

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: P400853

Luminaire Tested: **ENT-SA1-827-U-T4W-HSS-XXB**

Issue Date: 5/20/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P400853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/20/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-SA1-827-U-T4W-HSS-XXB  
Description: ENTRI LED LUMINAIRE  
(1) 80 CRI, 2700K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 423 lumens  
Efficiency: N/A  
Efficacy: 32.5 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

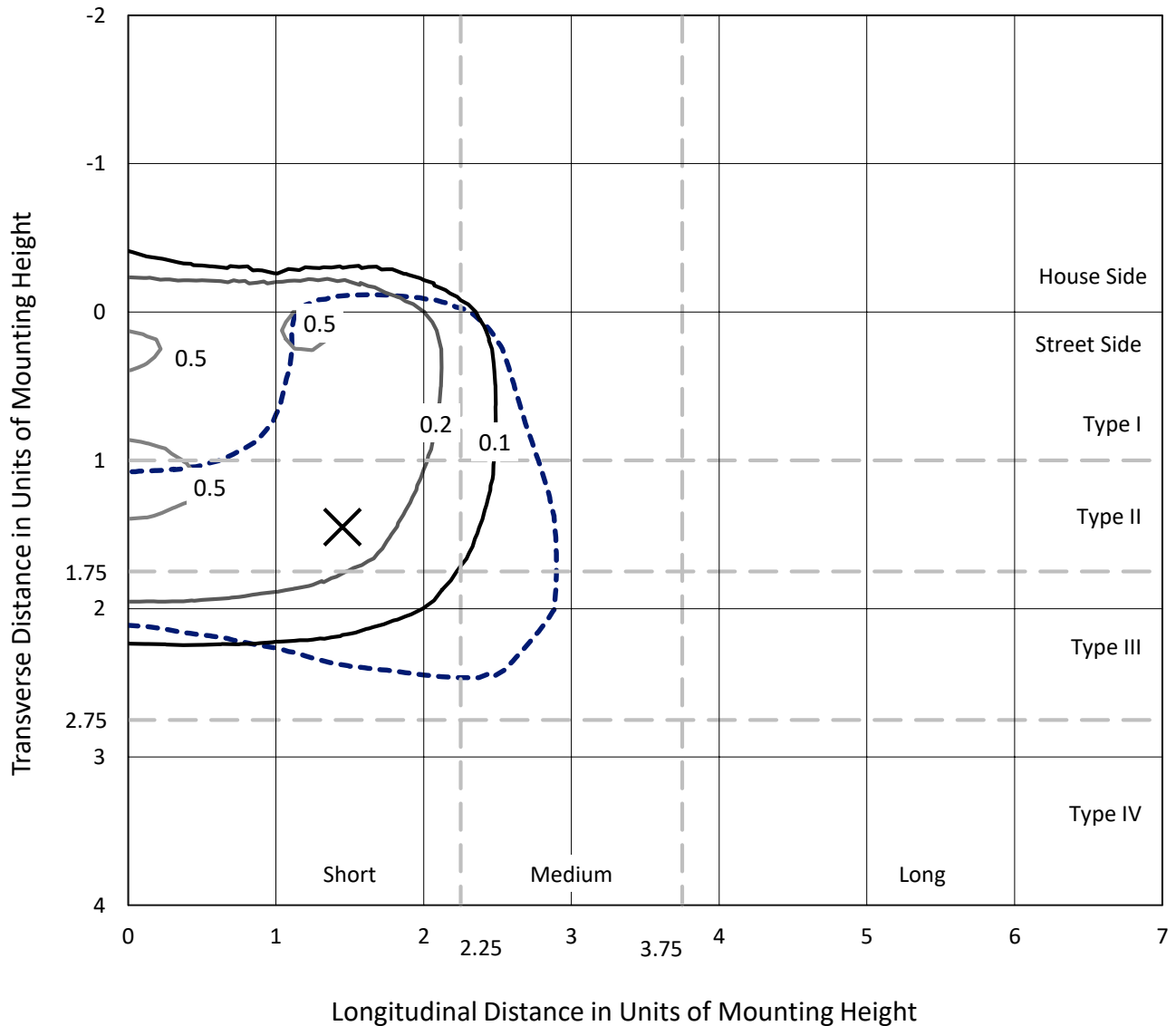
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

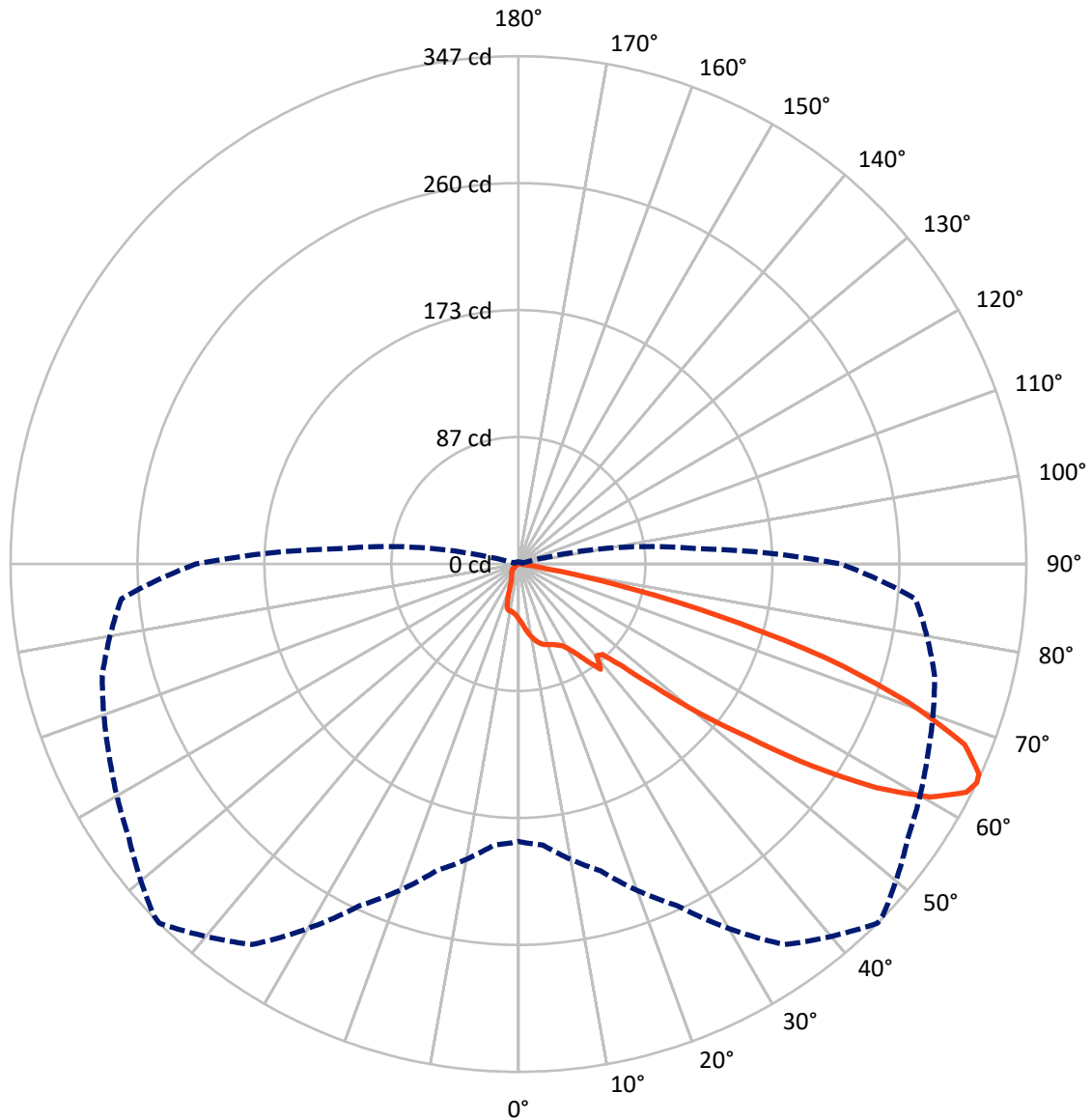
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.6 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 64-Deg Vertical

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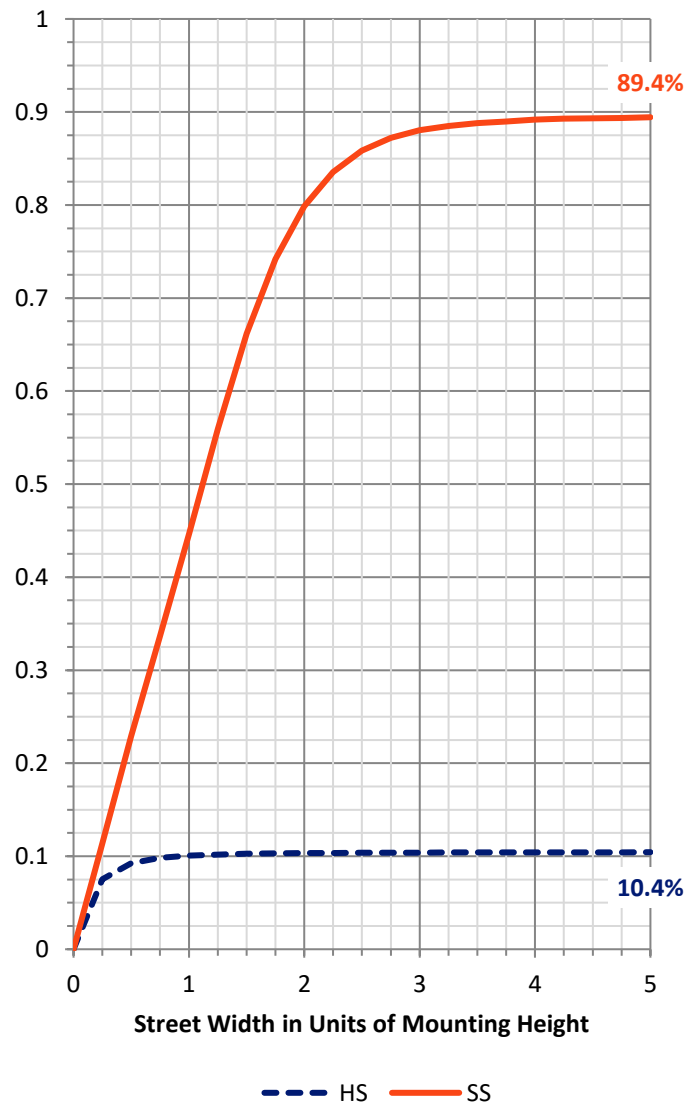
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	44.6	0.0	44.6
	% Fixture	10.6	0.0	10.6
<b>Street Side</b>	Lumens	378.4	0.0	378.4
	% Fixture	89.4	0.0	89.4
<b>Total</b>	Lumens	423.0	0.0	423.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	3.8	0.9
10°-20°	11.9	2.8
20°-30°	19.3	4.6
30°-40°	30.7	7.2
40°-50°	58.4	13.8
50°-60°	120.4	28.5
60°-70°	134.4	31.8
70°-80°	42.5	10.0
80°-90°	1.7	0.4
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°	423.0	100.0
0°-180°	423.0	100.0



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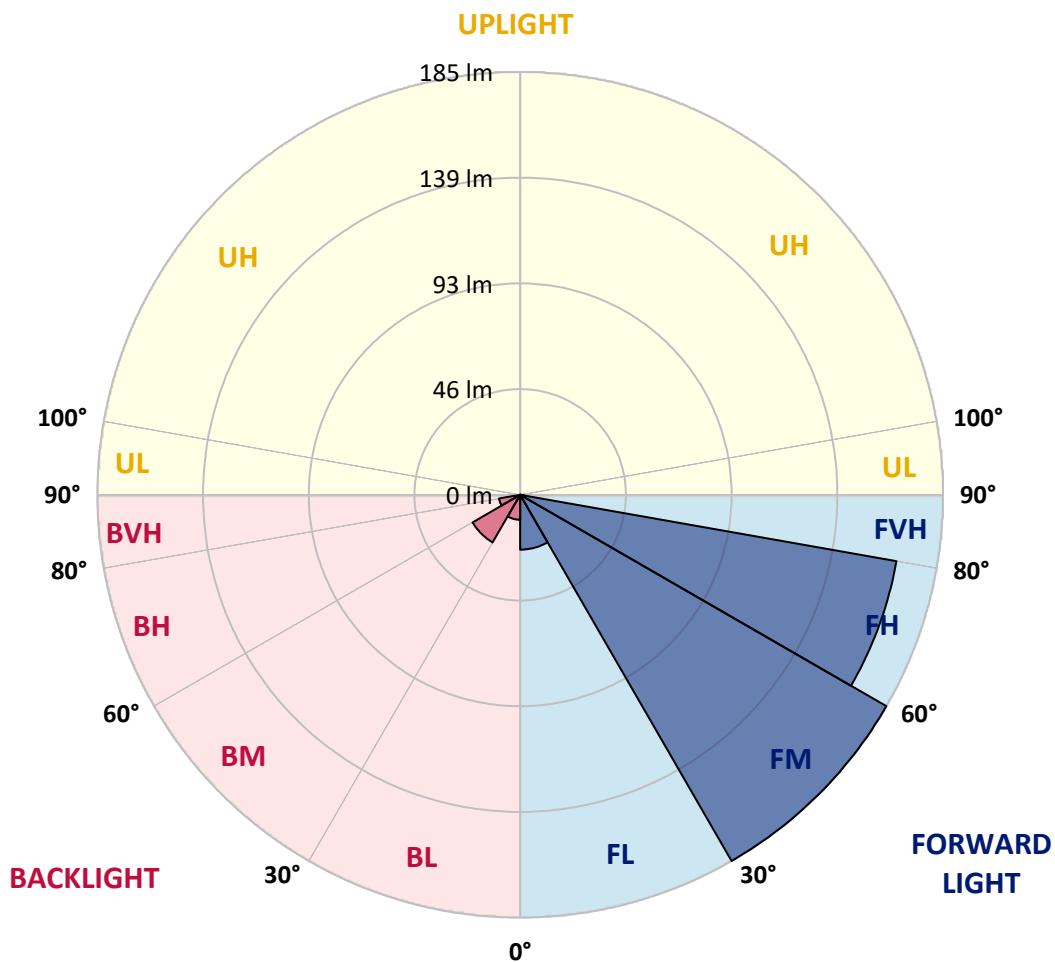
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	24.0	5.7			
FM	(30°-60°)	185.3	43.8			
FH	(60°-80°)	167.5	39.6			G0/660
FVH	(80°-90°)	1.5	0.4			G0/10
BL	(0°-30°)	10.9	2.6	B0/110		
BM	(30°-60°)	24.1	5.7	B0/220		
BH	(60°-80°)	9.4	2.2	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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
2.5°	41.4	41.5	41.3	41.0	40.6	40.1	40.2	39.4	38.9	38.5	37.8
5°	46.6	46.5	46.0	45.3	44.6	43.5	43.4	42.3	41.0	39.8	38.5
7.5°	51.9	51.7	51.2	50.2	48.9	47.5	47.1	45.5	43.7	41.8	39.7
10°	56.3	56.1	55.6	54.5	52.9	50.8	50.8	48.5	46.2	43.9	41.4
12.5°	59.8	59.7	59.0	57.7	55.8	53.9	53.7	51.7	49.1	46.4	43.3
15°	62.0	61.8	61.1	59.7	58.0	56.3	56.0	54.1	51.8	48.6	45.1
17.5°	62.6	62.4	61.8	60.6	59.3	57.8	57.5	55.8	53.8	50.6	46.9
20°	62.3	62.0	61.7	60.6	59.6	58.6	58.5	57.2	55.5	52.7	48.9
22.5°	61.7	61.4	61.1	60.4	59.8	59.7	59.6	58.9	57.7	55.4	51.8
25°	61.4	61.2	61.0	60.5	60.4	61.2	61.1	61.0	60.6	58.5	54.7
27.5°	62.8	62.7	62.2	61.4	61.8	63.1	63.2	63.6	63.3	62.0	59.1
30°	67.6	67.2	66.0	64.2	65.2	67.0	67.3	68.6	68.7	68.9	64.9
32.5°	74.2	73.5	71.4	69.1	69.7	73.1	73.1	75.1	79.4	76.8	68.1
35°	78.7	77.9	74.6	73.4	76.6	81.8	82.6	86.7	87.0	77.3	67.8
37.5°	91.4	90.1	84.1	76.8	79.9	91.2	92.0	91.3	84.5	76.5	71.3
40°	108.3	107.2	101.8	89.4	80.6	82.2	82.6	84.8	86.1	82.2	82.4
42.5°	130.3	128.8	123.3	108.2	90.6	84.4	85.2	89.7	98.1	100.0	109.5
45°	152.8	152.0	146.3	130.1	109.0	99.3	99.7	105.1	120.2	131.9	140.0
47.5°	174.8	175.0	170.1	156.3	135.8	125.0	124.5	131.5	150.7	159.0	167.2
50°	205.9	205.7	197.1	188.5	172.5	159.6	158.8	162.8	181.3	184.3	197.1
52.5°	241.2	241.0	228.0	224.0	217.2	196.6	198.8	195.4	208.7	214.2	232.2
55°	257.9	256.5	251.0	256.1	264.1	243.4	243.1	230.2	240.6	245.3	262.1
57.5°	256.2	256.8	262.1	278.9	305.4	288.0	288.5	264.6	270.6	273.5	285.8
60°	246.7	247.1	259.2	287.3	325.9	322.9	321.2	296.6	292.7	291.5	297.4
62.5°	219.2	219.4	239.2	275.2	325.8	343.1	341.5	319.2	306.9	299.1	288.4
64°	189.4	192.5	216.7	257.4	317.0	346.6	345.7	324.7	308.2	294.0	272.0
65°	164.9	169.5	198.8	241.6	307.0	345.4	344.4	323.7	306.4	284.3	255.0
67.5°	112.5	114.9	141.2	190.1	269.2	328.4	328.1	311.3	287.1	245.6	200.0
70°	66.4	68.1	87.6	132.7	206.9	282.1	286.4	280.4	238.3	176.4	127.4
72.5°	20.6	21.7	38.6	73.7	135.6	219.8	225.4	221.0	173.5	110.2	70.6
75°	7.7	8.1	12.7	32.0	67.5	140.5	142.2	147.3	105.7	58.2	30.9
77.5°	4.3	4.4	6.3	12.0	29.7	69.0	70.6	70.0	56.2	27.5	9.8
80°	2.1	2.2	3.1	5.3	11.5	19.5	23.1	30.6	19.8	13.5	3.1
82.5°	0.7	0.6	1.4	2.4	3.9	5.2	5.9	8.5	8.3	7.4	1.1
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	1.0	2.1	2.4	0.3
87.5°	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
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°	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
2.5°	37.5	37.3	36.8	36.2	35.8	35.3	35.2	34.9	34.8	34.8	34.8
5°	37.9	37.4	36.4	35.5	34.7	33.9	33.6	33.3	33.1	33.0	33.0
7.5°	38.8	38.1	36.4	35.1	33.9	33.0	32.5	32.2	31.9	31.9	31.9
10°	40.1	38.9	36.8	35.1	33.6	32.5	31.8	31.3	31.0	30.9	31.0
12.5°	41.7	40.2	37.7	35.5	33.8	32.3	30.8	28.0	26.1	25.1	24.9
15°	43.2	41.5	38.5	36.0	34.0	30.8	25.2	20.9	18.0	17.1	16.9
17.5°	44.9	43.1	39.8	36.8	33.1	24.8	18.0	14.4	13.8	13.9	13.9
20°	47.0	44.9	41.0	37.7	28.5	17.7	13.1	12.7	12.8	13.1	13.1
22.5°	49.4	47.2	42.8	37.2	21.8	12.9	12.0	12.1	12.3	12.6	12.6
25°	52.6	50.2	44.8	33.5	15.2	11.3	11.4	11.4	11.7	12.0	12.1
27.5°	57.2	54.4	47.1	28.1	11.4	10.5	10.6	10.8	11.0	11.4	11.4
30°	62.2	58.8	49.2	21.7	10.0	9.6	9.7	9.9	10.3	10.6	10.8
32.5°	64.4	61.4	49.6	14.8	9.3	8.9	8.7	9.0	9.3	9.6	9.7
35°	65.6	64.3	47.7	10.7	8.7	8.2	7.9	7.8	7.9	8.1	8.1
37.5°	71.6	70.7	43.8	9.2	8.1	7.7	7.2	6.8	6.6	6.5	6.6
40°	83.1	81.1	38.7	8.5	7.7	7.1	6.5	5.8	5.2	5.0	5.0
42.5°	108.3	98.5	31.4	8.0	7.2	6.5	5.6	4.7	4.0	3.9	3.9
45°	135.5	120.1	23.6	7.6	6.7	5.9	4.7	3.7	3.1	3.0	3.0
47.5°	161.6	136.1	16.5	7.1	6.1	5.2	3.9	3.0	2.6	2.5	2.5
50°	189.0	150.0	11.5	6.5	5.6	4.4	3.1	2.4	2.2	2.2	2.2
52.5°	215.7	160.2	8.5	6.0	4.8	3.7	2.7	2.2	2.0	2.0	2.0
55°	235.8	164.2	6.5	5.2	4.1	3.1	2.4	2.1	1.9	1.9	1.9
57.5°	249.3	160.9	5.2	4.4	3.5	2.7	2.2	1.9	1.8	1.7	1.7
60°	249.0	149.9	4.2	3.5	2.8	2.3	2.0	1.8	1.6	1.5	1.5
62.5°	234.4	132.1	3.3	2.8	2.3	2.0	1.8	1.6	1.5	1.4	1.3
64°	220.1	121.0	2.8	2.4	2.1	1.9	1.6	1.5	1.3	1.1	1.1
65°	204.6	110.5	2.6	2.2	1.9	1.7	1.5	1.4	1.1	1.0	1.0
67.5°	155.6	81.8	2.1	1.7	1.5	1.4	1.2	1.0	0.8	0.6	0.6
70°	101.0	53.0	1.8	1.4	1.2	1.2	1.1	0.9	0.6	0.6	0.5
72.5°	51.8	26.4	1.5	1.1	1.0	1.0	1.0	0.7	0.6	0.5	0.4
75°	21.9	10.7	1.2	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4
77.5°	7.7	4.0	1.1	1.0	0.7	0.6	0.6	0.6	0.6	0.6	0.5
80°	2.6	1.5	0.7	0.7	0.8	0.9	0.9	0.8	0.9	0.7	0.6
82.5°	1.0	0.6	0.2	0.3	0.6	0.6	0.7	0.7	0.7	0.6	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.3
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
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)