

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: P401537

Luminaire Tested: **ENT-SA1D-750-U-T4W-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401537  
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-SA1D-750-U-T4W-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 5000K, 800mA 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: 4210 lumens  
Efficiency: N/A  
Efficacy: 97.7 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

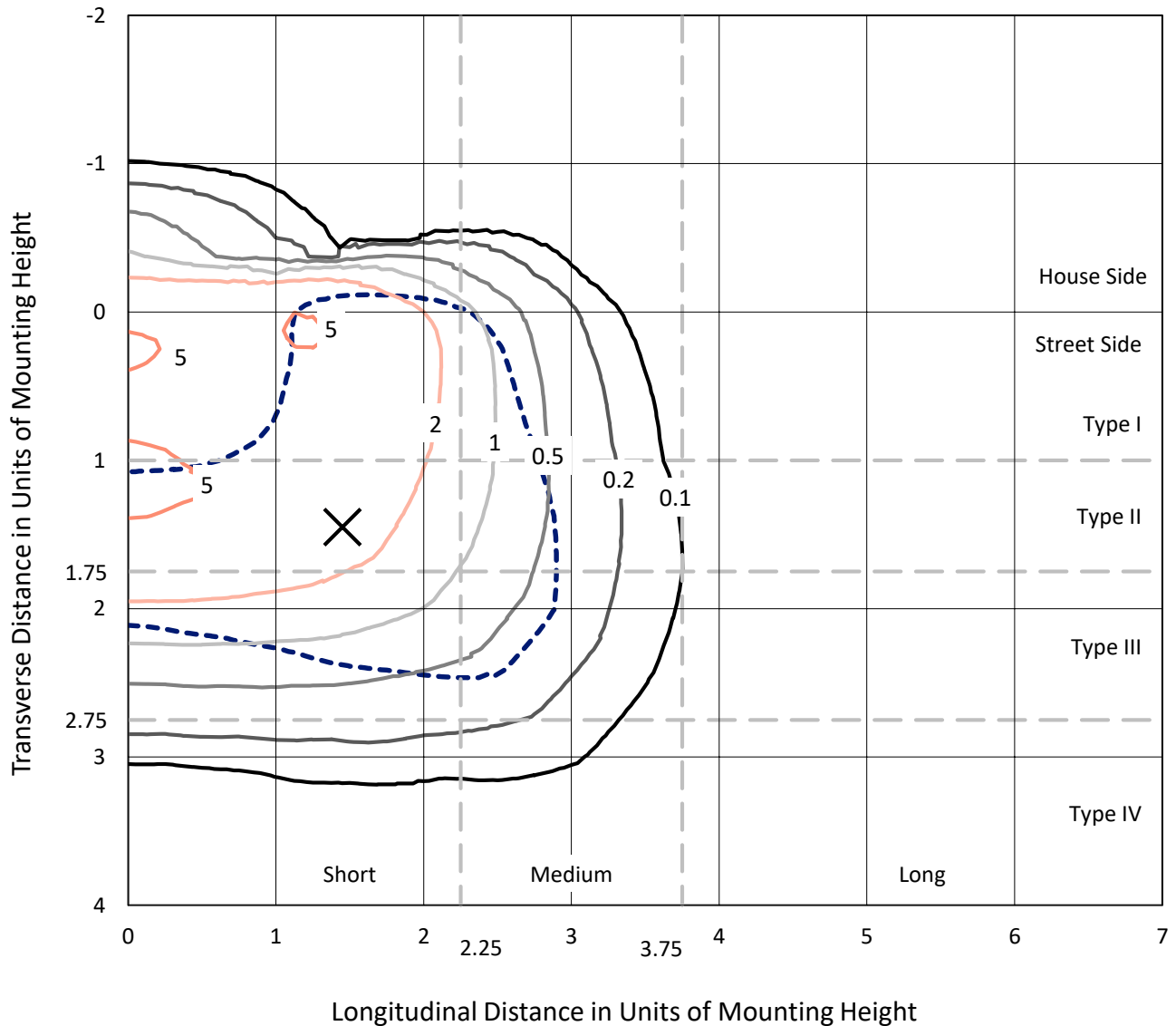
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

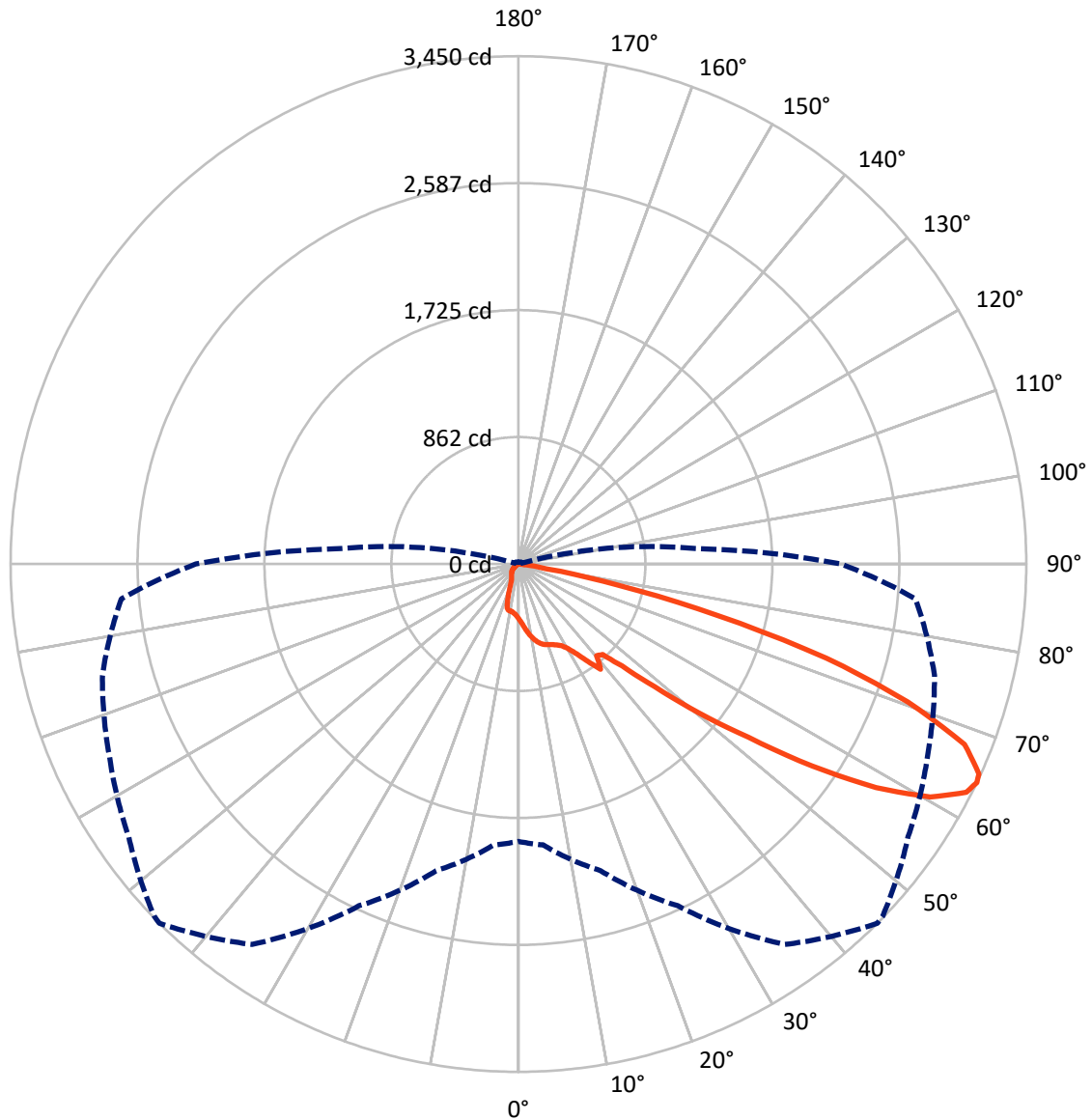
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 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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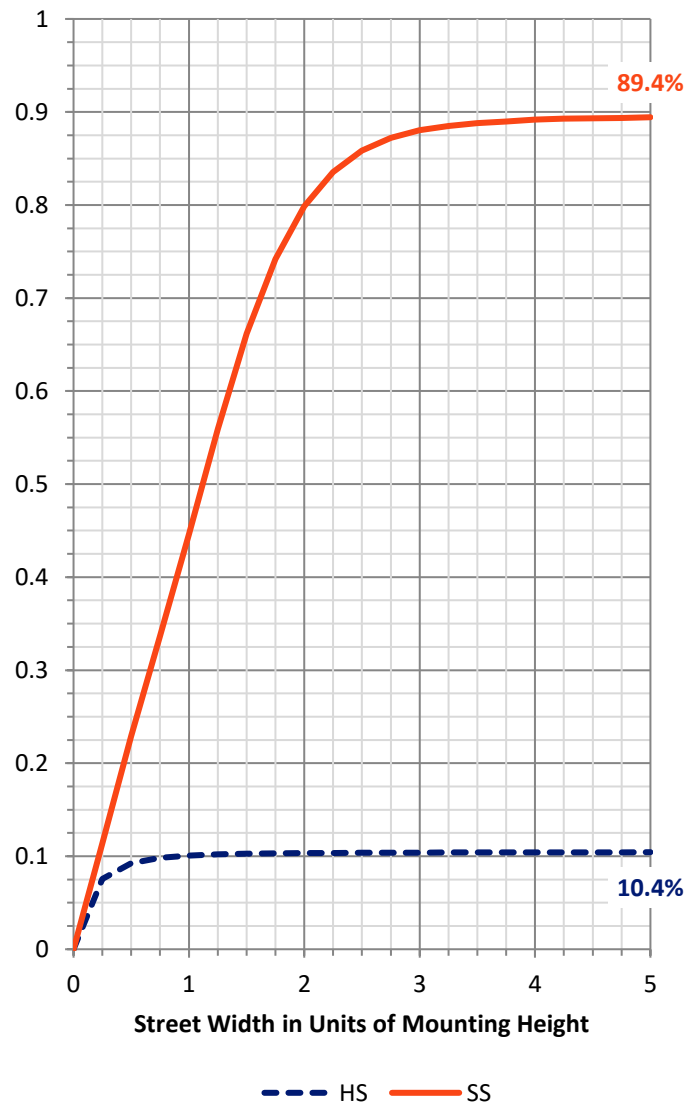
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	444.2	0.0	444.2
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	3765.8	0.0	3765.8
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	4210.0	0.0	4210.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.8	0.9
10°-20°	118.0	2.8
20°-30°	192.1	4.6
30°-40°	305.2	7.2
40°-50°	581.3	13.8
50°-60°	1197.9	28.5
60°-70°	1337.9	31.8
70°-80°	422.6	10.0
80°-90°	17.2	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°	4210.0	100.0
0°-180°	4210.0	100.0



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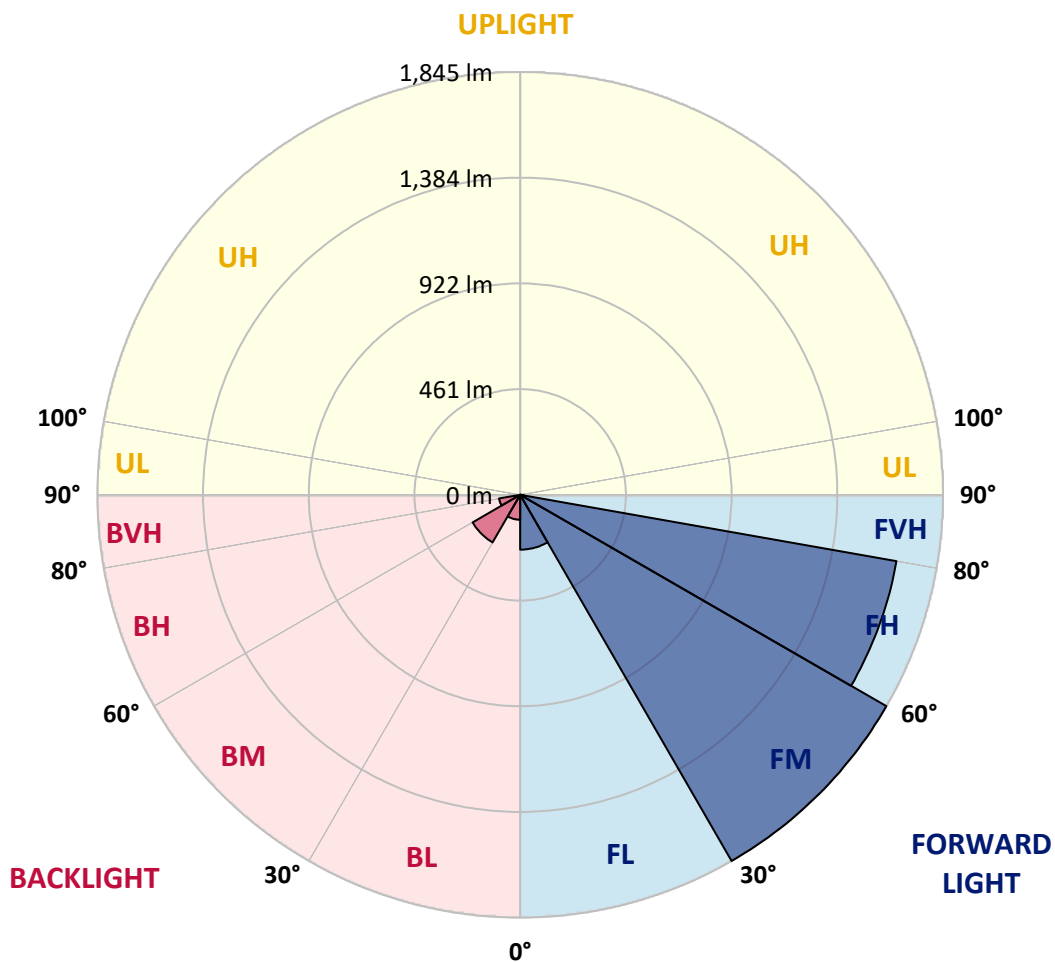
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	239.1	5.7			
FM	(30°-60°)	1844.7	43.8			
FH	(60°-80°)	1666.8	39.6			G1/1800
FVH	(80°-90°)	15.1	0.4			G1/100
BL	(0°-30°)	108.8	2.6	B0/110		
BM	(30°-60°)	239.7	5.7	B1/1000		
BH	(60°-80°)	93.6	2.2	B0/110		G0/110
BVH	(80°-90°)	2.0	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°	46°	55°	65°	75°	85°
0°	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2
2.5°	411.7	413.3	410.9	407.7	404.5	398.8	399.6	392.4	386.8	382.8	376.4
5°	463.8	463.0	458.2	451.0	443.8	433.4	431.7	420.5	408.5	395.6	383.6
7.5°	516.8	514.4	509.6	500.0	486.3	472.7	468.7	452.6	435.0	415.7	394.8
10°	560.1	558.5	552.9	542.5	526.4	505.6	505.6	483.1	459.8	436.6	411.7
12.5°	595.5	593.9	587.4	574.6	555.3	536.9	534.5	514.4	488.7	461.4	430.9
15°	617.1	615.5	608.3	593.9	577.0	560.1	557.7	538.5	515.2	483.9	448.6
17.5°	622.7	621.1	615.5	602.7	589.8	575.4	572.2	555.3	535.3	503.2	467.1
20°	620.3	617.1	613.9	603.5	593.0	583.4	581.8	569.8	552.1	524.8	486.3
22.5°	613.9	610.7	608.3	601.1	595.5	594.7	593.0	585.8	574.6	551.3	515.2
25°	611.5	609.1	606.7	601.9	601.1	609.1	608.3	607.5	602.7	582.6	544.9
27.5°	625.1	624.3	618.7	610.7	614.7	628.4	629.2	633.2	630.0	617.1	588.2
30°	673.3	669.3	656.4	638.8	649.2	666.9	670.1	682.9	683.7	685.3	646.0
32.5°	738.3	731.9	710.2	687.7	694.2	727.1	727.9	747.9	790.5	764.0	677.3
35°	783.2	775.2	742.3	730.3	762.4	814.5	821.8	862.7	865.9	769.6	674.9
37.5°	909.2	897.2	837.0	764.0	795.3	907.6	915.7	908.4	841.0	761.6	709.4
40°	1077.8	1066.5	1012.8	890.0	801.7	818.6	822.6	844.2	857.1	817.7	820.2
42.5°	1296.8	1282.4	1227.0	1077.0	902.0	840.2	848.2	892.4	976.6	995.1	1089.8
45°	1520.7	1512.7	1456.5	1294.4	1085.0	987.9	991.9	1045.7	1196.5	1312.9	1393.1
47.5°	1739.8	1741.4	1693.3	1556.0	1351.4	1243.9	1239.1	1308.9	1499.9	1582.5	1664.4
50°	2048.8	2047.2	1961.3	1876.2	1716.5	1589.0	1580.9	1620.2	1804.0	1834.5	1961.3
52.5°	2400.3	2398.7	2269.5	2229.3	2161.9	1956.5	1978.2	1944.5	2076.9	2131.4	2311.2
55°	2567.2	2552.8	2498.2	2548.7	2629.0	2422.7	2419.5	2291.1	2394.7	2441.2	2608.9
57.5°	2550.3	2556.0	2608.1	2775.8	3039.1	2866.5	2871.3	2633.0	2693.2	2722.1	2844.9
60°	2454.8	2458.9	2580.0	2859.3	3243.7	3214.0	3197.2	2952.4	2913.1	2901.0	2959.6
62.5°	2182.0	2183.6	2380.2	2738.9	3242.1	3414.6	3398.6	3177.1	3054.3	2977.3	2870.5
64°	1885.1	1915.6	2156.3	2561.6	3154.6	3449.9	3441.1	3231.7	3067.2	2925.9	2706.8
65°	1641.1	1686.9	1978.2	2404.3	3055.9	3437.9	3427.5	3222.0	3049.5	2829.6	2537.5
67.5°	1119.5	1143.6	1405.2	1892.3	2679.5	3268.6	3265.4	3098.5	2857.7	2444.4	1991.0
70°	660.5	678.1	871.5	1320.9	2059.2	2807.9	2850.5	2790.3	2372.2	1755.9	1268.0
72.5°	205.4	215.9	384.4	733.5	1349.8	2187.6	2243.0	2199.7	1727.0	1097.0	703.0
75°	77.0	80.3	126.8	318.6	671.7	1398.8	1415.6	1466.2	1052.1	579.4	307.4
77.5°	42.5	43.3	62.6	119.6	295.3	686.9	703.0	696.6	559.3	273.7	97.9
80°	20.9	21.7	30.5	53.0	114.8	194.2	230.3	304.1	197.4	134.8	31.3
82.5°	7.2	6.4	13.6	24.1	38.5	52.2	58.6	84.3	82.7	73.8	11.2
85°	0.0	0.0	0.8	0.8	0.8	1.6	1.6	10.4	20.9	24.1	3.2
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	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°	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2	373.2
2.5°	373.2	371.6	365.9	360.3	356.3	351.5	350.7	347.5	346.7	346.7	346.7
5°	377.2	372.4	361.9	353.1	345.1	337.9	334.6	331.4	329.0	328.2	328.2
7.5°	386.0	378.8	361.9	349.1	337.1	328.2	323.4	320.2	317.8	317.8	317.8
10°	398.8	387.6	366.7	349.1	334.6	323.4	316.2	311.4	308.2	307.4	308.2
12.5°	414.9	400.4	374.8	353.1	336.2	321.8	306.6	278.5	260.0	249.6	248.0
15°	430.1	413.3	383.6	358.7	338.7	306.6	251.2	207.8	179.0	170.1	168.5
17.5°	447.0	429.3	395.6	366.7	329.8	247.2	179.0	142.8	137.2	138.8	138.8
20°	467.9	447.0	408.5	374.8	284.1	175.7	130.8	126.0	127.6	130.8	130.8
22.5°	491.9	469.5	426.1	370.0	216.7	128.4	119.6	120.4	122.0	125.2	125.2
25°	523.2	500.0	445.4	333.8	150.9	112.4	113.2	114.0	116.4	119.6	120.4
27.5°	569.8	541.7	468.7	280.1	114.0	104.3	105.1	107.5	109.9	114.0	114.0
30°	619.5	585.0	489.5	215.9	99.5	95.5	96.3	98.7	102.7	105.9	107.5
32.5°	641.2	610.7	493.5	147.7	92.3	88.3	86.7	89.1	92.3	95.5	96.3
35°	653.2	640.4	474.3	106.7	86.7	81.9	78.6	77.8	78.6	81.1	81.1
37.5°	712.6	703.8	435.8	91.5	81.1	76.2	71.4	67.4	65.8	65.0	65.8
40°	826.6	807.3	385.2	84.3	76.2	70.6	64.2	57.8	52.2	49.8	49.8
42.5°	1077.8	980.7	313.0	79.4	71.4	65.0	55.4	46.5	40.1	38.5	38.5
45°	1348.2	1195.7	235.1	75.4	66.6	58.6	46.5	36.9	31.3	29.7	29.7
47.5°	1608.2	1354.6	164.5	70.6	61.0	51.4	38.5	29.7	25.7	24.9	24.9
50°	1881.1	1492.7	114.8	65.0	55.4	44.1	31.3	24.1	21.7	21.7	21.7
52.5°	2146.7	1594.6	84.3	59.4	48.2	36.9	26.5	21.7	20.1	20.1	20.1
55°	2347.3	1633.9	64.2	52.2	40.9	31.3	24.1	20.9	19.3	18.5	18.5
57.5°	2481.3	1601.0	52.2	43.3	34.5	27.3	21.7	19.3	17.7	16.9	16.9
60°	2478.1	1491.8	41.7	35.3	28.1	23.3	20.1	17.7	16.1	15.2	15.2
62.5°	2332.9	1314.5	32.9	28.1	23.3	20.1	17.7	16.1	14.4	13.6	12.8
64°	2190.8	1204.6	28.1	24.1	20.9	18.5	16.1	14.4	12.8	11.2	11.2
65°	2036.7	1100.2	25.7	21.7	18.5	16.9	15.2	13.6	11.2	9.6	9.6
67.5°	1548.8	814.5	20.9	16.9	14.4	13.6	12.0	10.4	8.0	6.4	6.4
70°	1005.5	527.2	17.7	13.6	12.0	12.0	11.2	8.8	6.4	5.6	4.8
72.5°	515.2	262.4	14.4	11.2	10.4	10.4	9.6	7.2	5.6	4.8	4.0
75°	218.3	106.7	12.0	9.6	8.8	8.0	7.2	6.4	4.8	4.0	4.0
77.5°	76.2	40.1	11.2	9.6	7.2	6.4	6.4	6.4	6.4	5.6	4.8
80°	25.7	15.2	7.2	7.2	8.0	8.8	8.8	8.0	8.8	7.2	5.6
82.5°	10.4	5.6	2.4	3.2	5.6	6.4	7.2	7.2	7.2	5.6	4.8
85°	2.4	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	2.4	1.6	2.4	2.4	2.4
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)