

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: P400847

Luminaire Tested: **ENT-SA1-827-U-T2-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400847
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-SA1-827-U-T2-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 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: 429 lumens
Efficiency: N/A
Efficacy: 33.0 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

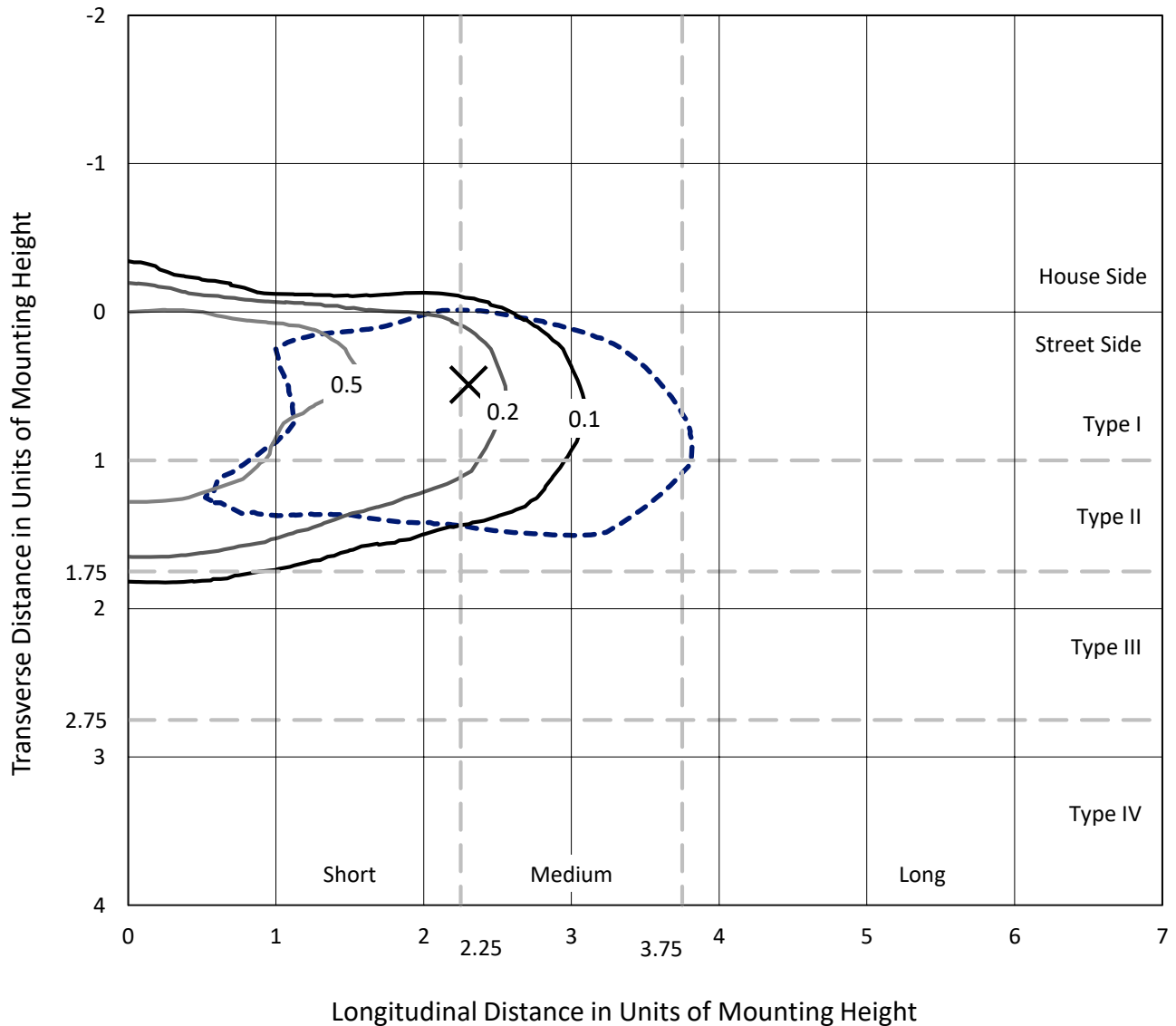


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Iso-Footcandle Lines of Horizontal Illumination

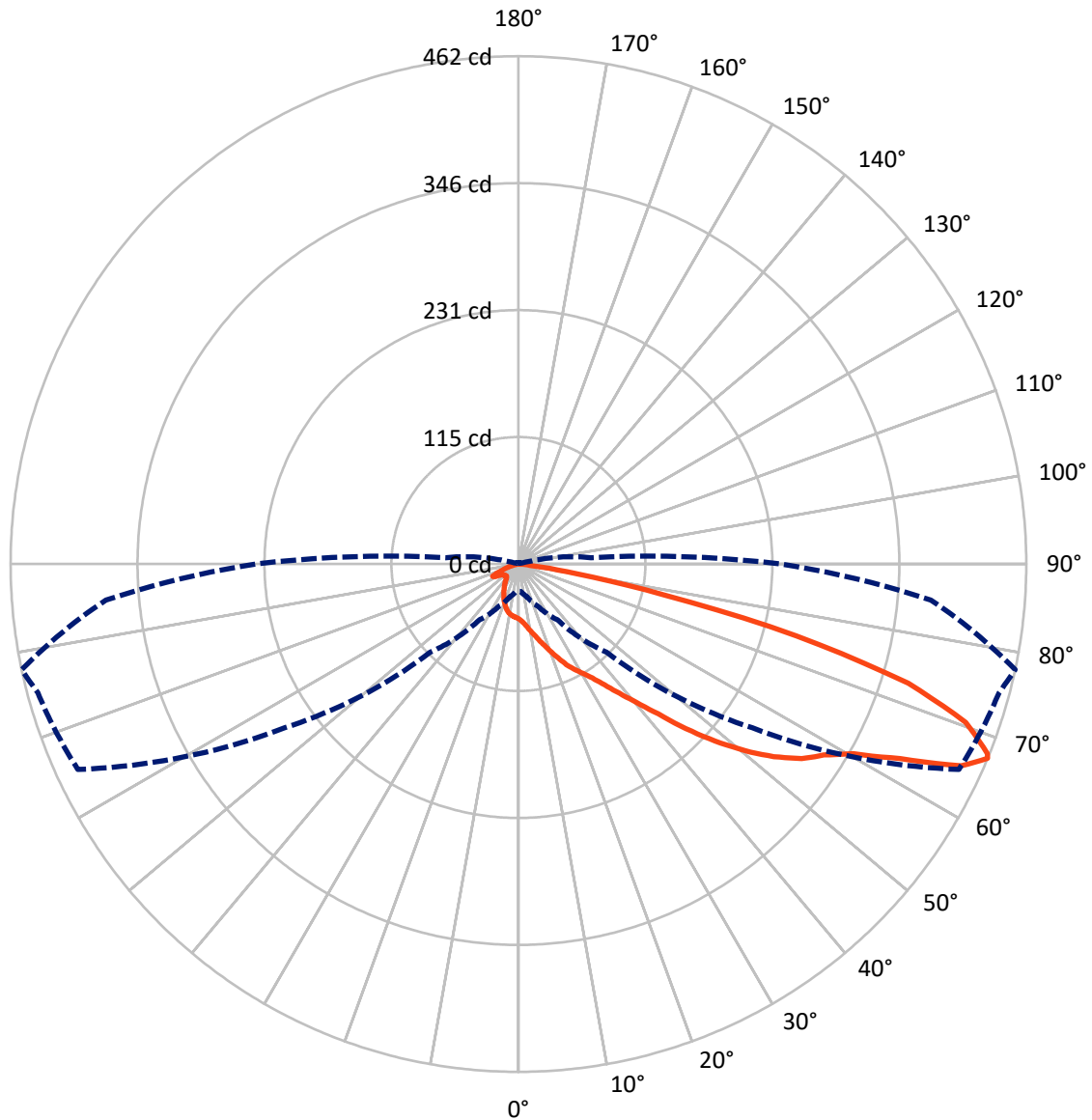
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.8 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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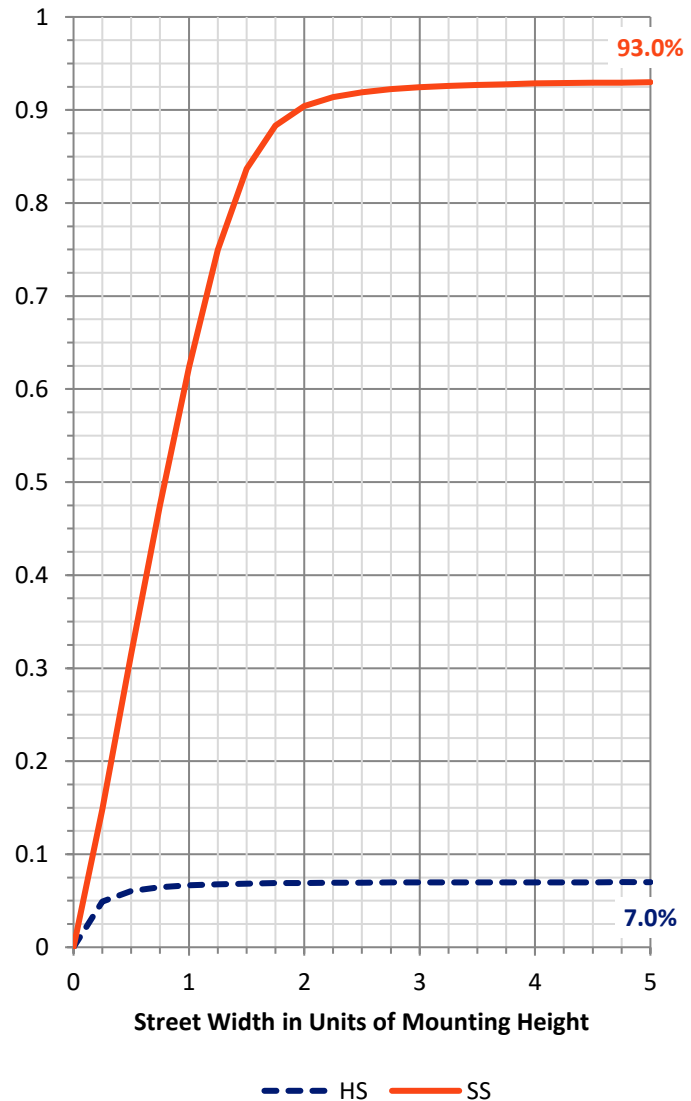
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	30.3	0.0	30.3
	% Fixture	7.1	0.0	7.1
Street Side	Lumens	398.7	0.0	398.7
	% Fixture	92.9	0.0	92.9
Total	Lumens	429.0	0.0	429.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.8	1.1
10°-20°	13.8	3.2
20°-30°	24.3	5.7
30°-40°	42.8	10.0
40°-50°	73.6	17.2
50°-60°	110.8	25.8
60°-70°	109.1	25.4
70°-80°	47.7	11.1
80°-90°	2.1	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°	429.0	100.0
0°-180°	429.0	100.0



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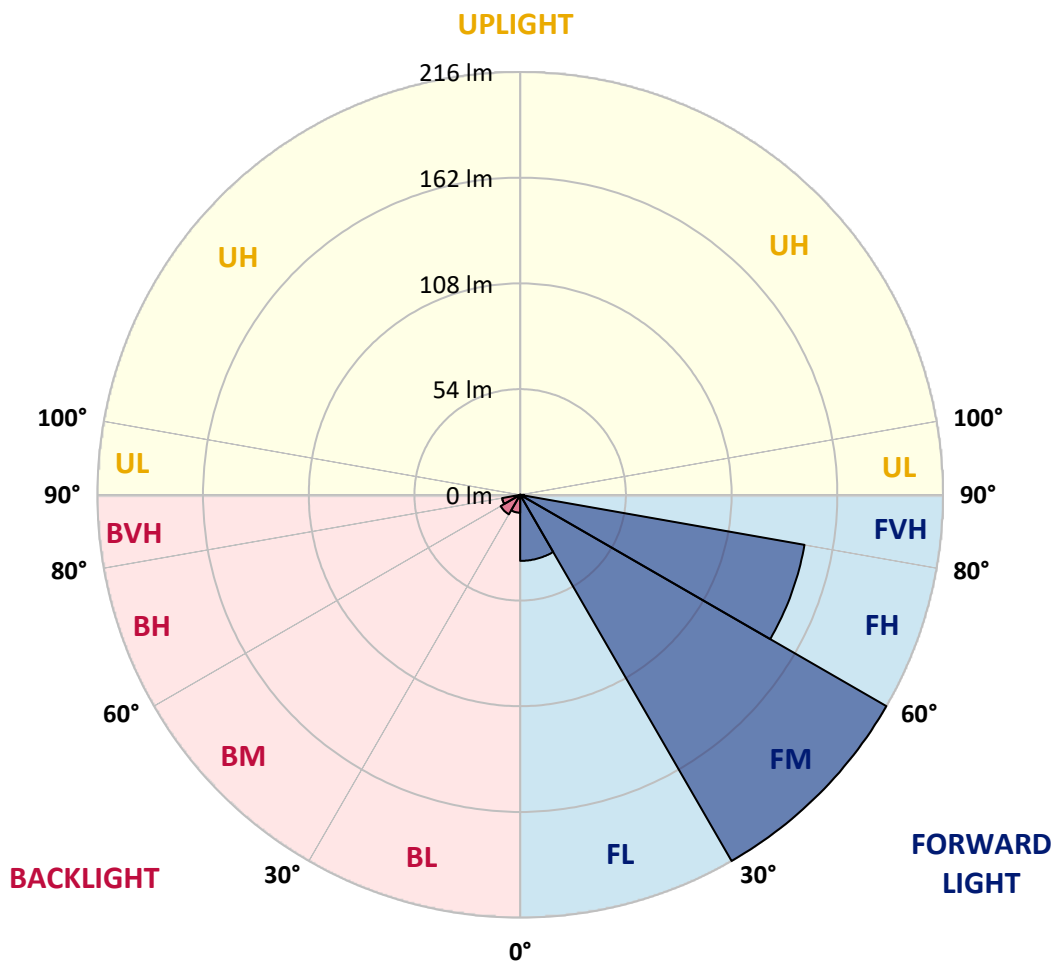
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	33.7	7.9			
FM (30°-60°)	215.8	50.3			
FH (60°-80°)	147.3	34.3			G0/660
FVH (80°-90°)	1.9	0.4			G0/10
BL (0°-30°)	9.1	2.1	B0/110		
BM (30°-60°)	11.5	2.7	B0/220		
BH (60°-80°)	9.4	2.2	B0/110		G0/110
BVH (80°-90°)	0.2	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°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
2.5°	57.1	57.4	57.1	56.8	56.2	55.4	54.6	53.4	52.1	51.6	50.8
5°	64.2	64.2	64.2	63.5	62.9	61.4	59.6	57.7	55.3	54.4	52.5
7.5°	67.9	67.9	68.2	68.2	67.9	66.8	64.8	62.7	59.1	57.9	54.9
10°	68.3	68.6	69.2	70.2	70.9	71.5	70.3	68.0	63.7	62.2	57.9
12.5°	67.2	67.4	68.4	70.2	72.5	74.9	75.0	73.6	68.7	66.7	61.5
15°	64.8	65.0	66.6	69.4	73.0	77.2	79.6	79.2	74.7	72.4	65.5
17.5°	60.9	61.2	63.1	67.3	72.6	78.7	83.9	85.9	80.6	78.3	69.6
20°	60.8	60.9	61.6	64.7	71.0	79.6	88.1	92.8	87.8	85.4	74.5
22.5°	71.1	70.4	68.8	66.8	69.6	79.4	91.9	100.2	96.6	92.8	80.0
25°	82.6	82.9	81.1	76.3	72.9	79.0	94.8	108.5	104.9	101.2	85.8
27.5°	94.7	94.3	92.8	88.4	82.6	81.9	96.9	115.2	112.9	108.3	90.8
30°	106.5	106.1	105.0	100.6	94.3	89.4	98.5	121.2	120.5	115.4	94.9
32.5°	119.9	120.5	119.0	113.2	105.6	99.5	102.0	127.6	129.7	123.5	99.2
35°	135.6	135.6	132.6	127.3	119.4	110.9	108.9	134.6	141.4	134.7	106.0
37.5°	148.5	149.5	147.7	140.1	132.7	123.8	119.4	143.2	155.8	149.0	115.1
40°	158.6	160.4	160.5	152.9	146.0	140.2	134.2	155.4	173.9	165.2	126.0
42.5°	168.0	168.4	169.7	165.4	158.5	157.0	150.8	169.8	196.6	186.3	140.5
45°	180.1	180.7	179.9	176.7	170.8	172.8	169.3	188.1	222.0	213.4	157.6
47.5°	197.7	199.2	198.0	192.2	185.1	188.8	186.3	206.3	250.8	240.3	176.1
50°	214.2	215.4	216.7	214.9	207.7	204.1	201.0	225.6	275.5	266.6	194.3
52.5°	216.0	217.1	224.2	230.8	235.5	226.0	216.4	245.1	298.3	290.9	211.0
55°	204.5	205.2	217.0	229.9	251.8	255.0	239.1	264.4	317.4	312.3	222.2
57.5°	172.4	175.5	192.3	212.1	247.8	272.3	271.2	286.8	329.8	327.5	236.6
60°	113.2	116.6	136.8	166.7	218.1	267.7	306.5	320.4	347.2	349.8	261.9
62.5°	58.7	62.6	80.4	106.9	158.1	233.1	318.5	375.6	380.6	389.4	307.1
65°	33.5	34.3	43.2	62.6	97.8	166.9	304.1	430.2	424.5	442.3	364.7
67°	24.9	24.9	31.1	42.6	62.0	113.5	259.4	441.8	452.2	461.6	376.3
67.5°	22.3	23.5	28.9	39.3	55.6	100.7	242.7	438.7	453.9	459.8	372.3
70°	15.3	16.1	20.7	28.1	37.5	52.4	159.1	388.0	437.3	431.4	337.4
72.5°	9.2	9.5	13.7	20.2	28.0	28.0	86.8	294.5	370.6	370.5	275.6
75°	5.7	6.0	8.1	13.5	19.6	17.6	40.1	200.4	266.1	261.0	184.6
77.5°	3.2	3.7	4.8	7.4	12.4	11.2	16.9	112.3	143.8	134.9	91.7
80°	1.3	1.5	2.7	3.5	7.0	6.7	6.9	39.5	58.2	52.5	30.7
82.5°	0.3	0.4	1.0	1.7	2.7	2.7	2.2	10.8	13.8	12.8	7.9
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.6	1.2	1.5	1.7	1.3
87.5°	0.0	0.0	0.0	0.1	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°	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
2.5°	50.1	49.6	48.4	47.2	46.0	45.1	44.2	43.1	43.0	43.0	43.0
5°	51.2	49.9	47.3	44.7	42.2	39.8	38.1	36.8	35.5	35.1	35.5
7.5°	52.7	50.4	45.9	41.3	37.3	34.0	31.6	29.7	28.8	28.3	27.9
10°	54.7	51.1	43.9	37.3	32.2	28.3	25.7	23.9	23.0	22.4	22.5
12.5°	56.9	51.7	41.5	33.0	27.3	23.7	21.5	20.0	18.5	17.7	17.9
15°	59.1	52.1	38.5	28.9	23.5	20.3	17.2	14.5	13.5	13.4	13.3
17.5°	61.5	52.0	35.2	25.1	20.3	15.8	12.7	12.4	12.3	12.3	12.3
20°	64.0	51.6	31.4	22.0	17.1	12.0	11.5	11.4	11.1	11.0	11.0
22.5°	66.7	50.9	28.0	19.3	12.7	11.0	10.3	9.8	9.4	9.2	9.3
25°	69.2	49.5	24.6	16.7	10.9	9.8	8.9	8.2	7.8	7.5	7.6
27.5°	70.9	47.1	21.7	13.5	10.0	8.7	7.7	6.9	6.4	6.1	6.1
30°	71.1	43.6	19.1	11.0	9.1	7.7	6.5	5.7	5.4	5.2	5.2
32.5°	70.9	40.1	17.2	10.2	8.3	6.7	5.6	5.0	4.7	4.5	4.5
35°	71.7	36.4	15.4	9.3	7.4	5.9	4.9	4.4	4.1	3.9	3.9
37.5°	74.1	33.9	13.5	8.5	6.6	5.2	4.4	3.9	3.7	3.5	3.5
40°	77.5	31.8	11.3	7.7	5.8	4.7	4.0	3.6	3.3	3.1	3.1
42.5°	83.3	31.0	9.4	6.9	5.1	4.2	3.7	3.2	2.9	2.7	2.7
45°	91.9	31.4	8.6	6.2	4.6	3.8	3.3	2.8	2.5	2.4	2.4
47.5°	101.4	33.1	8.1	5.6	4.2	3.5	3.0	2.5	2.2	2.1	2.1
50°	112.0	35.8	7.6	4.9	3.8	3.2	2.7	2.2	1.9	1.9	1.9
52.5°	122.2	39.2	7.1	4.4	3.5	2.9	2.3	1.9	1.8	1.7	1.7
55°	129.9	41.3	6.7	4.1	3.3	2.7	2.1	1.9	1.6	1.5	1.5
57.5°	140.7	45.0	6.2	3.7	3.0	2.4	1.9	1.7	1.5	1.5	1.5
60°	162.6	54.7	5.5	3.4	2.7	2.2	1.9	1.5	1.4	1.3	1.3
62.5°	202.1	70.8	4.8	3.1	2.3	1.9	1.6	1.4	1.2	1.0	1.0
65°	240.2	77.5	4.0	2.7	2.1	1.7	1.5	1.2	0.9	0.7	0.7
67°	238.1	66.3	3.4	2.3	1.8	1.5	1.2	1.0	0.6	0.4	0.4
67.5°	232.4	61.7	3.3	2.3	1.7	1.5	1.2	0.9	0.6	0.3	0.3
70°	197.5	43.2	2.6	1.8	1.5	1.3	1.0	0.6	0.3	0.2	0.2
72.5°	160.5	34.3	2.0	1.5	1.2	1.0	0.8	0.4	0.2	0.1	0.1
75°	113.5	21.0	1.8	1.3	1.0	0.7	0.6	0.4	0.2	0.2	0.1
77.5°	56.0	9.7	1.5	1.1	0.9	0.7	0.6	0.5	0.4	0.3	0.2
80°	16.4	3.1	1.0	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.2
82.5°	3.7	1.1	0.3	0.4	0.6	0.6	0.6	0.4	0.3	0.2	0.1
85°	0.5	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.0	0.0
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	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)