

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: P400721

Luminaire Tested: **ENT-SA1-727-U-T2-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400721  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-727-U-T2-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 70 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 488 lumens  
Efficiency: N/A  
Efficacy: 37.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B0 - U0 - G0

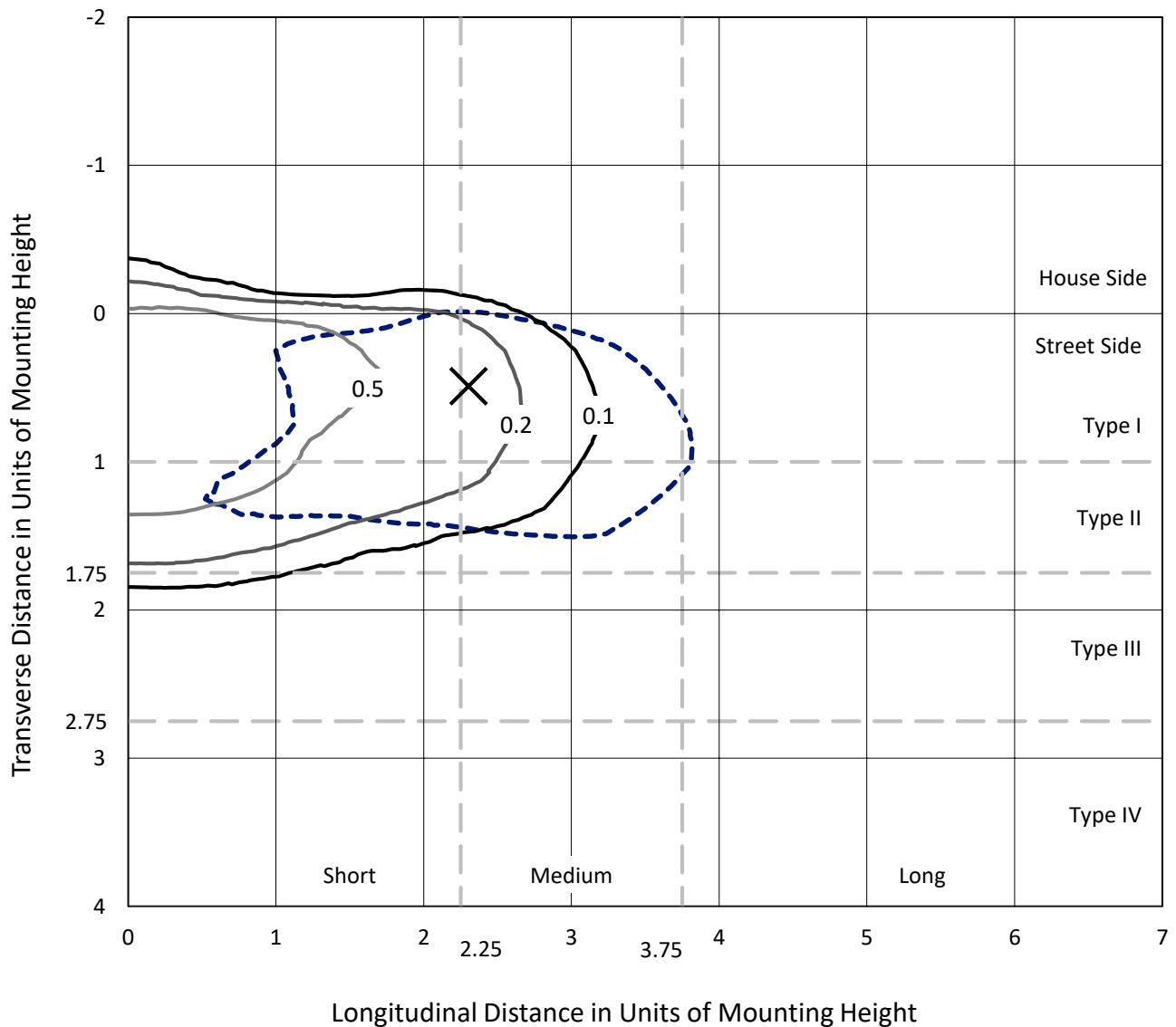
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

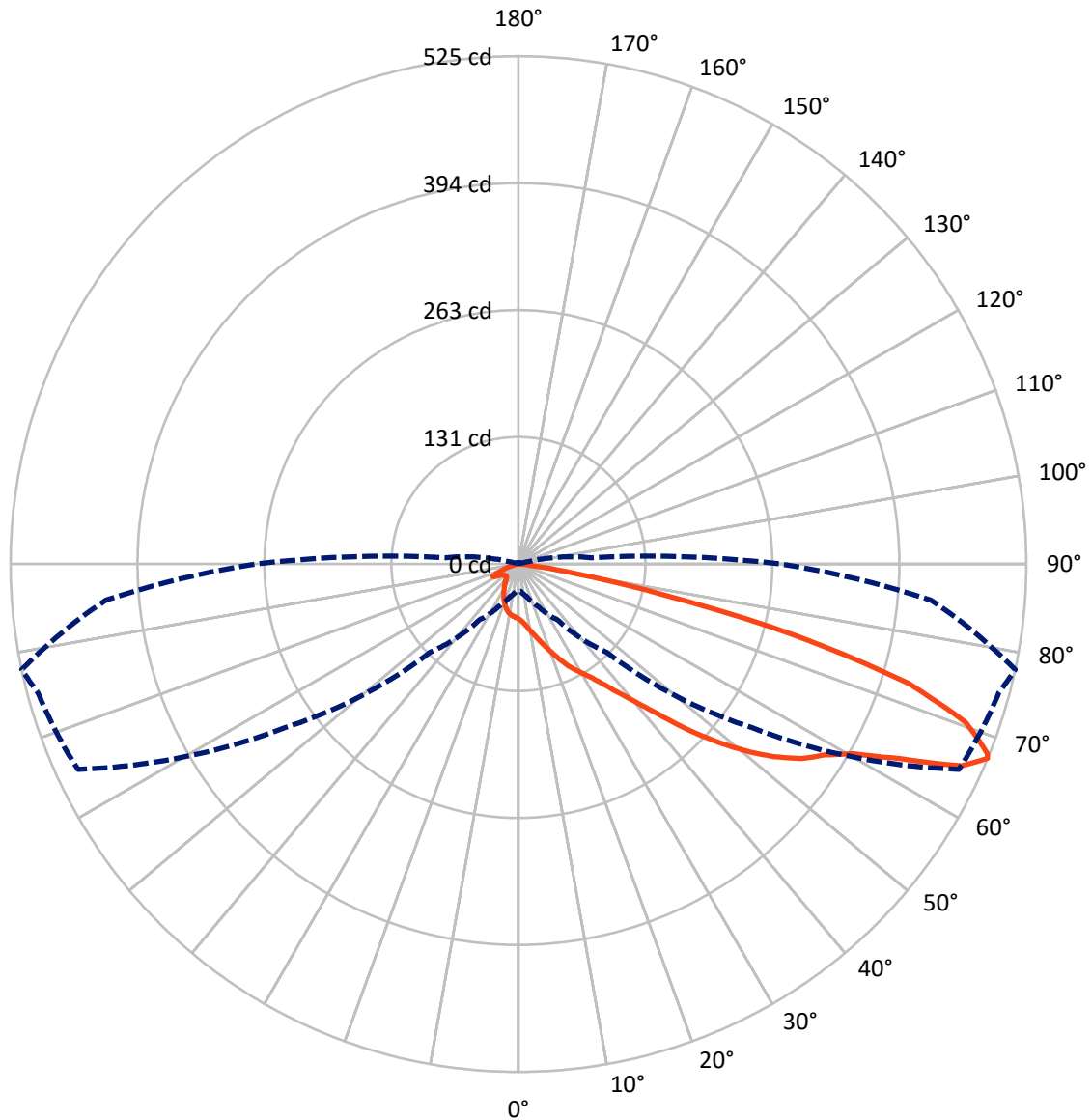
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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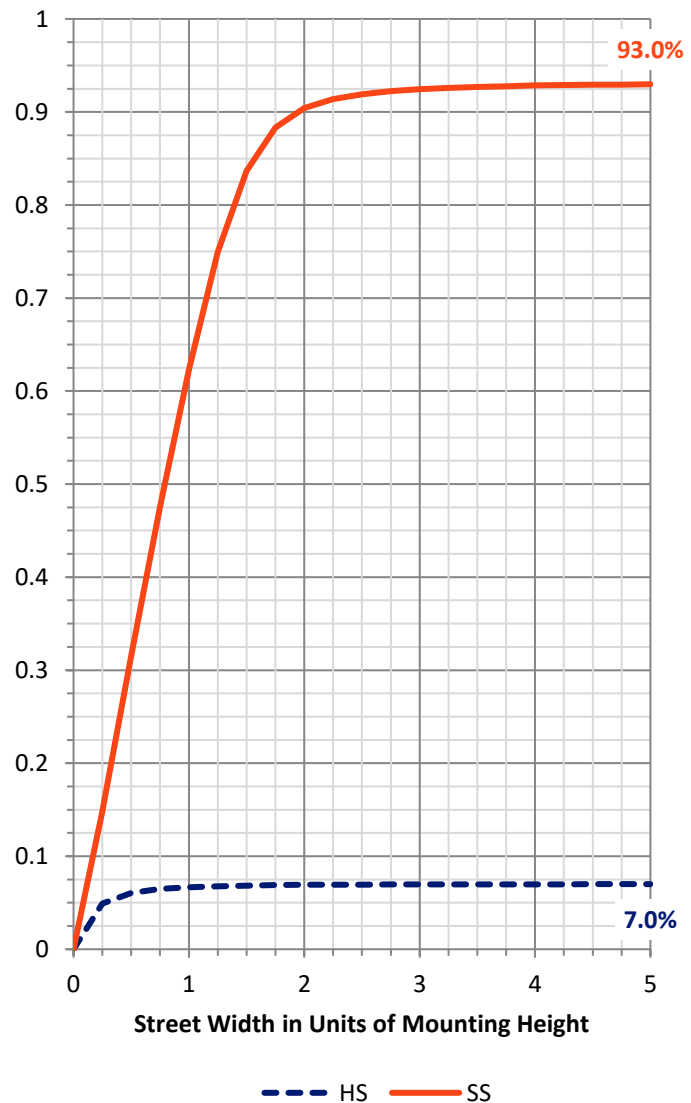
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	34.4	0.0	34.4
	% Fixture	7.1	0.0	7.1
<b>Street Side</b>	Lumens	453.6	0.0	453.6
	% Fixture	92.9	0.0	92.9
<b>Total</b>	Lumens	488.0	0.0	488.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5.5	1.1
10°-20°	15.6	3.2
20°-30°	27.6	5.7
30°-40°	48.7	10.0
40°-50°	83.8	17.2
50°-60°	126.1	25.8
60°-70°	124.1	25.4
70°-80°	54.2	11.1
80°-90°	2.4	0.5
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°	488.0	100.0
0°-180°	488.0	100.0



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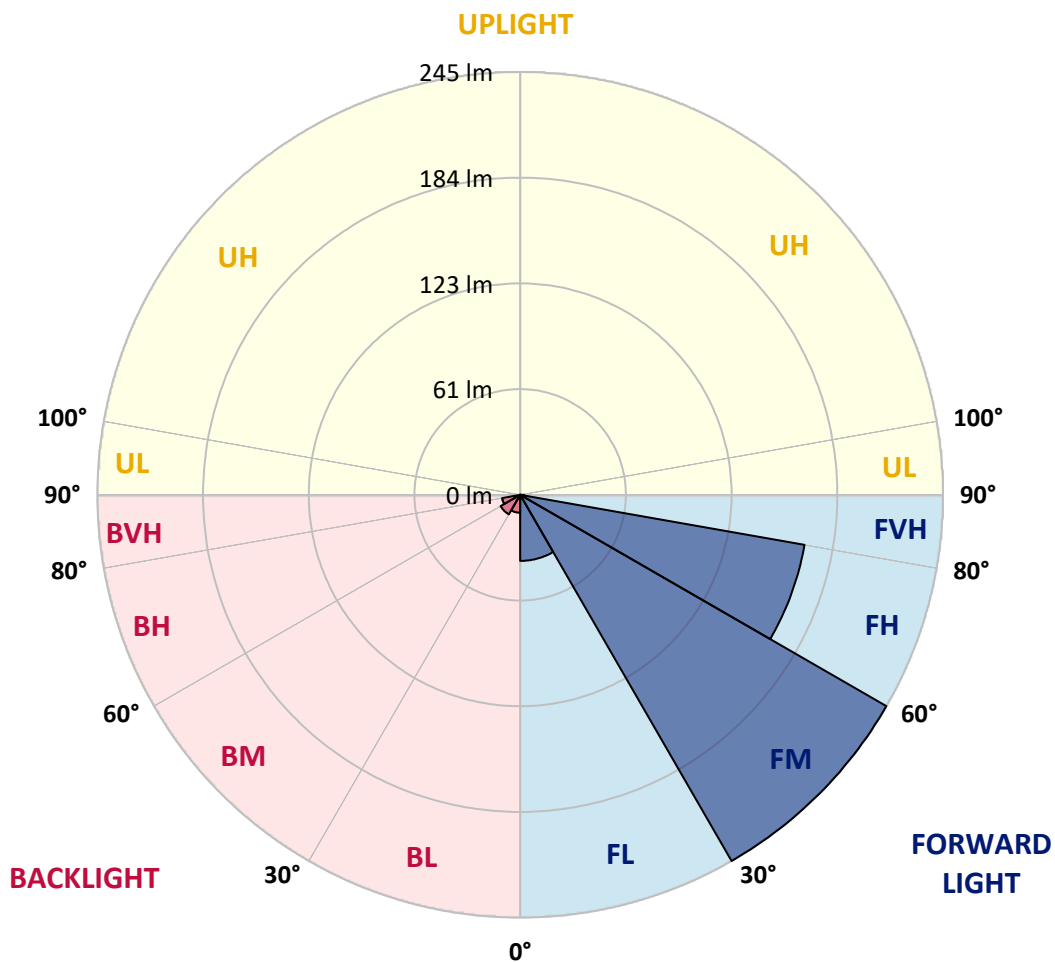
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	38.3	7.9			
FM	(30°-60°)	245.5	50.3			
FH	(60°-80°)	167.6	34.3			G0/660
FVH	(80°-90°)	2.2	0.4			G0/10
BL	(0°-30°)	10.4	2.1	B0/110		
BM	(30°-60°)	13.1	2.7	B0/220		
BH	(60°-80°)	10.7	2.2	B0/110		G0/110
BVH	(80°-90°)	0.3	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-G0**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7
2.5°	65.0	65.3	64.9	64.6	63.9	63.0	62.1	60.7	59.2	58.7	57.8
5°	73.0	73.0	73.0	72.2	71.6	69.9	67.8	65.6	62.9	61.9	59.8
7.5°	77.2	77.3	77.6	77.6	77.2	76.0	73.7	71.3	67.2	65.8	62.4
10°	77.7	78.0	78.8	79.9	80.7	81.3	79.9	77.4	72.4	70.8	65.8
12.5°	76.5	76.6	77.8	79.9	82.5	85.2	85.3	83.7	78.2	75.9	70.0
15°	73.7	74.0	75.7	78.9	83.1	87.8	90.6	90.1	85.0	82.3	74.5
17.5°	69.3	69.6	71.8	76.6	82.6	89.6	95.4	97.7	91.7	89.1	79.2
20°	69.1	69.2	70.0	73.6	80.8	90.6	100.2	105.6	99.8	97.1	84.7
22.5°	80.9	80.1	78.3	76.0	79.1	90.3	104.5	114.0	109.9	105.6	91.0
25°	94.0	94.2	92.2	86.8	82.9	89.8	107.8	123.4	119.4	115.1	97.5
27.5°	107.7	107.3	105.5	100.6	94.0	93.1	110.2	131.0	128.4	123.2	103.3
30°	121.1	120.7	119.5	114.4	107.3	101.7	112.0	137.9	137.1	131.3	108.0
32.5°	136.4	137.1	135.4	128.8	120.1	113.2	116.0	145.1	147.5	140.5	112.9
35°	154.2	154.2	150.8	144.8	135.8	126.2	123.9	153.1	160.8	153.2	120.6
37.5°	168.9	170.1	168.1	159.3	150.9	140.8	135.9	162.9	177.2	169.5	130.9
40°	180.4	182.4	182.5	173.9	166.1	159.5	152.7	176.8	197.9	187.9	143.3
42.5°	191.2	191.5	193.1	188.1	180.3	178.6	171.5	193.2	223.6	212.0	159.8
45°	204.8	205.6	204.6	201.0	194.3	196.6	192.6	214.0	252.6	242.8	179.2
47.5°	224.9	226.6	225.3	218.7	210.5	214.8	212.0	234.7	285.3	273.4	200.3
50°	243.7	245.1	246.5	244.4	236.3	232.1	228.7	256.6	313.4	303.3	221.0
52.5°	245.7	247.0	255.1	262.5	267.9	257.1	246.2	278.8	339.3	330.9	240.0
55°	232.6	233.4	246.9	261.6	286.4	290.1	271.9	300.7	361.0	355.3	252.8
57.5°	196.1	199.6	218.8	241.2	281.8	309.7	308.5	326.2	375.2	372.5	269.2
60°	128.8	132.7	155.6	189.6	248.1	304.5	348.7	364.4	395.0	397.9	298.0
62.5°	66.7	71.2	91.4	121.6	179.8	265.1	362.3	427.2	432.9	442.9	349.3
65°	38.1	39.1	49.1	71.2	111.3	189.9	345.9	489.4	482.9	503.2	414.9
67°	28.3	28.3	35.4	48.4	70.5	129.1	295.0	502.5	514.3	525.1	428.1
67.5°	25.4	26.8	32.8	44.6	63.3	114.5	276.1	499.0	516.4	523.0	423.5
70°	17.4	18.3	23.6	32.0	42.6	59.6	181.0	441.4	497.5	490.7	383.8
72.5°	10.5	10.8	15.6	23.0	31.8	31.9	98.7	335.0	421.6	421.5	313.5
75°	6.5	6.9	9.2	15.4	22.3	20.0	45.7	227.9	302.7	296.9	210.0
77.5°	3.7	4.2	5.5	8.4	14.1	12.7	19.3	127.7	163.6	153.5	104.3
80°	1.5	1.7	3.1	4.0	8.0	7.6	7.9	44.9	66.2	59.7	34.9
82.5°	0.4	0.5	1.1	1.9	3.1	3.1	2.5	12.3	15.7	14.6	9.0
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.6	1.4	1.7	1.9	1.5
87.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3
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°	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7
2.5°	57.0	56.4	55.1	53.7	52.4	51.3	50.3	49.0	48.9	48.9	48.9
5°	58.2	56.8	53.8	50.9	47.9	45.3	43.4	41.8	40.4	40.0	40.3
7.5°	60.0	57.3	52.2	47.0	42.4	38.7	35.9	33.7	32.7	32.2	31.7
10°	62.3	58.1	50.0	42.4	36.7	32.2	29.2	27.1	26.1	25.5	25.6
12.5°	64.7	58.8	47.2	37.5	31.1	27.0	24.5	22.7	21.1	20.1	20.4
15°	67.2	59.2	43.8	32.9	26.8	23.1	19.6	16.5	15.4	15.2	15.1
17.5°	70.0	59.1	40.1	28.6	23.1	18.0	14.5	14.1	14.0	14.0	13.9
20°	72.8	58.7	35.8	25.0	19.4	13.7	13.1	12.9	12.7	12.6	12.5
22.5°	75.9	57.9	31.8	21.9	14.5	12.5	11.7	11.2	10.7	10.5	10.5
25°	78.8	56.3	28.0	19.0	12.4	11.2	10.2	9.4	8.9	8.5	8.6
27.5°	80.7	53.5	24.7	15.3	11.4	9.9	8.7	7.9	7.2	7.0	7.0
30°	80.9	49.6	21.7	12.6	10.4	8.7	7.4	6.5	6.1	6.0	5.9
32.5°	80.7	45.6	19.5	11.6	9.4	7.6	6.3	5.7	5.3	5.1	5.1
35°	81.6	41.4	17.5	10.6	8.4	6.7	5.6	5.0	4.7	4.5	4.5
37.5°	84.3	38.6	15.4	9.7	7.5	5.9	5.0	4.5	4.2	4.0	4.0
40°	88.1	36.2	12.8	8.8	6.6	5.3	4.6	4.1	3.8	3.6	3.6
42.5°	94.7	35.3	10.7	7.9	5.8	4.8	4.2	3.7	3.3	3.1	3.1
45°	104.5	35.8	9.8	7.1	5.2	4.3	3.8	3.2	2.8	2.8	2.8
47.5°	115.3	37.7	9.2	6.3	4.8	4.0	3.4	2.8	2.5	2.4	2.4
50°	127.4	40.7	8.6	5.6	4.3	3.7	3.0	2.5	2.2	2.1	2.1
52.5°	139.0	44.6	8.1	5.0	4.0	3.3	2.7	2.2	2.0	1.9	1.9
55°	147.8	47.0	7.6	4.7	3.8	3.0	2.4	2.1	1.8	1.7	1.7
57.5°	160.1	51.2	7.1	4.2	3.4	2.8	2.2	1.9	1.7	1.7	1.7
60°	185.0	62.3	6.2	3.9	3.0	2.5	2.1	1.7	1.6	1.5	1.5
62.5°	229.9	80.6	5.4	3.6	2.7	2.2	1.8	1.6	1.4	1.2	1.2
65°	273.2	88.2	4.6	3.1	2.4	1.9	1.7	1.4	1.0	0.8	0.8
67°	270.8	75.5	3.9	2.7	2.0	1.7	1.4	1.1	0.7	0.5	0.5
67.5°	264.4	70.2	3.8	2.6	1.9	1.7	1.4	1.0	0.6	0.4	0.4
70°	224.7	49.1	2.9	2.0	1.7	1.5	1.1	0.7	0.4	0.2	0.2
72.5°	182.5	39.0	2.3	1.7	1.4	1.1	0.9	0.5	0.3	0.1	0.1
75°	129.1	23.9	2.0	1.5	1.1	0.8	0.7	0.5	0.3	0.2	0.1
77.5°	63.7	11.0	1.7	1.3	1.0	0.8	0.6	0.6	0.5	0.4	0.2
80°	18.7	3.6	1.1	0.9	0.9	0.8	0.7	0.6	0.6	0.5	0.3
82.5°	4.2	1.3	0.4	0.5	0.6	0.6	0.6	0.5	0.4	0.2	0.1
85°	0.6	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.0	0.0
87.5°	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	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)