

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: P400860

Luminaire Tested: **ENV-SA1-830-U-SL4-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-830-U-SL4-XXB
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 582 lumens
Efficiency: N/A
Efficacy: 44.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - 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

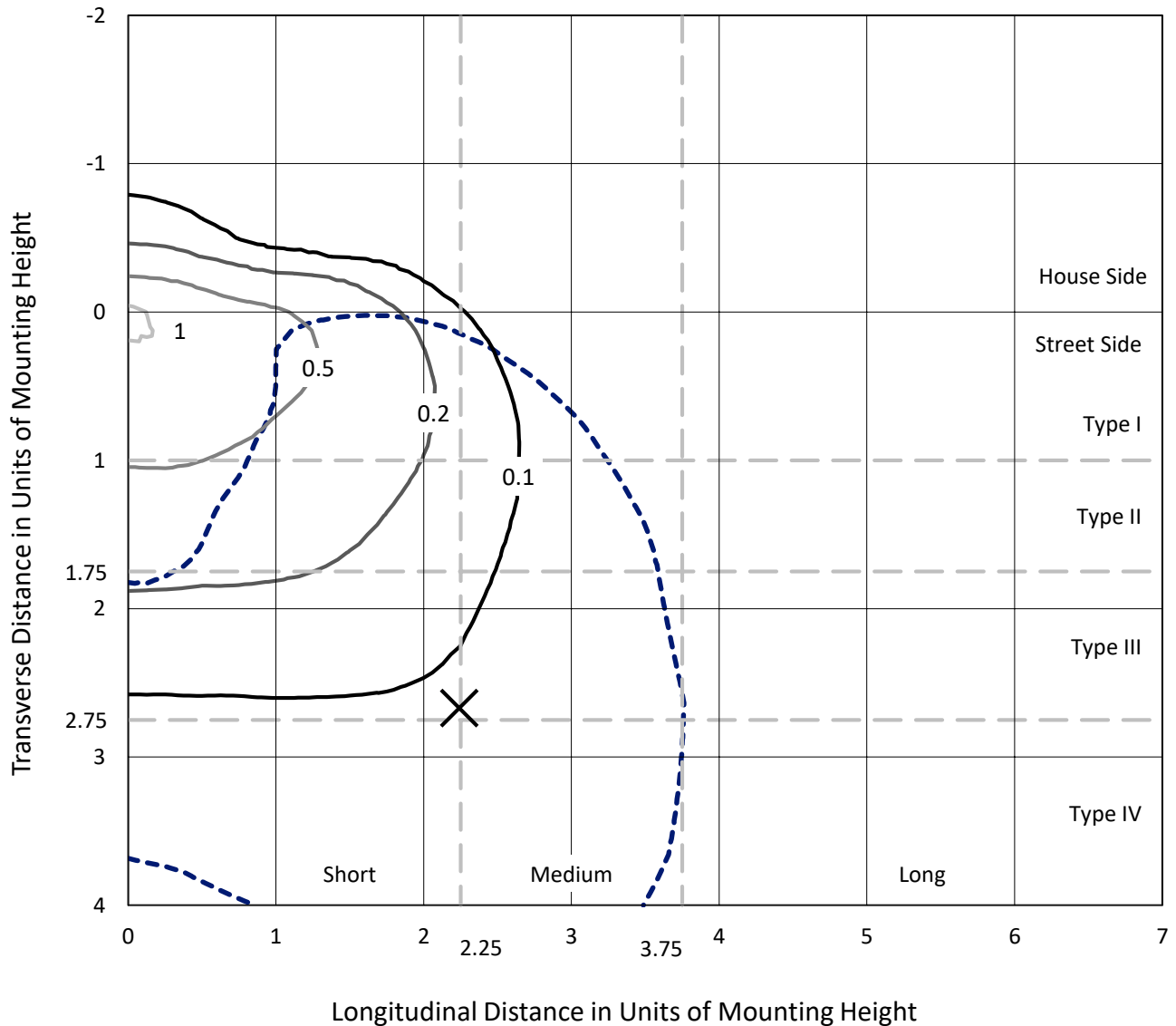


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

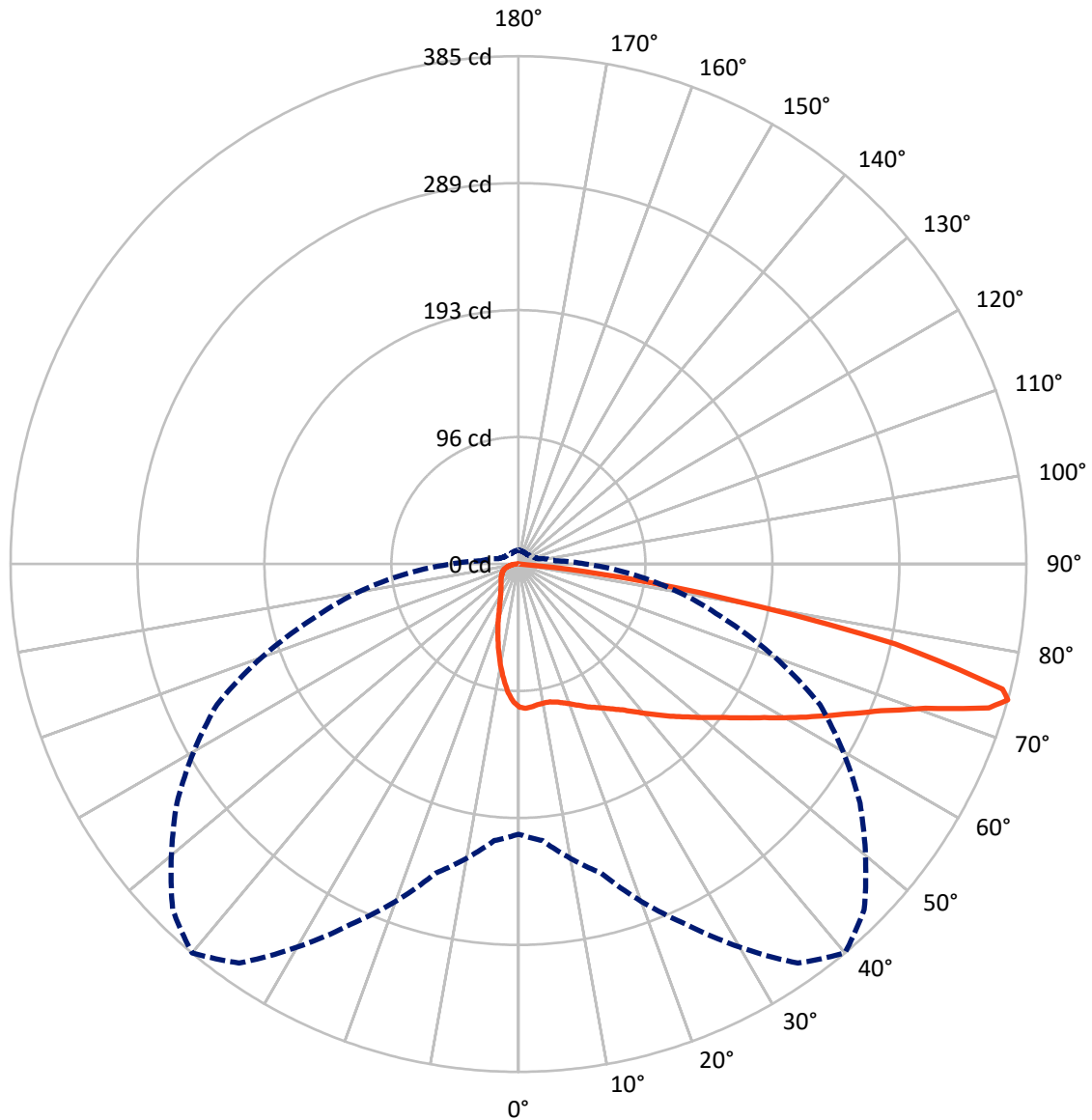


Based on 10 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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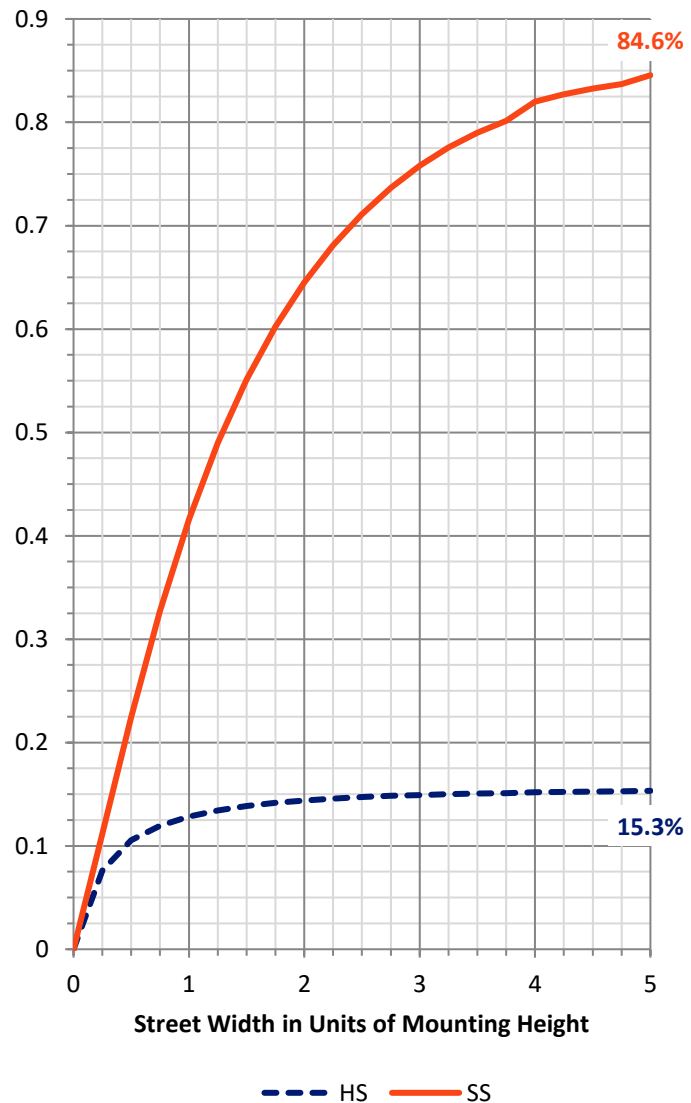
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	90.7	0.0	90.7
	% Fixture	15.6	0.0	15.6
Street Side	Lumens	491.3	0.0	491.3
	% Fixture	84.4	0.0	84.4
Total	Lumens	582.0	0.0	582.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.6	1.6
10°-20°	24.7	4.2
20°-30°	37.9	6.5
30°-40°	54.7	9.4
40°-50°	78.7	13.5
50°-60°	108.7	18.7
60°-70°	137.0	23.5
70°-80°	118.8	20.4
80°-90°	11.9	2.0
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°	582.0	100.0
0°-180°	582.0	100.0



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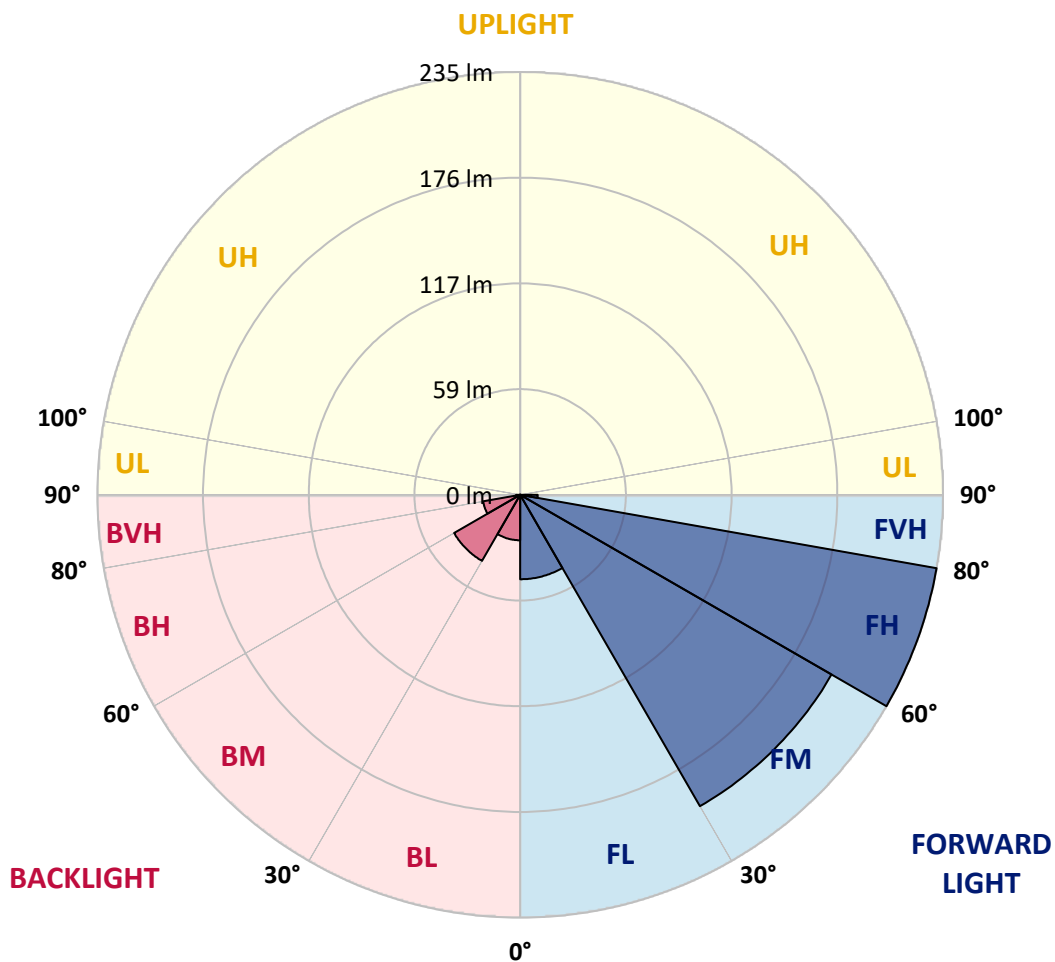
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	46.9	8.1			
FM	(30°-60°)	199.7	34.3			
FH	(60°-80°)	234.9	40.4			G0/660
FVH	(80°-90°)	9.7	1.7			G0/10
BL	(0°-30°)	25.3	4.3	B0/110		
BM	(30°-60°)	42.4	7.3	B0/220		
BH	(60°-80°)	20.9	3.6	B0/110		G0/110
BVH	(80°-90°)	2.2	0.4			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6
2.5°	110.0	109.9	110.2	110.0	109.8	109.6	109.5	109.0	108.8	108.3	107.6
5°	109.6	109.6	109.6	109.4	108.9	108.7	108.6	107.8	107.2	106.4	105.1
7.5°	108.1	108.4	108.3	108.2	107.8	107.6	107.3	106.4	105.7	104.4	102.7
10°	106.7	106.7	106.8	107.2	107.0	107.1	107.0	105.9	105.0	103.3	101.2
12.5°	104.7	105.1	105.6	106.5	107.0	107.3	107.3	106.5	105.5	103.5	101.0
15°	103.5	103.9	105.2	107.0	108.0	108.6	108.8	107.9	106.5	104.5	101.8
17.5°	103.0	103.5	105.9	108.4	110.2	110.7	110.8	109.8	108.4	105.9	102.8
20°	103.5	104.1	107.3	110.6	112.8	113.3	113.4	112.0	110.2	107.9	103.8
22.5°	105.5	106.4	109.9	113.5	115.8	116.4	116.2	114.1	112.4	109.9	105.0
25°	109.9	110.4	113.6	117.5	119.2	119.9	119.5	117.1	114.8	112.3	106.7
27.5°	114.9	115.6	119.0	121.9	123.0	123.2	122.8	120.3	117.8	115.7	109.4
30°	121.0	121.6	124.4	126.6	126.7	126.8	126.5	123.7	121.6	120.0	113.3
32.5°	127.5	127.6	130.5	131.5	130.8	131.1	130.8	127.7	126.3	125.7	118.5
35°	133.4	133.5	136.5	136.8	135.7	135.8	136.3	132.7	132.7	133.9	126.2
37.5°	139.1	139.4	142.0	141.6	141.2	142.0	142.7	139.6	141.4	144.9	135.5
40°	143.4	144.0	147.5	147.3	148.3	149.0	149.6	148.1	150.9	157.7	147.0
42.5°	146.2	147.4	152.4	153.6	155.2	156.6	157.7	157.6	162.5	171.9	159.2
45°	149.0	150.3	156.9	159.9	162.7	164.8	166.8	167.9	175.7	186.9	173.5
47.5°	152.5	153.6	161.0	166.8	170.4	173.4	177.0	179.2	189.1	202.2	186.6
50°	157.9	158.6	165.2	174.3	178.8	182.9	187.3	192.0	203.6	217.8	198.2
52.5°	164.7	165.2	170.1	181.8	189.0	193.4	200.0	206.1	218.3	231.9	207.6
55°	172.6	172.2	176.0	190.7	199.2	205.8	214.0	220.2	233.9	244.2	215.1
57.5°	180.5	180.2	183.2	199.4	212.1	219.8	228.3	234.8	248.1	255.8	220.5
60°	188.0	187.0	191.2	209.5	227.7	236.6	244.2	250.2	261.5	264.0	223.4
62.5°	194.6	194.6	200.7	222.0	246.4	254.4	260.4	264.4	274.3	270.2	222.2
65°	200.7	201.5	210.2	235.9	265.8	273.9	279.1	280.7	287.1	270.4	212.7
67.5°	207.6	208.8	221.1	252.3	288.1	296.8	301.3	300.8	296.2	266.4	192.1
70°	214.3	216.3	234.6	273.3	315.7	327.4	332.4	322.1	300.9	244.2	159.5
72.5°	219.2	222.6	245.7	294.3	355.2	373.2	371.2	327.9	278.8	201.2	120.7
74°	204.9	210.6	242.7	301.6	369.5	385.2	370.9	316.3	252.2	162.0	85.5
75°	188.2	193.7	227.2	298.7	372.2	379.2	352.9	295.9	226.2	125.6	55.8
77.5°	139.4	143.6	174.5	235.5	294.3	292.2	262.7	200.5	111.4	37.9	23.6
80°	61.5	64.7	86.1	118.5	159.4	158.8	147.9	92.1	36.0	19.8	14.4
82.5°	18.6	18.5	24.8	34.6	60.6	61.7	52.4	31.8	17.2	8.2	7.0
85°	0.1	0.1	0.1	0.1	0.3	2.3	1.9	6.1	3.1	1.5	2.5
87.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6
2.5°	107.2	107.1	106.8	106.2	105.8	104.4	104.9	104.0	103.9	103.8	103.7
5°	104.4	104.1	103.1	101.8	100.4	98.3	97.6	96.2	95.5	95.2	95.4
7.5°	101.7	100.9	98.9	96.2	93.5	90.2	87.9	86.0	84.7	84.3	83.7
10°	99.9	98.6	95.2	90.8	86.3	81.8	77.8	75.1	73.1	71.6	71.6
12.5°	99.3	97.6	92.6	86.2	79.7	73.2	67.5	64.0	60.6	58.9	58.6
15°	99.7	97.2	90.4	82.0	73.3	64.9	57.9	52.8	49.6	47.6	48.3
17.5°	100.0	96.9	88.1	77.6	67.1	57.4	49.3	43.5	39.5	38.5	38.0
20°	100.4	96.4	85.3	72.8	60.7	50.2	41.6	35.7	32.7	31.4	31.4
22.5°	101.0	95.7	82.3	67.5	54.2	43.1	35.2	30.7	28.4	27.6	27.6
25°	101.9	95.3	79.2	62.1	48.0	37.5	30.9	27.4	26.2	25.7	25.6
27.5°	103.6	95.4	76.3	56.7	41.9	32.8	27.8	25.6	24.6	24.3	24.3
30°	106.1	96.2	73.1	51.0	36.5	29.2	25.7	24.2	23.6	23.4	23.4
32.5°	109.6	97.8	70.5	45.8	32.5	26.4	24.0	22.9	22.6	22.4	22.5
35°	115.0	100.5	67.4	41.1	28.7	24.3	22.6	21.8	21.6	21.6	21.6
37.5°	122.1	104.7	64.3	36.7	26.2	22.6	21.3	20.9	20.6	20.8	20.9
40°	131.0	109.7	61.4	32.8	24.1	21.2	20.2	19.8	19.7	19.9	20.1
42.5°	140.6	115.7	58.8	29.6	22.4	20.1	19.2	19.0	18.9	19.0	19.3
45°	151.7	122.6	56.6	27.1	21.2	19.1	18.3	18.1	18.1	18.2	18.4
47.5°	162.0	128.8	54.9	25.5	20.2	18.4	17.6	17.4	17.4	17.4	17.5
50°	170.4	133.7	53.8	24.3	19.3	17.6	16.9	16.7	16.6	16.5	16.6
52.5°	177.7	137.3	53.5	23.6	18.6	16.9	16.2	16.1	15.9	15.7	15.8
55°	182.5	139.2	52.8	23.0	18.0	16.1	15.5	15.4	15.2	14.9	14.9
57.5°	185.3	139.0	51.2	22.7	17.6	15.4	14.8	14.8	14.7	14.2	14.3
60°	185.5	135.9	47.4	22.3	17.4	14.7	14.0	14.2	14.2	13.9	13.9
62.5°	181.1	127.9	40.0	21.1	17.0	14.2	13.4	13.9	14.0	13.7	13.7
65°	167.4	109.0	32.1	19.5	16.1	13.6	12.7	13.6	14.1	13.9	13.8
67.5°	141.1	86.3	26.5	17.6	15.2	12.8	12.0	13.2	13.9	13.9	13.8
70°	113.3	65.5	21.8	15.6	13.7	11.9	11.3	12.2	12.8	13.0	13.0
72.5°	78.0	40.1	17.7	13.4	12.0	10.7	10.2	10.8	11.2	11.5	11.4
74°	50.3	28.1	15.5	12.2	11.0	9.9	9.6	9.9	10.0	10.4	10.5
75°	33.7	22.9	14.5	11.3	10.4	9.2	9.1	9.3	9.5	9.8	9.8
77.5°	19.4	16.4	11.7	9.4	8.6	7.9	7.9	7.9	8.2	8.5	8.4
80°	13.4	12.5	9.2	7.3	6.8	6.5	6.5	6.6	7.1	7.2	7.1
82.5°	8.1	9.0	6.5	5.5	5.1	5.1	5.3	5.5	5.8	5.9	5.8
85°	3.2	4.3	3.2	3.1	3.4	3.8	4.2	4.5	4.6	4.6	4.6
87.5°	0.0	0.6	0.8	1.2	1.9	2.3	3.0	3.2	3.4	3.3	3.2
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)