

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: P400727

Luminaire Tested: **ENV-SA1-727-U-T4W-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400727
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: ENV-SA1-727-U-T4W-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 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: 481 lumens
Efficiency: N/A
Efficacy: 37.0 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

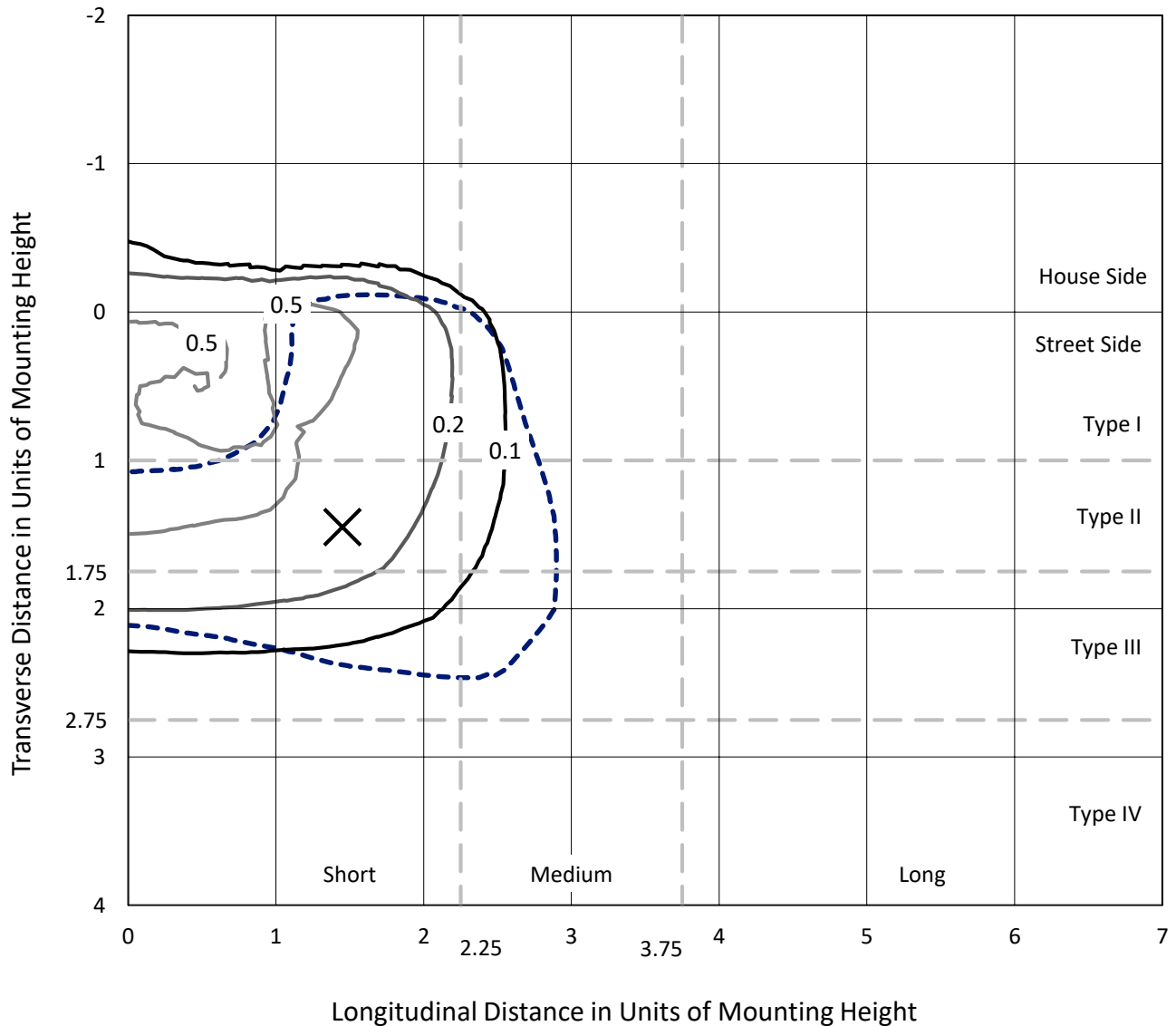


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

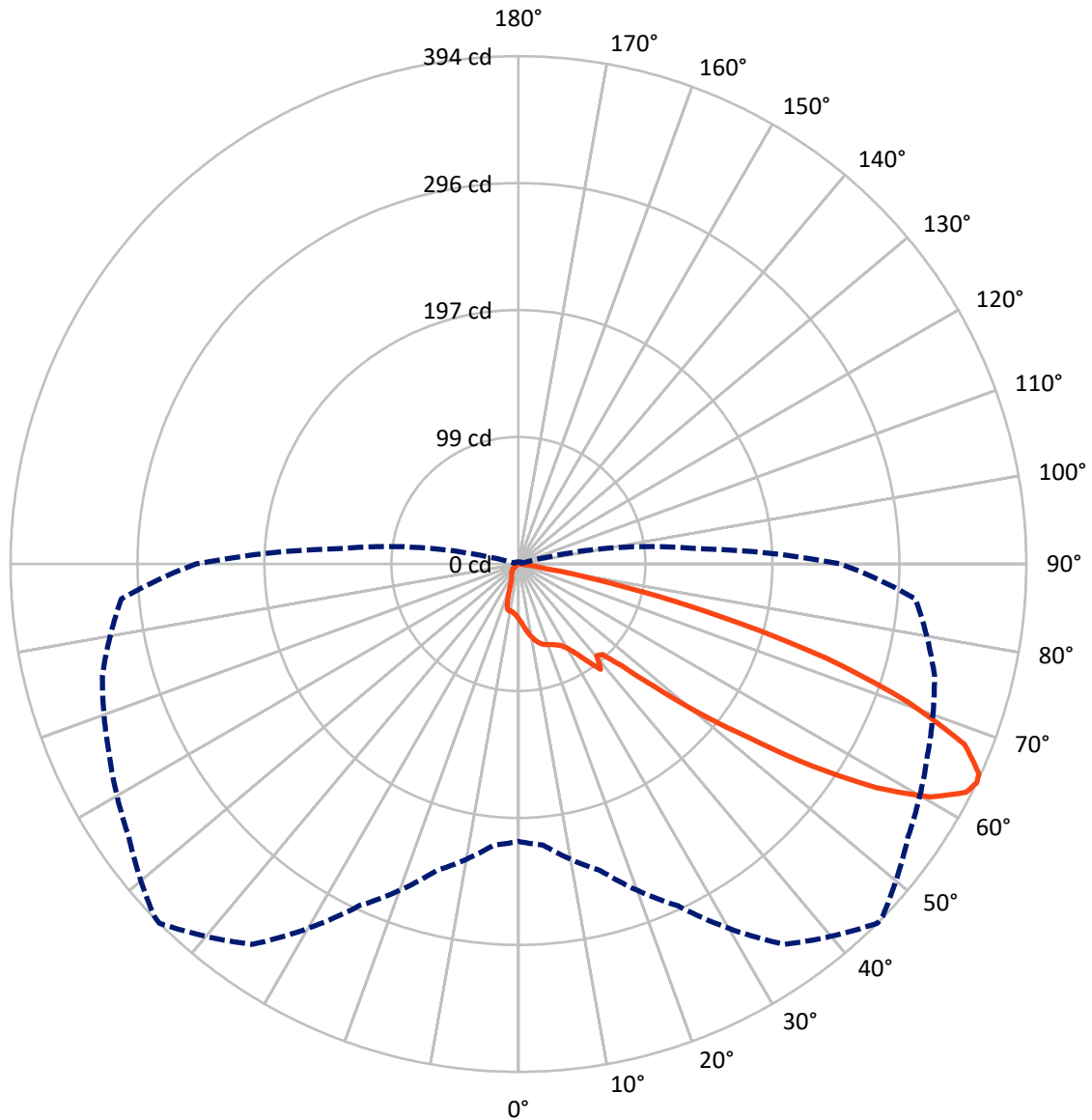


Based on 10 foot mounting height. Maximum calculated value = 0.6 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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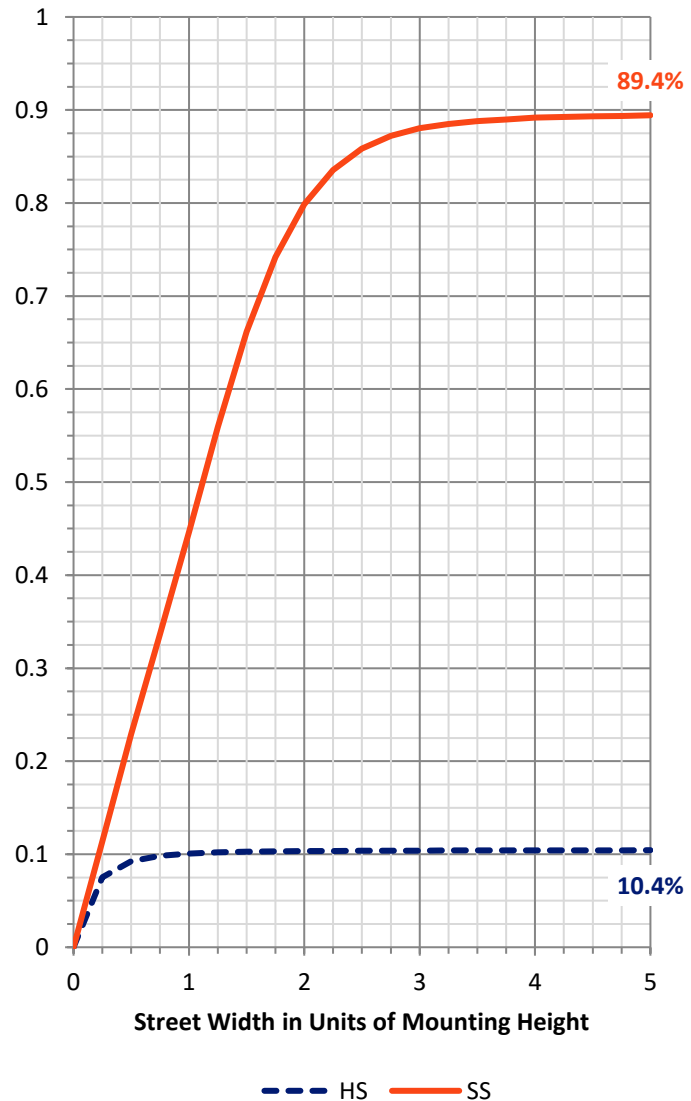
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	50.8	0.0	50.8
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	430.3	0.0	430.3
	% Fixture	89.4	0.0	89.4
Total	Lumens	481.0	0.0	481.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.3	0.9
10°-20°	13.5	2.8
20°-30°	22.0	4.6
30°-40°	34.9	7.2
40°-50°	66.4	13.8
50°-60°	136.9	28.5
60°-70°	152.9	31.8
70°-80°	48.3	10.0
80°-90°	2.0	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°	481.0	100.0
0°-180°	481.0	100.0



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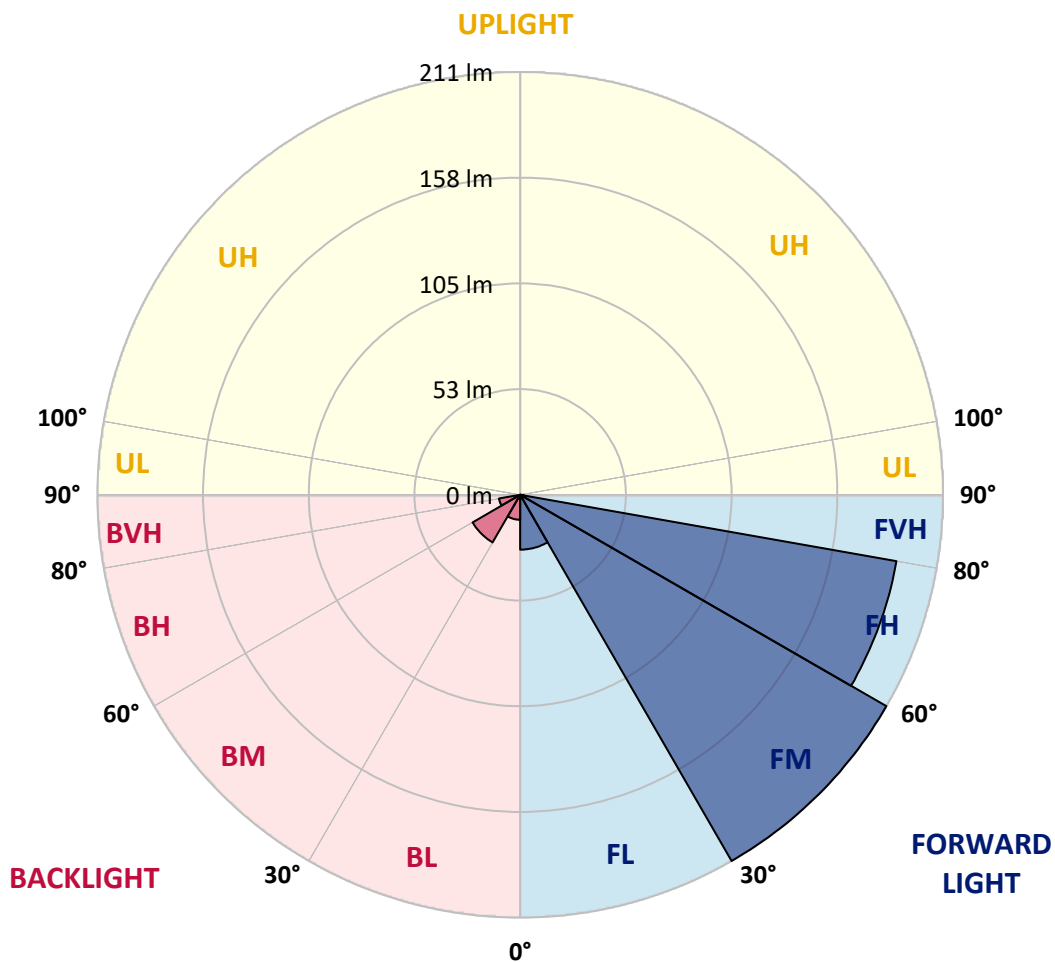
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	27.3	5.7			
FM	(30°-60°)	210.8	43.8			
FH	(60°-80°)	190.4	39.6			G0/660
FVH	(80°-90°)	1.7	0.4			G0/10
BL	(0°-30°)	12.4	2.6	B0/110		
BM	(30°-60°)	27.4	5.7	B0/220		
BH	(60°-80°)	10.7	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°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
2.5°	47.0	47.2	46.9	46.6	46.2	45.6	45.7	44.8	44.2	43.7	43.0
5°	53.0	52.9	52.4	51.5	50.7	49.5	49.3	48.0	46.7	45.2	43.8
7.5°	59.0	58.8	58.2	57.1	55.6	54.0	53.5	51.7	49.7	47.5	45.1
10°	64.0	63.8	63.2	62.0	60.1	57.8	57.8	55.2	52.5	49.9	47.0
12.5°	68.0	67.8	67.1	65.6	63.4	61.3	61.1	58.8	55.8	52.7	49.2
15°	70.5	70.3	69.5	67.8	65.9	64.0	63.7	61.5	58.9	55.3	51.3
17.5°	71.1	71.0	70.3	68.9	67.4	65.7	65.4	63.4	61.2	57.5	53.4
20°	70.9	70.5	70.1	68.9	67.8	66.7	66.5	65.1	63.1	60.0	55.6
22.5°	70.1	69.8	69.5	68.7	68.0	67.9	67.8	66.9	65.6	63.0	58.9
25°	69.9	69.6	69.3	68.8	68.7	69.6	69.5	69.4	68.9	66.6	62.3
27.5°	71.4	71.3	70.7	69.8	70.2	71.8	71.9	72.3	72.0	70.5	67.2
30°	76.9	76.5	75.0	73.0	74.2	76.2	76.6	78.0	78.1	78.3	73.8
32.5°	84.4	83.6	81.1	78.6	79.3	83.1	83.2	85.5	90.3	87.3	77.4
35°	89.5	88.6	84.8	83.4	87.1	93.1	93.9	98.6	98.9	87.9	77.1
37.5°	103.9	102.5	95.6	87.3	90.9	103.7	104.6	103.8	96.1	87.0	81.1
40°	123.1	121.9	115.7	101.7	91.6	93.5	94.0	96.5	97.9	93.4	93.7
42.5°	148.2	146.5	140.2	123.0	103.1	96.0	96.9	102.0	111.6	113.7	124.5
45°	173.7	172.8	166.4	147.9	124.0	112.9	113.3	119.5	136.7	150.0	159.2
47.5°	198.8	199.0	193.5	177.8	154.4	142.1	141.6	149.5	171.4	180.8	190.2
50°	234.1	233.9	224.1	214.4	196.1	181.5	180.6	185.1	206.1	209.6	224.1
52.5°	274.2	274.1	259.3	254.7	247.0	223.5	226.0	222.2	237.3	243.5	264.1
55°	293.3	291.7	285.4	291.2	300.4	276.8	276.4	261.8	273.6	278.9	298.1
57.5°	291.4	292.0	298.0	317.1	347.2	327.5	328.1	300.8	307.7	311.0	325.0
60°	280.5	280.9	294.8	326.7	370.6	367.2	365.3	337.3	332.8	331.4	338.1
62.5°	249.3	249.5	271.9	312.9	370.4	390.1	388.3	363.0	349.0	340.2	328.0
64°	215.4	218.9	246.4	292.7	360.4	394.2	393.2	369.2	350.4	334.3	309.3
65°	187.5	192.7	226.0	274.7	349.1	392.8	391.6	368.1	348.4	323.3	289.9
67.5°	127.9	130.7	160.5	216.2	306.1	373.4	373.1	354.0	326.5	279.3	227.5
70°	75.5	77.5	99.6	150.9	235.3	320.8	325.7	318.8	271.0	200.6	144.9
72.5°	23.5	24.7	43.9	83.8	154.2	249.9	256.3	251.3	197.3	125.3	80.3
75°	8.8	9.2	14.5	36.4	76.7	159.8	161.7	167.5	120.2	66.2	35.1
77.5°	4.9	5.0	7.2	13.7	33.7	78.5	80.3	79.6	63.9	31.3	11.2
80°	2.4	2.5	3.5	6.1	13.1	22.2	26.3	34.7	22.6	15.4	3.6
82.5°	0.8	0.7	1.6	2.8	4.4	6.0	6.7	9.6	9.4	8.4	1.3
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	1.2	2.4	2.8	0.4
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°	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
2.5°	42.6	42.5	41.8	41.2	40.7	40.2	40.1	39.7	39.6	39.6	39.6
5°	43.1	42.5	41.4	40.3	39.4	38.6	38.2	37.9	37.6	37.5	37.5
7.5°	44.1	43.3	41.4	39.9	38.5	37.5	36.9	36.6	36.3	36.3	36.3
10°	45.6	44.3	41.9	39.9	38.2	36.9	36.1	35.6	35.2	35.1	35.2
12.5°	47.4	45.8	42.8	40.3	38.4	36.8	35.0	31.8	29.7	28.5	28.3
15°	49.1	47.2	43.8	41.0	38.7	35.0	28.7	23.7	20.4	19.4	19.3
17.5°	51.1	49.1	45.2	41.9	37.7	28.2	20.4	16.3	15.7	15.9	15.9
20°	53.5	51.1	46.7	42.8	32.5	20.1	14.9	14.4	14.6	14.9	14.9
22.5°	56.2	53.6	48.7	42.3	24.8	14.7	13.7	13.8	13.9	14.3	14.3
25°	59.8	57.1	50.9	38.1	17.2	12.8	12.9	13.0	13.3	13.7	13.8
27.5°	65.1	61.9	53.5	32.0	13.0	11.9	12.0	12.3	12.6	13.0	13.0
30°	70.8	66.8	55.9	24.7	11.4	10.9	11.0	11.3	11.7	12.1	12.3
32.5°	73.3	69.8	56.4	16.9	10.5	10.1	9.9	10.2	10.5	10.9	11.0
35°	74.6	73.2	54.2	12.2	9.9	9.4	9.0	8.9	9.0	9.3	9.3
37.5°	81.4	80.4	49.8	10.5	9.3	8.7	8.2	7.7	7.5	7.4	7.5
40°	94.4	92.2	44.0	9.6	8.7	8.1	7.3	6.6	6.0	5.7	5.7
42.5°	123.1	112.0	35.8	9.1	8.2	7.4	6.3	5.3	4.6	4.4	4.4
45°	154.0	136.6	26.9	8.6	7.6	6.7	5.3	4.2	3.6	3.4	3.4
47.5°	183.7	154.8	18.8	8.1	7.0	5.9	4.4	3.4	2.9	2.8	2.8
50°	214.9	170.5	13.1	7.4	6.3	5.0	3.6	2.8	2.5	2.5	2.5
52.5°	245.3	182.2	9.6	6.8	5.5	4.2	3.0	2.5	2.3	2.3	2.3
55°	268.2	186.7	7.3	6.0	4.7	3.6	2.8	2.4	2.2	2.1	2.1
57.5°	283.5	182.9	6.0	5.0	3.9	3.1	2.5	2.2	2.0	1.9	1.9
60°	283.1	170.4	4.8	4.0	3.2	2.7	2.3	2.0	1.8	1.7	1.7
62.5°	266.5	150.2	3.8	3.2	2.7	2.3	2.0	1.8	1.7	1.6	1.5
64°	250.3	137.6	3.2	2.8	2.4	2.1	1.8	1.7	1.5	1.3	1.3
65°	232.7	125.7	2.9	2.5	2.1	1.9	1.7	1.6	1.3	1.1	1.1
67.5°	177.0	93.1	2.4	1.9	1.7	1.6	1.4	1.2	0.9	0.7	0.7
70°	114.9	60.2	2.0	1.6	1.4	1.4	1.3	1.0	0.7	0.6	0.6
72.5°	58.9	30.0	1.7	1.3	1.2	1.2	1.1	0.8	0.6	0.6	0.5
75°	24.9	12.2	1.4	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.5
77.5°	8.7	4.6	1.3	1.1	0.8	0.7	0.7	0.7	0.7	0.6	0.6
80°	2.9	1.7	0.8	0.8	0.9	1.0	1.0	0.9	1.0	0.8	0.6
82.5°	1.2	0.6	0.3	0.4	0.6	0.7	0.8	0.8	0.8	0.6	0.6
85°	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.4
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	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

(END OF REPORT)