

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: P401483

Luminaire Tested: **ENT-SA1D-735-U-T4W-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401483
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-735-U-T4W-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3500K, 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: 3955 lumens
Efficiency: N/A
Efficacy: 91.8 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

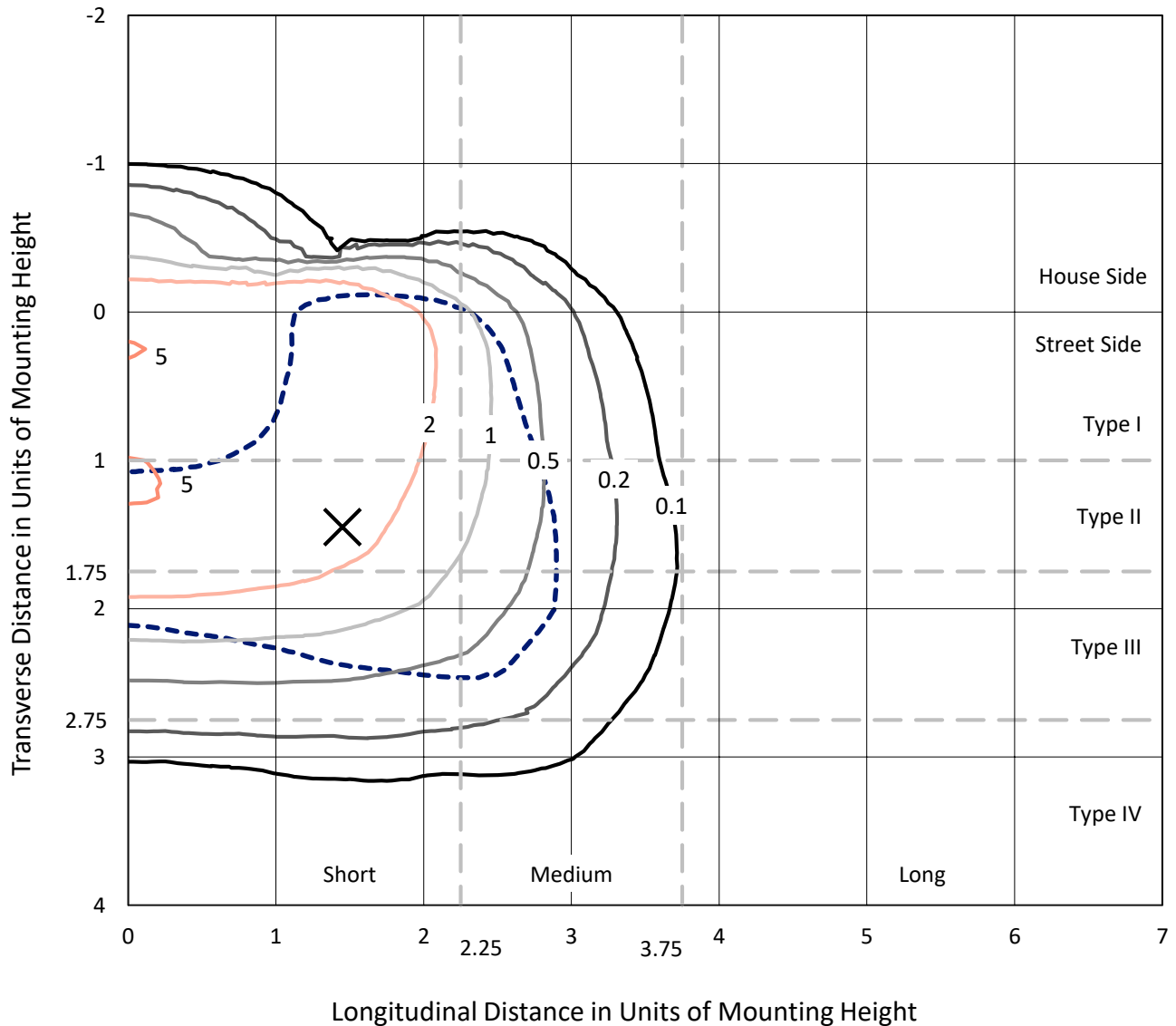
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

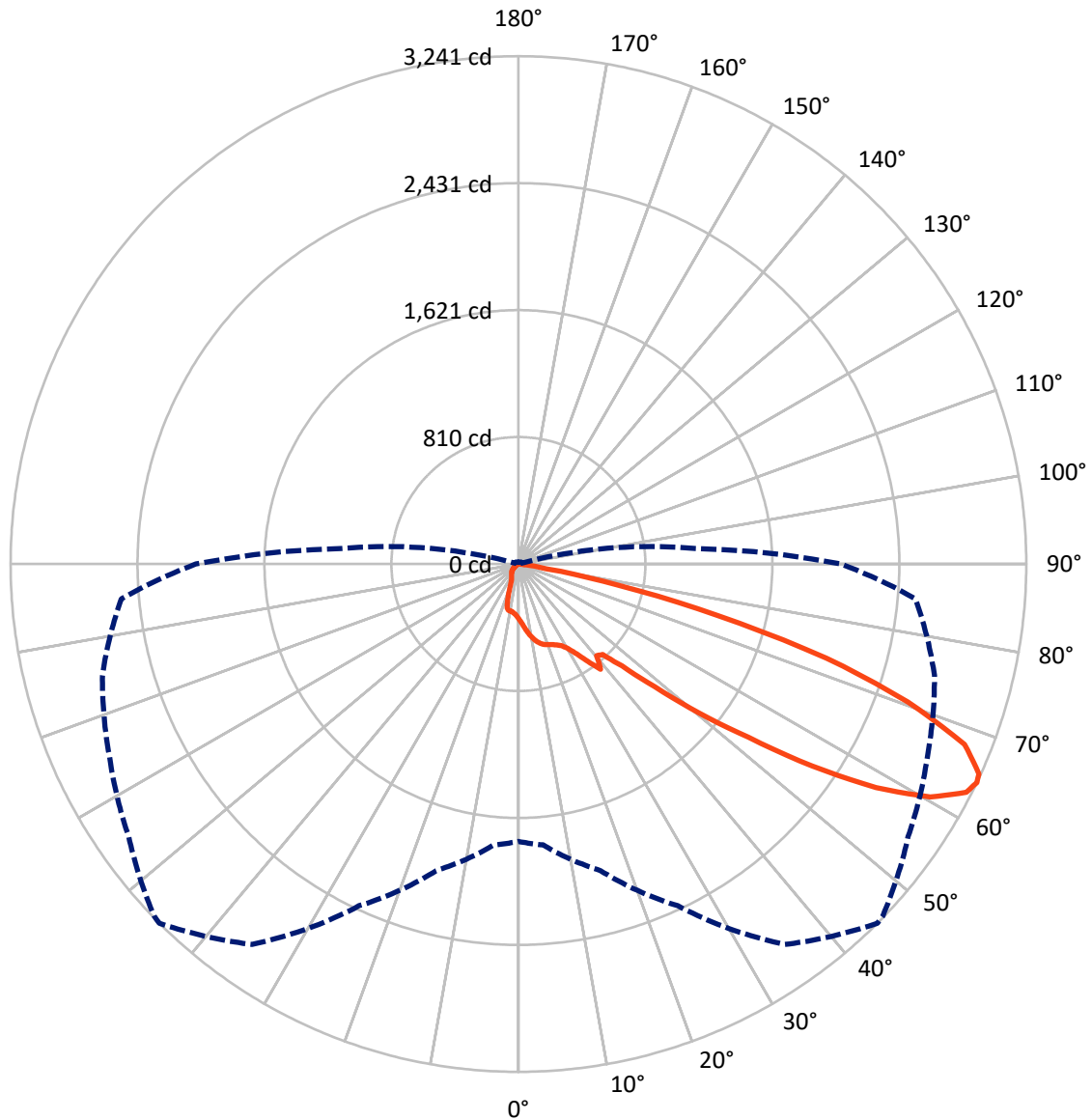
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.2 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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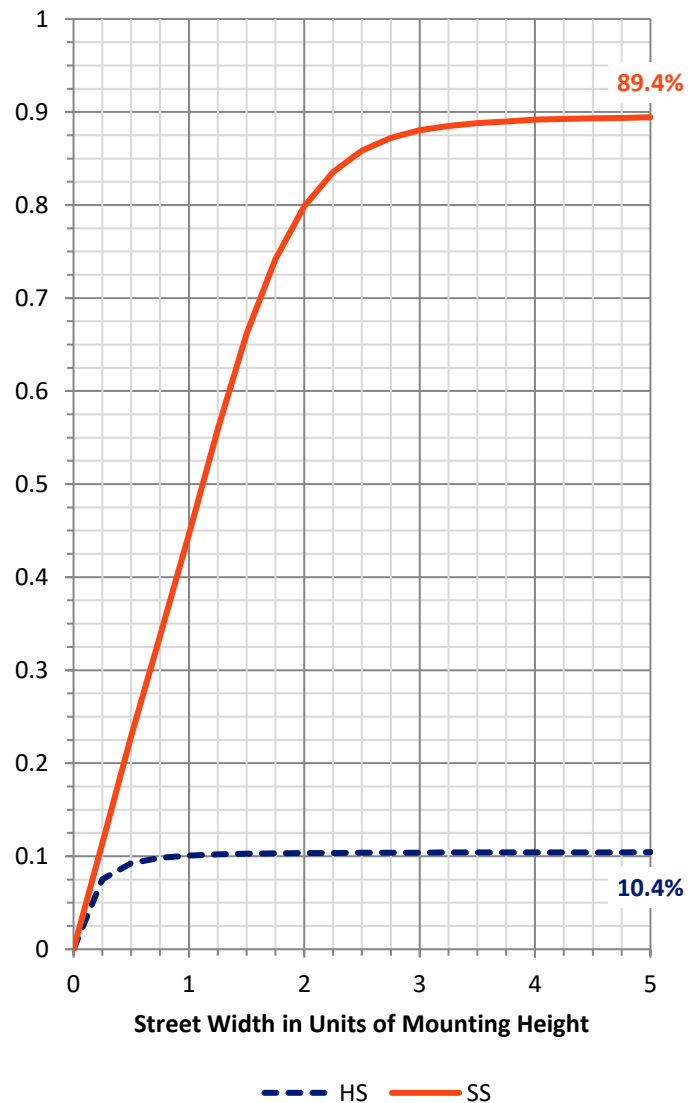
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	417.3	0.0	417.3
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	3537.7	0.0	3537.7
	% Fixture	89.4	0.0	89.4
Total	Lumens	3955.0	0.0	3955.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	0.9
10°-20°	110.9	2.8
20°-30°	180.5	4.6
30°-40°	286.7	7.2
40°-50°	546.1	13.8
50°-60°	1125.3	28.5
60°-70°	1256.8	31.8
70°-80°	397.0	10.0
80°-90°	16.1	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°	3955.0	100.0
0°-180°	3955.0	100.0



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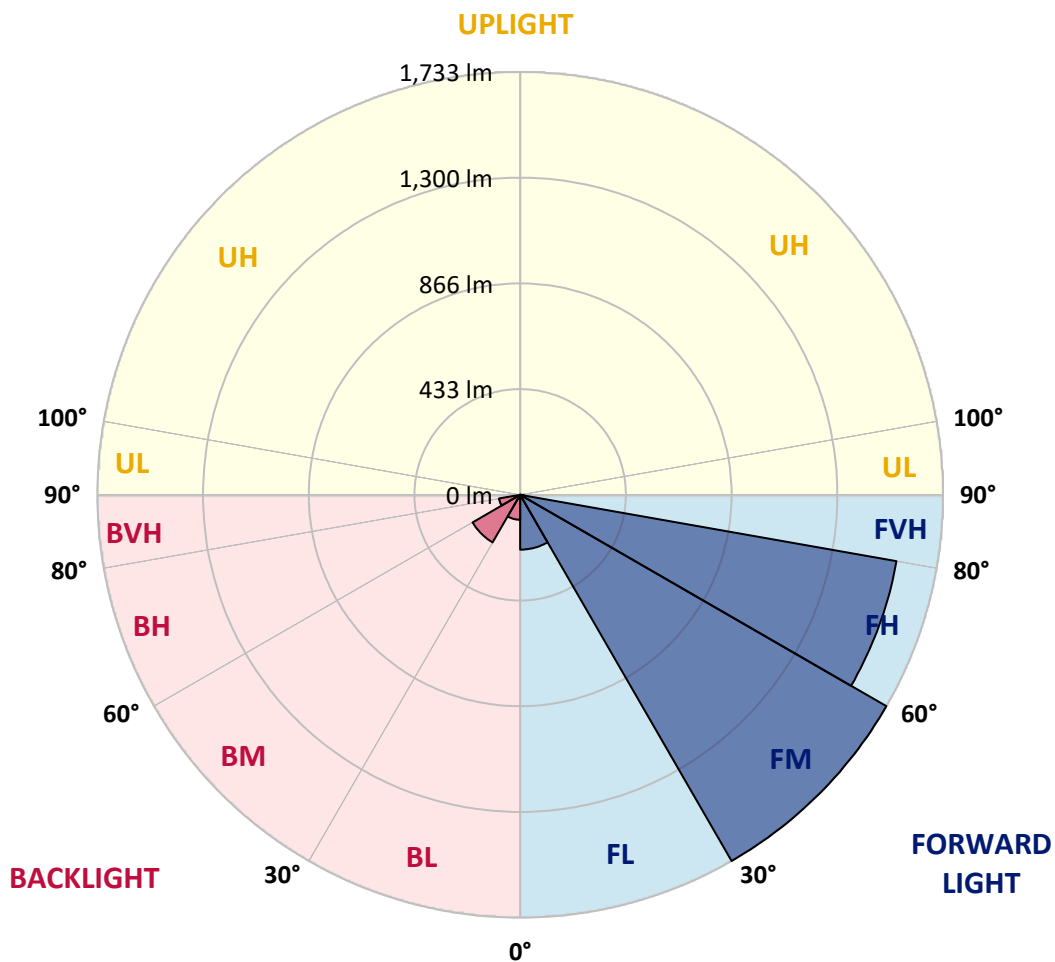
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	224.7	5.7			
FM	(30°-60°)	1732.9	43.8			
FH	(60°-80°)	1565.9	39.6			G1/1800
FVH	(80°-90°)	14.2	0.4			G1/100
BL	(0°-30°)	102.2	2.6	B0/110		
BM	(30°-60°)	225.2	5.7	B1/1000		
BH	(60°-80°)	88.0	2.2	B0/110		G0/110
BVH	(80°-90°)	1.9	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°	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6
2.5°	386.7	388.3	386.0	383.0	380.0	374.7	375.4	368.7	363.4	359.6	353.6
5°	435.8	435.0	430.5	423.7	416.9	407.1	405.6	395.0	383.7	371.7	360.4
7.5°	485.5	483.2	478.7	469.7	456.9	444.0	440.3	425.2	408.6	390.5	370.9
10°	526.2	524.7	519.4	509.6	494.6	475.0	475.0	453.8	432.0	410.1	386.7
12.5°	559.4	557.9	551.8	539.8	521.7	504.4	502.1	483.2	459.1	433.5	404.8
15°	579.7	578.2	571.5	557.9	542.0	526.2	524.0	505.9	484.0	454.6	421.4
17.5°	585.0	583.5	578.2	566.2	554.1	540.5	537.5	521.7	502.8	472.7	438.8
20°	582.8	579.7	576.7	566.9	557.1	548.1	546.6	535.3	518.7	493.0	456.9
22.5°	576.7	573.7	571.5	564.7	559.4	558.6	557.1	550.3	539.8	517.9	484.0
25°	574.5	572.2	569.9	565.4	564.7	572.2	571.5	570.7	566.2	547.3	511.9
27.5°	587.3	586.5	581.3	573.7	577.5	590.3	591.1	594.8	591.8	579.7	552.6
30°	632.5	628.7	616.7	600.1	609.9	626.5	629.5	641.6	642.3	643.8	606.9
32.5°	693.6	687.6	667.2	646.1	652.1	683.0	683.8	702.6	742.6	717.7	636.3
35°	735.8	728.3	697.4	686.0	716.2	765.2	772.0	810.4	813.5	723.0	634.0
37.5°	854.2	842.9	786.3	717.7	747.1	852.7	860.2	853.4	790.1	715.4	666.4
40°	1012.5	1001.9	951.4	836.1	753.1	769.0	772.7	793.1	805.2	768.2	770.5
42.5°	1218.3	1204.7	1152.7	1011.7	847.4	789.3	796.9	838.3	917.5	934.8	1023.8
45°	1428.6	1421.1	1368.3	1216.0	1019.3	928.0	931.8	982.3	1124.1	1233.4	1308.8
47.5°	1634.4	1635.9	1590.7	1461.8	1269.6	1168.5	1164.0	1229.6	1409.0	1486.7	1563.6
50°	1924.7	1923.2	1842.5	1762.6	1612.6	1492.7	1485.2	1522.1	1694.8	1723.4	1842.5
52.5°	2254.9	2253.4	2132.0	2094.3	2031.0	1838.0	1858.3	1826.7	1951.1	2002.3	2171.2
55°	2411.7	2398.1	2346.9	2394.4	2469.8	2276.0	2273.0	2152.4	2249.6	2293.3	2450.9
57.5°	2395.9	2401.1	2450.2	2607.7	2855.0	2692.9	2697.4	2473.5	2530.1	2557.2	2672.6
60°	2306.2	2309.9	2423.8	2686.1	3047.2	3019.3	3003.5	2773.6	2736.6	2725.3	2780.4
62.5°	2049.8	2051.3	2236.0	2573.0	3045.7	3207.8	3192.7	2984.7	2869.3	2796.9	2696.7
64°	1770.9	1799.5	2025.7	2406.4	2963.6	3241.0	3232.7	3035.9	2881.4	2748.7	2542.9
65°	1541.7	1584.7	1858.3	2258.7	2870.8	3229.7	3219.9	3026.9	2864.8	2658.2	2383.8
67.5°	1051.7	1074.3	1320.1	1777.7	2517.2	3070.6	3067.6	2910.8	2684.6	2296.4	1870.4
70°	620.5	637.0	818.7	1240.9	1934.5	2637.9	2677.8	2621.3	2228.5	1649.5	1191.2
72.5°	193.0	202.8	361.1	689.1	1268.0	2055.1	2107.1	2066.4	1622.4	1030.6	660.4
75°	72.4	75.4	119.1	299.3	631.0	1314.0	1329.9	1377.4	988.4	544.3	288.7
77.5°	40.0	40.7	58.8	112.3	277.4	645.3	660.4	654.4	525.5	257.1	92.0
80°	19.6	20.4	28.6	49.8	107.8	182.4	216.4	285.7	185.5	126.7	29.4
82.5°	6.8	6.0	12.8	22.6	36.2	49.0	55.0	79.2	77.7	69.4	10.6
85°	0.0	0.0	0.8	0.8	0.8	1.5	1.5	9.8	19.6	22.6	3.0
87.5°	0.0	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6	350.6
2.5°	350.6	349.1	343.8	338.5	334.7	330.2	329.5	326.4	325.7	325.7	325.7
5°	354.3	349.8	340.0	331.7	324.2	317.4	314.4	311.4	309.1	308.3	308.3
7.5°	362.6	355.8	340.0	327.9	316.6	308.3	303.8	300.8	298.5	298.5	298.5
10°	374.7	364.1	344.5	327.9	314.4	303.8	297.0	292.5	289.5	288.7	289.5
12.5°	389.8	376.2	352.1	331.7	315.9	302.3	288.0	261.6	244.3	234.5	233.0
15°	404.1	388.3	360.4	337.0	318.1	288.0	236.0	195.3	168.1	159.8	158.3
17.5°	419.9	403.3	371.7	344.5	309.9	232.2	168.1	134.2	128.9	130.4	130.4
20°	439.5	419.9	383.7	352.1	266.9	165.1	122.9	118.4	119.9	122.9	122.9
22.5°	462.1	441.0	400.3	347.5	203.6	120.6	112.3	113.1	114.6	117.6	117.6
25°	491.5	469.7	418.4	313.6	141.7	105.5	106.3	107.1	109.3	112.3	113.1
27.5°	535.3	508.9	440.3	263.1	107.1	98.0	98.8	101.0	103.3	107.1	107.1
30°	582.0	549.6	459.9	202.8	93.5	89.7	90.5	92.7	96.5	99.5	101.0
32.5°	602.4	573.7	463.6	138.7	86.7	82.9	81.4	83.7	86.7	89.7	90.5
35°	613.7	601.6	445.6	100.3	81.4	76.9	73.9	73.1	73.9	76.1	76.1
37.5°	669.5	661.2	409.4	85.9	76.1	71.6	67.1	63.3	61.8	61.1	61.8
40°	776.5	758.4	361.9	79.2	71.6	66.3	60.3	54.3	49.0	46.7	46.7
42.5°	1012.5	921.3	294.0	74.6	67.1	61.1	52.0	43.7	37.7	36.2	36.2
45°	1266.5	1123.3	220.9	70.9	62.6	55.0	43.7	34.7	29.4	27.9	27.9
47.5°	1510.8	1272.6	154.5	66.3	57.3	48.2	36.2	27.9	24.1	23.4	23.4
50°	1767.1	1402.2	107.8	61.1	52.0	41.5	29.4	22.6	20.4	20.4	20.4
52.5°	2016.7	1498.0	79.2	55.8	45.2	34.7	24.9	20.4	18.8	18.8	18.8
55°	2205.1	1534.9	60.3	49.0	38.4	29.4	22.6	19.6	18.1	17.3	17.3
57.5°	2331.0	1504.0	49.0	40.7	32.4	25.6	20.4	18.1	16.6	15.8	15.8
60°	2328.0	1401.5	39.2	33.2	26.4	21.9	18.8	16.6	15.1	14.3	14.3
62.5°	2191.6	1234.9	30.9	26.4	21.9	18.8	16.6	15.1	13.6	12.8	12.1
64°	2058.1	1131.6	26.4	22.6	19.6	17.3	15.1	13.6	12.1	10.6	10.6
65°	1913.4	1033.6	24.1	20.4	17.3	15.8	14.3	12.8	10.6	9.0	9.0
67.5°	1455.0	765.2	19.6	15.8	13.6	12.8	11.3	9.8	7.5	6.0	6.0
70°	944.6	495.3	16.6	12.8	11.3	11.3	10.6	8.3	6.0	5.3	4.5
72.5°	484.0	246.5	13.6	10.6	9.8	9.8	9.0	6.8	5.3	4.5	3.8
75°	205.1	100.3	11.3	9.0	8.3	7.5	6.8	6.0	4.5	3.8	3.8
77.5°	71.6	37.7	10.6	9.0	6.8	6.0	6.0	6.0	6.0	5.3	4.5
80°	24.1	14.3	6.8	6.8	7.5	8.3	8.3	7.5	8.3	6.8	5.3
82.5°	9.8	5.3	2.3	3.0	5.3	6.0	6.8	6.8	6.8	5.3	4.5
85°	2.3	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	2.3	1.5	2.3	2.3	2.3
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)