

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: P596051

Luminaire Tested: **MSA-SA1A-AMB-U-T4FT**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596051
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-AMB-U-T4FT
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE IV FORWARD THROW OPTICS.
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 905.1 lumens
Efficiency: N/A
Efficacy: 44.1 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 - G1

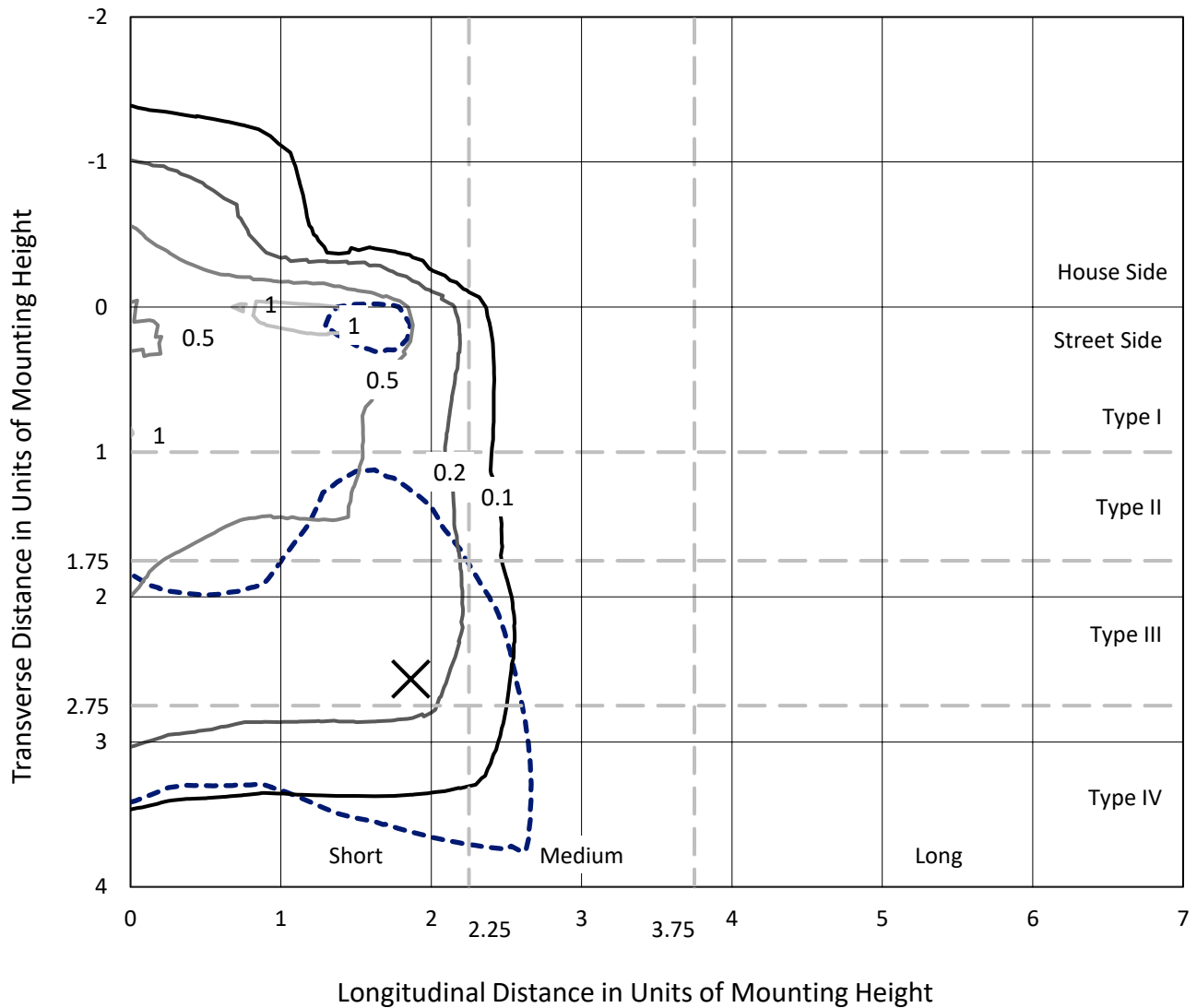
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

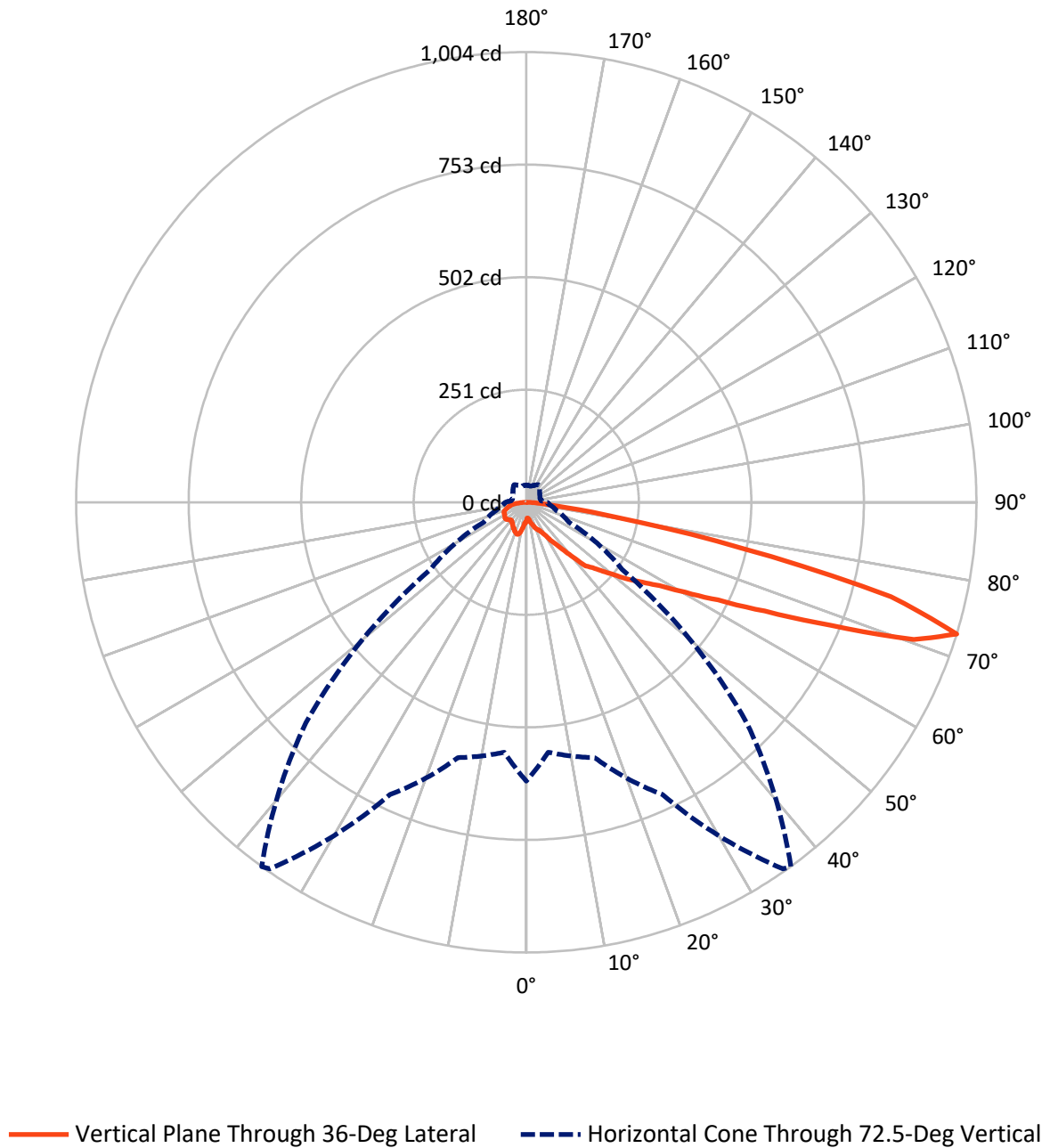
× Max cd
 - - - 1/2 Max cd



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



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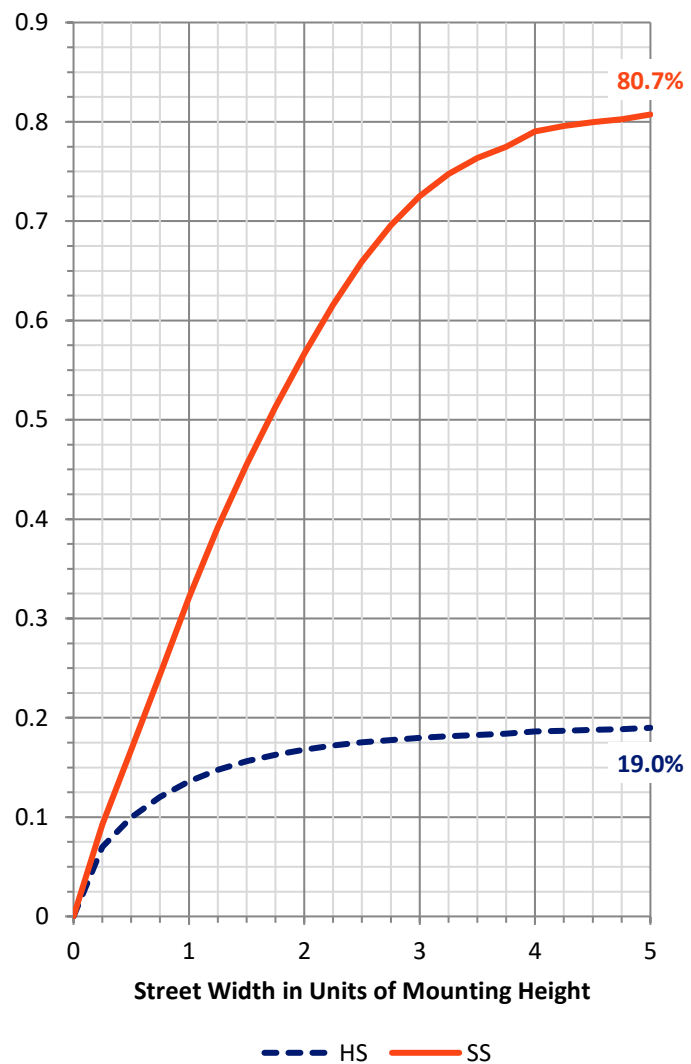
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	174.4	0.0	174.4
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	730.7	0.0	730.7
	% Fixture	80.7	0.0	80.7
Total	Lumens	905.1	0.0	905.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.0	0.5
10°-20°	19.5	2.2
20°-30°	38.1	4.2
30°-40°	67.0	7.4
40°-50°	119.0	13.1
50°-60°	197.8	21.9
60°-70°	264.8	29.3
70°-80°	177.5	19.6
80°-90°	16.4	1.8
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°	905.1	100.0
0°-180°	905.1	100.0



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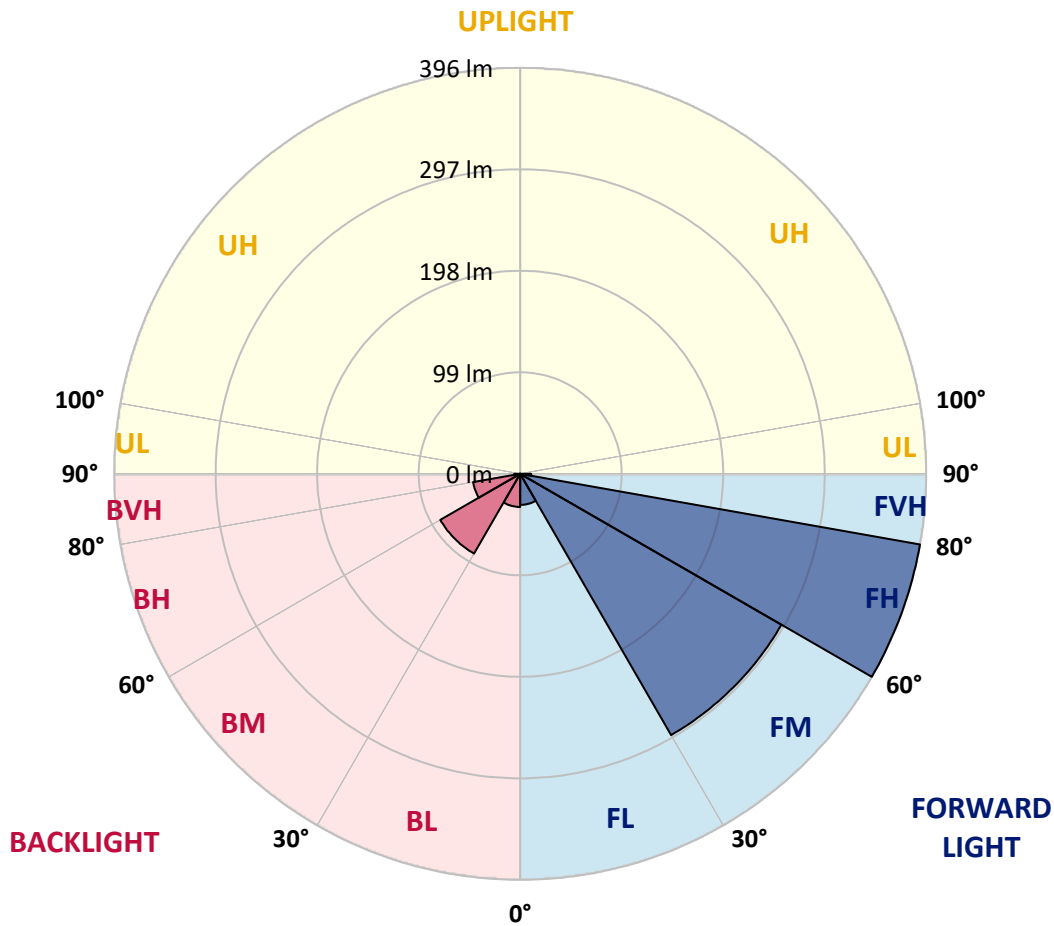
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	30.3	3.3			
FM (30°-60°)	294.0	32.5			
FH (60°-80°)	395.6	43.7			G0/660
FVH (80°-90°)	10.7	1.2			G1/100
BL (0°-30°)	32.3	3.6	B0/110		
BM (30°-60°)	89.8	9.9	B0/220		
BH (60°-80°)	46.6	5.1	B0/110		G0/110
BVH (80°-90°)	5.7	0.6			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	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°	46.8	42.9	41.1	36.3	36.3	35.4	37.5	39.0	40.5	45.0	48.9
5°	48.0	44.4	43.8	40.8	35.4	35.1	34.5	38.1	44.7	54.6	59.4
7.5°	46.8	44.7	44.7	41.1	37.2	36.9	38.4	43.5	50.4	58.5	65.1
10°	44.1	43.5	41.7	39.6	41.7	41.4	45.0	47.1	52.2	60.3	67.2
12.5°	44.1	43.8	44.4	43.8	47.1	48.0	51.0	54.6	59.4	66.0	73.5
15°	50.4	50.1	48.6	49.5	51.6	51.9	56.1	60.0	64.8	72.6	78.6
17.5°	58.2	58.5	55.2	55.8	57.3	57.6	60.9	63.9	68.4	78.0	90.3
20°	68.1	67.8	62.1	59.7	62.7	62.7	65.1	66.9	69.9	81.9	98.7
22.5°	79.5	77.4	68.7	65.4	66.0	66.6	67.2	69.9	71.4	83.7	108.3
25°	90.3	89.1	78.3	72.9	71.1	70.2	72.3	73.8	77.7	88.8	112.8
27.5°	103.8	104.7	88.5	84.3	78.6	78.0	75.9	79.5	84.0	91.2	122.6
30°	124.4	121.1	103.5	96.9	89.4	87.6	83.1	88.5	91.2	97.2	137.0
32.5°	145.7	142.7	120.2	111.3	102.6	102.3	97.8	95.4	100.8	108.9	152.6
35°	166.7	164.3	145.1	129.5	115.5	115.8	111.6	113.1	113.7	119.3	168.5
37.5°	199.7	195.8	170.9	149.3	139.4	135.8	134.6	133.4	129.2	133.7	202.7
40°	226.7	215.6	191.3	176.3	163.1	160.4	162.5	150.8	145.4	154.1	241.7
42.5°	248.0	238.4	213.2	204.2	191.6	193.7	181.7	168.2	168.8	178.1	281.3
45°	268.7	250.1	219.8	215.3	209.0	207.8	209.3	201.5	200.6	208.1	317.3
47.5°	285.8	266.3	239.0	231.5	225.2	230.0	244.1	233.9	234.5	244.1	370.0
50°	306.8	284.3	257.9	248.3	254.3	253.7	287.3	272.9	266.0	281.0	430.0
52.5°	330.8	302.6	276.5	273.8	283.1	285.2	315.2	316.1	298.7	324.5	505.9
55°	358.6	325.4	303.8	297.5	317.0	314.6	352.3	372.4	343.1	369.1	566.5
57.5°	394.6	358.0	343.7	334.1	347.9	350.5	402.4	422.5	369.4	406.6	602.1
60°	451.0	406.6	386.2	373.6	400.9	407.5	459.7	458.8	387.4	420.7	582.4
62.5°	522.1	478.3	440.5	430.0	479.8	479.8	534.4	490.6	386.8	393.7	478.0
65°	618.6	564.7	520.3	501.1	577.3	584.7	634.8	509.8	353.5	314.3	312.2
67.5°	698.1	640.8	597.3	609.9	733.8	731.1	741.0	505.9	287.3	219.5	173.6
70°	718.2	663.0	633.9	703.8	921.5	916.7	787.2	409.0	192.8	124.7	84.3
72.5°	621.9	559.6	589.5	719.4	998.0	1004.0	695.1	260.9	104.1	69.3	50.4
75°	346.1	308.9	374.2	568.9	843.5	840.5	447.4	129.2	58.2	46.2	38.7
77.5°	129.2	113.1	150.2	291.8	515.5	489.4	191.6	57.3	39.6	36.0	31.5
80°	38.4	35.1	50.4	111.0	205.1	203.0	61.5	33.6	30.6	28.5	23.7
82.5°	17.7	16.5	24.0	42.3	73.2	65.7	27.9	22.8	23.4	19.5	14.7
85°	8.1	7.8	12.6	19.2	29.1	26.1	12.9	11.7	13.5	11.4	7.8
87.5°	1.2	1.8	3.0	4.2	4.2	5.1	2.7	3.3	3.6	3.3	2.1
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°	51.3	46.2	48.9	45.0	43.2	46.5	46.2	45.9	48.9	48.0	51.3
5°	63.3	59.1	57.9	53.1	47.4	44.4	46.8	54.3	61.2	63.3	68.4
7.5°	71.4	67.5	68.7	60.6	51.3	48.3	55.5	60.6	66.6	69.9	74.7
10°	71.4	71.4	70.8	64.5	65.7	65.7	62.1	61.5	66.6	66.3	68.4
12.5°	77.7	78.0	78.3	76.2	77.1	75.0	70.2	68.1	66.9	67.5	68.1
15°	83.4	84.9	88.2	84.3	82.8	78.3	73.2	68.1	69.0	68.1	66.6
17.5°	94.2	98.7	94.8	91.2	85.5	81.6	73.2	68.4	68.1	68.7	66.0
20°	102.9	106.5	99.9	91.8	84.6	76.8	70.2	66.3	67.5	70.8	72.0
22.5°	114.3	116.9	101.7	88.5	76.8	71.1	69.0	66.6	69.0	73.2	73.2
25°	121.4	124.4	104.4	87.3	72.3	64.2	65.4	66.6	68.4	75.6	75.0
27.5°	133.7	128.6	102.0	83.4	66.0	60.0	64.2	66.6	67.2	75.0	76.8
30°	141.8	144.5	101.7	76.2	61.2	57.3	60.6	63.9	66.6	75.6	75.3
32.5°	161.9	149.9	104.4	68.7	56.7	55.8	57.9	61.5	64.8	72.0	74.1
35°	179.0	167.9	99.6	62.1	54.6	53.4	56.1	58.2	61.2	71.1	71.7
37.5°	214.4	181.1	94.5	58.5	53.1	52.8	53.1	56.4	59.7	67.5	70.2
40°	249.5	197.6	86.1	55.5	51.9	52.5	52.2	54.9	56.7	63.6	66.3
42.5°	282.2	213.8	76.8	52.2	51.6	52.2	53.1	54.3	56.1	60.0	62.4
45°	314.9	216.8	67.5	48.9	50.1	55.8	54.6	54.9	55.2	55.8	57.9
47.5°	352.0	225.8	60.9	45.9	50.4	60.0	55.8	54.3	53.4	52.8	54.6
50°	399.4	245.9	53.7	44.7	51.6	60.6	57.9	53.7	51.3	50.7	53.1
52.5°	462.4	265.4	49.5	43.5	51.3	60.3	59.1	53.1	49.5	48.6	51.0
55°	513.7	271.7	47.1	43.2	49.5	59.4	58.8	51.9	47.7	47.7	49.5
57.5°	541.6	261.5	45.6	42.3	47.7	57.6	57.0	49.8	47.1	47.4	49.5
60°	522.4	224.0	43.2	41.4	46.2	55.2	55.8	48.9	46.2	47.1	49.2
62.5°	417.4	162.5	40.8	39.9	44.1	53.1	55.5	48.0	45.3	46.2	48.6
65°	268.7	103.5	38.4	38.4	42.3	51.3	55.2	46.8	43.8	45.9	48.0
67.5°	146.9	65.1	36.6	37.5	41.1	48.6	54.0	46.2	42.0	45.3	46.8
70°	75.9	43.5	34.5	35.7	39.0	45.9	51.9	44.4	39.9	42.6	42.9
72.5°	46.5	34.5	31.5	33.6	36.0	41.7	47.7	41.7	37.2	38.1	38.4
75°	35.4	28.8	27.6	30.3	32.1	37.2	43.5	38.7	34.5	33.9	34.5
77.5°	28.2	23.1	23.7	26.4	27.3	33.0	39.3	35.7	30.9	30.0	30.3
80°	20.7	18.0	19.2	21.9	22.2	29.1	35.4	30.6	25.5	24.0	24.3
82.5°	12.9	11.4	13.8	15.6	15.6	21.6	28.8	22.2	18.3	15.0	15.0
85°	6.0	6.0	7.8	8.4	8.1	10.2	16.2	12.9	9.9	7.8	7.8
87.5°	0.9	1.8	2.1	2.1	1.8	0.6	1.5	1.8	1.8	1.5	0.6
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)