

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: P400867

Luminaire Tested: **ENT-SA1-830-U-T3-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400867
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: ENT-SA1-830-U-T3-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION 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: 471 lumens
Efficiency: N/A
Efficacy: 36.2 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

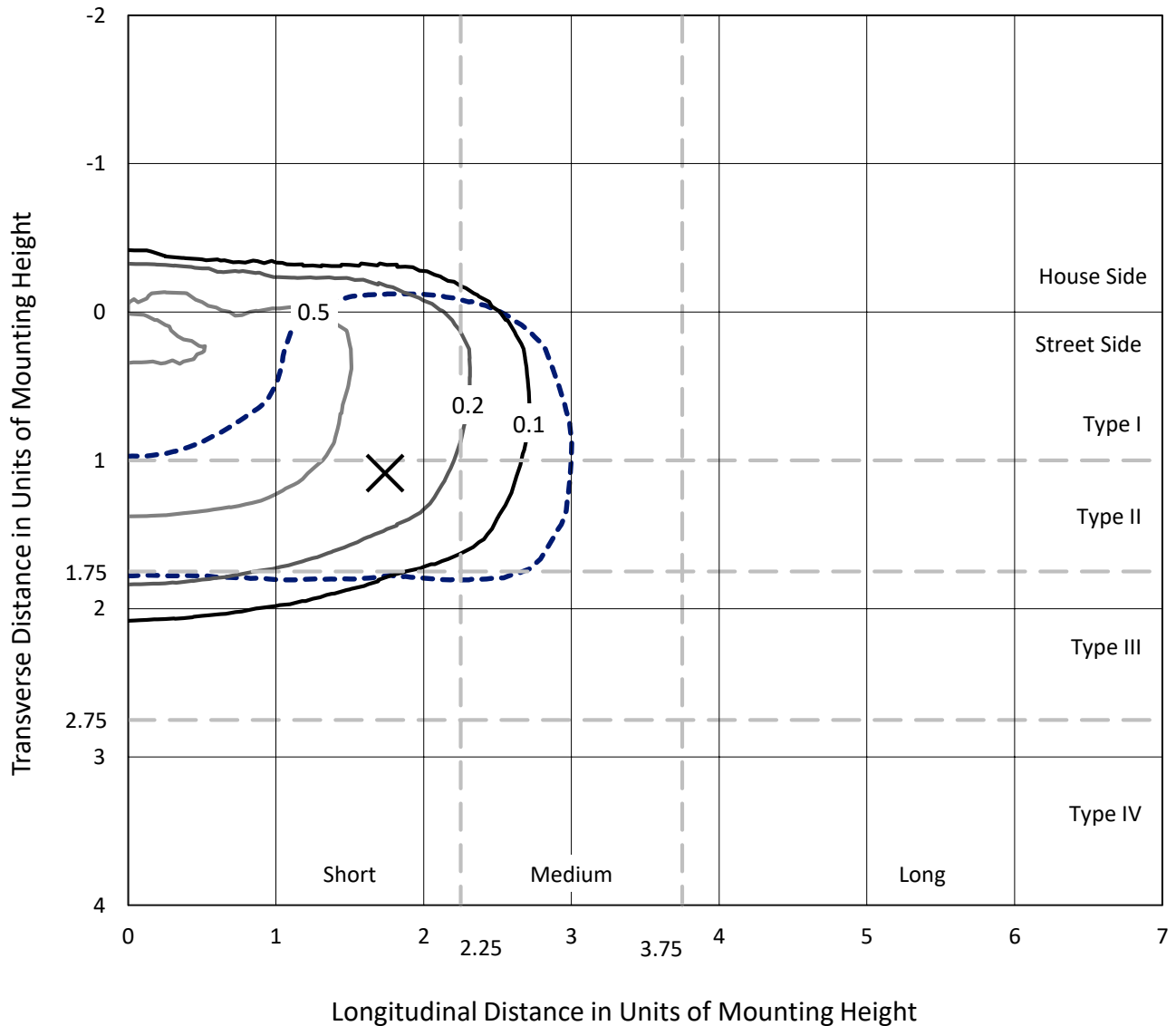
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

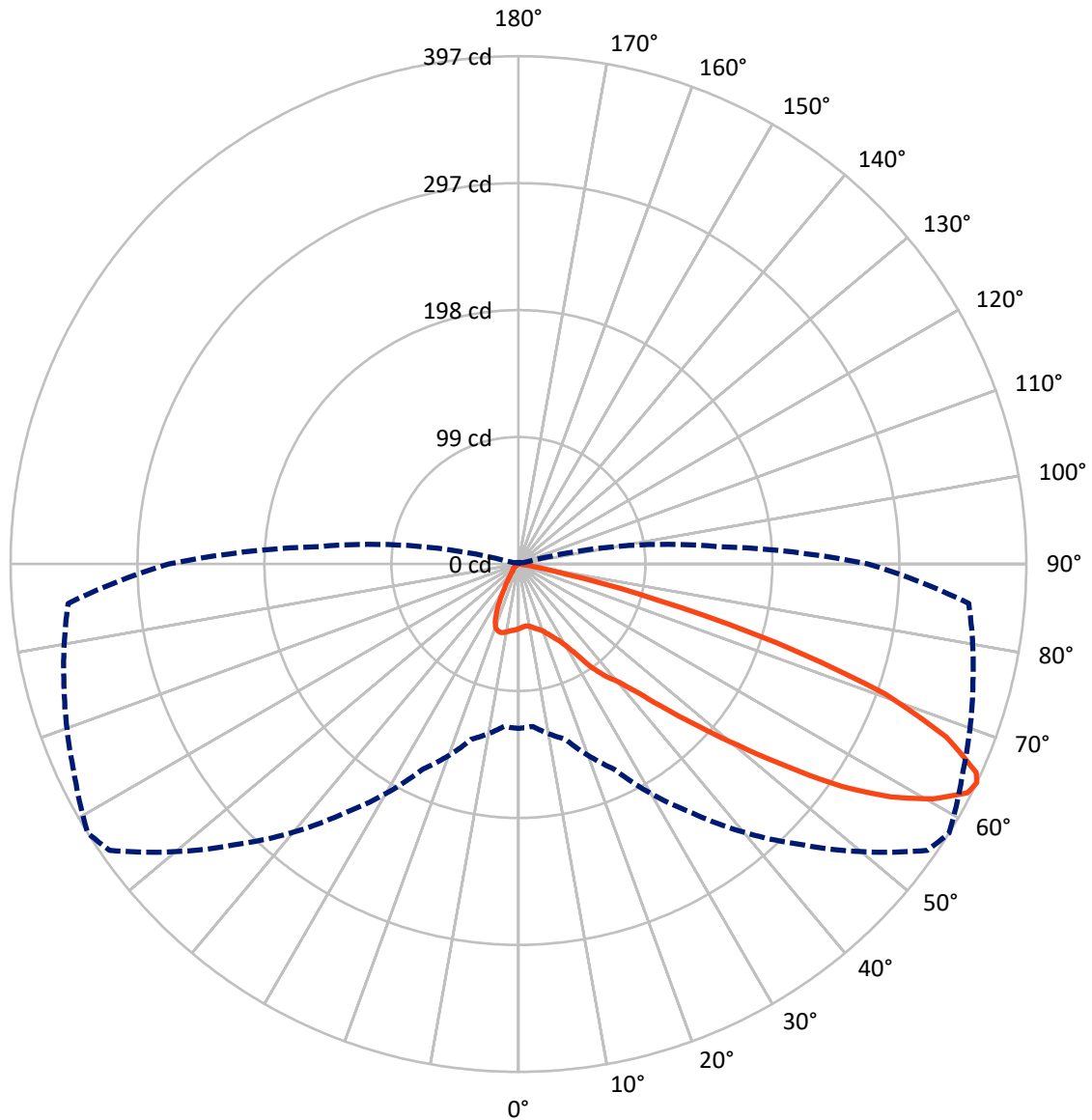
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.7 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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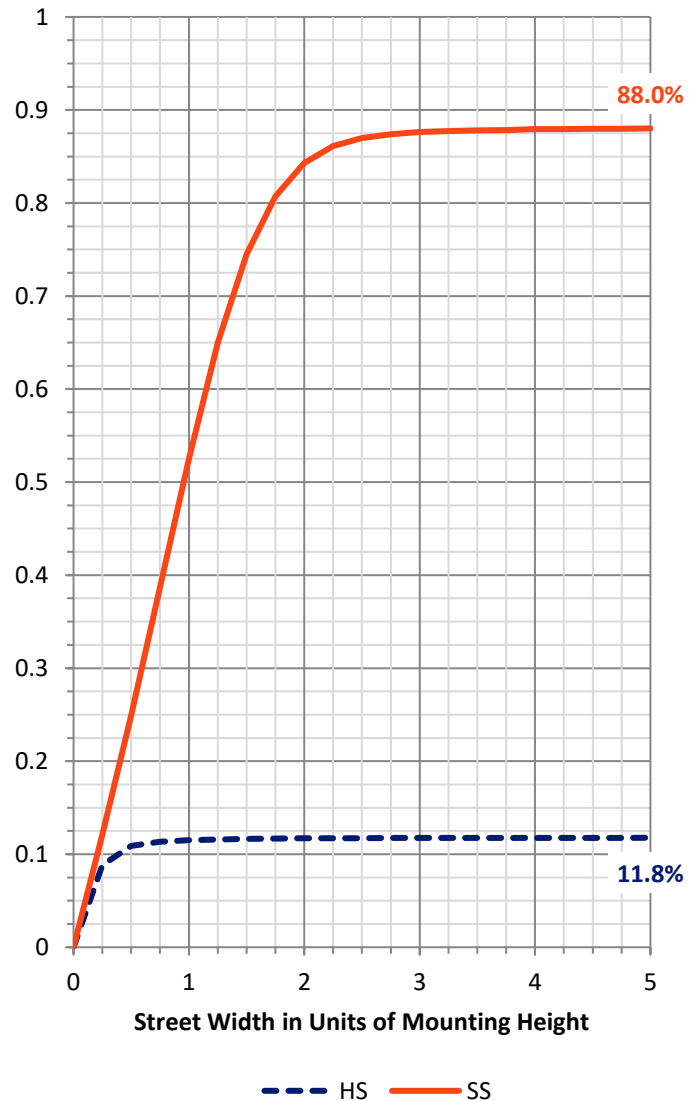
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	56.2	0.0	56.2
	% Fixture	11.9	0.0	11.9
Street Side	Lumens	414.9	0.0	414.9
	% Fixture	88.1	0.0	88.1
Total	Lumens	471.0	0.0	471.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.8	1.0
10°-20°	13.9	3.0
20°-30°	25.0	5.3
30°-40°	43.8	9.3
40°-50°	80.0	17.0
50°-60°	136.9	29.1
60°-70°	132.8	28.2
70°-80°	32.9	7.0
80°-90°	0.9	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°	471.0	100.0
0°-180°	471.0	100.0



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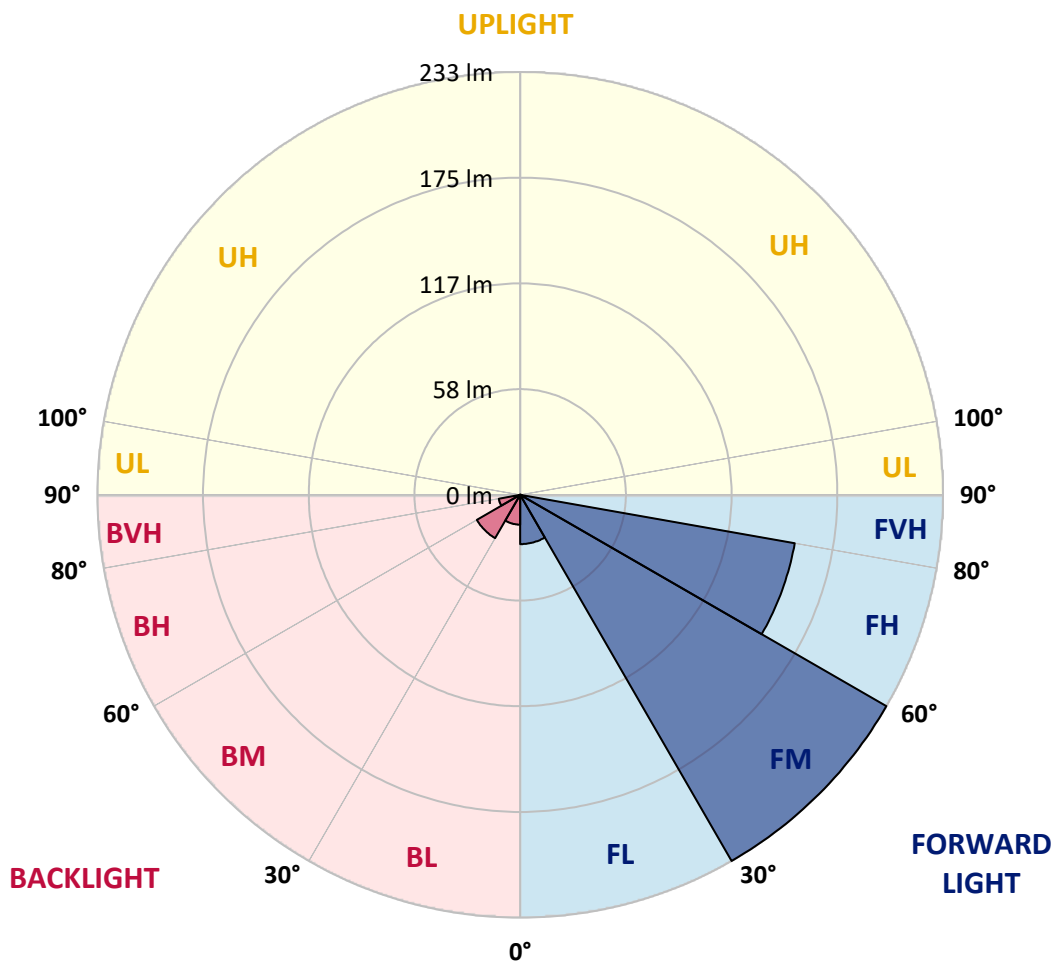
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	27.2	5.8			
FM	(30°-60°)	233.1	49.5			
FH	(60°-80°)	153.7	32.6			G0/660
FVH	(80°-90°)	0.8	0.2			G0/10
BL	(0°-30°)	16.4	3.5	B0/110		
BM	(30°-60°)	27.6	5.9	B0/220		
BH	(60°-80°)	12.0	2.5	B0/110		G0/110
BVH	(80°-90°)	0.1	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°	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
2.5°	48.4	48.4	48.5	48.6	48.9	49.1	49.5	49.6	49.8	50.2	50.4
5°	45.7	45.8	46.0	46.4	47.1	47.8	48.6	48.9	49.6	50.5	51.1
7.5°	44.7	44.8	45.0	45.6	46.4	47.4	48.4	48.8	49.8	51.1	52.0
10°	44.5	44.5	44.9	45.7	46.6	47.9	49.1	49.5	50.8	52.5	53.9
12.5°	44.5	44.5	45.0	45.9	47.1	48.7	50.3	50.9	52.4	54.5	56.2
15°	45.3	45.5	45.7	46.4	47.7	49.5	51.7	52.4	54.2	56.7	58.9
17.5°	50.9	50.7	49.8	49.1	48.8	50.4	53.0	53.9	56.6	59.9	62.2
20°	61.7	61.6	60.0	56.2	52.8	51.9	55.0	56.1	60.0	64.3	66.0
22.5°	74.8	75.2	72.8	67.6	60.6	56.2	57.9	59.5	64.6	69.7	70.8
25°	87.7	88.3	86.0	79.6	71.0	63.3	62.0	63.4	69.2	74.3	73.9
27.5°	103.1	102.6	100.4	93.1	83.1	72.8	67.5	67.8	72.2	78.0	76.6
30°	114.3	113.7	111.5	106.6	97.2	85.4	75.4	74.6	75.9	82.3	80.8
32.5°	124.6	125.0	123.4	116.8	108.0	98.4	87.1	85.0	84.5	89.9	87.5
35°	134.8	134.7	134.1	128.3	119.6	110.6	101.2	99.7	99.5	104.7	98.1
37.5°	147.0	146.4	145.3	139.3	132.4	123.8	113.8	111.4	111.0	112.1	104.3
40°	160.1	160.9	159.0	152.8	145.3	138.9	124.9	121.3	118.3	121.4	116.4
42.5°	179.5	180.1	176.9	172.6	162.9	156.9	142.7	137.8	136.5	141.1	135.5
45°	203.9	202.8	200.6	197.6	189.6	180.5	165.6	161.0	159.5	167.5	158.3
47.5°	222.9	222.7	222.8	222.2	221.0	210.0	192.4	189.3	187.8	199.2	189.1
50°	234.9	235.6	238.6	246.2	251.7	247.1	226.5	222.6	221.5	233.4	219.7
52.5°	244.0	245.6	250.6	265.6	283.5	285.0	267.9	262.5	259.9	263.2	244.2
55°	248.6	249.4	257.0	279.1	307.1	318.3	311.2	306.6	296.1	289.8	273.1
57.5°	237.8	236.6	249.6	277.8	319.3	345.1	348.2	343.1	326.2	321.3	308.1
60°	209.5	209.0	223.7	257.5	308.6	351.4	375.6	372.4	356.9	345.3	332.9
62.5°	159.8	160.7	176.3	210.7	270.7	333.4	390.9	393.5	377.0	359.8	351.3
64°	128.4	127.3	141.6	176.6	237.5	309.3	389.8	396.6	383.1	367.4	353.0
65°	107.8	105.5	119.2	150.9	209.5	291.9	381.7	392.8	383.6	369.2	347.0
67.5°	56.7	57.9	63.8	91.7	141.4	220.7	343.8	360.5	364.2	344.2	302.4
70°	25.4	25.6	29.4	46.8	78.2	143.2	276.5	303.6	305.7	282.8	219.1
72.5°	8.5	8.5	13.0	18.7	32.9	66.3	186.7	211.4	215.9	183.3	118.9
75°	5.2	5.4	6.9	10.1	15.2	23.2	94.6	111.4	112.3	81.3	43.2
77.5°	3.3	3.5	4.2	6.0	8.4	8.8	31.0	37.6	42.5	29.3	13.4
80°	2.1	2.1	2.7	3.7	4.4	3.7	8.5	11.2	13.4	9.8	4.5
82.5°	0.8	0.8	1.4	2.0	1.8	1.3	2.3	3.0	5.1	4.9	2.2
85°	0.0	0.0	0.1	0.2	0.1	0.2	0.4	0.6	1.0	1.4	0.7
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
2.5°	50.6	50.8	51.1	51.2	51.3	51.1	51.3	51.1	51.2	51.2	51.2
5°	51.4	51.7	51.9	52.0	51.9	51.3	51.5	51.1	51.0	51.0	51.0
7.5°	52.5	52.7	53.2	52.9	52.4	51.5	51.4	50.8	50.5	50.5	50.6
10°	54.4	54.6	54.8	54.3	53.2	51.9	51.0	49.7	49.1	48.8	48.8
12.5°	56.8	57.1	57.0	56.1	54.2	51.5	48.8	46.3	44.4	43.7	43.0
15°	59.4	59.8	59.6	57.8	54.1	49.3	44.1	38.2	34.5	32.2	31.7
17.5°	62.5	62.8	62.0	58.6	52.8	44.7	34.8	26.8	21.4	19.4	19.3
20°	66.2	66.0	64.0	58.7	50.5	36.2	23.3	16.7	14.5	13.9	13.9
22.5°	70.5	69.7	65.9	58.2	44.0	24.6	15.0	13.2	13.0	12.8	12.8
25°	72.9	71.5	66.6	56.7	33.9	15.7	12.7	12.4	12.0	11.7	11.6
27.5°	74.9	72.8	66.8	51.8	22.6	12.0	11.5	11.2	10.6	10.1	10.0
30°	78.3	75.2	67.3	43.3	13.9	10.3	10.0	9.4	8.6	8.1	7.9
32.5°	84.6	80.1	69.0	32.4	10.1	9.1	8.4	7.6	6.7	6.2	6.2
35°	91.3	84.7	69.9	21.3	8.8	7.9	6.9	5.9	5.1	4.7	4.6
37.5°	97.5	91.3	69.6	13.1	7.8	6.8	5.7	4.7	4.0	3.7	3.7
40°	110.1	102.9	66.0	9.0	6.9	5.8	4.6	3.7	3.2	3.0	3.0
42.5°	128.2	115.6	58.1	7.7	6.0	4.8	3.7	3.0	2.7	2.4	2.4
45°	148.4	129.7	46.4	6.9	5.2	4.0	3.0	2.5	2.2	2.1	2.1
47.5°	174.9	146.7	34.1	6.2	4.5	3.4	2.5	2.1	1.9	1.8	1.8
50°	198.1	160.4	23.3	5.4	4.0	2.9	2.2	1.9	1.7	1.7	1.7
52.5°	219.1	170.0	15.3	4.7	3.6	2.4	2.0	1.7	1.7	1.6	1.6
55°	244.0	177.3	10.4	4.1	3.1	2.2	1.9	1.7	1.6	1.6	1.5
57.5°	265.1	181.7	7.4	3.5	2.8	2.0	1.8	1.7	1.5	1.4	1.4
60°	277.4	176.5	5.4	3.0	2.4	1.8	1.7	1.5	1.4	1.3	1.3
62.5°	280.8	166.6	4.2	2.6	2.1	1.7	1.5	1.3	1.2	1.1	1.1
64°	272.9	156.0	3.6	2.3	1.8	1.5	1.4	1.2	1.0	0.9	0.9
65°	261.8	146.1	3.2	2.1	1.7	1.4	1.3	1.1	0.9	0.7	0.7
67.5°	218.2	116.5	2.6	1.7	1.3	1.2	1.0	0.9	0.6	0.4	0.4
70°	154.9	81.5	2.0	1.4	1.1	1.1	1.0	0.7	0.3	0.2	0.2
72.5°	82.0	42.3	1.7	1.1	0.9	0.9	0.8	0.4	0.3	0.2	0.1
75°	28.7	13.9	1.4	1.0	0.8	0.6	0.5	0.3	0.3	0.2	0.1
77.5°	8.7	4.6	1.2	1.0	0.7	0.5	0.6	0.5	0.5	0.3	0.3
80°	2.8	1.7	0.7	0.6	0.7	0.7	0.6	0.5	0.6	0.4	0.3
82.5°	1.0	0.6	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.1	0.0
85°	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.0
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	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

(END OF REPORT)