

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: P400923

Luminaire Tested: **ENV-SA1A-730-U-T4FT-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400923
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-730-U-T4FT-HSS
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1763 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

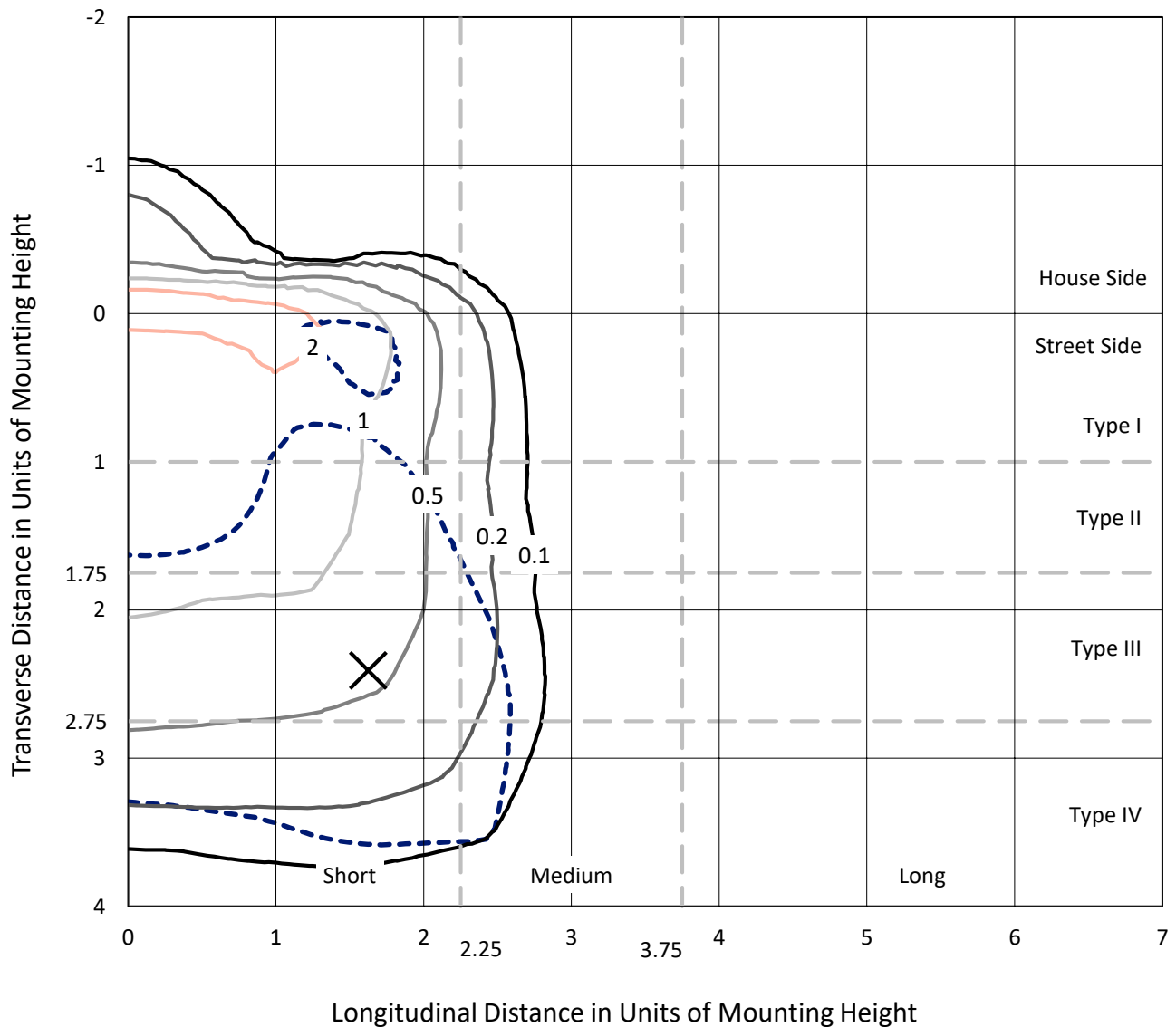
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

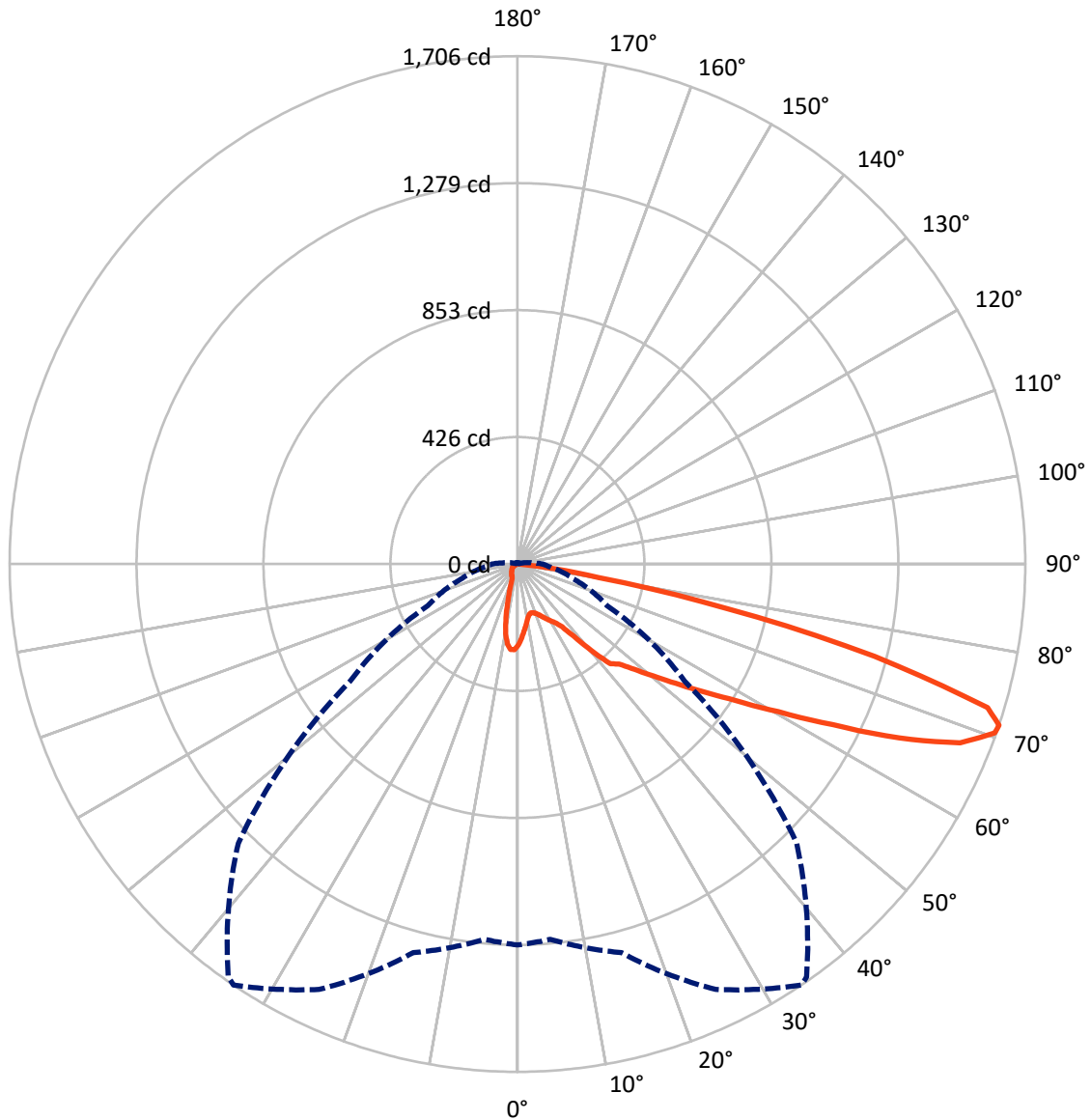
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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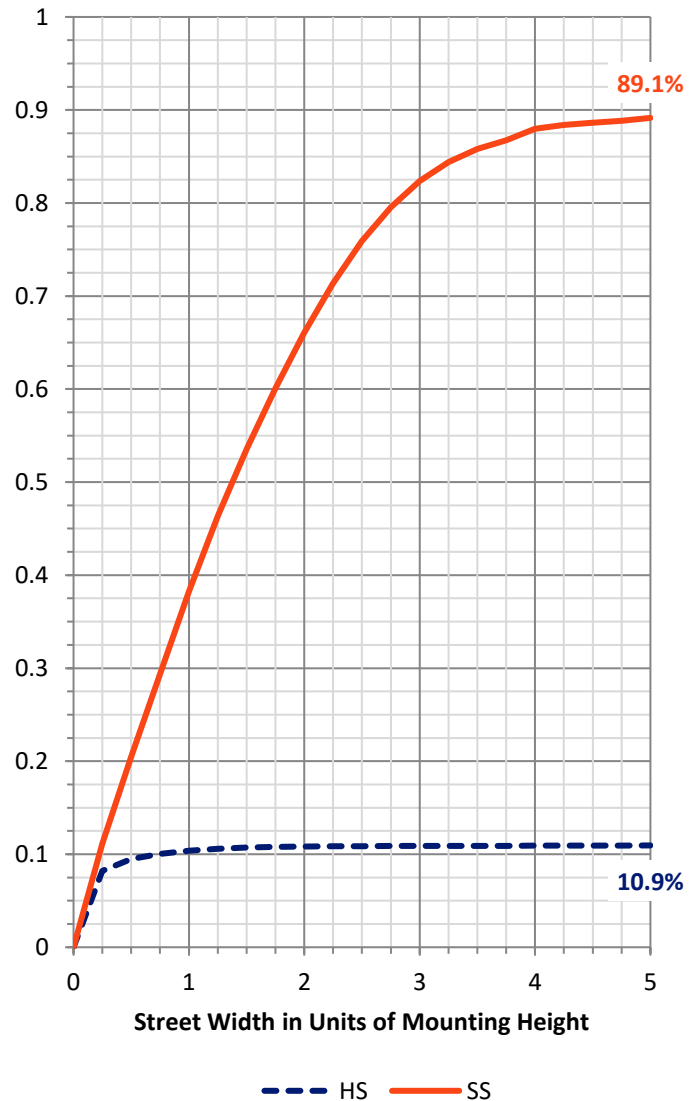
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	194.9	0.0	194.9
	% Fixture	11.1	0.0	11.1
Street Side	Lumens	1568.1	0.0	1568.1
	% Fixture	88.9	0.0	88.9
Total	Lumens	1763.0	0.0	1763.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.1	1.4
10°-20°	55.2	3.1
20°-30°	82.4	4.7
30°-40°	137.6	7.8
40°-50°	248.4	14.1
50°-60°	394.2	22.4
60°-70°	529.7	30.0
70°-80°	281.1	15.9
80°-90°	10.4	0.6
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°	1763.0	100.0
0°-180°	1763.0	100.0



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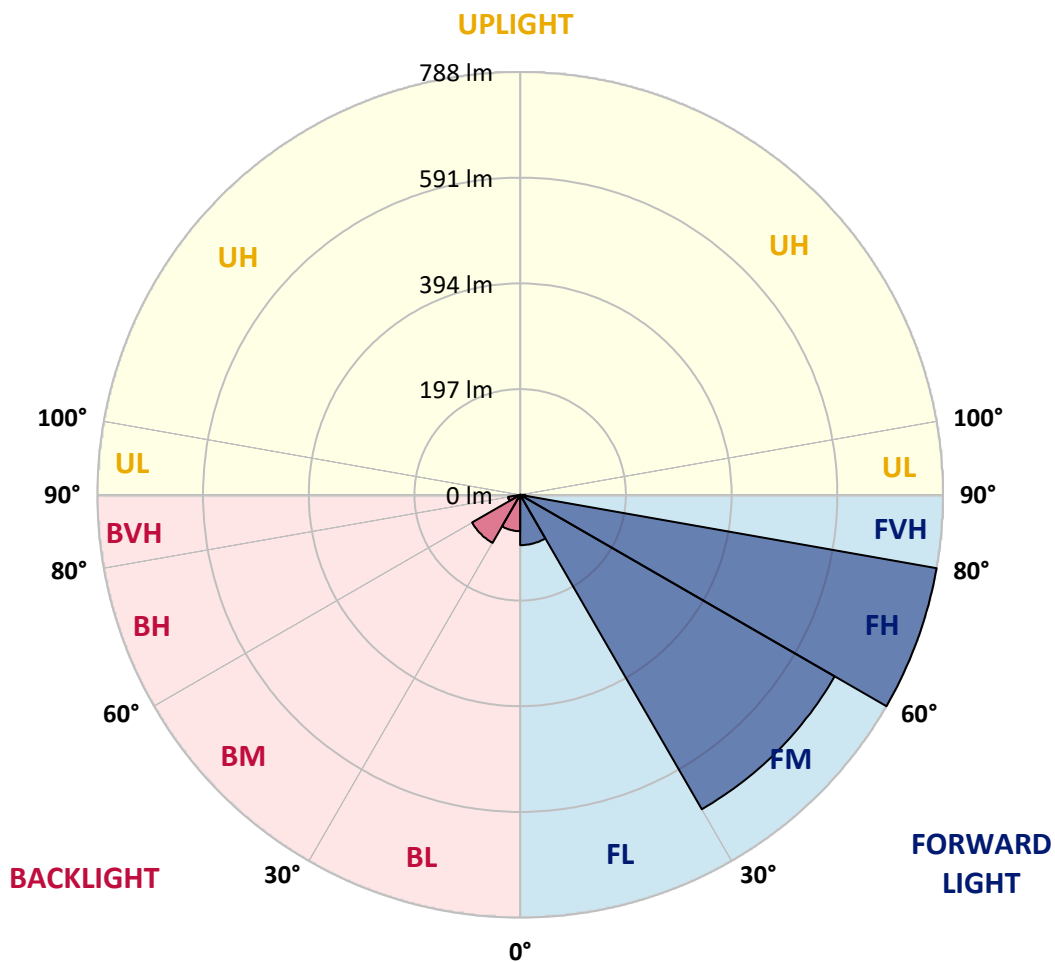
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	93.8	5.3			
FM	(30°-60°)	676.8	38.4			
FH	(60°-80°)	788.0	44.7			G1/1800
FVH	(80°-90°)	9.4	0.5			G0/10
BL	(0°-30°)	67.8	3.8	B0/110		
BM	(30°-60°)	103.4	5.9	B0/220		
BH	(60°-80°)	22.8	1.3	B0/110		G0/110
BVH	(80°-90°)	0.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2
2.5°	248.8	245.6	248.4	249.8	250.9	252.3	254.4	258.3	262.6	267.5	270.3
5°	216.9	218.7	219.7	223.6	227.5	228.2	235.0	242.7	252.6	262.6	271.0
7.5°	191.1	191.1	194.3	200.3	206.6	207.4	219.0	229.3	243.4	258.7	272.5
10°	170.6	171.3	173.7	179.8	187.9	189.7	202.8	216.9	234.6	254.4	273.9
12.5°	163.8	163.5	163.1	167.4	174.1	175.9	190.4	207.4	228.2	252.3	277.4
15°	168.1	167.0	164.5	165.2	169.5	171.3	184.0	201.0	224.3	251.9	283.4
17.5°	174.8	173.4	168.8	167.4	172.0	173.7	184.4	199.2	222.9	253.7	290.5
20°	182.9	181.5	174.4	172.7	177.3	178.7	189.7	202.4	223.6	257.2	300.1
22.5°	194.6	192.8	182.6	180.5	185.1	186.5	198.2	209.8	227.9	263.6	313.2
25°	208.8	206.6	193.6	190.7	196.4	197.8	209.5	220.4	235.0	272.1	329.8
27.5°	224.3	221.9	208.1	202.4	208.8	210.9	221.9	233.9	245.2	282.7	351.7
30°	238.5	235.7	222.2	215.8	222.2	223.3	236.4	249.8	261.8	300.8	383.9
32.5°	277.8	270.7	249.8	231.4	235.7	237.8	253.7	274.9	293.0	322.4	425.3
35°	336.5	330.8	305.4	273.5	258.7	259.4	279.9	306.8	314.9	347.5	476.6
37.5°	393.1	388.2	365.9	336.5	308.2	309.3	312.8	338.6	348.2	391.0	539.3
40°	455.0	447.3	429.6	401.6	382.2	377.6	360.2	378.3	399.1	445.8	607.5
42.5°	483.7	476.3	457.9	459.6	457.5	449.4	415.1	440.2	463.5	525.5	682.9
45°	531.1	516.6	478.8	481.6	478.8	479.5	488.0	524.4	544.6	609.7	768.2
47.5°	575.0	558.4	518.7	515.9	528.3	534.7	580.3	624.5	626.3	682.9	835.1
50°	615.0	602.9	566.5	566.9	589.5	596.6	687.9	728.2	692.5	739.2	887.4
52.5°	668.1	651.1	618.5	630.2	665.6	671.9	795.1	819.1	740.2	790.1	928.5
55°	717.2	708.0	684.0	701.3	755.5	772.1	904.1	889.2	773.9	835.4	948.3
57.5°	797.9	789.1	782.7	791.5	864.1	885.0	1014.5	938.7	800.0	865.5	939.1
60°	932.4	923.5	904.4	912.6	1007.0	1017.7	1101.2	989.0	810.3	874.0	903.0
62.5°	1098.3	1087.4	1056.6	1094.1	1188.9	1188.6	1191.0	1015.5	797.2	848.9	807.8
65°	1248.0	1232.8	1216.9	1293.3	1408.7	1392.7	1286.6	1018.7	755.8	727.5	624.9
67.5°	1357.0	1351.0	1359.8	1479.1	1603.3	1587.3	1379.3	974.8	629.1	525.1	386.0
70°	1352.7	1340.4	1396.6	1587.0	1699.9	1686.8	1375.4	801.1	419.7	278.1	161.7
71°	1279.5	1265.3	1351.0	1576.4	1705.5	1693.1	1325.9	685.4	331.9	196.4	106.5
72.5°	988.6	1031.5	1167.7	1462.8	1651.0	1635.1	1191.0	524.8	210.2	113.6	53.4
75°	418.2	441.6	693.2	1044.2	1238.5	1230.3	802.9	242.4	96.6	51.3	20.5
77.5°	107.6	106.2	212.3	448.0	721.1	733.9	370.1	83.2	50.2	36.4	11.7
80°	20.9	22.6	60.5	155.7	275.3	282.7	120.7	36.4	33.6	28.7	6.0
82.5°	2.1	2.5	10.6	48.1	92.4	89.2	26.5	13.8	20.5	19.5	2.8
85°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	1.4	5.0	5.3	0.7
87.5°	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2	273.2
2.5°	272.5	275.6	279.2	281.7	284.1	284.5	288.0	287.3	288.4	288.7	288.4
5°	275.6	279.9	286.6	290.2	291.6	289.1	288.4	284.5	283.1	281.3	279.5
7.5°	279.2	284.5	292.3	294.0	289.1	279.9	272.5	262.9	254.1	248.4	249.1
10°	283.1	289.8	296.2	291.6	278.8	260.8	239.9	218.7	199.9	192.8	195.3
12.5°	288.0	296.2	299.0	286.3	261.5	225.0	187.2	155.0	135.5	123.8	122.4
15°	295.5	303.6	300.4	277.8	233.9	176.9	129.9	97.3	78.6	72.5	69.4
17.5°	304.7	312.4	300.4	262.6	194.6	126.7	78.9	59.1	53.1	51.7	52.0
20°	316.0	323.4	299.0	239.6	150.0	77.8	52.7	48.8	48.8	48.8	48.5
22.5°	331.2	335.1	296.9	209.1	103.3	52.7	46.7	46.4	46.7	46.7	46.7
25°	349.6	348.9	293.0	172.7	65.1	44.9	44.6	44.6	44.9	45.3	45.3
27.5°	374.0	366.6	286.3	129.2	46.0	41.8	42.5	43.2	43.9	44.6	44.6
30°	408.0	389.9	275.3	87.4	38.9	38.6	40.0	42.1	43.2	43.9	43.9
32.5°	444.4	414.0	256.5	55.9	35.7	35.4	36.8	40.0	42.8	43.5	43.5
35°	490.4	439.8	228.6	40.3	33.6	32.9	34.3	37.2	41.4	43.5	43.5
37.5°	538.9	467.4	187.9	34.0	31.5	30.8	31.8	34.0	38.9	42.8	43.2
40°	590.6	491.8	141.2	31.5	29.4	29.0	29.4	31.5	35.4	40.7	41.8
42.5°	642.6	512.4	98.7	29.0	27.6	26.9	27.6	29.0	32.6	37.2	37.9
45°	699.9	535.0	65.8	26.9	26.2	25.5	26.2	27.2	29.7	32.2	32.6
47.5°	741.7	543.2	45.3	24.4	24.1	24.4	24.8	25.5	26.9	27.2	26.9
50°	769.3	538.9	32.6	21.9	22.3	23.4	23.4	23.7	23.7	22.6	22.3
52.5°	789.4	523.3	25.1	18.8	20.9	21.9	21.9	21.2	20.5	19.1	18.8
55°	791.5	488.3	19.8	16.3	18.8	20.5	20.2	18.8	17.3	15.9	15.9
57.5°	764.7	435.2	16.3	13.8	16.3	18.0	17.3	15.9	14.2	13.1	13.1
60°	721.1	380.7	13.8	11.7	13.4	15.2	14.2	13.1	11.3	10.3	10.3
62.5°	640.8	327.0	11.3	9.6	11.0	12.0	11.7	10.6	8.8	8.1	7.8
65°	491.1	248.8	8.5	7.4	8.5	9.9	9.2	8.1	7.1	6.0	5.7
67.5°	295.1	149.7	6.7	5.7	6.7	7.8	7.1	6.0	5.0	4.2	4.2
70°	124.9	64.0	5.3	4.2	5.0	6.0	5.7	5.0	3.9	3.5	3.5
71°	84.9	45.6	4.6	3.9	4.6	5.7	5.3	4.6	3.9	3.5	3.5
72.5°	43.5	23.4	3.9	3.2	4.2	5.0	5.0	4.2	3.5	3.5	3.5
75°	15.6	9.9	3.2	2.8	3.5	3.5	3.9	3.9	3.9	3.9	3.5
77.5°	8.8	6.0	2.8	2.8	2.8	3.2	3.9	4.2	4.6	4.6	4.2
80°	5.0	3.2	1.8	2.1	2.8	3.2	3.9	4.2	5.0	5.0	4.6
82.5°	2.5	1.1	0.4	1.1	1.8	2.8	3.2	3.5	4.2	3.9	3.9
85°	0.4	0.0	0.0	0.4	1.1	1.4	2.1	2.8	3.5	3.5	3.2
87.5°	0.0	0.0	0.0	0.0	0.4	0.7	1.1	1.8	2.5	2.8	2.5
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)