

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: P400745

Luminaire Tested: **ENT-SA1-730-U-T4W-HSS-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400745
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-SA1-730-U-T4W-HSS-XXB
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K 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: 524 lumens
Efficiency: N/A
Efficacy: 40.3 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

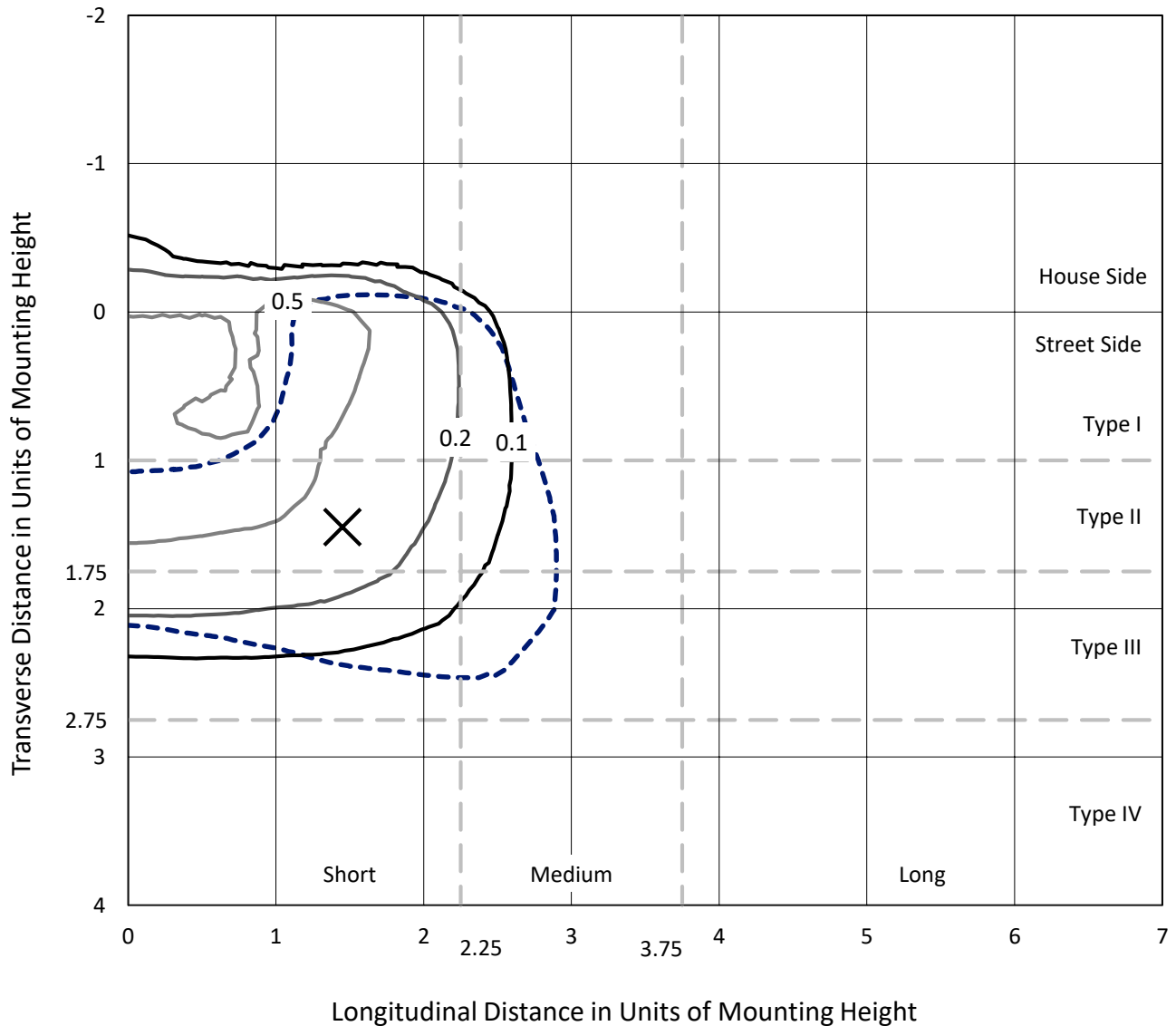
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

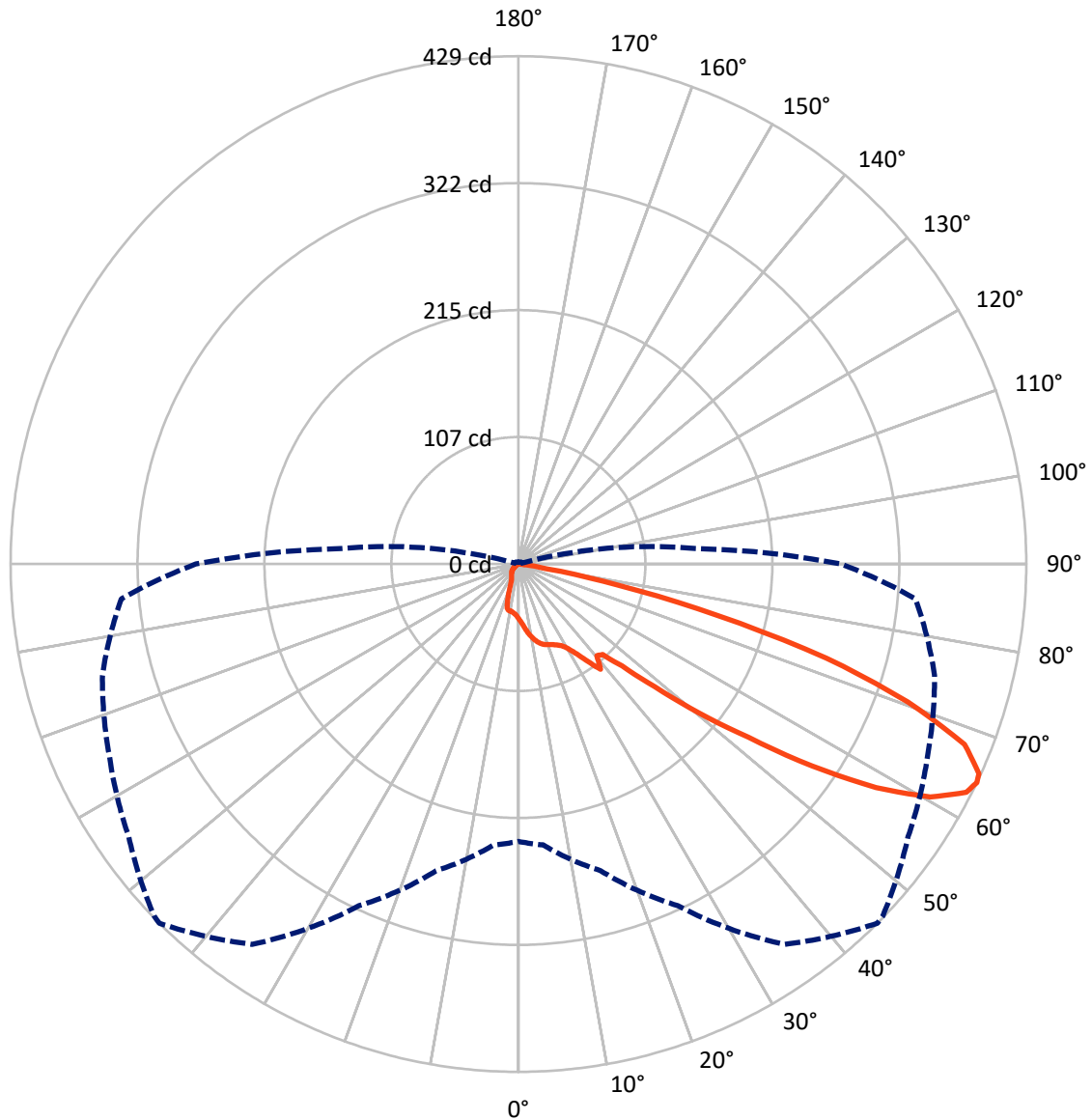
× Max cd
 - - - 1/2 Max cd



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

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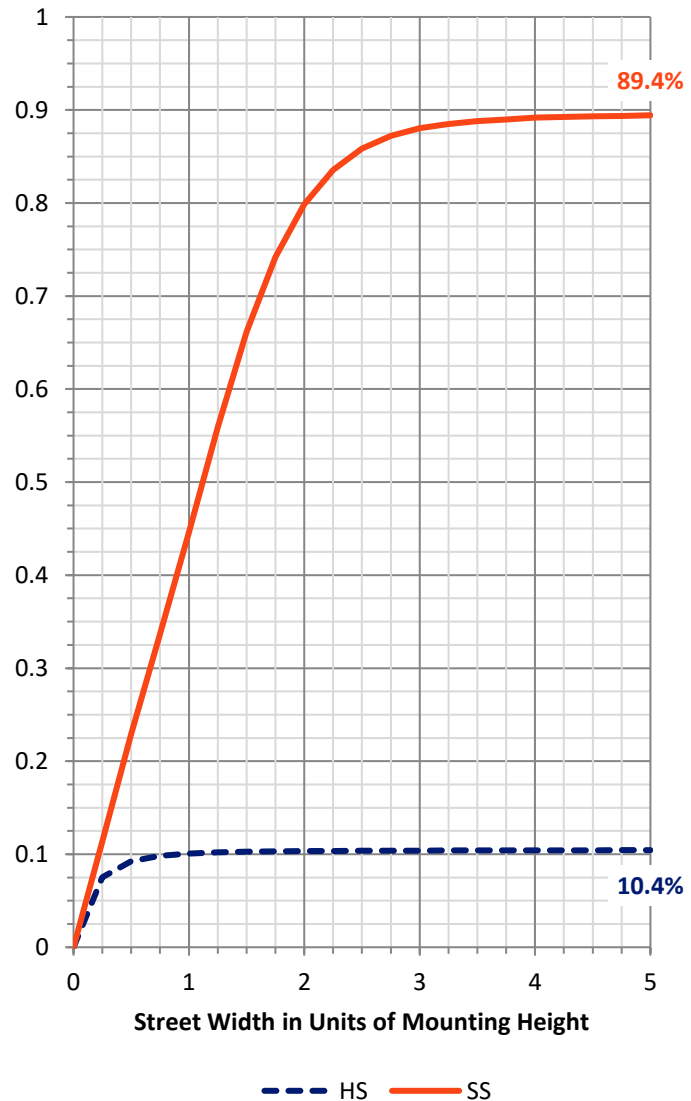
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	55.3	0.0	55.3
	% Fixture	10.6	0.0	10.6
Street Side	Lumens	468.7	0.0	468.7
	% Fixture	89.4	0.0	89.4
Total	Lumens	524.0	0.0	524.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.7	0.9
10°-20°	14.7	2.8
20°-30°	23.9	4.6
30°-40°	38.0	7.2
40°-50°	72.4	13.8
50°-60°	149.1	28.5
60°-70°	166.5	31.8
70°-80°	52.6	10.0
80°-90°	2.1	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°	524.0	100.0
0°-180°	524.0	100.0



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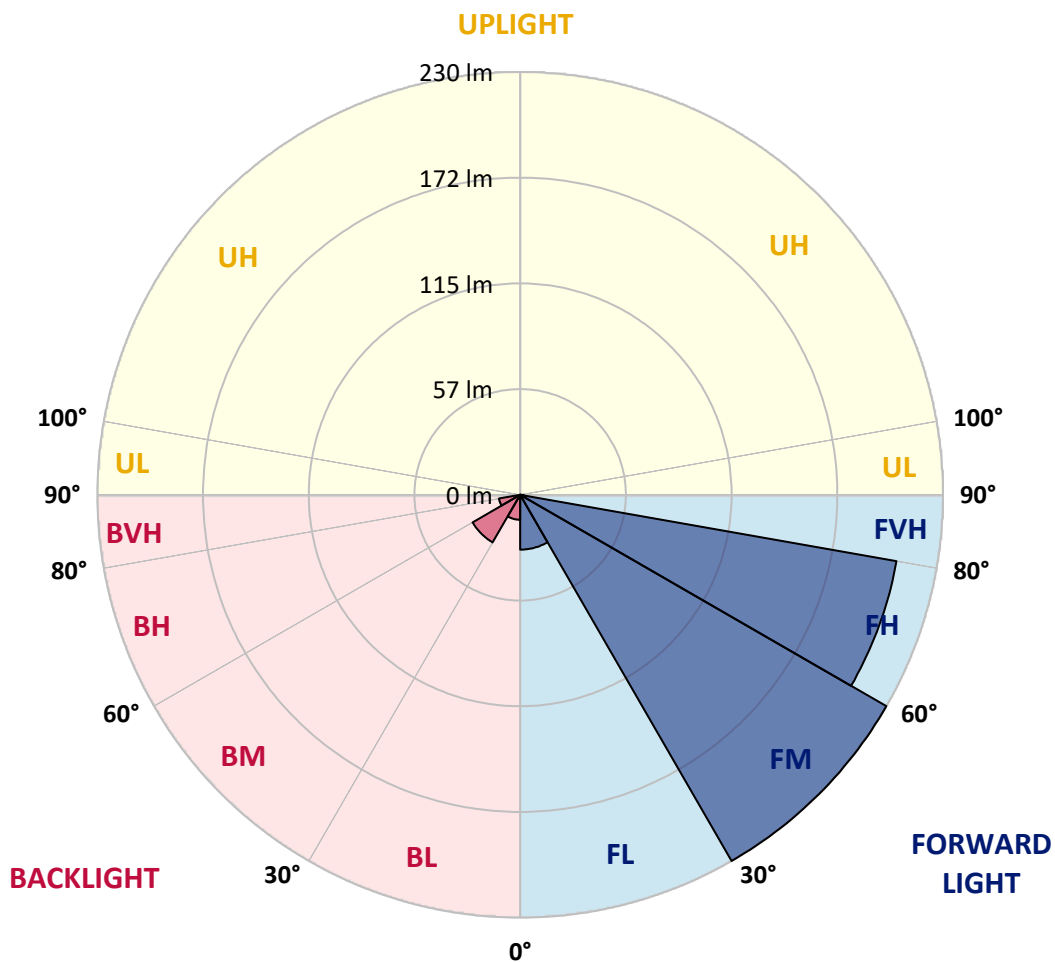
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	29.8	5.7			
FM	(30°-60°)	229.6	43.8			
FH	(60°-80°)	207.5	39.6			G0/660
FVH	(80°-90°)	1.9	0.4			G0/10
BL	(0°-30°)	13.5	2.6	B0/110		
BM	(30°-60°)	29.8	5.7	B0/220		
BH	(60°-80°)	11.7	2.2	B0/110		G0/110
BVH	(80°-90°)	0.3	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°	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
2.5°	51.2	51.4	51.1	50.7	50.3	49.6	49.7	48.8	48.1	47.6	46.8
5°	57.7	57.6	57.0	56.1	55.2	53.9	53.7	52.3	50.8	49.2	47.7
7.5°	64.3	64.0	63.4	62.2	60.5	58.8	58.3	56.3	54.1	51.7	49.1
10°	69.7	69.5	68.8	67.5	65.5	62.9	62.9	60.1	57.2	54.3	51.2
12.5°	74.1	73.9	73.1	71.5	69.1	66.8	66.5	64.0	60.8	57.4	53.6
15°	76.8	76.6	75.7	73.9	71.8	69.7	69.4	67.0	64.1	60.2	55.8
17.5°	77.5	77.3	76.6	75.0	73.4	71.6	71.2	69.1	66.6	62.6	58.1
20°	77.2	76.8	76.4	75.1	73.8	72.6	72.4	70.9	68.7	65.3	60.5
22.5°	76.4	76.0	75.7	74.8	74.1	74.0	73.8	72.9	71.5	68.6	64.1
25°	76.1	75.8	75.5	74.9	74.8	75.8	75.7	75.6	75.0	72.5	67.8
27.5°	77.8	77.7	77.0	76.0	76.5	78.2	78.3	78.8	78.4	76.8	73.2
30°	83.8	83.3	81.7	79.5	80.8	83.0	83.4	85.0	85.1	85.3	80.4
32.5°	91.9	91.1	88.4	85.6	86.4	90.5	90.6	93.1	98.4	95.1	84.3
35°	97.5	96.5	92.4	90.9	94.9	101.4	102.3	107.4	107.8	95.8	84.0
37.5°	113.2	111.7	104.2	95.1	99.0	113.0	114.0	113.1	104.7	94.8	88.3
40°	134.1	132.7	126.1	110.8	99.8	101.9	102.4	105.1	106.7	101.8	102.1
42.5°	161.4	159.6	152.7	134.0	112.3	104.6	105.6	111.1	121.6	123.9	135.6
45°	189.3	188.3	181.3	161.1	135.0	123.0	123.5	130.1	148.9	163.4	173.4
47.5°	216.5	216.7	210.8	193.7	168.2	154.8	154.2	162.9	186.7	197.0	207.2
50°	255.0	254.8	244.1	233.5	213.7	197.8	196.8	201.7	224.5	228.3	244.1
52.5°	298.8	298.6	282.5	277.5	269.1	243.5	246.2	242.0	258.5	265.3	287.7
55°	319.5	317.7	310.9	317.2	327.2	301.5	301.1	285.2	298.1	303.8	324.7
57.5°	317.4	318.1	324.6	345.5	378.3	356.8	357.4	327.7	335.2	338.8	354.1
60°	305.5	306.0	321.1	355.9	403.7	400.0	397.9	367.5	362.6	361.1	368.4
62.5°	271.6	271.8	296.3	340.9	403.5	425.0	423.0	395.4	380.2	370.6	357.3
64°	234.6	238.4	268.4	318.8	392.6	429.4	428.3	402.2	381.8	364.2	336.9
65°	204.3	210.0	246.2	299.3	380.4	427.9	426.6	401.0	379.6	352.2	315.8
67.5°	139.3	142.3	174.9	235.5	333.5	406.8	406.4	385.7	355.7	304.2	247.8
70°	82.2	84.4	108.5	164.4	256.3	349.5	354.8	347.3	295.3	218.5	157.8
72.5°	25.6	26.9	47.8	91.3	168.0	272.3	279.2	273.8	214.9	136.5	87.5
75°	9.6	10.0	15.8	39.7	83.6	174.1	176.2	182.5	130.9	72.1	38.3
77.5°	5.3	5.4	7.8	14.9	36.8	85.5	87.5	86.7	69.6	34.1	12.2
80°	2.6	2.7	3.8	6.6	14.3	24.2	28.7	37.9	24.6	16.8	3.9
82.5°	0.9	0.8	1.7	3.0	4.8	6.5	7.3	10.5	10.3	9.2	1.4
85°	0.0	0.0	0.1	0.1	0.1	0.2	0.2	1.3	2.6	3.0	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°	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
2.5°	46.4	46.2	45.5	44.8	44.3	43.7	43.6	43.2	43.1	43.1	43.1
5°	46.9	46.3	45.0	43.9	42.9	42.1	41.7	41.3	41.0	40.9	40.9
7.5°	48.0	47.1	45.0	43.4	42.0	40.9	40.3	39.9	39.6	39.6	39.6
10°	49.6	48.2	45.6	43.4	41.7	40.3	39.4	38.8	38.4	38.3	38.4
12.5°	51.6	49.8	46.6	43.9	41.9	40.1	38.2	34.7	32.4	31.1	30.9
15°	53.5	51.4	47.7	44.6	42.2	38.2	31.3	25.9	22.3	21.2	21.0
17.5°	55.6	53.4	49.2	45.6	41.1	30.8	22.3	17.8	17.1	17.3	17.3
20°	58.2	55.6	50.8	46.6	35.4	21.9	16.3	15.7	15.9	16.3	16.3
22.5°	61.2	58.4	53.0	46.0	27.0	16.0	14.9	15.0	15.2	15.6	15.6
25°	65.1	62.2	55.4	41.6	18.8	14.0	14.1	14.2	14.5	14.9	15.0
27.5°	70.9	67.4	58.3	34.9	14.2	13.0	13.1	13.4	13.7	14.2	14.2
30°	77.1	72.8	60.9	26.9	12.4	11.9	12.0	12.3	12.8	13.2	13.4
32.5°	79.8	76.0	61.4	18.4	11.5	11.0	10.8	11.1	11.5	11.9	12.0
35°	81.3	79.7	59.0	13.3	10.8	10.2	9.8	9.7	9.8	10.1	10.1
37.5°	88.7	87.6	54.2	11.4	10.1	9.5	8.9	8.4	8.2	8.1	8.2
40°	102.9	100.5	47.9	10.5	9.5	8.8	8.0	7.2	6.5	6.2	6.2
42.5°	134.1	122.1	39.0	9.9	8.9	8.1	6.9	5.8	5.0	4.8	4.8
45°	167.8	148.8	29.3	9.4	8.3	7.3	5.8	4.6	3.9	3.7	3.7
47.5°	200.2	168.6	20.5	8.8	7.6	6.4	4.8	3.7	3.2	3.1	3.1
50°	234.1	185.8	14.3	8.1	6.9	5.5	3.9	3.0	2.7	2.7	2.7
52.5°	267.2	198.5	10.5	7.4	6.0	4.6	3.3	2.7	2.5	2.5	2.5
55°	292.2	203.4	8.0	6.5	5.1	3.9	3.0	2.6	2.4	2.3	2.3
57.5°	308.8	199.3	6.5	5.4	4.3	3.4	2.7	2.4	2.2	2.1	2.1
60°	308.4	185.7	5.2	4.4	3.5	2.9	2.5	2.2	2.0	1.9	1.9
62.5°	290.4	163.6	4.1	3.5	2.9	2.5	2.2	2.0	1.8	1.7	1.6
64°	272.7	149.9	3.5	3.0	2.6	2.3	2.0	1.8	1.6	1.4	1.4
65°	253.5	136.9	3.2	2.7	2.3	2.1	1.9	1.7	1.4	1.2	1.2
67.5°	192.8	101.4	2.6	2.1	1.8	1.7	1.5	1.3	1.0	0.8	0.8
70°	125.2	65.6	2.2	1.7	1.5	1.5	1.4	1.1	0.8	0.7	0.6
72.5°	64.1	32.7	1.8	1.4	1.3	1.3	1.2	0.9	0.7	0.6	0.5
75°	27.2	13.3	1.5	1.2	1.1	1.0	0.9	0.8	0.6	0.5	0.5
77.5°	9.5	5.0	1.4	1.2	0.9	0.8	0.8	0.8	0.8	0.7	0.6
80°	3.2	1.9	0.9	0.9	1.0	1.1	1.1	1.0	1.1	0.9	0.7
82.5°	1.3	0.7	0.3	0.4	0.7	0.8	0.9	0.9	0.9	0.7	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)