

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: P596047

Luminaire Tested: **MSA-SA1A-AMB-U-T2**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596047
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-AMB-U-T2
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II OPTICS.
Light Source: (16) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 857 lumens
Efficiency: N/A
Efficacy: 41.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

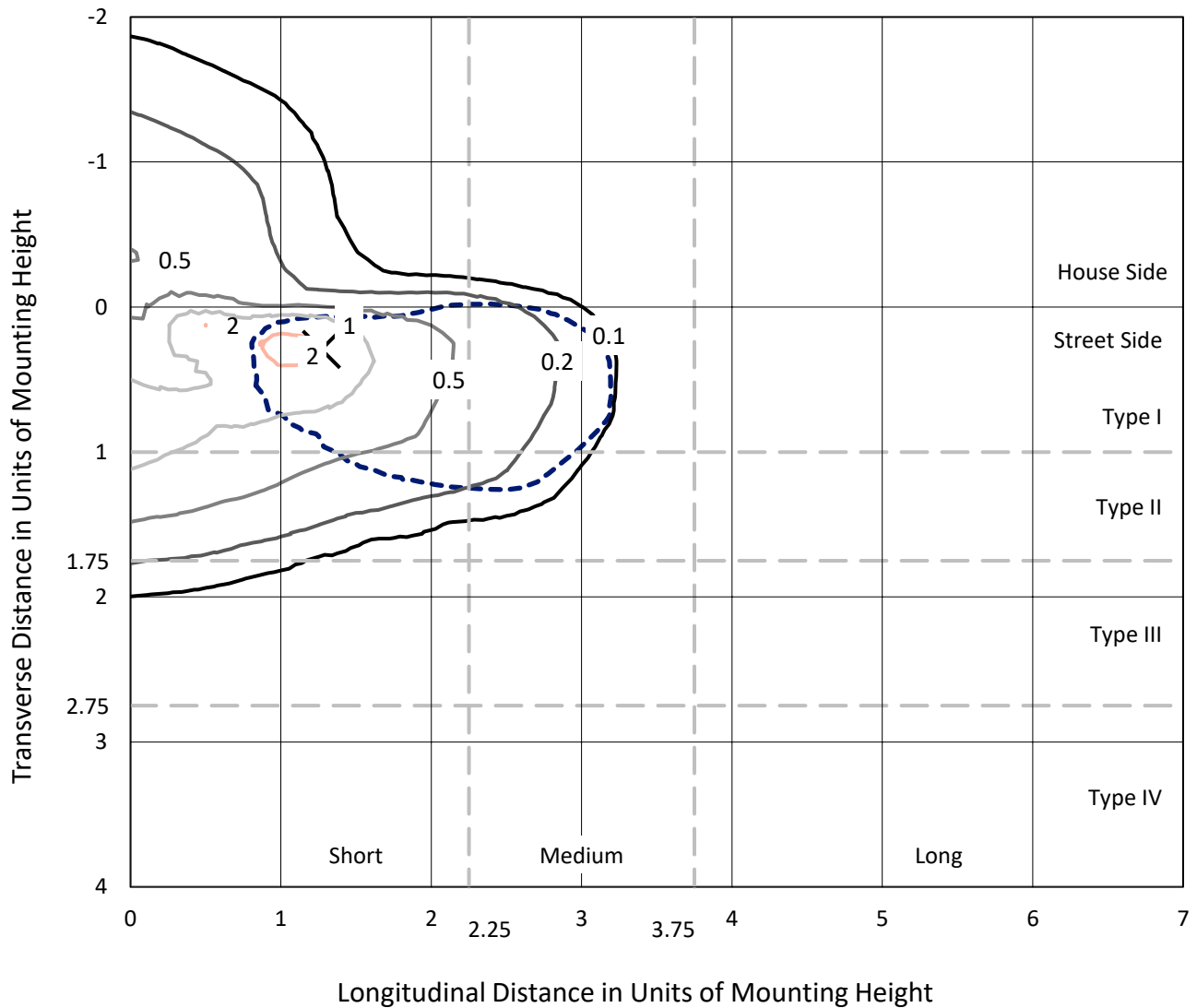
Input Watts (W): 20.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

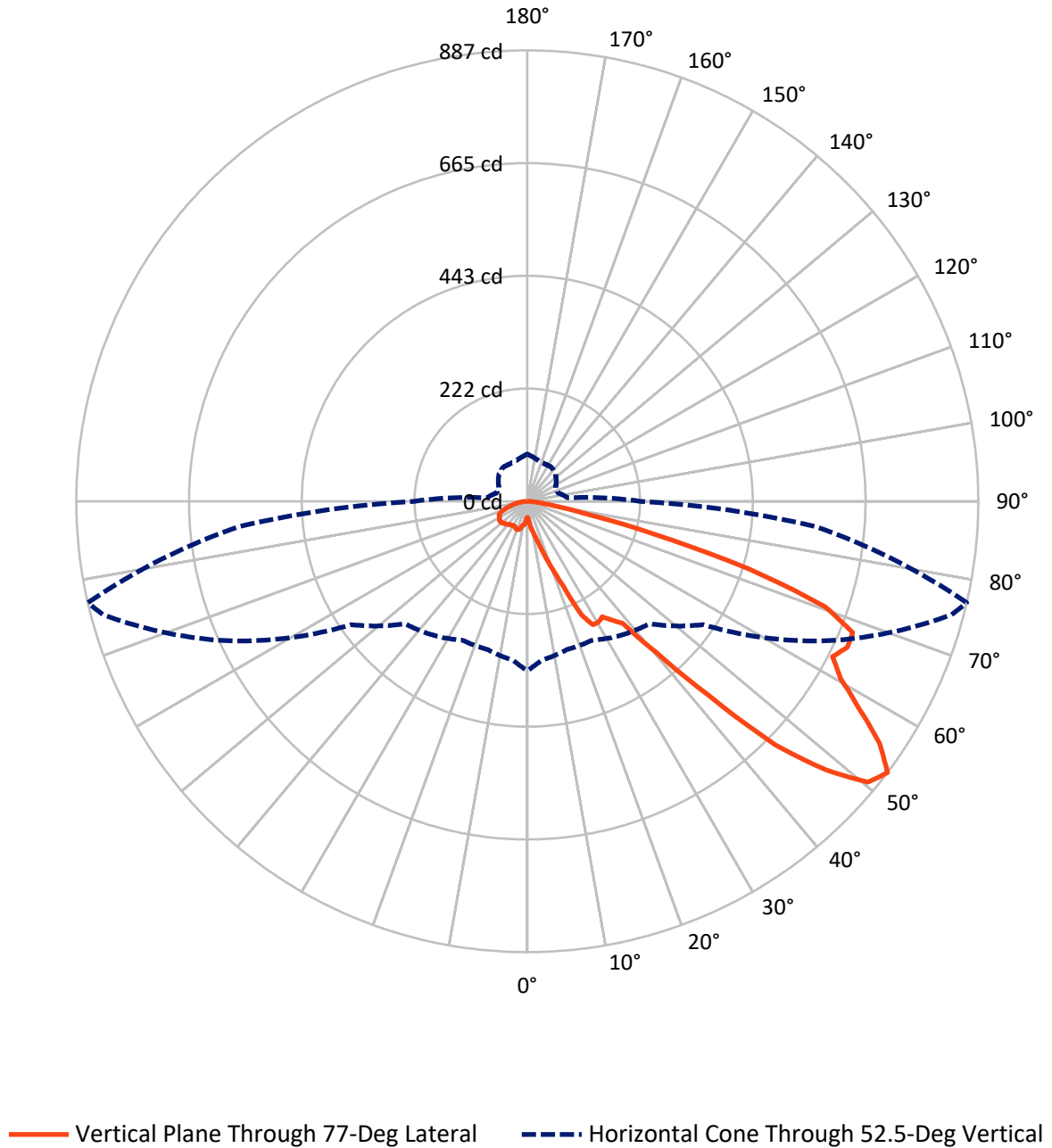
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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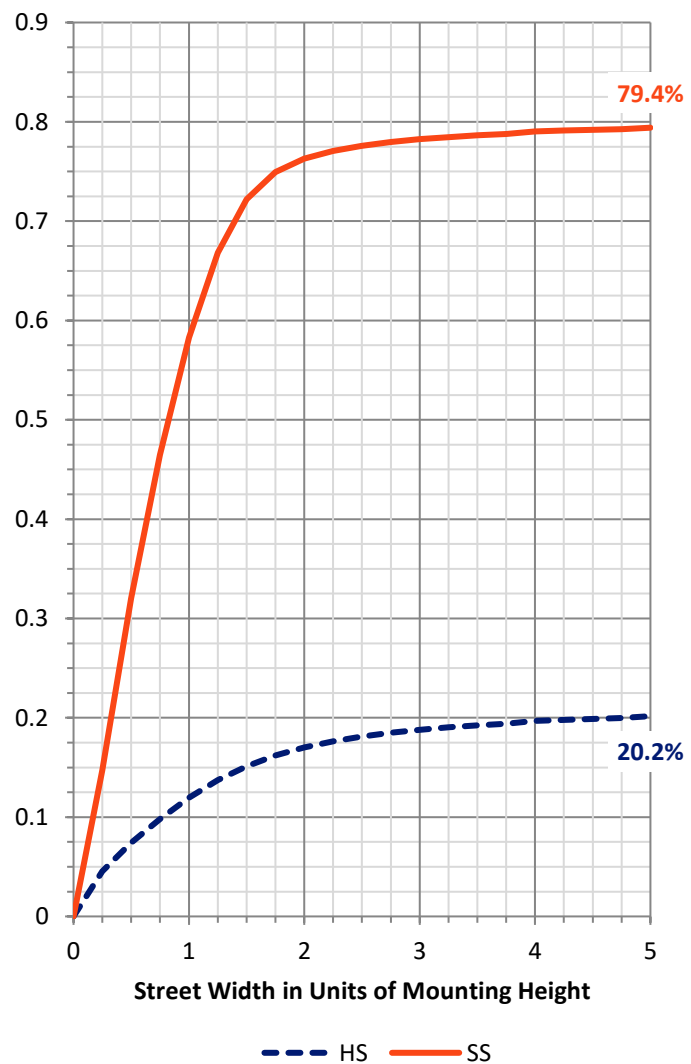
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	175.1	0.0	175.1
	% Fixture	20.4	0.0	20.4
Street Side	Lumens	681.8	0.0	681.8
	% Fixture	79.6	0.0	79.6
Total	Lumens	857.0	0.0	857.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.2	0.5
10°-20°	20.8	2.4
20°-30°	49.7	5.8
30°-40°	89.3	10.4
40°-50°	173.5	20.2
50°-60°	227.5	26.5
60°-70°	194.3	22.7
70°-80°	84.3	9.8
80°-90°	13.5	1.6
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°	857.0	100.0
0°-180°	857.0	100.0

Coefficient of Utilization



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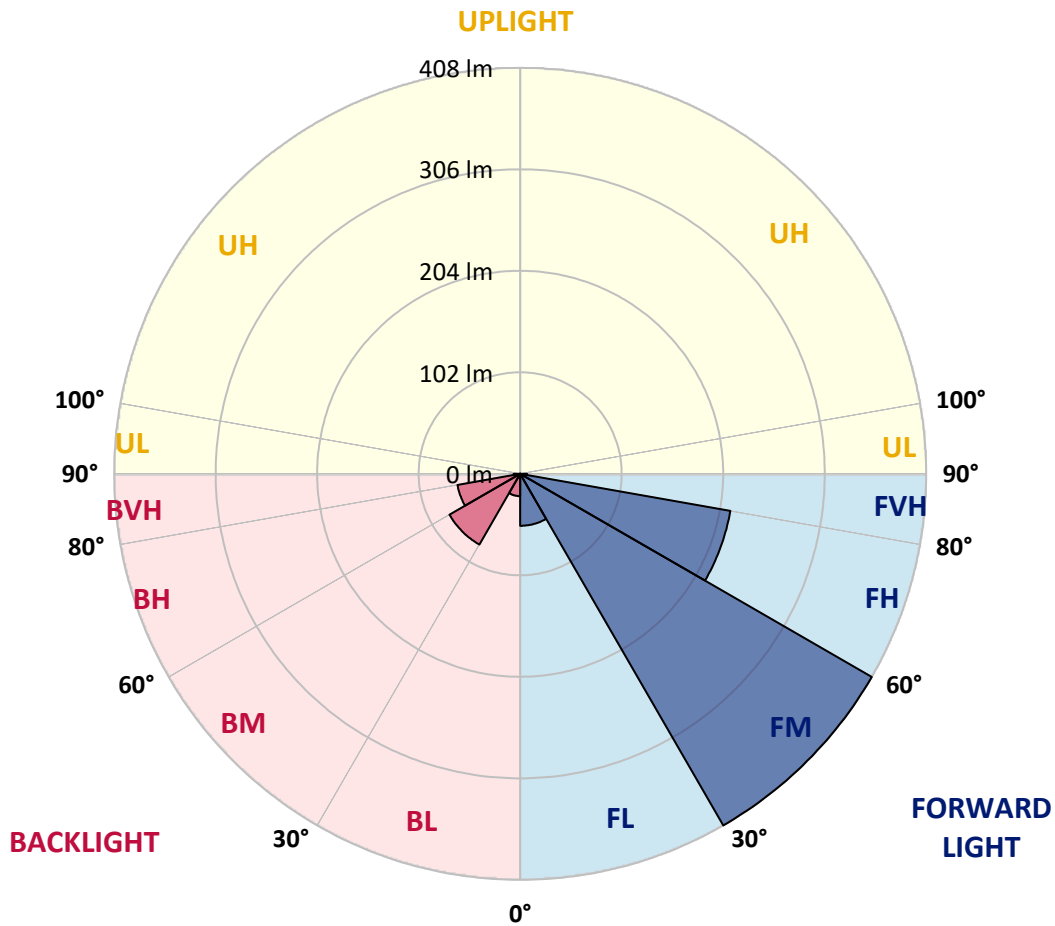
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	52.3	6.1			
FM (30°-60°)	408.1	47.6			
FH (60°-80°)	214.5	25.0			G0/660
FVH (80°-90°)	6.9	0.8			G0/10
BL (0°-30°)	22.4	2.6	B0/110		
BM (30°-60°)	82.1	9.6	B0/220		
BH (60°-80°)	64.0	7.5	B0/110		G0/110
BVH (80°-90°)	6.6	0.8			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
2.5°	41.1	35.4	35.1	33.9	33.6	34.5	33.9	32.7	34.8	34.2	35.7
5°	56.3	49.2	48.3	42.6	36.9	36.0	35.7	39.0	45.0	44.4	45.6
7.5°	65.9	61.7	61.4	54.8	47.4	45.3	46.5	51.0	52.8	52.8	51.9
10°	71.0	69.5	65.9	61.4	61.7	62.6	62.6	60.8	62.0	60.8	57.8
12.5°	72.8	71.6	76.7	74.3	79.7	84.5	83.3	81.8	74.3	71.9	64.1
15°	81.2	82.4	82.1	85.4	92.3	100.4	104.3	102.8	93.2	88.7	75.5
17.5°	92.0	90.8	90.2	94.1	100.7	111.8	123.5	128.0	117.2	112.7	92.0
20°	101.9	101.6	99.2	96.5	105.2	117.2	141.2	154.7	150.2	143.6	110.3
22.5°	116.9	115.7	106.4	102.8	107.3	119.3	153.5	199.0	189.1	180.7	131.6
25°	130.4	129.5	120.5	113.9	112.4	123.8	168.1	253.3	260.8	247.0	160.6
27.5°	145.1	146.3	130.7	128.3	123.2	126.8	181.3	309.6	301.2	275.1	173.2
30°	169.0	164.8	149.3	144.8	137.6	137.9	181.9	296.4	292.5	275.7	171.1
32.5°	199.6	199.9	176.5	162.1	155.6	155.0	184.6	275.7	294.0	270.9	178.3
35°	237.7	236.2	212.2	194.5	175.0	170.5	202.6	282.3	301.8	286.8	181.0
37.5°	294.0	286.8	253.9	232.0	213.7	210.1	228.4	299.4	323.4	304.5	201.1
40°	326.4	312.6	284.7	259.9	243.4	250.3	264.0	335.1	400.4	391.1	235.9
42.5°	335.1	324.3	299.1	285.0	272.7	283.5	316.2	421.7	528.7	519.1	295.5
45°	335.7	319.5	299.1	295.2	285.0	328.5	374.0	508.9	666.6	682.5	380.9
47.5°	335.4	318.6	298.2	297.9	291.0	355.5	409.4	593.4	789.8	789.2	457.1
50°	344.7	324.0	306.0	299.4	308.4	346.8	421.1	632.1	858.4	868.3	531.7
52.5°	333.3	314.1	301.8	301.5	321.6	340.2	422.6	649.2	862.9	886.6	568.0
55°	307.5	288.6	285.6	292.2	329.4	344.1	414.8	647.7	809.2	840.4	558.4
57.5°	253.3	240.1	251.8	265.5	308.1	350.1	415.7	617.7	745.1	768.8	552.7
60°	177.4	168.1	177.4	199.9	261.7	320.7	427.1	608.1	673.8	707.3	559.3
62.5°	122.0	117.2	124.1	136.7	183.1	269.7	418.1	624.3	652.2	673.5	599.4
65°	91.4	86.9	89.3	98.3	116.9	184.9	375.5	631.8	663.6	691.4	672.3
67.5°	74.3	71.0	72.5	78.2	84.2	110.3	275.7	604.5	668.7	690.2	684.6
70°	62.0	58.7	60.5	64.7	68.9	67.4	155.9	491.2	595.5	620.7	605.4
72.5°	51.9	48.9	50.4	52.8	58.7	49.8	79.4	325.5	436.4	456.2	420.2
75°	43.5	40.5	41.1	43.5	48.0	41.1	46.8	169.0	242.2	252.4	212.2
77.5°	34.2	33.3	33.0	35.4	38.7	33.3	34.5	74.0	105.2	112.4	89.3
80°	25.5	24.9	25.5	26.4	28.8	26.1	25.5	41.1	52.2	50.1	35.4
82.5°	16.2	15.9	18.9	19.2	20.7	18.0	18.0	25.8	27.9	26.1	20.4
85°	9.3	9.0	12.3	11.7	12.0	10.2	9.9	12.9	14.1	13.2	10.2
87.5°	1.5	1.8	2.4	3.3	3.6	2.7	3.9	3.9	4.8	4.2	3.6
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°	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
2.5°	36.3	33.9	33.9	31.5	29.7	29.4	29.4	30.0	32.4	33.0	33.6
5°	46.2	42.9	40.5	35.7	30.6	28.8	30.6	34.8	38.4	39.9	40.8
7.5°	53.3	49.2	45.0	37.2	33.0	32.4	35.1	37.5	41.7	44.1	45.6
10°	55.1	51.6	45.9	39.6	40.2	41.1	40.8	41.4	44.7	45.6	45.9
12.5°	60.5	55.4	49.2	45.6	47.1	47.7	47.4	47.7	48.9	50.1	50.4
15°	68.0	61.7	53.6	50.1	50.4	51.0	51.9	52.5	54.2	54.5	54.2
17.5°	77.6	69.2	55.4	52.5	52.5	54.5	55.1	56.0	58.1	59.9	58.4
20°	88.7	72.2	56.0	51.9	52.8	54.2	55.1	56.0	59.0	62.6	62.9
22.5°	95.6	73.1	54.8	50.4	51.0	52.8	54.8	55.7	58.7	62.9	62.9
25°	101.3	71.0	53.0	50.1	50.1	50.7	52.8	54.5	56.3	61.4	61.4
27.5°	106.4	68.6	51.3	50.1	49.8	49.5	52.2	53.3	54.2	58.4	59.3
30°	107.0	69.5	51.3	50.4	49.8	49.2	50.7	51.9	53.6	58.4	59.0
32.5°	109.1	67.7	53.0	50.7	50.1	50.1	51.0	53.0	55.7	59.9	60.8
35°	106.1	66.5	54.2	51.9	51.6	51.6	53.6	55.1	59.6	65.0	65.9
37.5°	107.6	65.6	55.4	53.6	53.3	55.4	55.4	58.7	65.3	71.0	74.3
40°	116.9	66.2	56.6	55.7	56.0	57.8	58.7	62.9	70.1	77.6	79.4
42.5°	126.8	68.0	58.4	57.5	60.2	61.1	64.4	67.4	73.7	78.5	80.9
45°	146.3	69.5	59.6	59.3	62.3	68.3	68.9	71.6	75.8	79.1	82.1
47.5°	175.0	71.6	61.4	60.5	65.6	73.1	71.6	73.7	77.6	82.1	85.1
50°	199.0	76.1	62.6	61.1	68.3	75.5	77.3	77.6	80.6	85.4	89.3
52.5°	222.4	79.1	62.9	61.1	69.5	77.9	82.1	80.9	83.0	89.0	92.9
55°	246.7	81.8	62.6	59.9	68.6	80.0	84.2	83.0	85.4	92.3	96.2
57.5°	264.3	83.0	61.1	58.7	68.0	78.5	83.0	81.8	85.4	92.9	97.4
60°	295.8	85.7	57.8	56.6	66.5	75.5	81.5	80.0	83.3	92.3	96.8
62.5°	361.2	95.0	53.6	53.6	62.6	72.2	78.5	76.1	79.7	89.6	94.4
65°	439.7	108.5	49.8	51.0	59.3	67.1	75.2	71.9	75.5	86.3	91.1
67.5°	447.5	101.3	46.2	47.7	54.2	62.0	71.0	67.7	70.1	80.6	85.1
70°	394.4	82.7	41.7	43.8	49.5	56.3	64.4	62.0	63.8	73.4	77.9
72.5°	273.9	60.5	37.5	39.6	44.7	49.8	57.8	56.0	56.9	65.6	68.9
75°	134.0	39.6	32.7	35.1	38.7	43.5	51.0	49.2	49.2	55.7	59.9
77.5°	56.3	29.7	27.9	30.3	32.7	36.6	43.2	42.3	41.1	45.6	47.4
80°	27.6	21.6	21.9	24.6	25.8	28.8	34.8	33.3	32.4	34.8	35.7
82.5°	17.1	14.4	15.6	17.1	18.0	21.3	26.7	24.6	22.8	22.2	21.9
85°	8.4	8.1	9.6	10.2	9.3	10.8	16.2	13.5	12.3	11.1	11.1
87.5°	2.1	2.7	3.3	3.3	2.7	1.5	3.0	2.4	2.4	2.1	1.2
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)