

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: P400858

Luminaire Tested: **ENT-SA1-830-U-SL3-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1-830-U-SL3-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 602 lumens
Efficiency: N/A
Efficacy: 46.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-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

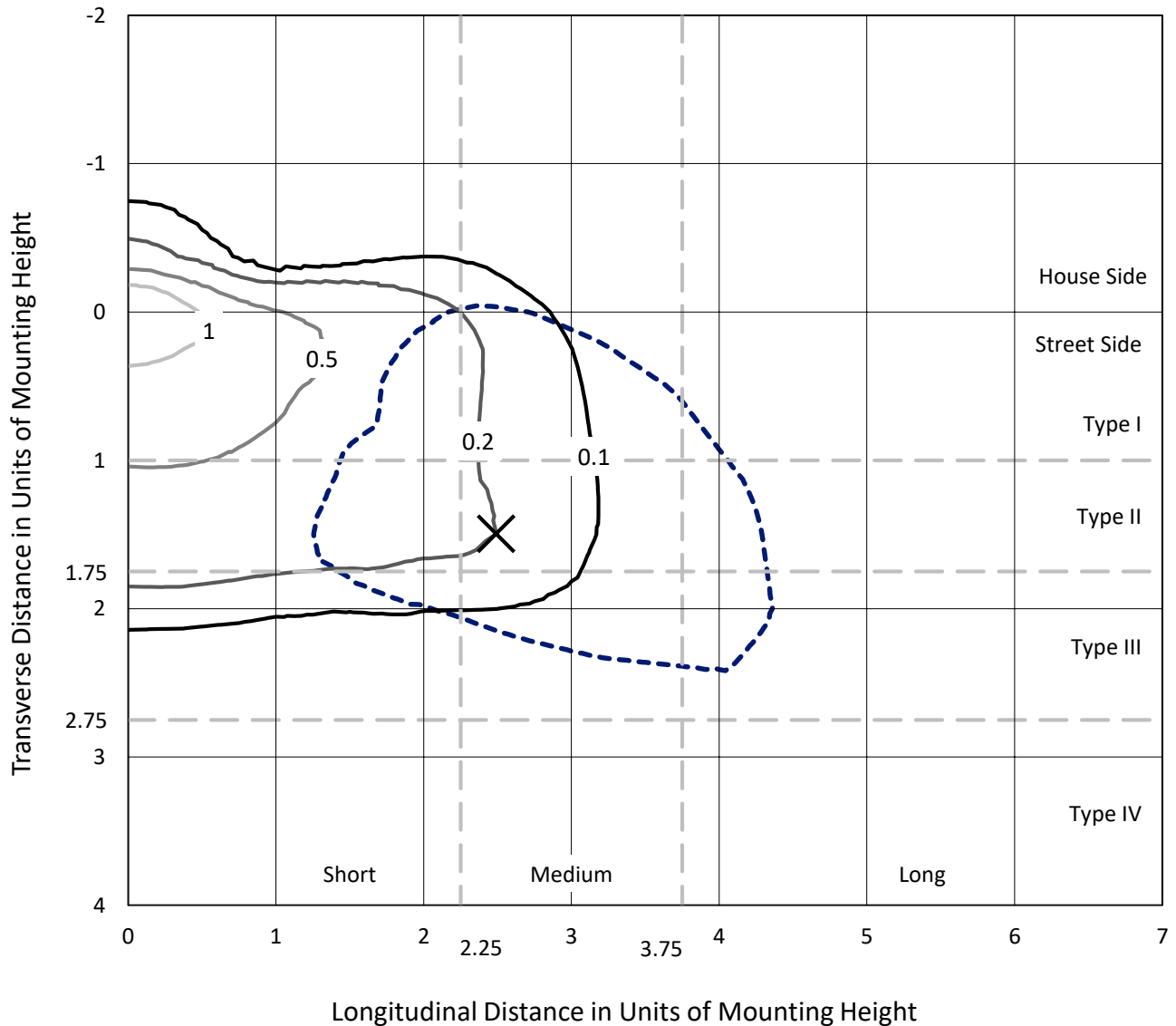


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Iso-Footcandle Lines of Horizontal Illumination

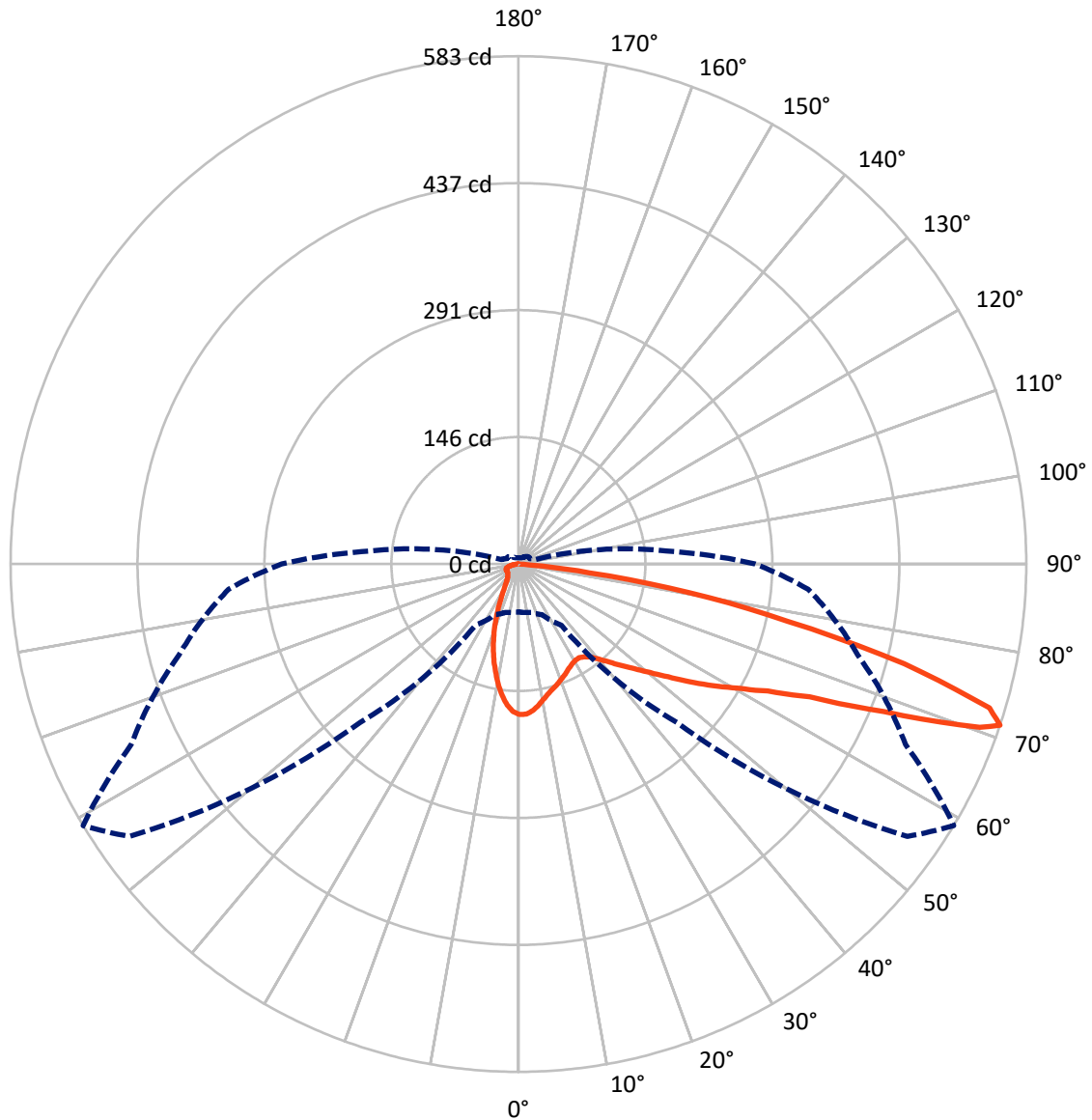
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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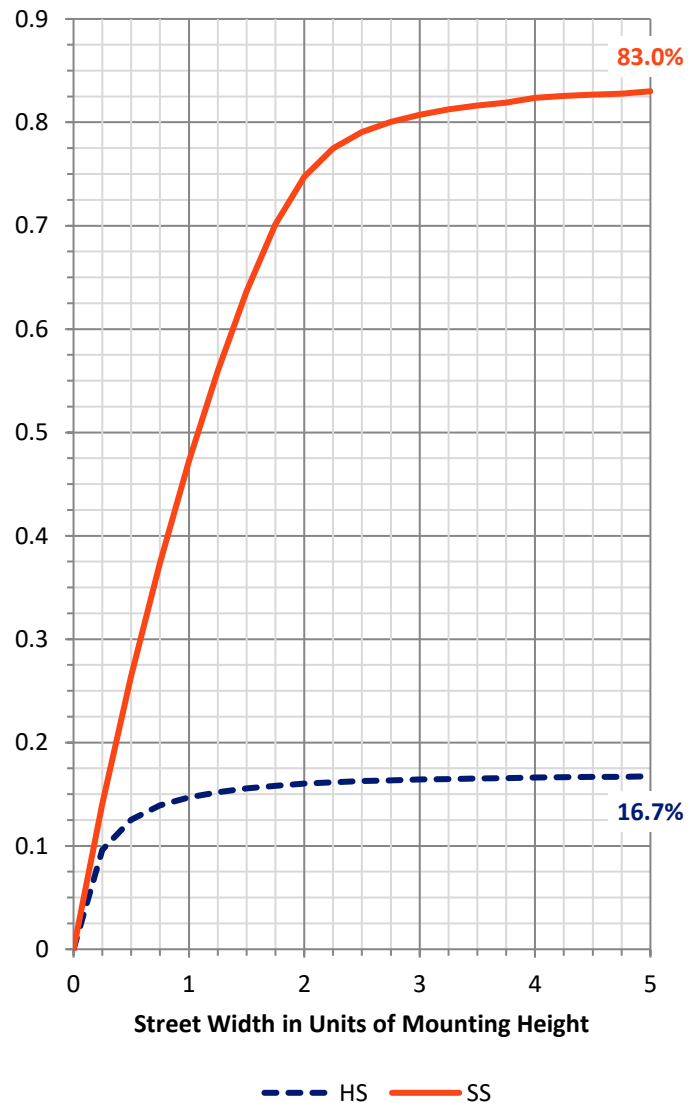
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	102.2	0.0	102.2
	% Fixture	17.0	0.0	17.0
Street Side	Lumens	499.8	0.0	499.8
	% Fixture	83.0	0.0	83.0
Total	Lumens	602.0	0.0	602.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.9	2.5
10°-20°	33.5	5.6
20°-30°	42.6	7.1
30°-40°	54.5	9.0
40°-50°	75.6	12.6
50°-60°	111.9	18.6
60°-70°	151.3	25.1
70°-80°	107.3	17.8
80°-90°	10.4	1.7
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°	602.0	100.0
0°-180°	602.0	100.0



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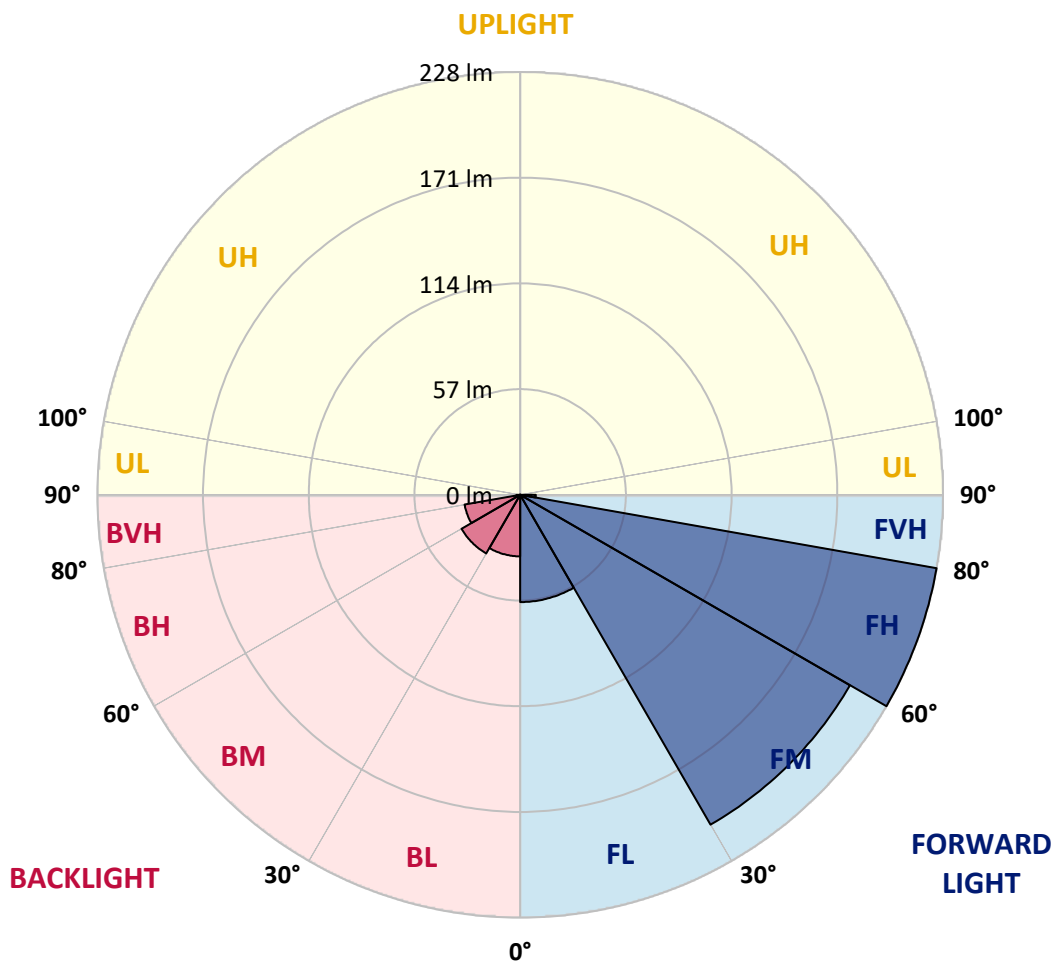
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	57.9	9.6			
FM	(30°-60°)	205.4	34.1			
FH	(60°-80°)	228.1	37.9			G0/660
FVH	(80°-90°)	8.4	1.4			G0/10
BL	(0°-30°)	33.2	5.5	B0/110		
BM	(30°-60°)	36.5	6.1	B0/220		
BH	(60°-80°)	30.5	5.1	B0/110		G0/110
BVH	(80°-90°)	2.0	0.3			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7
2.5°	171.2	171.8	172.1	172.5	172.5	172.7	172.5	172.5	172.8	172.5	171.5
5°	163.6	163.9	164.7	165.6	166.4	168.3	168.8	169.1	169.9	170.1	169.1
7.5°	153.3	154.3	155.4	156.5	158.3	160.8	163.0	163.9	165.4	166.3	164.9
10°	144.6	145.1	145.7	147.7	150.6	154.0	156.3	158.0	160.3	161.5	160.2
12.5°	135.9	136.3	137.4	140.1	143.1	147.2	151.3	152.6	155.4	157.7	156.7
15°	129.2	129.2	130.0	132.9	136.1	141.7	146.5	148.5	152.0	155.2	153.9
17.5°	123.3	123.5	124.0	126.0	130.3	136.2	142.3	144.8	149.2	153.3	151.6
20°	119.9	119.8	120.1	121.1	124.6	130.8	138.1	141.0	146.5	152.2	149.4
22.5°	118.8	118.6	118.4	118.3	120.5	125.8	133.6	137.3	144.0	151.6	147.4
25°	119.7	119.7	118.9	117.4	118.5	122.0	129.6	133.5	141.3	151.2	145.6
27.5°	122.0	122.0	120.9	119.0	118.5	120.1	126.1	130.3	139.0	151.4	144.1
30°	125.3	125.2	124.0	122.4	121.1	120.5	124.5	128.3	137.5	152.6	143.4
32.5°	128.9	128.7	128.2	127.1	125.5	123.3	124.6	128.1	137.1	154.6	143.5
35°	133.3	133.0	133.3	132.7	131.2	128.7	127.9	130.6	138.9	158.3	145.0
37.5°	137.1	136.9	138.3	138.6	138.3	135.0	133.9	135.6	143.0	164.3	148.0
40°	140.4	140.5	142.9	145.4	145.9	143.1	142.4	143.8	149.6	171.5	153.5
42.5°	143.9	144.5	147.9	152.5	154.2	152.4	152.8	153.9	158.0	181.3	161.5
45°	147.4	148.6	153.3	159.2	163.6	163.6	165.1	166.2	168.8	193.7	173.1
47.5°	153.5	154.3	159.5	166.6	173.4	175.6	179.7	179.3	181.3	207.3	186.7
50°	161.5	162.8	168.1	175.4	184.1	190.2	195.0	195.7	196.4	221.3	202.8
52.5°	172.5	174.0	178.4	185.2	195.4	205.5	215.5	215.0	214.0	236.5	221.3
55°	183.5	185.2	189.3	194.8	206.8	222.3	238.6	238.0	233.2	252.0	238.4
57.5°	194.8	196.2	200.5	205.2	219.5	242.2	263.0	263.4	253.6	269.3	255.3
60°	199.5	201.6	212.1	221.4	239.2	264.3	287.9	289.1	274.8	286.7	274.0
62.5°	178.2	180.7	198.2	223.1	266.2	306.9	320.4	321.1	300.3	306.0	294.4
65°	131.9	131.8	149.9	187.2	260.8	364.0	378.2	367.2	332.1	331.6	321.3
67.5°	75.5	77.8	83.6	111.7	198.7	374.6	481.2	452.5	388.3	371.3	357.3
70°	60.9	60.4	62.1	69.6	108.3	308.0	548.2	561.3	468.2	403.8	349.2
71°	54.9	55.7	57.4	64.2	85.5	257.0	544.9	582.7	490.0	402.9	333.7
72.5°	47.2	47.4	51.4	59.4	70.2	181.3	503.8	565.1	512.9	391.5	311.1
75°	32.1	32.5	38.8	47.8	64.1	86.1	360.5	457.1	466.8	365.8	256.9
77.5°	18.4	18.8	23.3	35.0	54.6	60.7	221.3	315.9	335.7	267.5	137.7
80°	9.5	9.9	12.9	22.1	41.7	49.1	126.9	198.6	190.9	92.5	31.9
82.5°	2.5	2.9	3.8	7.9	20.1	32.0	56.3	82.2	58.7	19.2	11.6
85°	0.0	0.0	0.0	0.1	0.2	4.4	11.9	14.7	8.2	3.8	3.1
87.5°	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7	172.7
2.5°	171.3	171.3	170.8	170.0	169.1	167.1	167.5	165.9	166.1	165.9	165.9
5°	168.4	167.8	166.5	164.1	161.4	157.8	157.3	154.4	152.7	152.2	152.8
7.5°	164.3	162.8	159.5	155.2	150.0	145.4	141.1	137.3	134.4	133.2	132.7
10°	158.8	157.0	151.6	144.1	137.0	129.8	123.1	118.7	113.0	111.2	110.7
12.5°	154.4	151.3	143.1	132.7	121.7	112.1	103.0	93.9	88.4	84.4	83.8
15°	150.6	146.1	134.5	121.0	107.3	94.0	81.7	69.4	61.7	58.4	56.0
17.5°	147.2	141.4	125.9	108.3	91.4	73.9	58.9	47.1	42.2	39.7	39.8
20°	143.7	136.3	116.9	95.7	75.7	56.3	41.6	36.1	33.7	33.1	32.9
22.5°	140.4	130.6	107.4	83.2	59.7	41.3	33.5	30.8	30.2	30.2	30.2
25°	136.6	124.7	97.8	70.5	45.2	32.6	28.8	27.8	28.0	28.3	28.4
27.5°	133.5	119.7	88.3	55.7	35.1	27.7	25.7	25.6	26.3	27.0	27.0
30°	130.8	115.1	78.0	43.5	27.9	24.3	23.6	23.9	24.6	25.3	25.6
32.5°	129.0	110.9	68.7	33.8	23.8	22.0	21.8	22.2	22.9	23.2	23.5
35°	128.2	107.8	58.8	27.3	21.2	20.2	20.1	20.4	20.8	20.8	20.8
37.5°	129.1	105.7	48.6	23.1	19.5	19.0	18.9	18.9	18.9	19.0	18.9
40°	131.6	104.9	39.4	20.4	18.5	18.1	17.8	17.5	17.4	17.4	17.3
42.5°	136.9	106.2	31.7	18.8	17.7	17.2	16.7	16.3	16.1	16.0	16.0
45°	145.5	109.6	26.3	17.8	17.0	16.2	15.6	15.3	15.0	15.1	15.0
47.5°	157.3	115.2	23.3	17.1	16.3	15.3	14.7	14.3	14.2	14.5	14.6
50°	170.6	123.3	21.5	16.6	15.8	14.5	13.8	13.5	13.6	14.1	14.2
52.5°	186.3	133.6	20.7	16.2	15.4	13.8	13.2	12.9	13.1	13.7	13.8
55°	203.2	145.5	21.8	16.4	14.9	13.3	12.6	12.3	12.6	13.1	13.2
57.5°	220.4	160.2	25.6	16.5	14.4	13.0	12.1	11.6	11.8	12.2	12.3
60°	237.8	174.7	32.3	16.6	14.2	12.6	11.7	10.9	11.0	11.3	11.3
62.5°	258.2	193.2	41.0	16.9	14.4	12.4	10.9	10.0	10.0	10.2	10.2
65°	289.2	220.8	46.8	16.7	14.8	12.1	10.1	9.2	9.2	9.2	9.2
67.5°	311.4	224.4	32.6	15.8	15.1	12.2	9.7	8.5	8.4	8.3	8.3
70°	287.9	188.8	21.5	14.9	14.7	12.4	9.3	8.1	7.8	7.5	7.4
71°	271.5	170.2	20.0	14.6	14.3	12.2	9.2	7.9	7.5	7.3	7.2
72.5°	247.4	151.9	18.4	14.0	13.5	11.9	8.9	7.6	7.2	6.9	6.8
75°	195.5	116.5	16.1	12.9	11.7	9.8	8.2	7.1	6.6	6.3	6.2
77.5°	88.4	46.3	12.4	11.2	9.5	7.8	7.2	6.5	6.0	5.8	5.7
80°	24.7	17.6	9.1	8.8	7.2	6.0	5.8	5.6	5.4	5.1	5.1
82.5°	11.4	10.3	6.5	6.2	4.9	4.3	4.5	4.6	4.6	4.3	4.2
85°	3.1	3.4	3.0	3.3	3.1	2.9	3.3	3.6	3.8	3.4	3.1
87.5°	0.3	0.6	0.8	1.3	1.6	1.7	2.1	2.5	2.6	2.1	2.2
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)