NUMBER: ENT-SA1D-730-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2	423.2
2.5°	424.7	426.1	429.1	429.8	430.5	428.3	430.5	428.3	429.8	429.8	429.8
5°	431.3	433.5	435.6	436.4	435.6	430.5	432.0	428.3	427.6	427.6	427.6
7.5°	440.0	442.2	445.9	443.7	439.3	432.0	431.3	426.1	423.9	423.9	424.7
10°	456.1	458.3	459.8	455.4	446.6	435.6	427.6	416.6	411.5	409.3	409.3
12.5°	476.6	478.8	478.0	470.7	454.6	432.0	409.3	388.1	372.8	366.9	361.1
15°	498.5	501.4	500.0	484.6	453.9	413.7	369.9	320.2	289.5	269.7	266.1
17.5°	524.1	527.0	519.7	491.9	443.0	375.0	291.6	224.4	179.8	163.0	162.3
20°	555.5	554.1	536.5	492.7	423.2	303.3	195.2	140.3	121.3	117.0	116.2
22.5°	591.3	584.8	552.6	488.3	369.1	206.1	125.7	111.1	108.9	107.4	107.4
25°	611.8	600.1	558.4	475.8	284.3	131.6	106.7	103.8	100.9	97.9	97.2
27.5°	627.9	610.3	560.6	434.9	189.3	100.9	96.5	93.6	89.2	84.8	84.1
30°	657.1	630.8	564.3	363.3	116.2	86.3	84.1	78.9	72.4	68.0	66.5
32.5°	709.7	671.7	578.9	271.9	84.8	76.0	70.2	63.6	56.3	51.9	51.9
35°	766.0	710.5	586.2	179.1	73.8	66.5	57.7	49.7	43.1	39.5	38.7
37.5°	817.9	766.0	584.0	109.6	65.8	57.0	47.5	39.5	33.6	30.7	30.7
40°	923.9	863.2	554.1	75.3	57.7	48.2	38.7	30.7	27.0	24.9	24.9
42.5°	1075.2	970.0	487.5	64.3	50.4	40.2	30.7	25.6	22.7	20.5	20.5
45°	1244.8	1087.6	388.9	57.7	43.9	33.6	25.6	21.2	18.3	17.5	17.5
47.5°	1467.0	1230.2	285.8	51.9	38.0	28.5	21.2	17.5	16.1	15.3	15.3
50°	1661.4	1345.7	195.2	45.3	33.6	24.1	18.3	16.1	14.6	13.9	13.9
52.5°	1838.3	1426.1	128.6	39.5	30.0	19.7	16.8	14.6	13.9	13.2	13.2
55°	2046.6	1487.5	87.0	34.4	26.3	18.3	16.1	14.6	13.2	13.2	12.4
57.5°	2223.5	1524.0	62.1	29.2	23.4	16.8	15.3	13.9	12.4	11.7	11.7
60°	2326.6	1480.9	45.3	25.6	20.5	15.3	13.9	12.4	11.7	11.0	11.0
62.5°	2355.1	1397.6	35.1	21.9	17.5	13.9	12.4	11.0	10.2	9.5	9.5
64°	2289.3	1308.4	30.0	19.0	15.3	12.4	11.7	10.2	8.8	7.3	7.3
65°	2196.5	1225.8	27.0	17.5	13.9	11.7	11.0	9.5	7.3	5.8	5.8
67.5°	1830.3	977.3	21.9	14.6	11.0	10.2	8.8	7.3	5.1	3.7	3.7
70°	1299.6	683.4	16.8	11.7	9.5	9.5	8.0	5.8	2.9	1.5	1.5
72.5°	687.8	355.2	13.9	9.5	7.3	7.3	6.6	3.7	2.2	1.5	0.7
75°	240.5	117.0	11.7	8.0	6.6	5.1	4.4	2.9	2.2	1.5	0.7
77.5°	73.1	38.7	10.2	8.0	5.8	4.4	5.1	4.4	4.4	2.9	2.2
80°	23.4	13.9	5.8	5.1	5.8	5.8	5.1	4.4	5.1	3.7	2.9
82.5°	8.8	5.1	2.2	2.9	2.9	3.7	3.7	2.9	2.2	0.7	0.0
85°	2.9	2.2	1.5	2.2	2.2	2.2	1.5	1.5	0.7	0.0	0.0
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7	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)