

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: P400922

Luminaire Tested: **ENT-SA1A-730-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400922
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-730-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

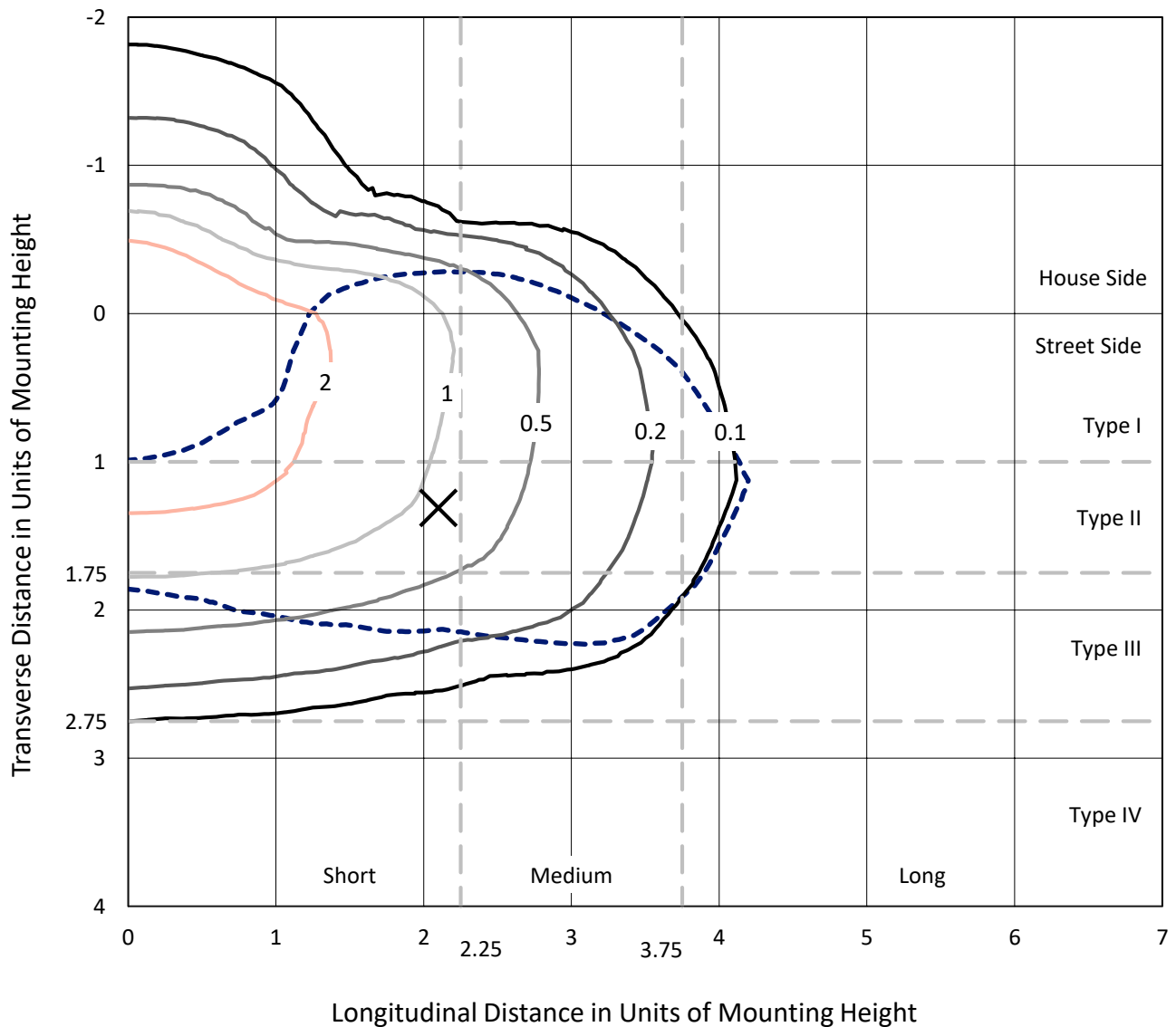
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

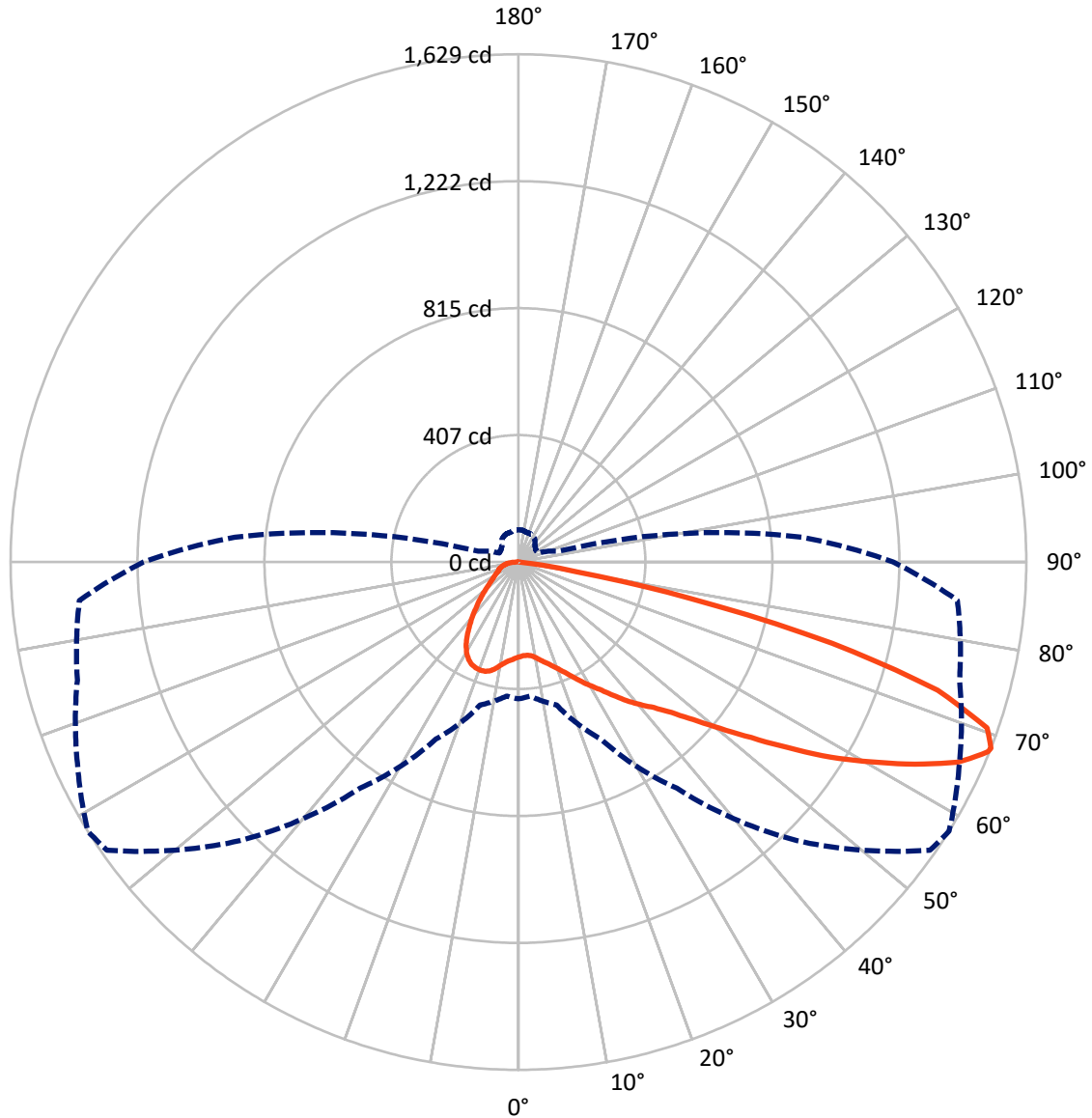
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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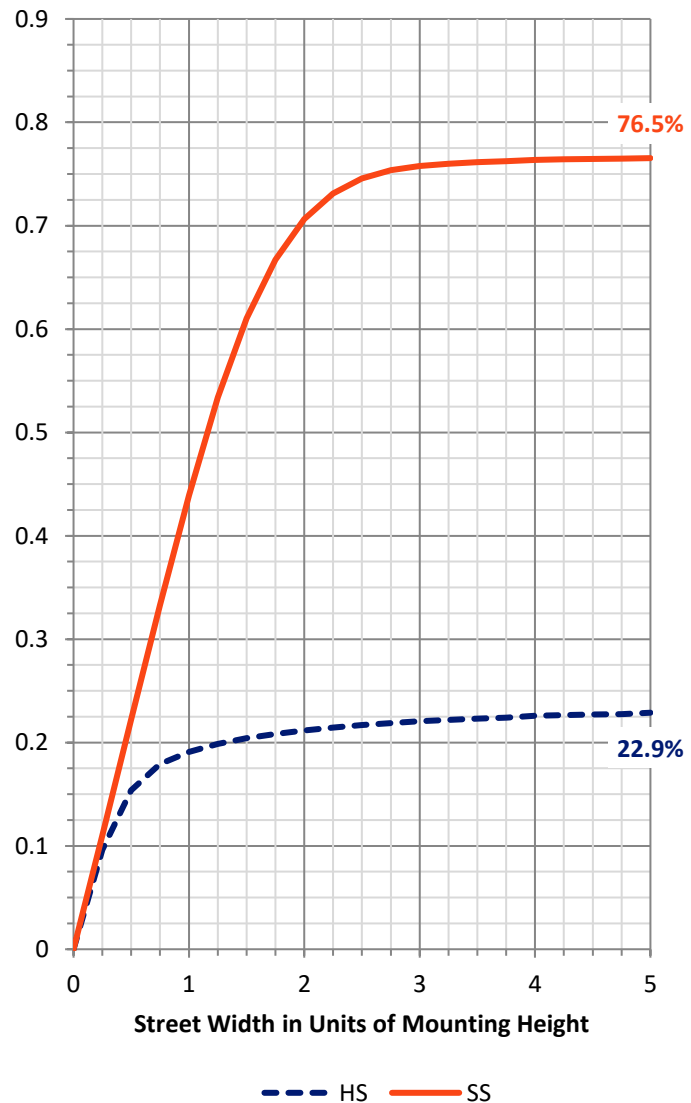
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	593.6	0.0	593.6
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1941.4	0.0	1941.4
	% Fixture	76.6	0.0	76.6
Total	Lumens	2535.0	0.0	2535.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	1.2
10°-20°	98.1	3.9
20°-30°	176.4	7.0
30°-40°	259.1	10.2
40°-50°	380.0	15.0
50°-60°	568.0	22.4
60°-70°	664.1	26.2
70°-80°	327.4	12.9
80°-90°	32.0	1.3
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°	2535.0	100.0
0°-180°	2535.0	100.0



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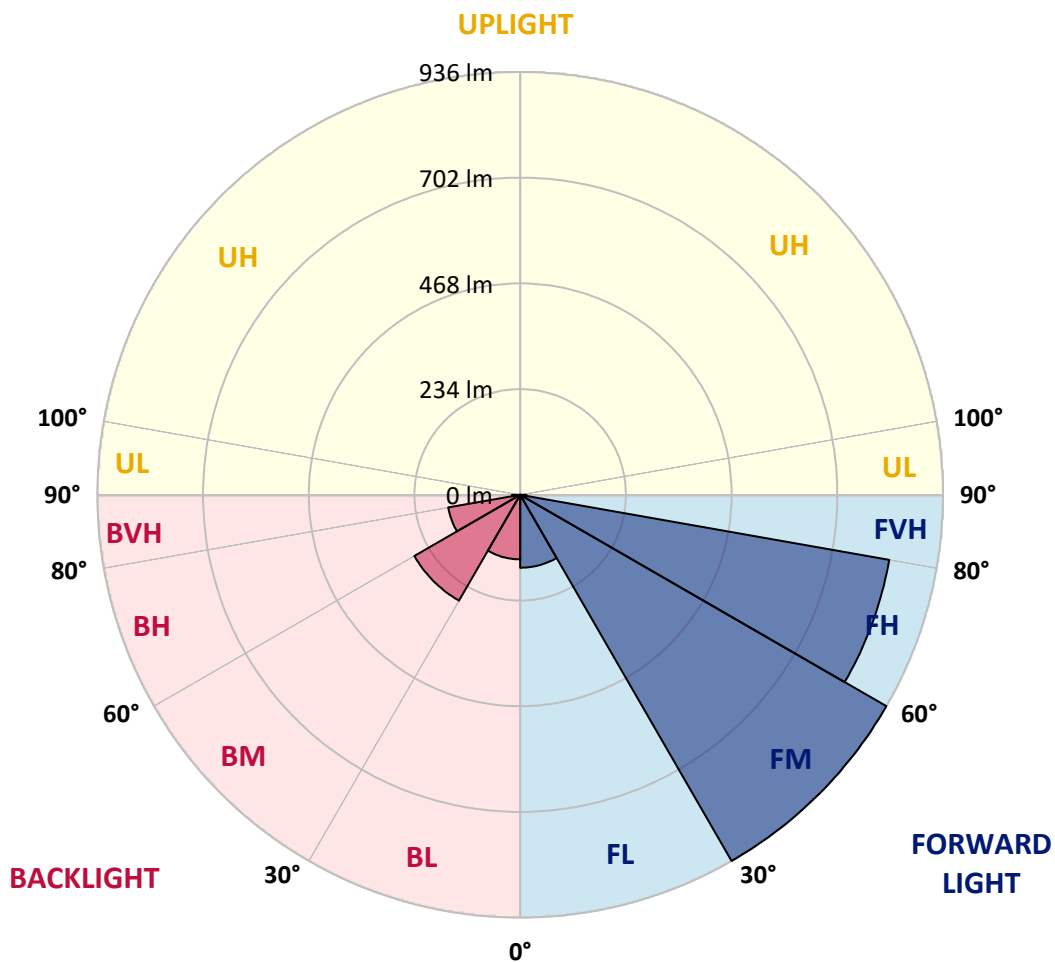
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	161.5	6.4			
FM (30°-60°)	936.3	36.9			
FH (60°-80°)	829.9	32.7			G1/1800
FVH (80°-90°)	13.8	0.5			G1/100
BL (0°-30°)	142.9	5.6	B1/500		
BM (30°-60°)	270.7	10.7	B1/1000		
BH (60°-80°)	161.7	6.4	B1/500		G1/500
BVH (80°-90°)	18.2	0.7			G1/100
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°	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4
2.5°	297.0	297.0	298.0	298.4	299.1	299.8	300.5	300.9	301.9	303.4	304.1
5°	294.5	294.9	295.6	295.9	297.0	298.4	299.5	300.2	301.9	304.8	306.5
7.5°	300.2	301.2	301.6	301.9	302.3	303.4	303.4	303.7	305.5	308.3	310.8
10°	309.4	310.1	311.1	312.2	313.3	314.0	311.9	312.2	312.9	315.7	319.3
12.5°	321.1	321.1	321.4	322.8	323.9	326.0	323.9	323.9	323.9	326.4	330.6
15°	334.2	333.4	333.4	334.9	335.2	336.6	335.6	335.6	337.0	339.5	343.7
17.5°	349.0	350.1	349.0	348.3	347.3	348.0	348.7	349.4	352.2	356.1	358.6
20°	370.6	372.4	371.7	368.8	364.2	362.1	364.6	366.0	371.7	376.3	376.6
22.5°	404.9	403.9	402.8	397.9	388.7	383.0	383.4	385.5	394.3	401.4	397.9
25°	436.8	437.9	437.9	430.8	418.8	407.1	408.1	409.2	418.0	424.4	414.9
27.5°	475.4	474.7	474.3	464.8	450.3	438.9	432.9	435.7	442.1	444.6	426.2
30°	515.4	518.2	515.4	501.9	488.1	473.6	461.6	460.9	464.1	463.7	439.6
32.5°	563.5	561.1	560.0	544.4	527.1	508.0	492.7	490.3	488.5	486.0	455.6
35°	600.7	603.9	603.9	590.4	569.9	551.1	527.4	525.3	521.1	512.9	476.5
37.5°	644.6	643.9	646.4	630.8	610.3	592.2	570.3	564.2	554.7	542.6	501.2
40°	687.4	689.2	694.9	676.1	657.3	643.2	612.0	601.1	586.5	575.6	537.3
42.5°	745.8	748.3	750.4	734.9	712.6	699.8	651.7	637.9	629.7	627.6	585.1
45°	816.6	820.9	822.6	808.5	795.7	765.3	701.6	688.8	680.0	689.2	650.3
47.5°	884.6	882.5	890.6	890.2	891.7	855.2	773.4	754.3	745.8	769.2	724.9
50°	922.8	926.0	943.7	961.8	986.9	960.7	856.6	837.5	827.6	856.6	812.7
52.5°	942.6	946.9	970.6	1021.2	1074.7	1062.3	956.8	935.6	927.1	955.4	906.9
55°	944.4	946.9	978.7	1057.3	1141.6	1145.5	1071.1	1051.0	1039.3	1057.7	1009.5
57.5°	915.0	907.6	962.5	1062.6	1184.4	1232.2	1196.8	1182.3	1149.4	1169.2	1137.0
60°	862.6	870.1	923.9	1040.7	1202.5	1299.8	1322.8	1300.9	1262.6	1270.8	1274.3
62.5°	783.3	792.9	848.8	989.7	1187.9	1357.1	1439.3	1428.3	1377.0	1372.7	1379.1
65°	670.4	664.8	727.1	878.2	1119.3	1376.3	1553.6	1549.0	1487.8	1437.8	1440.3
67.5°	483.5	478.2	521.8	677.9	933.4	1305.1	1614.5	1624.7	1554.7	1466.5	1428.3
68°	438.9	431.5	475.0	626.5	885.6	1264.0	1611.3	1629.0	1559.6	1464.8	1413.4
70°	252.7	240.7	282.8	408.8	652.0	1064.1	1546.2	1595.0	1547.9	1430.4	1316.1
72.5°	79.3	79.3	109.4	165.3	320.0	673.3	1322.8	1406.0	1415.9	1300.2	1093.8
75°	49.6	49.6	57.0	78.2	127.4	285.7	912.5	1039.3	1124.9	1094.5	797.5
77.5°	33.6	32.9	37.9	48.5	71.1	91.7	458.0	562.8	688.1	747.2	466.5
80°	18.4	18.8	23.4	29.0	40.4	42.5	134.5	190.1	303.0	355.0	177.0
82.5°	10.6	10.3	11.3	12.7	17.7	18.4	38.6	47.4	79.3	73.6	47.4
85°	0.0	0.4	0.4	0.4	0.7	1.8	5.0	7.4	12.0	16.6	11.7
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.7	0.7	0.7	0.7	1.1
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°	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4
2.5°	304.8	305.8	307.6	309.0	309.7	309.0	311.5	311.1	311.9	311.9	312.6
5°	308.0	309.4	312.6	314.3	316.1	316.8	319.6	320.3	321.8	322.5	322.1
7.5°	312.6	314.3	318.2	321.4	323.9	325.7	330.3	332.4	334.5	335.2	335.9
10°	321.1	323.5	327.8	331.7	335.2	337.7	341.6	344.4	346.5	347.3	348.0
12.5°	332.4	335.2	340.5	345.8	349.7	351.1	350.8	350.1	350.1	349.7	350.1
15°	345.5	348.3	355.0	360.0	360.3	355.7	349.4	346.2	345.5	345.5	345.8
17.5°	360.7	364.2	368.5	371.3	364.6	353.3	345.8	342.6	341.9	341.6	340.9
20°	378.0	380.2	381.6	378.0	363.2	350.1	341.6	337.0	333.4	333.1	331.7
22.5°	396.5	395.7	394.0	381.2	359.3	342.6	331.0	322.5	317.9	317.5	316.1
25°	409.9	407.1	401.8	381.9	352.2	330.6	314.0	300.5	294.5	291.7	292.4
27.5°	418.8	412.7	403.5	378.4	339.8	312.2	288.8	271.1	262.3	260.9	261.9
30°	429.4	419.8	404.9	369.6	322.1	286.4	255.9	238.2	233.3	230.8	231.5
32.5°	442.1	429.7	409.5	356.1	299.8	256.3	223.4	211.0	205.3	200.7	202.1
35°	458.8	443.2	417.0	337.0	271.5	224.4	200.0	188.7	178.4	173.4	173.8
37.5°	478.2	460.5	423.4	314.7	240.7	200.4	179.8	166.4	153.6	144.1	142.3
40°	509.4	494.9	428.7	289.9	211.3	180.5	160.0	144.8	132.7	123.2	122.1
42.5°	561.4	536.3	429.0	260.2	186.2	163.5	143.7	127.1	113.6	105.5	105.1
45°	622.6	583.7	421.6	228.3	164.2	146.5	129.2	110.4	102.7	97.3	96.6
47.5°	695.2	638.2	405.3	198.6	145.5	129.9	114.3	103.0	97.3	93.4	93.4
50°	778.0	702.3	389.0	173.1	127.4	116.5	105.8	99.8	95.6	92.0	91.7
52.5°	871.5	778.0	383.7	147.3	112.6	104.1	103.0	97.3	93.8	91.3	90.6
55°	983.0	863.0	388.7	127.1	100.9	99.1	101.2	96.6	94.2	90.3	89.2
57.5°	1111.8	945.8	383.4	110.1	92.7	94.5	99.1	96.6	94.5	89.6	88.1
60°	1233.3	1019.8	347.3	95.9	85.0	88.8	96.3	93.4	90.3	89.2	88.5
62.5°	1298.4	1043.9	276.8	85.0	78.9	83.2	91.7	88.1	86.0	88.5	88.8
65°	1299.1	1016.6	203.5	76.8	74.0	78.2	87.1	86.0	87.4	93.1	94.2
67.5°	1226.9	933.8	143.7	69.4	69.0	74.3	89.2	96.3	97.3	103.0	103.0
68°	1202.1	913.3	133.4	68.3	68.0	74.3	91.0	98.1	98.8	104.1	103.7
70°	1066.2	772.0	96.6	64.1	66.2	79.6	100.5	103.0	98.8	104.8	104.4
72.5°	833.3	571.0	72.2	59.5	63.0	78.6	101.2	98.8	92.4	93.8	92.0
75°	563.2	363.9	59.5	54.5	55.9	66.5	92.0	93.1	85.7	84.2	82.1
77.5°	294.9	170.6	48.1	48.5	49.9	57.7	82.1	84.6	77.9	73.6	72.9
80°	108.7	67.6	39.3	42.8	43.5	50.6	70.4	74.3	68.0	64.8	64.1
82.5°	39.6	33.6	32.6	37.5	36.8	43.2	61.6	64.4	57.7	54.5	52.7
85°	11.0	12.4	20.5	29.4	28.7	33.6	49.6	52.0	46.4	38.2	37.2
87.5°	0.7	2.5	8.1	17.3	18.1	20.9	35.8	39.3	34.3	28.3	28.0
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)