

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: P401767

Luminaire Tested: **ENT-SA1E-830-U-T3-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401767
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-SA1E-830-U-T3-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 1050mA 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: 4295 lumens
Efficiency: N/A
Efficacy: 75.1 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): 57.2
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

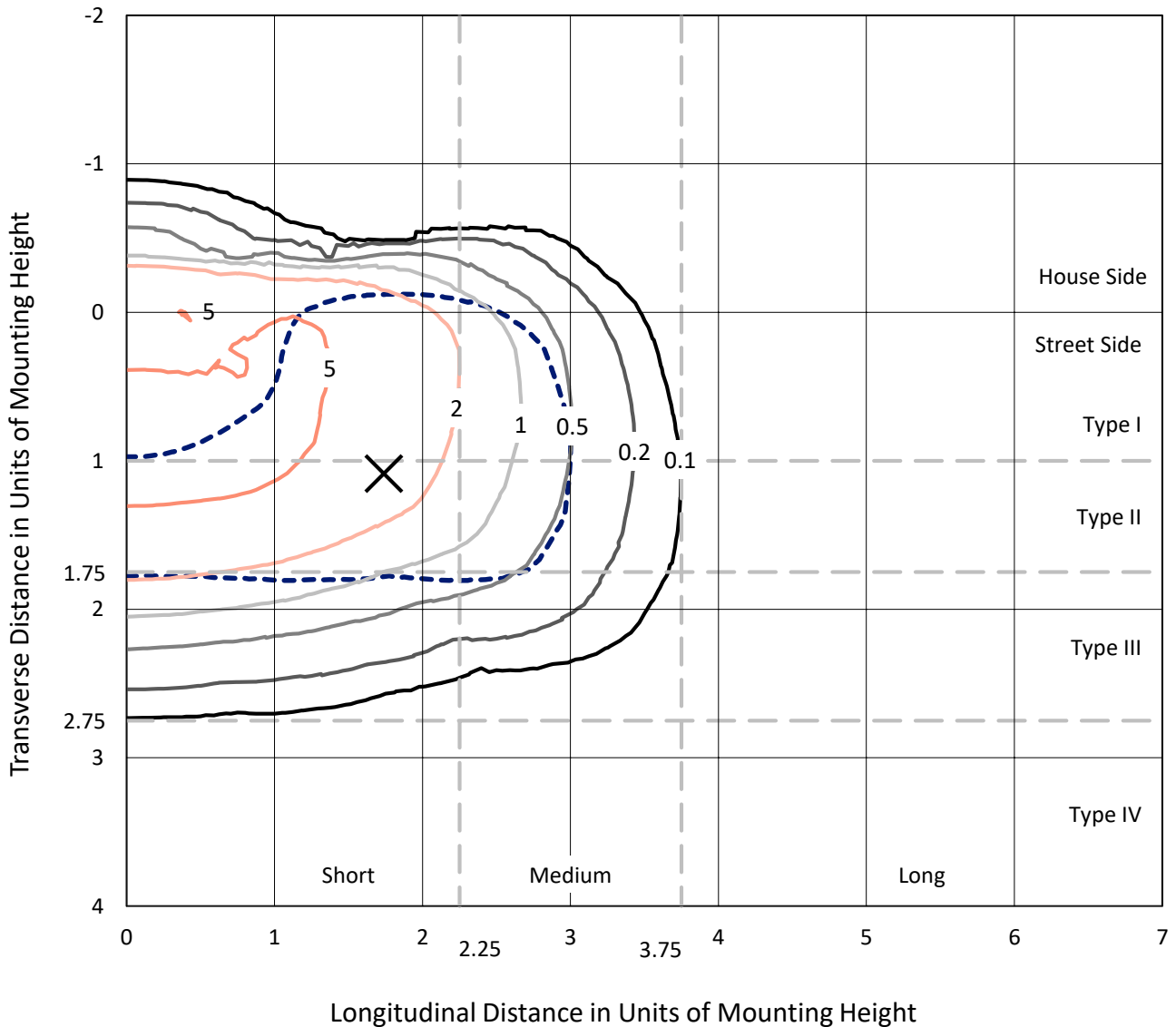


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

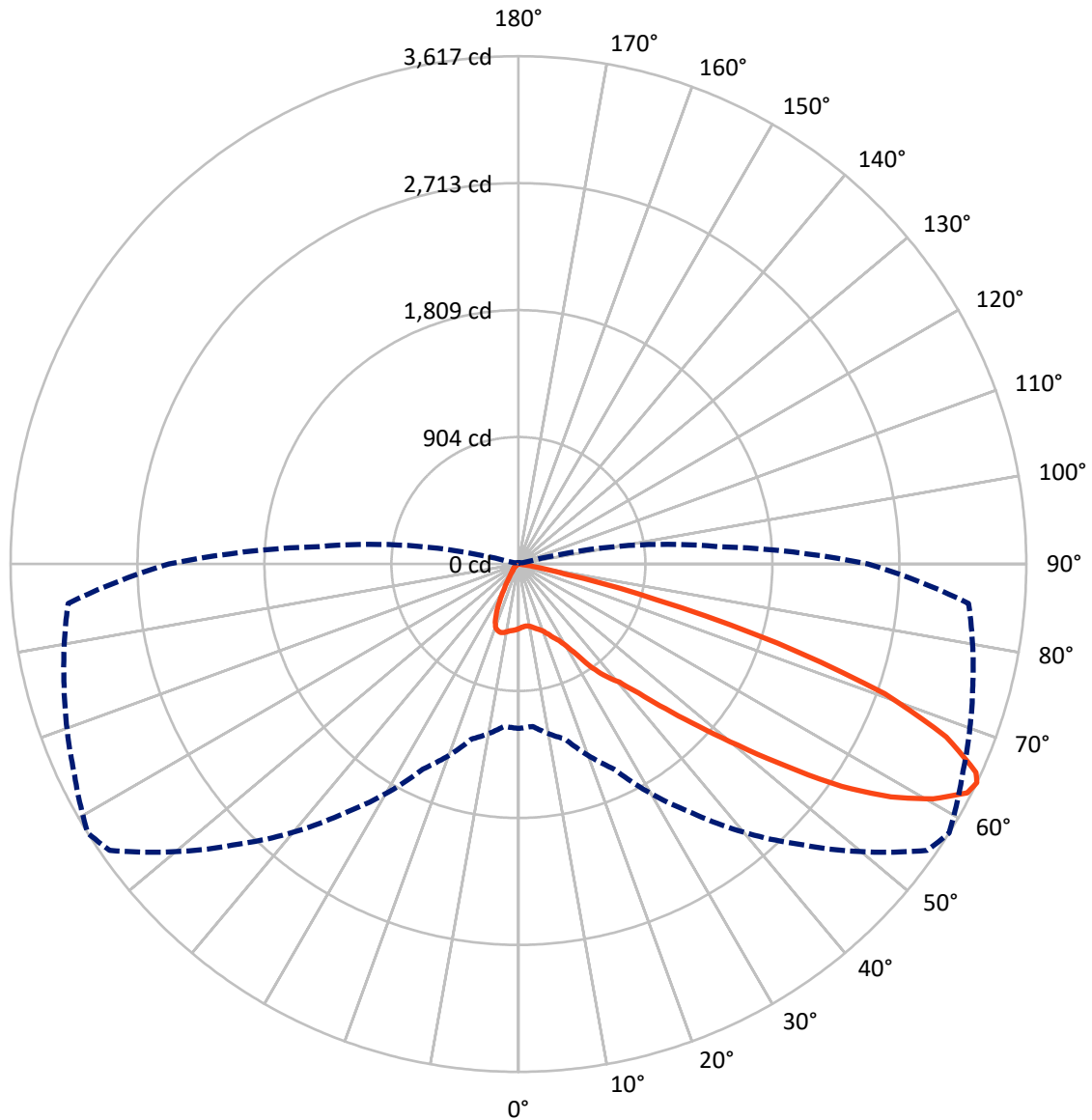


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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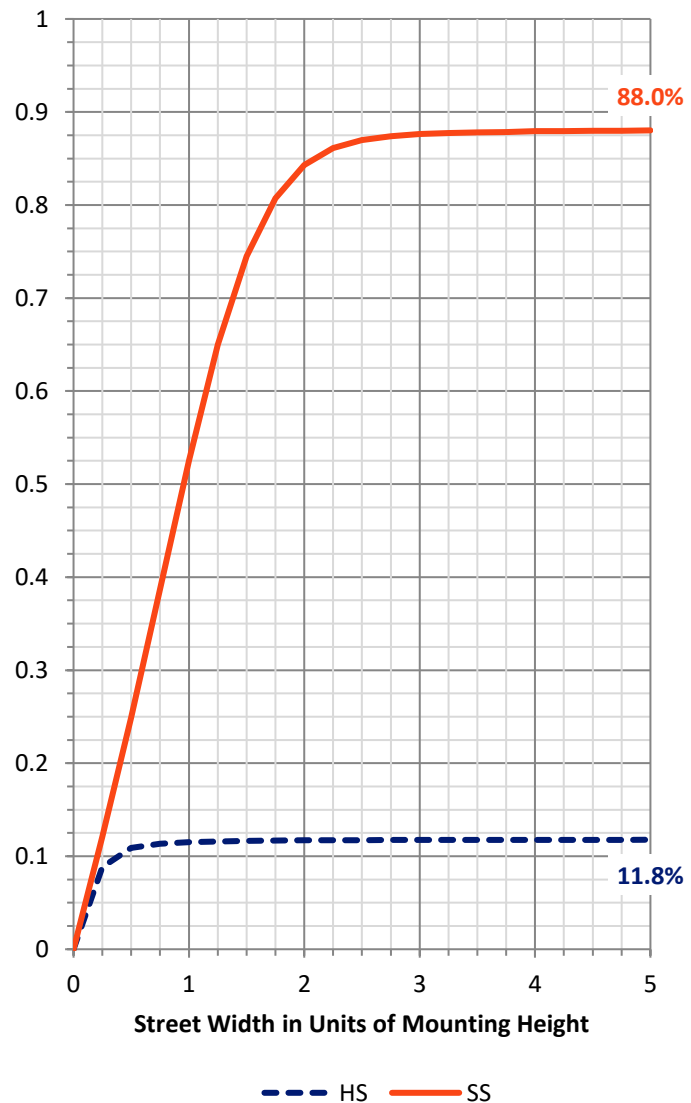
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	512.1	0.0	512.1
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	3783.0	0.0	3783.0
	% Fixture	88.1	0.0	88.1
Total	Lumens	4295.0	0.0	4295.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	1.0
10°-20°	126.7	3.0
20°-30°	227.7	5.3
30°-40°	399.1	9.3
40°-50°	729.8	17.0
50°-60°	1248.5	29.1
60°-70°	1211.1	28.2
70°-80°	300.0	7.0
80°-90°	8.5	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°	4295.0	100.0
0°-180°	4295.0	100.0



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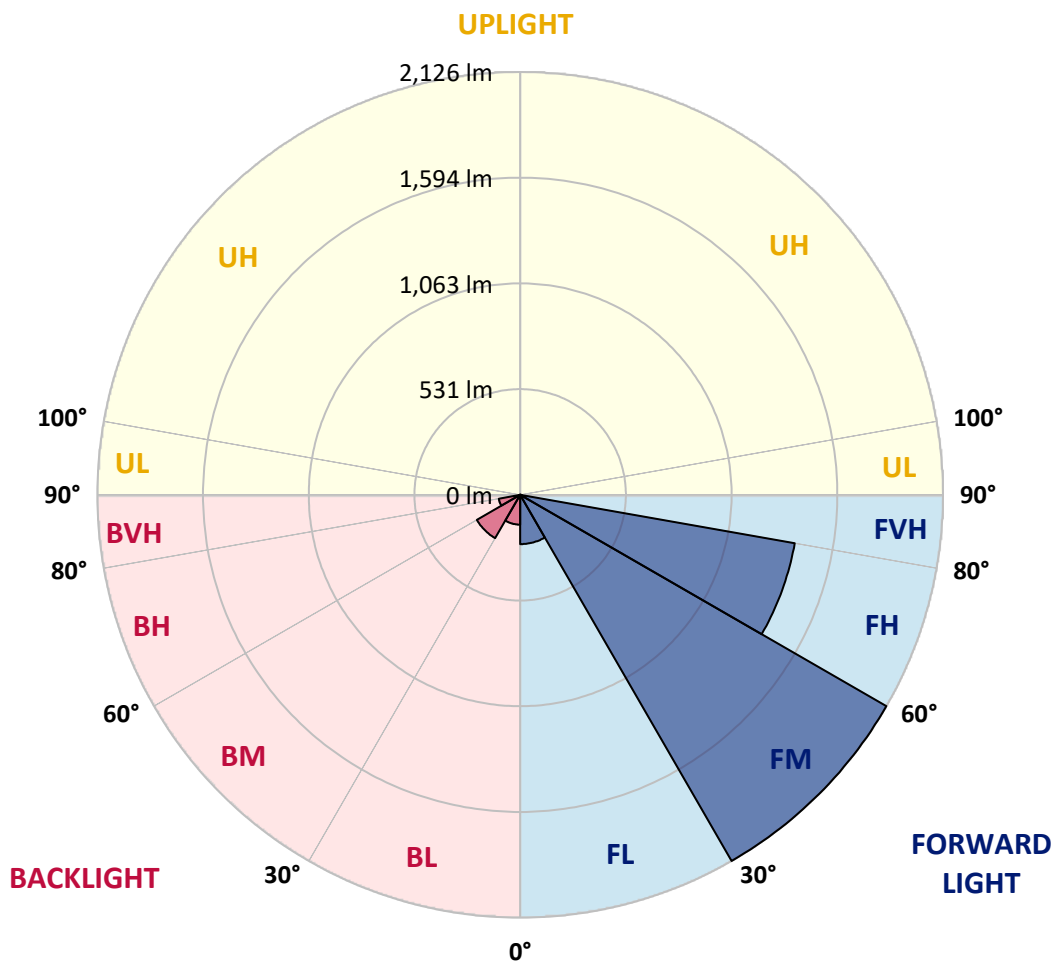
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	248.0	5.8			
FM	(30°-60°)	2125.9	49.5			
FH	(60°-80°)	1401.8	32.6			G1/1800
FVH	(80°-90°)	7.3	0.2			G0/10
BL	(0°-30°)	149.9	3.5	B1/500		
BM	(30°-60°)	251.5	5.9	B1/1000		
BH	(60°-80°)	109.3	2.5	B0/110		G0/110
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°	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1
2.5°	441.0	441.0	442.6	443.4	445.8	448.1	451.3	452.1	453.7	457.7	459.3
5°	417.2	418.0	419.5	423.5	429.1	435.4	443.4	445.8	452.1	460.1	465.6
7.5°	407.6	408.4	410.8	415.6	422.7	432.3	441.8	445.0	453.7	466.4	474.4
10°	406.0	406.0	409.2	416.4	425.1	437.0	447.4	451.3	463.2	478.3	491.1
12.5°	406.0	406.0	410.0	418.7	429.1	444.2	458.5	464.0	477.5	496.6	512.5
15°	413.2	414.8	417.2	422.7	434.6	451.3	471.2	477.5	494.2	517.3	537.1
17.5°	464.0	462.4	454.5	447.4	445.0	459.3	483.1	491.8	516.5	545.9	567.3
20°	562.6	561.8	547.5	512.5	481.5	473.6	501.4	511.7	547.5	586.4	602.3
22.5°	681.8	685.7	663.5	616.6	553.0	512.5	528.4	542.7	588.8	635.7	645.2
25°	800.1	804.9	784.3	725.5	647.6	576.9	565.7	578.5	630.9	677.8	673.8
27.5°	940.0	936.0	915.4	848.6	758.0	663.5	615.8	618.2	658.7	711.2	698.4
30°	1042.5	1036.9	1017.1	971.8	886.8	778.7	687.3	680.2	692.1	750.1	736.6
32.5°	1136.3	1140.2	1125.1	1064.7	984.5	897.1	794.6	775.5	770.7	820.0	797.8
35°	1229.2	1228.4	1222.9	1169.6	1091.0	1008.3	922.5	909.0	907.4	955.1	894.7
37.5°	1340.5	1334.9	1324.6	1270.5	1207.8	1129.1	1037.7	1016.3	1012.3	1021.8	951.1
40°	1459.7	1466.8	1450.1	1393.7	1325.4	1266.6	1138.6	1106.1	1079.0	1106.9	1061.6
42.5°	1636.8	1642.4	1613.0	1574.1	1485.9	1431.1	1301.5	1257.0	1244.3	1286.4	1235.6
45°	1859.3	1849.0	1829.1	1802.1	1729.0	1645.6	1510.5	1468.4	1454.9	1527.2	1443.8
47.5°	2032.6	2031.0	2031.8	2026.2	2015.1	1915.0	1754.4	1725.8	1712.3	1816.4	1724.3
50°	2142.2	2148.6	2175.6	2244.7	2295.6	2253.4	2065.1	2030.2	2019.8	2127.9	2003.2
52.5°	2224.8	2239.9	2285.2	2421.9	2584.8	2599.1	2443.4	2394.1	2370.3	2400.4	2227.2
55°	2267.0	2274.1	2343.2	2545.1	2800.1	2902.6	2837.5	2796.1	2700.0	2642.8	2490.2
57.5°	2168.4	2157.3	2276.5	2533.1	2911.4	3147.4	3175.2	3128.3	2974.1	2929.6	2809.7
60°	1910.2	1905.4	2039.7	2348.0	2814.4	3204.6	3425.5	3396.1	3254.6	3148.9	3036.1
62.5°	1457.3	1465.2	1607.4	1921.3	2468.8	3040.1	3564.5	3588.4	3438.2	3280.8	3203.8
64°	1170.4	1160.9	1291.2	1610.6	2166.0	2820.8	3554.2	3617.0	3493.8	3350.0	3218.9
65°	982.9	962.2	1087.0	1376.2	1910.2	2661.9	3481.1	3582.0	3497.8	3366.7	3164.0
67.5°	517.3	528.4	581.6	835.9	1289.6	2012.7	3134.6	3287.2	3321.4	3138.6	2757.2
70°	232.0	233.6	267.8	426.7	713.5	1305.5	2521.2	2768.3	2787.4	2578.4	1997.6
72.5°	77.1	77.9	118.4	170.8	299.6	604.7	1702.8	1927.7	1969.0	1671.8	1083.8
75°	47.7	49.3	62.8	92.2	139.1	211.4	862.9	1015.5	1024.2	741.3	394.1
77.5°	30.2	31.8	38.1	54.8	76.3	80.3	282.9	342.5	387.8	267.0	122.4
80°	19.1	19.1	24.6	33.4	39.7	34.2	77.1	101.7	122.4	89.8	41.3
82.5°	7.2	7.2	12.7	18.3	16.7	11.9	20.7	27.0	46.9	44.5	19.9
85°	0.0	0.0	0.8	1.6	0.8	1.6	4.0	5.6	8.7	12.7	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°	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1	460.1
2.5°	461.7	463.2	466.4	467.2	468.0	465.6	468.0	465.6	467.2	467.2	467.2
5°	468.8	471.2	473.6	474.4	473.6	468.0	469.6	465.6	464.8	464.8	464.8
7.5°	478.3	480.7	484.7	482.3	477.5	469.6	468.8	463.2	460.9	460.9	461.7
10°	495.8	498.2	499.8	495.0	485.5	473.6	464.8	452.9	447.4	445.0	445.0
12.5°	518.1	520.5	519.7	511.7	494.2	469.6	445.0	421.9	405.2	398.9	392.5
15°	541.9	545.1	543.5	526.8	493.4	449.7	402.1	348.0	314.7	293.2	289.2
17.5°	569.7	572.9	565.0	534.8	481.5	407.6	317.0	243.9	195.5	177.2	176.4
20°	603.9	602.3	583.2	535.6	460.1	329.8	212.2	152.6	131.9	127.1	126.3
22.5°	642.8	635.7	600.7	530.8	401.3	224.1	136.7	120.8	118.4	116.8	116.8
25°	665.1	652.4	607.1	517.3	309.1	143.0	116.0	112.8	109.7	106.5	105.7
27.5°	682.5	663.5	609.4	472.8	205.8	109.7	104.9	101.7	96.9	92.2	91.4
30°	714.3	685.7	613.4	394.9	126.3	93.8	91.4	85.8	78.7	73.9	72.3
32.5°	771.5	730.2	629.3	295.6	92.2	82.6	76.3	69.1	61.2	56.4	56.4
35°	832.7	772.3	637.3	194.7	80.3	72.3	62.8	54.0	46.9	42.9	42.1
37.5°	889.1	832.7	634.9	119.2	71.5	62.0	51.6	42.9	36.6	33.4	33.4
40°	1004.4	938.4	602.3	81.8	62.8	52.4	42.1	33.4	29.4	27.0	27.0
42.5°	1168.8	1054.4	530.0	69.9	54.8	43.7	33.4	27.8	24.6	22.2	22.2
45°	1353.2	1182.3	422.7	62.8	47.7	36.6	27.8	23.0	19.9	19.1	19.1
47.5°	1594.7	1337.3	310.7	56.4	41.3	31.0	23.0	19.1	17.5	16.7	16.7
50°	1806.1	1462.8	212.2	49.3	36.6	26.2	19.9	17.5	15.9	15.1	15.1
52.5°	1998.4	1550.2	139.8	42.9	32.6	21.5	18.3	15.9	15.1	14.3	14.3
55°	2224.8	1617.0	94.6	37.3	28.6	19.9	17.5	15.9	14.3	14.3	13.5
57.5°	2417.1	1656.7	67.5	31.8	25.4	18.3	16.7	15.1	13.5	12.7	12.7
60°	2529.2	1609.8	49.3	27.8	22.2	16.7	15.1	13.5	12.7	11.9	11.9
62.5°	2560.2	1519.2	38.1	23.8	19.1	15.1	13.5	11.9	11.1	10.3	10.3
64°	2488.6	1422.3	32.6	20.7	16.7	13.5	12.7	11.1	9.5	7.9	7.9
65°	2387.7	1332.5	29.4	19.1	15.1	12.7	11.9	10.3	7.9	6.4	6.4
67.5°	1989.6	1062.4	23.8	15.9	11.9	11.1	9.5	7.9	5.6	4.0	4.0
70°	1412.8	742.9	18.3	12.7	10.3	10.3	8.7	6.4	3.2	1.6	1.6
72.5°	747.7	386.2	15.1	10.3	7.9	7.9	7.2	4.0	2.4	1.6	0.8
75°	261.4	127.1	12.7	8.7	7.2	5.6	4.8	3.2	2.4	1.6	0.8
77.5°	79.5	42.1	11.1	8.7	6.4	4.8	5.6	4.8	4.8	3.2	2.4
80°	25.4	15.1	6.4	5.6	6.4	6.4	5.6	4.8	5.6	4.0	3.2
82.5°	9.5	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)