

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: P401029

Luminaire Tested: **ENV-SA1A-827-U-T3-HSS**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P401029  
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: ENV-SA1A-827-U-T3-HSS  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K, 350mA 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: 1544 lumens  
Efficiency: N/A  
Efficacy: 76.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B0 - U0 - G0

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

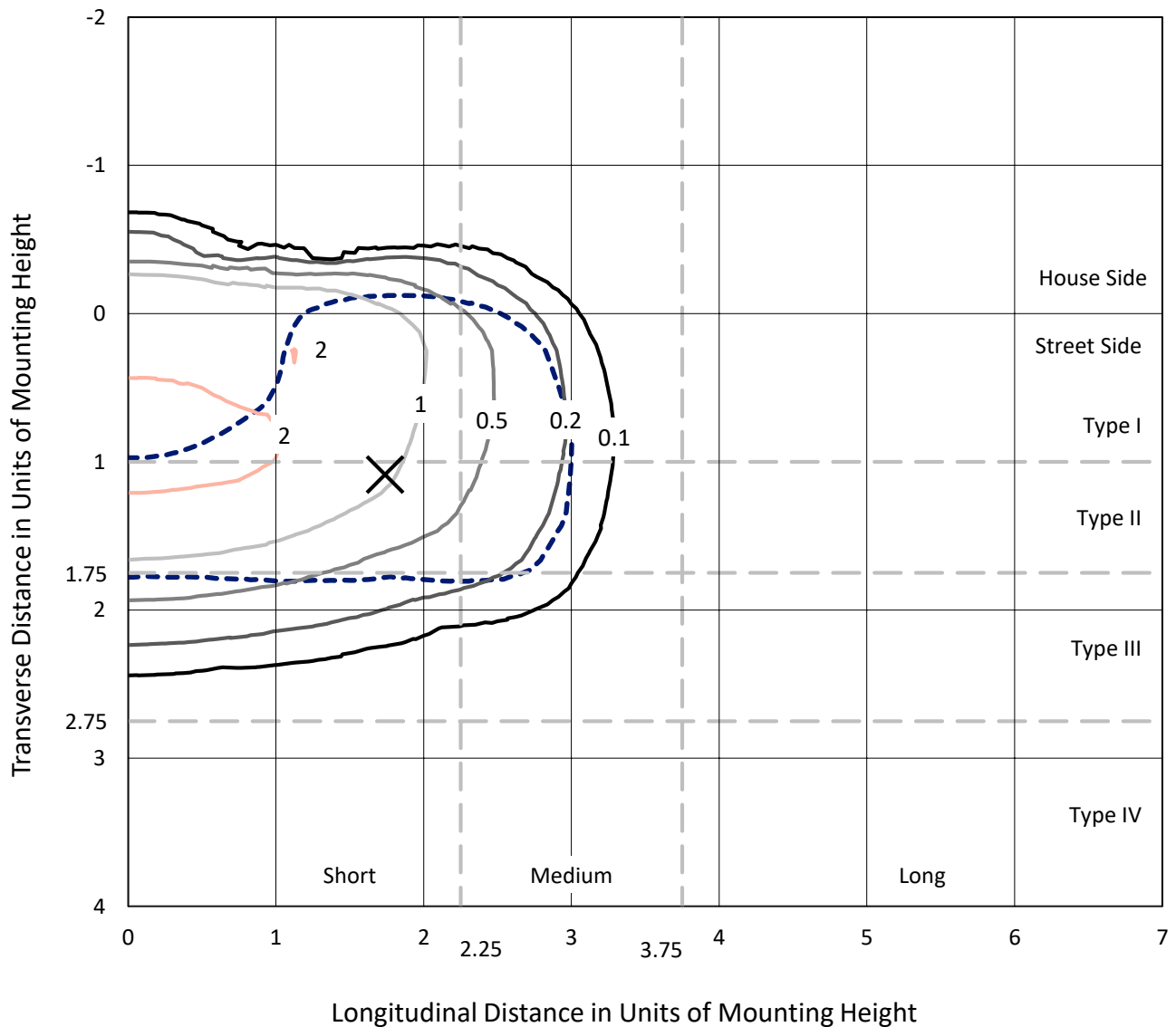


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

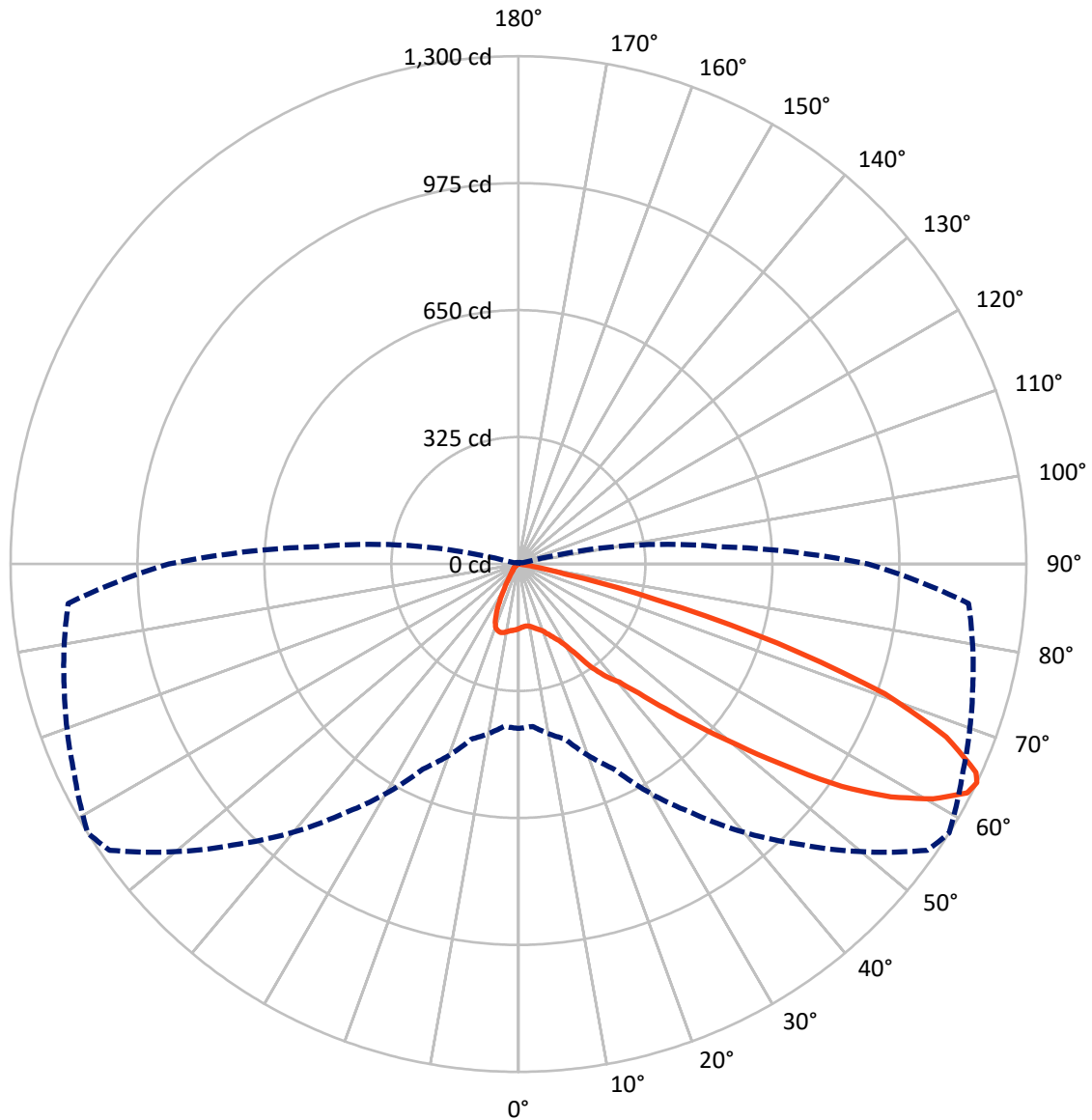


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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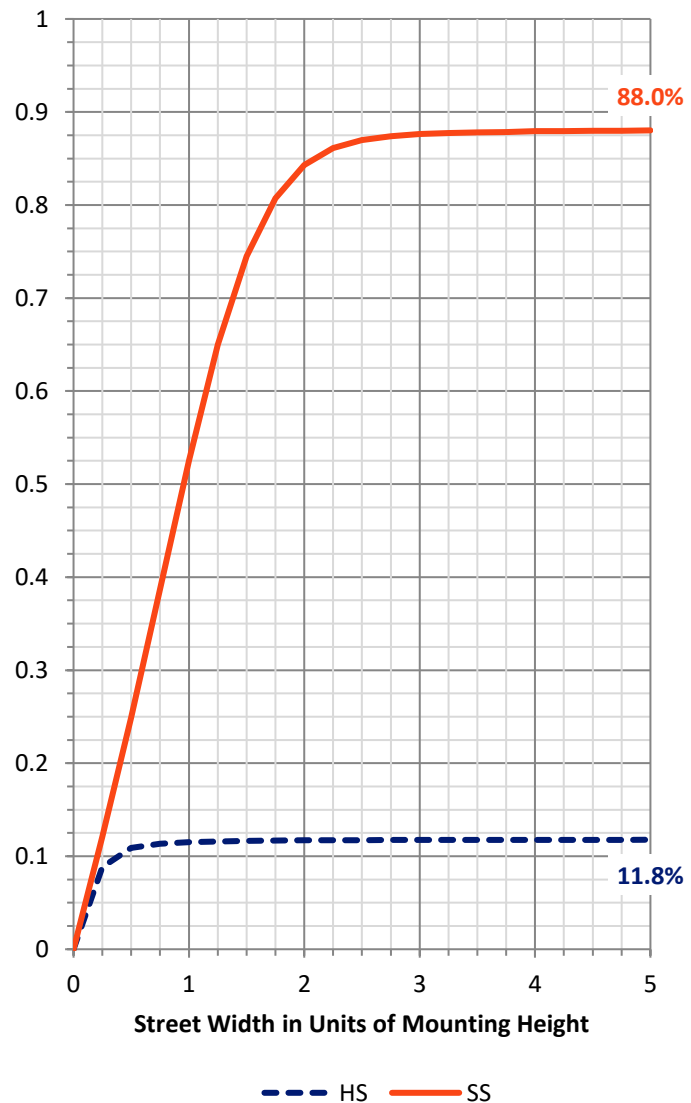
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	184.1	0.0	184.1
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	1359.9	0.0	1359.9
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	1544.0	0.0	1544.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	15.6	1.0
10°-20°	45.6	3.0
20°-30°	81.9	5.3
30°-40°	143.5	9.3
40°-50°	262.4	17.0
50°-60°	448.8	29.1
60°-70°	435.4	28.2
70°-80°	107.8	7.0
80°-90°	3.1	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°	1544.0	100.0
0°-180°	1544.0	100.0



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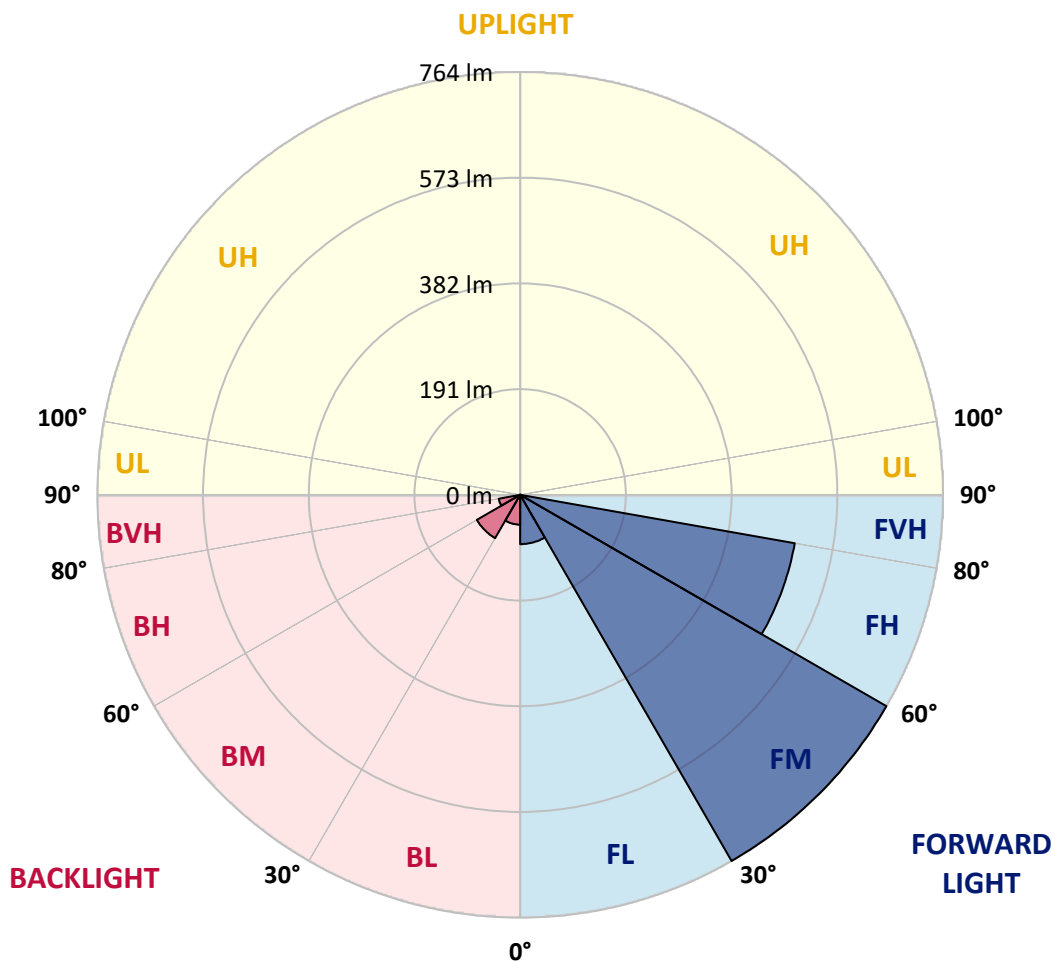
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	89.1	5.8			
FM (30°-60°)	764.2	49.5			
FH (60°-80°)	503.9	32.6			G0/660
FVH (80°-90°)	2.6	0.2			G0/10
BL (0°-30°)	53.9	3.5	B0/110		
BM (30°-60°)	90.4	5.9	B0/220		
BH (60°-80°)	39.3	2.5	B0/110		G0/110
BVH (80°-90°)	0.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G0**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4
2.5°	158.5	158.5	159.1	159.4	160.2	161.1	162.2	162.5	163.1	164.5	165.1
5°	150.0	150.2	150.8	152.2	154.2	156.5	159.4	160.2	162.5	165.4	167.4
7.5°	146.5	146.8	147.7	149.4	152.0	155.4	158.8	160.0	163.1	167.7	170.5
10°	146.0	146.0	147.1	149.7	152.8	157.1	160.8	162.2	166.5	172.0	176.5
12.5°	146.0	146.0	147.4	150.5	154.2	159.7	164.8	166.8	171.7	178.5	184.2
15°	148.5	149.1	150.0	152.0	156.2	162.2	169.4	171.7	177.7	186.0	193.1
17.5°	166.8	166.2	163.4	160.8	160.0	165.1	173.7	176.8	185.7	196.2	203.9
20°	202.2	202.0	196.8	184.2	173.1	170.2	180.2	184.0	196.8	210.8	216.5
22.5°	245.1	246.5	238.5	221.7	198.8	184.2	190.0	195.1	211.7	228.5	231.9
25°	287.6	289.4	281.9	260.8	232.8	207.4	203.4	207.9	226.8	243.7	242.2
27.5°	337.9	336.5	329.1	305.1	272.5	238.5	221.4	222.2	236.8	255.7	251.1
30°	374.8	372.8	365.6	349.3	318.8	279.9	247.1	244.5	248.8	269.6	264.8
32.5°	408.5	409.9	404.5	382.8	353.9	322.5	285.6	278.8	277.1	294.8	286.8
35°	441.9	441.6	439.6	420.5	392.2	362.5	331.6	326.8	326.2	343.3	321.6
37.5°	481.9	479.9	476.2	456.7	434.2	405.9	373.1	365.3	363.9	367.3	341.9
40°	524.7	527.3	521.3	501.0	476.5	455.3	409.3	397.6	387.9	397.9	381.6
42.5°	588.4	590.4	579.9	565.9	534.2	514.4	467.9	451.9	447.3	462.5	444.2
45°	668.4	664.7	657.6	647.8	621.6	591.6	543.0	527.9	523.0	549.0	519.0
47.5°	730.7	730.1	730.4	728.4	724.4	688.4	630.7	620.4	615.6	653.0	619.8
50°	770.1	772.4	782.1	806.9	825.2	810.1	742.4	729.8	726.1	765.0	720.1
52.5°	799.8	805.2	821.5	870.6	929.2	934.3	878.4	860.6	852.1	862.9	800.7
55°	814.9	817.5	842.4	914.9	1006.6	1043.5	1020.0	1005.2	970.6	950.1	895.2
57.5°	779.5	775.5	818.4	910.6	1046.6	1131.4	1141.4	1124.6	1069.2	1053.2	1010.0
60°	686.7	685.0	733.2	844.1	1011.8	1152.0	1231.4	1220.8	1170.0	1132.0	1091.4
62.5°	523.9	526.7	577.9	690.7	887.5	1092.9	1281.4	1290.0	1236.0	1179.4	1151.7
64°	420.8	417.3	464.2	579.0	778.7	1014.0	1277.7	1300.3	1256.0	1204.3	1157.1
65°	353.3	345.9	390.8	494.7	686.7	956.9	1251.4	1287.7	1257.4	1210.3	1137.4
67.5°	186.0	190.0	209.1	300.5	463.6	723.5	1126.9	1181.7	1194.0	1128.3	991.2
70°	83.4	84.0	96.3	153.4	256.5	469.3	906.3	995.2	1002.0	926.9	718.1
72.5°	27.7	28.0	42.6	61.4	107.7	217.4	612.1	693.0	707.8	601.0	389.6
75°	17.1	17.7	22.6	33.1	50.0	76.0	310.2	365.1	368.2	266.5	141.7
77.5°	10.9	11.4	13.7	19.7	27.4	28.9	101.7	123.1	139.4	96.0	44.0
80°	6.9	6.9	8.9	12.0	14.3	12.3	27.7	36.6	44.0	32.3	14.9
82.5°	2.6	2.6	4.6	6.6	6.0	4.3	7.4	9.7	16.9	16.0	7.1
85°	0.0	0.0	0.3	0.6	0.3	0.6	1.4	2.0	3.1	4.6	2.3
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.6	0.6	0.6	0.6	0.6
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°	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4	165.4
2.5°	166.0	166.5	167.7	168.0	168.2	167.4	168.2	167.4	168.0	168.0	168.0
5°	168.5	169.4	170.2	170.5	170.2	168.2	168.8	167.4	167.1	167.1	167.1
7.5°	172.0	172.8	174.2	173.4	171.7	168.8	168.5	166.5	165.7	165.7	166.0
10°	178.2	179.1	179.7	178.0	174.5	170.2	167.1	162.8	160.8	160.0	160.0
12.5°	186.2	187.1	186.8	184.0	177.7	168.8	160.0	151.7	145.7	143.4	141.1
15°	194.8	196.0	195.4	189.4	177.4	161.7	144.5	125.1	113.1	105.4	104.0
17.5°	204.8	205.9	203.1	192.2	173.1	146.5	114.0	87.7	70.3	63.7	63.4
20°	217.1	216.5	209.7	192.5	165.4	118.5	76.3	54.8	47.4	45.7	45.4
22.5°	231.1	228.5	215.9	190.8	144.3	80.6	49.1	43.4	42.6	42.0	42.0
25°	239.1	234.5	218.2	186.0	111.1	51.4	41.7	40.6	39.4	38.3	38.0
27.5°	245.4	238.5	219.1	170.0	74.0	39.4	37.7	36.6	34.8	33.1	32.8
30°	256.8	246.5	220.5	142.0	45.4	33.7	32.8	30.8	28.3	26.6	26.0
32.5°	277.4	262.5	226.2	106.3	33.1	29.7	27.4	24.9	22.0	20.3	20.3
35°	299.4	277.6	229.1	70.0	28.9	26.0	22.6	19.4	16.9	15.4	15.1
37.5°	319.6	299.4	228.2	42.8	25.7	22.3	18.6	15.4	13.1	12.0	12.0
40°	361.1	337.3	216.5	29.4	22.6	18.9	15.1	12.0	10.6	9.7	9.7
42.5°	420.2	379.0	190.5	25.1	19.7	15.7	12.0	10.0	8.9	8.0	8.0
45°	486.5	425.0	152.0	22.6	17.1	13.1	10.0	8.3	7.1	6.9	6.9
47.5°	573.3	480.7	111.7	20.3	14.9	11.1	8.3	6.9	6.3	6.0	6.0
50°	649.3	525.9	76.3	17.7	13.1	9.4	7.1	6.3	5.7	5.4	5.4
52.5°	718.4	557.3	50.3	15.4	11.7	7.7	6.6	5.7	5.4	5.1	5.1
55°	799.8	581.3	34.0	13.4	10.3	7.1	6.3	5.7	5.1	5.1	4.9
57.5°	868.9	595.6	24.3	11.4	9.1	6.6	6.0	5.4	4.9	4.6	4.6
60°	909.2	578.7	17.7	10.0	8.0	6.0	5.4	4.9	4.6	4.3	4.3
62.5°	920.3	546.2	13.7	8.6	6.9	5.4	4.9	4.3	4.0	3.7	3.7
64°	894.6	511.3	11.7	7.4	6.0	4.9	4.6	4.0	3.4	2.9	2.9
65°	858.4	479.0	10.6	6.9	5.4	4.6	4.3	3.7	2.9	2.3	2.3
67.5°	715.3	381.9	8.6	5.7	4.3	4.0	3.4	2.9	2.0	1.4	1.4
70°	507.9	267.1	6.6	4.6	3.7	3.7	3.1	2.3	1.1	0.6	0.6
72.5°	268.8	138.8	5.4	3.7	2.9	2.9	2.6	1.4	0.9	0.6	0.3
75°	94.0	45.7	4.6	3.1	2.6	2.0	1.7	1.1	0.9	0.6	0.3
77.5°	28.6	15.1	4.0	3.1	2.3	1.7	2.0	1.7	1.7	1.1	0.9
80°	9.1	5.4	2.3	2.0	2.3	2.3	2.0	1.7	2.0	1.4	1.1
82.5°	3.4	2.0	0.9	1.1	1.1	1.4	1.4	1.1	0.9	0.3	0.0
85°	1.1	0.9	0.6	0.9	0.9	0.9	0.6	0.6	0.3	0.0	0.0
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	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)