

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: P400733

Luminaire Tested: **ENT-SA1-730-U-SL4-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400733  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-730-U-SL4-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 577 lumens  
Efficiency: N/A  
Efficacy: 44.4 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 - G0

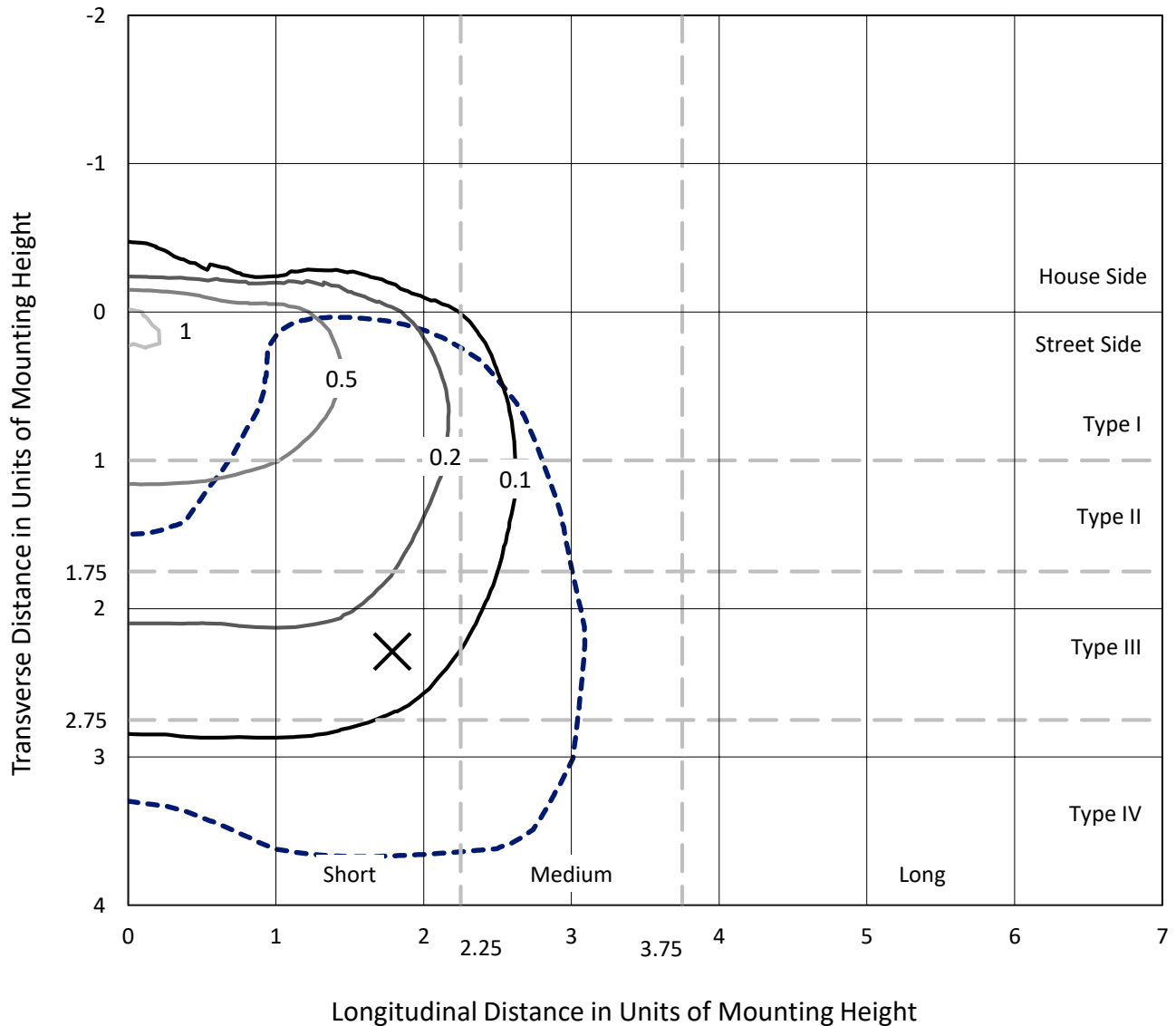
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

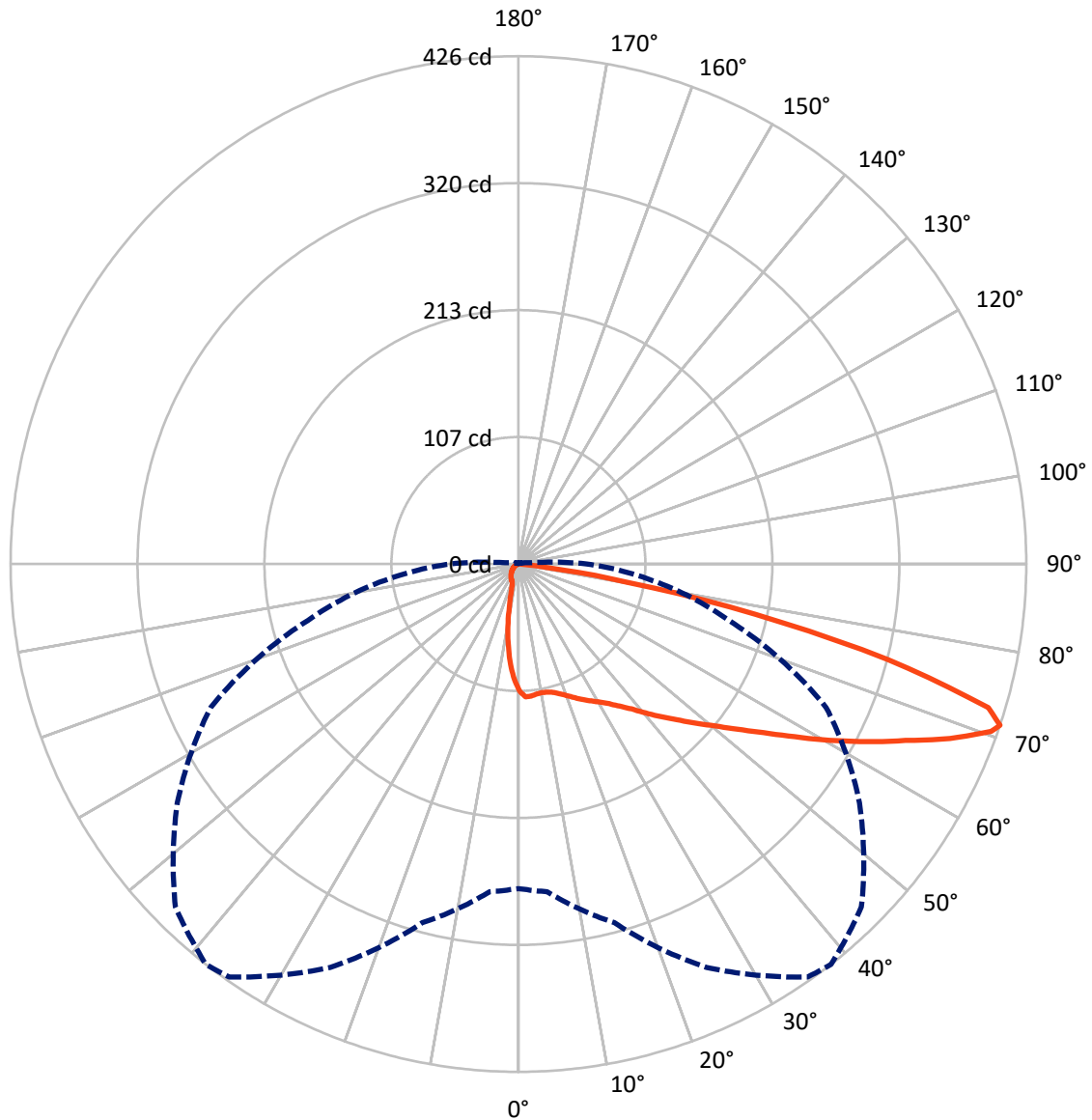
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.1 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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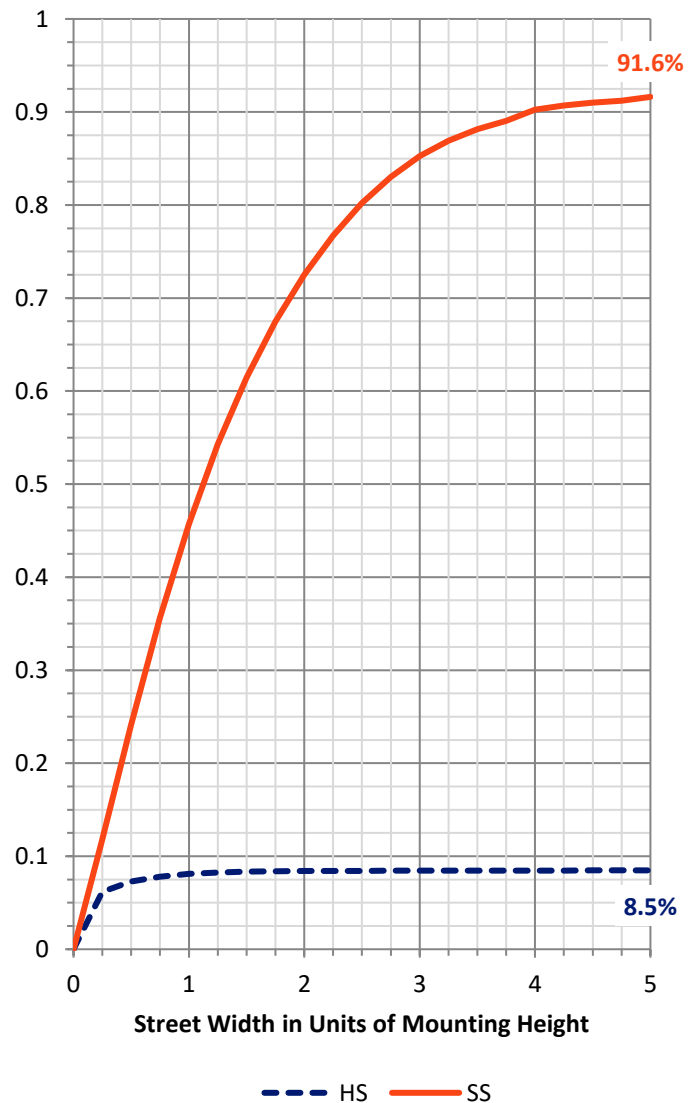
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	49.3	0.0	49.3
	% Fixture	8.5	0.0	8.5
<b>Street Side</b>	Lumens	527.7	0.0	527.7
	% Fixture	91.5	0.0	91.5
<b>Total</b>	Lumens	577.0	0.0	577.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	9.0	1.6
10°-20°	21.8	3.8
20°-30°	34.9	6.0
30°-40°	53.1	9.2
40°-50°	82.7	14.3
50°-60°	120.9	21.0
60°-70°	155.1	26.9
70°-80°	94.8	16.4
80°-90°	4.8	0.8
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°	577.0	100.0
0°-180°	577.0	100.0



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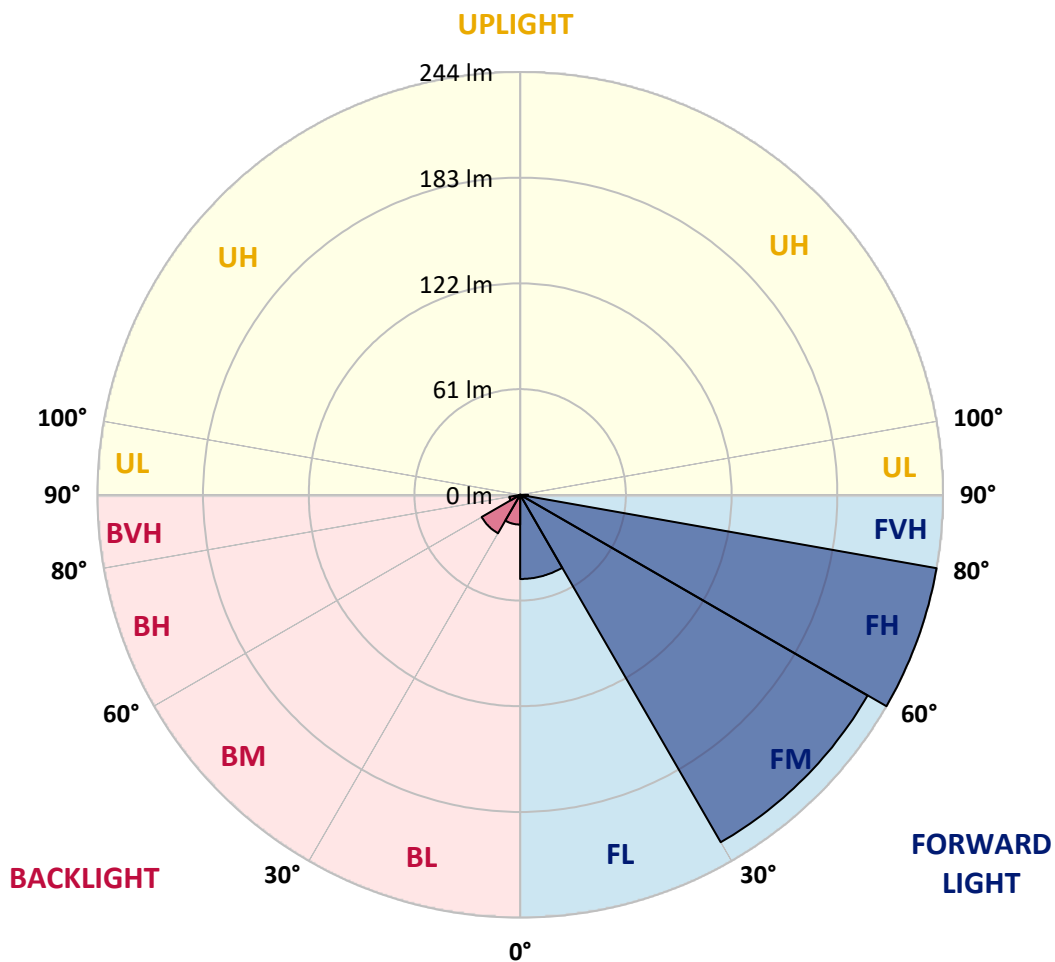
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	48.5	8.4			
FM	(30°-60°)	231.1	40.0			
FH	(60°-80°)	243.6	42.2			G0/660
FVH	(80°-90°)	4.6	0.8			G0/10
BL	(0°-30°)	17.1	3.0	B0/110		
BM	(30°-60°)	25.6	4.4	B0/220		
BH	(60°-80°)	6.3	1.1	B0/110		G0/110
BVH	(80°-90°)	0.2	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4
2.5°	112.7	112.4	112.7	112.4	111.8	111.5	111.1	110.0	109.0	107.8	106.0
5°	112.9	112.7	112.7	112.3	111.6	111.3	110.9	109.8	108.5	106.7	104.0
7.5°	111.8	111.7	111.5	111.1	110.3	110.1	109.8	108.5	107.2	105.3	102.0
10°	110.0	110.2	110.1	110.1	109.8	109.6	109.4	107.9	106.5	104.3	100.8
12.5°	108.3	108.5	109.0	109.8	110.1	110.2	110.2	108.7	107.0	104.6	101.0
15°	107.2	107.6	109.0	110.6	111.5	111.8	112.1	110.5	108.5	105.9	102.1
17.5°	106.9	107.5	110.2	112.7	114.4	114.6	114.6	112.6	110.5	107.5	103.4
20°	107.9	108.7	112.2	115.7	117.8	118.0	117.6	115.0	112.5	109.2	104.5
22.5°	110.9	111.6	115.6	119.7	121.7	121.9	121.0	117.4	114.7	112.0	106.0
25°	116.1	116.5	120.8	124.7	125.8	126.1	124.6	120.3	117.2	114.7	108.1
27.5°	123.0	123.2	127.1	130.0	130.2	130.1	128.5	124.0	120.9	118.8	111.3
30°	130.2	130.5	133.7	135.6	134.8	134.4	133.0	128.2	125.4	123.8	115.9
32.5°	136.9	137.2	140.7	141.7	139.9	139.6	138.6	133.5	131.1	131.9	122.5
35°	143.5	143.5	147.5	148.0	146.4	146.4	146.4	140.3	139.9	142.6	131.7
37.5°	149.4	150.4	154.6	154.4	154.1	154.3	154.9	150.3	151.7	156.3	143.8
40°	154.4	155.7	161.3	161.8	163.1	164.2	165.1	162.7	166.0	173.5	159.3
42.5°	158.9	160.4	167.6	169.9	173.5	175.0	176.7	176.1	183.4	197.0	179.1
45°	164.7	166.3	173.7	179.2	184.1	186.1	189.9	192.5	204.6	220.2	200.4
47.5°	172.4	173.5	180.3	188.9	195.7	199.3	205.2	211.9	226.6	244.8	219.5
50°	182.9	183.0	188.0	199.3	209.4	213.3	223.5	232.2	250.6	266.5	233.3
52.5°	194.4	193.8	197.8	212.1	224.9	230.2	242.2	254.3	272.8	282.2	239.5
55°	205.4	205.7	208.2	225.7	244.4	249.5	264.7	277.0	293.1	291.8	242.9
57.5°	218.1	218.0	221.2	240.6	267.2	273.1	289.0	299.1	305.4	298.7	243.5
60°	230.1	229.8	234.7	258.4	291.5	300.2	314.5	314.1	317.7	303.1	243.0
62.5°	240.8	241.5	250.1	279.1	318.7	328.1	335.3	330.3	331.3	308.2	236.8
65°	253.8	255.1	269.0	304.2	352.3	356.8	359.6	351.5	341.5	304.1	218.0
67.5°	270.2	274.1	293.7	341.2	387.3	390.4	390.5	364.3	341.1	283.4	183.4
70°	276.7	280.8	312.0	370.5	416.8	420.7	408.5	362.3	314.2	221.9	123.8
71°	272.2	275.9	311.5	373.3	422.9	426.0	406.9	349.2	284.9	182.9	95.9
72.5°	239.7	249.3	292.3	355.7	412.0	412.1	381.0	318.3	226.6	114.2	48.2
75°	129.5	141.1	214.2	270.7	317.8	320.3	293.1	221.0	109.7	29.6	11.7
77.5°	42.7	48.1	96.1	140.6	199.3	203.2	179.3	98.2	34.6	10.0	6.1
80°	26.8	27.4	32.5	59.1	88.7	92.0	73.8	39.8	15.6	5.5	4.2
82.5°	4.5	5.4	15.3	17.4	31.3	24.8	16.8	20.3	7.3	2.5	3.6
85°	0.0	0.0	0.1	0.1	0.5	0.1	0.1	4.1	0.4	0.4	1.9
87.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	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°	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4	106.4
2.5°	105.2	104.4	102.8	101.1	99.0	97.2	96.6	95.3	94.7	94.2	94.2
5°	102.3	100.9	97.5	94.0	90.6	87.0	83.7	80.6	79.1	77.0	78.0
7.5°	99.9	97.5	92.7	87.2	80.2	73.1	67.6	62.8	58.8	57.5	56.6
10°	98.2	95.2	88.2	79.8	69.6	59.5	51.0	43.1	38.5	35.7	35.7
12.5°	98.0	94.2	85.1	72.2	57.5	43.8	33.3	25.8	22.1	20.4	20.3
15°	98.7	94.1	82.3	65.3	46.4	30.4	20.8	17.5	16.6	16.4	16.4
17.5°	99.3	94.0	79.0	57.5	34.2	20.0	16.5	15.9	15.7	15.6	15.6
20°	99.9	93.5	75.2	48.7	24.2	16.3	15.4	15.1	15.0	14.9	14.9
22.5°	100.7	93.0	71.3	38.7	17.9	15.2	14.7	14.4	14.3	14.3	14.3
25°	101.8	92.7	66.5	29.3	15.4	14.4	13.9	13.7	13.7	13.6	13.6
27.5°	103.9	93.0	61.3	21.0	14.4	13.6	13.3	13.1	13.1	13.0	13.0
30°	106.8	93.9	54.8	16.4	13.6	12.8	12.5	12.4	12.3	12.3	12.3
32.5°	110.9	95.3	47.7	14.0	12.6	12.0	11.7	11.6	11.6	11.6	11.5
35°	117.2	98.2	39.0	12.8	11.7	11.1	10.8	10.8	10.8	10.7	10.8
37.5°	126.8	102.9	30.2	11.8	10.7	10.2	10.0	9.9	9.9	9.9	9.9
40°	138.9	110.5	22.0	10.9	9.8	9.3	9.1	9.0	8.9	8.9	8.9
42.5°	154.5	118.9	16.0	9.9	9.0	8.5	8.3	8.1	7.9	7.8	7.8
45°	170.7	128.9	12.5	9.1	8.2	7.8	7.6	7.3	7.0	6.7	6.7
47.5°	186.3	136.6	10.7	8.2	7.5	7.1	6.9	6.5	6.0	5.7	5.7
50°	196.2	139.0	9.6	7.4	6.8	6.5	6.2	5.7	5.0	4.7	4.7
52.5°	199.3	134.6	8.6	6.7	6.2	5.9	5.5	4.8	4.1	3.7	3.7
55°	200.5	126.1	7.6	6.2	5.6	5.2	4.7	4.0	3.3	2.9	2.9
57.5°	199.0	114.1	6.8	5.6	5.0	4.6	4.0	3.2	2.5	2.2	2.2
60°	193.9	96.7	6.1	5.0	4.4	3.9	3.3	2.5	1.9	1.5	1.6
62.5°	180.2	74.8	5.3	4.2	3.8	3.3	2.6	1.9	1.2	1.0	1.0
65°	158.2	51.8	4.5	3.5	3.2	2.7	2.0	1.3	0.7	0.6	0.6
67.5°	128.5	33.5	3.5	2.9	2.7	2.2	1.5	0.8	0.4	0.4	0.3
70°	80.7	16.6	2.8	2.2	2.2	1.7	1.1	0.5	0.3	0.3	0.3
71°	57.1	11.3	2.5	2.0	2.0	1.6	1.0	0.4	0.3	0.3	0.3
72.5°	25.8	7.1	2.1	1.8	1.7	1.3	0.9	0.4	0.4	0.4	0.4
75°	8.1	3.9	1.5	1.4	1.4	1.1	0.8	0.5	0.5	0.5	0.5
77.5°	5.4	3.0	1.0	0.9	1.1	1.1	0.8	0.6	0.6	0.6	0.6
80°	4.4	1.6	0.6	0.6	0.8	1.0	0.8	0.6	0.7	0.6	0.6
82.5°	4.3	0.8	0.2	0.3	0.5	0.6	0.6	0.5	0.6	0.6	0.6
85°	1.8	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4
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)