

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: P596121

Luminaire Tested: **MSA-SA4A-AMB-U-T4W-HSS**

Issue Date: 4/29/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P596121  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-16)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 4/29/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4A-AMB-U-T4W-HSS  
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH  
AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: (64) 1549K CCT, -21.5 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2229 lumens  
Efficiency: N/A  
Efficacy: 28.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G1

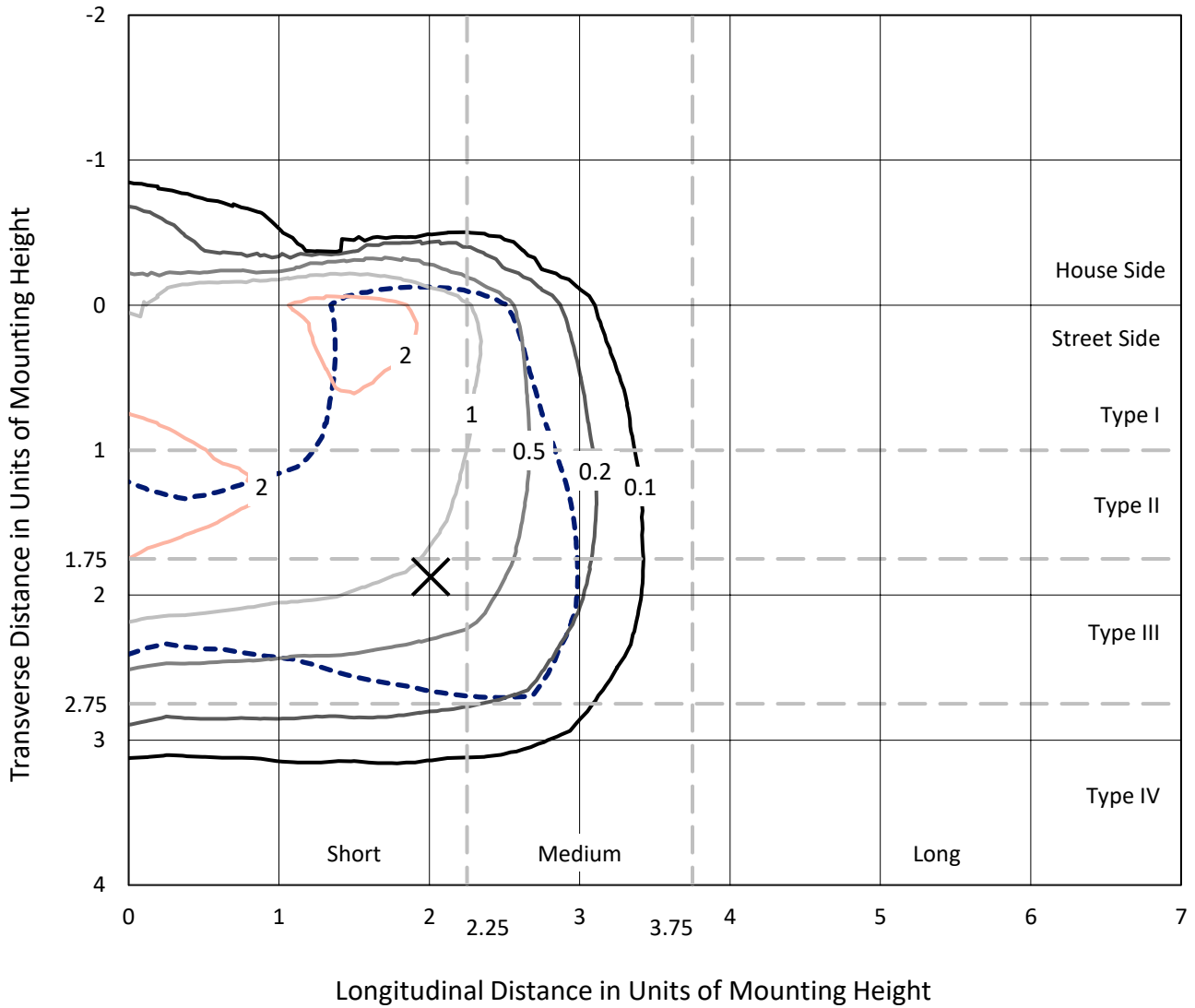
Input Watts (W): 79  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

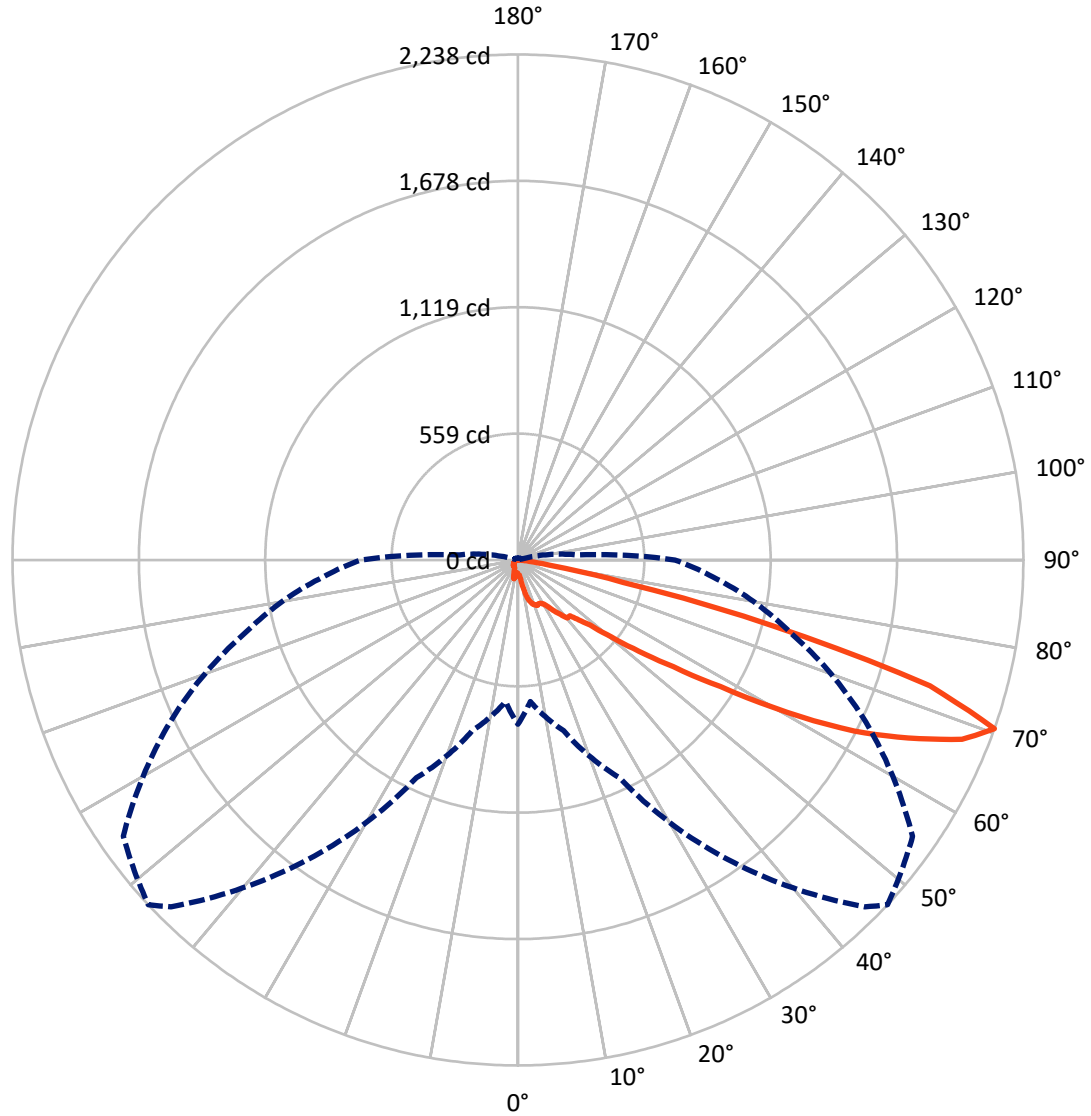
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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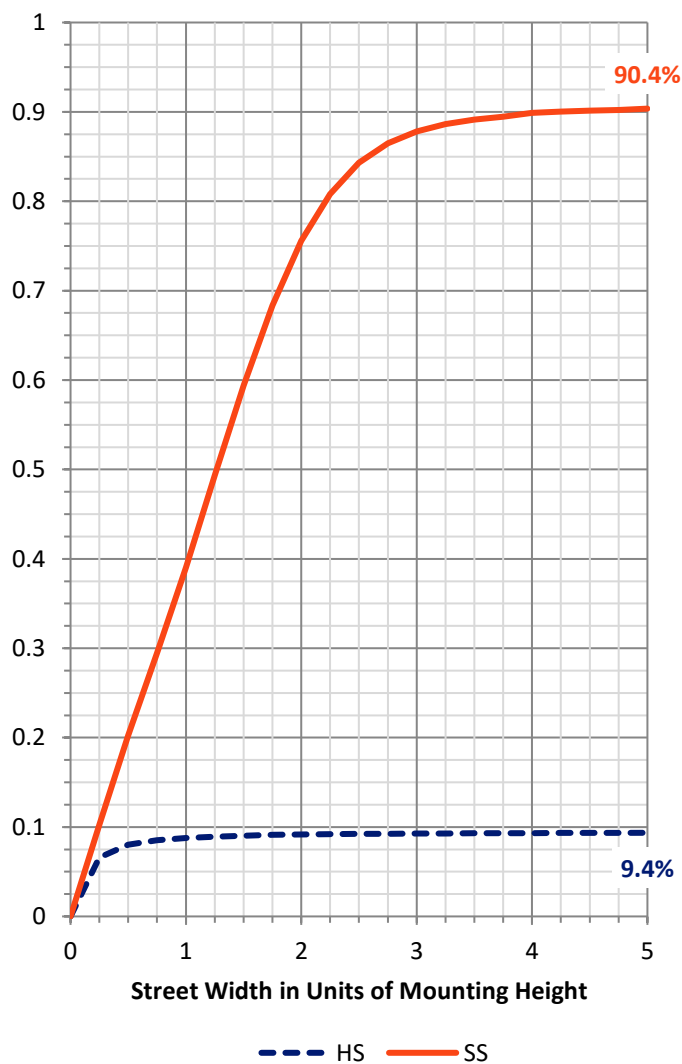
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	211.0	0.0	211.0
	% Fixture	9.5	0.0	9.5
<b>Street Side</b>	Lumens	2018.0	0.0	2018.0
	% Fixture	90.5	0.0	90.5
<b>Total</b>	Lumens	2229.0	0.0	2229.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	8.4	0.4
10°-20°	36.9	1.7
20°-30°	69.8	3.1
30°-40°	119.3	5.4
40°-50°	238.6	10.7
50°-60°	552.6	24.8
60°-70°	868.1	38.9
70°-80°	318.0	14.3
80°-90°	17.4	0.8
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°	2229.0	100.0
0°-180°	2229.0	100.0

**Coefficient of Utilization**

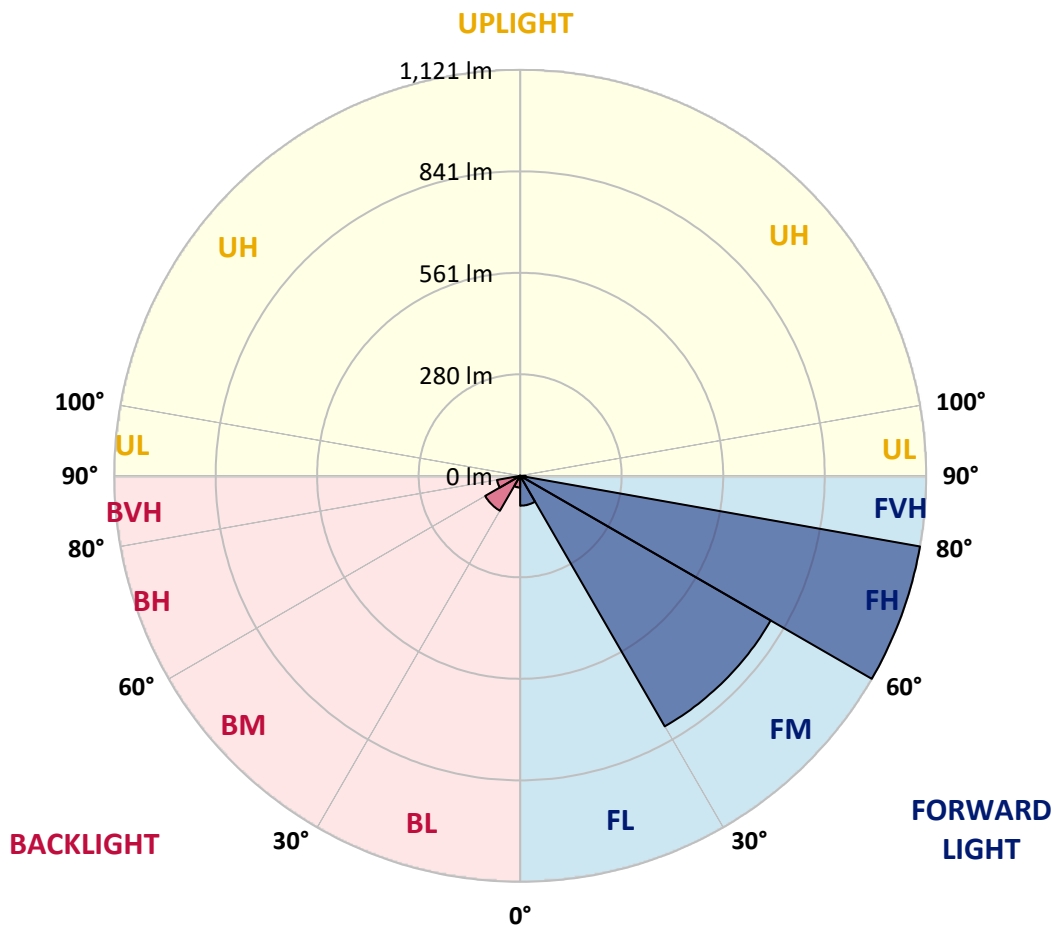


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	82.5	3.7			
FM (30°-60°)	798.9	35.8			
FH (60°-80°)	1121.2	50.3			G1/1800
FVH (80°-90°)	15.3	0.7			G1/100
BL (0°-30°)	32.5	1.5	B0/110		
BM (30°-60°)	111.5	5.0	B0/220		
BH (60°-80°)	64.9	2.9	B0/110		G0/110
BVH (80°-90°)	2.1	0.1			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
2.5°	85.0	75.0	75.0	69.0	69.0	69.0	70.0	67.0	64.0	69.0	70.0
5°	119.0	101.0	106.0	89.0	76.0	70.0	67.0	71.0	77.0	89.0	85.0
7.5°	156.0	139.0	135.0	114.0	95.0	87.0	86.0	93.0	99.0	106.0	103.0
10°	167.0	162.0	151.0	130.0	126.0	126.0	122.0	118.0	114.0	119.0	114.0
12.5°	175.0	175.0	183.0	165.0	167.0	162.0	162.0	155.0	148.0	139.0	127.0
15°	203.0	204.0	198.0	192.0	187.0	191.0	185.0	182.0	171.0	163.0	144.0
17.5°	223.0	226.0	213.0	210.0	207.0	207.0	203.0	200.0	189.0	186.0	171.0
20°	232.9	235.9	224.0	205.0	215.0	216.0	211.0	213.0	199.0	199.0	190.0
22.5°	242.9	237.9	217.0	207.0	211.0	214.0	219.0	214.0	205.0	207.0	214.0
25°	244.9	241.9	225.0	213.0	215.0	222.0	214.0	223.0	222.0	225.0	225.0
27.5°	253.9	248.9	220.0	226.0	220.0	217.0	217.0	227.0	236.9	230.0	239.9
30°	268.9	268.9	233.9	232.9	231.0	221.0	227.0	244.9	254.9	248.9	270.9
32.5°	307.9	300.9	262.9	240.9	244.9	250.9	247.9	255.9	277.9	287.9	298.9
35°	341.9	335.9	291.9	270.9	259.9	267.9	277.9	291.9	319.9	318.9	311.9
37.5°	407.9	393.9	327.9	289.9	297.9	305.9	306.9	341.9	358.9	328.9	350.9
40°	545.9	507.9	414.9	327.9	300.9	345.9	336.9	341.9	356.9	361.9	391.9
42.5°	701.8	660.9	543.9	415.9	326.9	320.9	337.9	340.9	392.9	413.9	436.9
45°	863.8	792.8	679.9	535.9	394.9	366.9	377.9	387.9	455.9	470.9	492.9
47.5°	966.8	908.8	820.8	673.9	499.9	442.9	430.9	449.9	523.9	566.9	591.9
50°	1070.8	1001.8	919.8	805.8	654.9	557.9	535.9	533.9	613.9	703.8	734.8
52.5°	1223.7	1158.8	1031.8	952.8	852.8	679.9	670.9	664.9	764.8	888.8	958.8
55°	1411.7	1291.7	1162.8	1128.8	1057.8	857.8	834.8	865.8	1005.8	1127.8	1231.7
57.5°	1515.7	1413.7	1344.7	1311.7	1289.7	1094.8	1056.8	1112.8	1273.7	1371.7	1555.7
60°	1634.6	1512.7	1464.7	1480.7	1523.7	1362.7	1370.7	1342.7	1508.7	1624.7	1892.6
62.5°	1632.6	1507.7	1521.7	1607.7	1744.6	1681.6	1668.6	1600.7	1692.6	1838.6	2122.5
65°	1435.7	1336.7	1448.7	1583.7	1896.6	1966.6	1899.6	1848.6	1836.6	1897.6	2026.6
67.5°	1111.8	1032.8	1169.7	1434.7	1876.6	2149.5	2120.5	2128.5	1940.6	1690.6	1575.7
70°	726.8	628.9	782.8	1063.8	1617.7	2171.5	2237.5	2132.5	1699.6	1250.7	866.8
72.5°	312.9	305.9	415.9	655.9	1143.8	1825.6	1907.6	1689.6	1206.7	705.8	377.9
75°	140.0	129.0	168.0	313.9	645.9	1194.7	1167.7	1014.8	606.9	267.9	109.0
77.5°	52.0	49.0	70.0	138.0	312.9	468.9	475.9	447.9	243.9	89.0	31.0
80°	31.0	28.0	38.0	64.0	130.0	135.0	149.0	175.0	110.0	61.0	18.0
82.5°	13.0	13.0	22.0	36.0	73.0	48.0	50.0	73.0	67.0	50.0	10.0
85°	4.0	4.0	11.0	18.0	26.0	18.0	17.0	32.0	41.0	36.0	6.0
87.5°	2.0	2.0	4.0	6.0	6.0	4.0	5.0	8.0	10.0	12.0	4.0
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°	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
2.5°	75.0	67.0	66.0	61.0	58.0	61.0	60.0	60.0	65.0	65.0	70.0
5°	92.0	82.0	79.0	70.0	61.0	57.0	60.0	69.0	75.0	77.0	84.0
7.5°	108.0	98.0	91.0	78.0	65.0	61.0	68.0	75.0	82.0	85.0	89.0
10°	112.0	104.0	95.0	82.0	79.0	77.0	71.0	68.0	70.0	69.0	72.0
12.5°	126.0	115.0	106.0	98.0	92.0	83.0	66.0	56.0	51.0	48.0	48.0
15°	137.0	129.0	123.0	109.0	97.0	68.0	50.0	41.0	40.0	42.0	41.0
17.5°	158.0	153.0	134.0	119.0	84.0	53.0	41.0	41.0	42.0	44.0	44.0
20°	179.0	170.0	149.0	117.0	66.0	41.0	40.0	40.0	42.0	46.0	45.0
22.5°	202.0	186.0	157.0	101.0	45.0	38.0	39.0	39.0	42.0	46.0	47.0
25°	217.0	204.0	167.0	83.0	37.0	36.0	37.0	39.0	42.0	46.0	46.0
27.5°	239.9	219.0	167.0	64.0	35.0	34.0	35.0	38.0	40.0	44.0	45.0
30°	254.9	255.9	168.0	47.0	34.0	32.0	34.0	35.0	37.0	42.0	43.0
32.5°	290.9	270.9	164.0	38.0	33.0	32.0	31.0	32.0	34.0	38.0	39.0
35°	306.9	306.9	146.0	36.0	33.0	31.0	29.0	29.0	29.0	31.0	32.0
37.5°	352.9	345.9	125.0	36.0	33.0	31.0	28.0	26.0	25.0	26.0	27.0
40°	402.9	387.9	101.0	35.0	33.0	31.0	26.0	23.0	20.0	21.0	22.0
42.5°	458.9	457.9	78.0	36.0	33.0	28.0	23.0	19.0	18.0	18.0	19.0
45°	537.9	509.9	58.0	36.0	33.0	27.0	20.0	17.0	16.0	17.0	17.0
47.5°	655.9	575.9	49.0	36.0	33.0	25.0	18.0	16.0	15.0	16.0	17.0
50°	822.8	664.9	44.0	34.0	31.0	24.0	17.0	16.0	15.0	16.0	17.0
52.5°	1024.8	740.8	40.0	32.0	28.0	22.0	17.0	16.0	15.0	16.0	16.0
55°	1280.7	821.8	36.0	29.0	24.0	20.0	17.0	15.0	15.0	15.0	15.0
57.5°	1553.7	879.8	31.0	26.0	22.0	19.0	16.0	15.0	14.0	14.0	14.0
60°	1796.6	907.8	27.0	22.0	19.0	17.0	15.0	14.0	13.0	13.0	12.0
62.5°	1900.6	868.8	23.0	20.0	17.0	16.0	14.0	13.0	12.0	11.0	10.0
65°	1757.6	739.8	20.0	17.0	15.0	14.0	12.0	11.0	10.0	9.0	8.0
67.5°	1319.7	507.9	18.0	15.0	14.0	13.0	11.0	10.0	9.0	8.0	7.0
70°	695.9	259.9	16.0	14.0	12.0	11.0	10.0	9.0	8.0	8.0	6.0
72.5°	279.9	97.0	14.0	13.0	11.0	9.0	9.0	8.0	8.0	7.0	6.0
75°	74.0	30.0	12.0	11.0	9.0	7.0	8.0	8.0	8.0	7.0	5.0
77.5°	25.0	15.0	11.0	10.0	8.0	6.0	7.0	6.0	6.0	4.0	3.0
80°	13.0	10.0	8.0	8.0	6.0	3.0	5.0	5.0	5.0	4.0	2.0
82.5°	7.0	6.0	5.0	6.0	4.0	2.0	5.0	5.0	5.0	4.0	2.0
85°	4.0	4.0	4.0	4.0	4.0	1.0	4.0	5.0	5.0	4.0	2.0
87.5°	2.0	4.0	4.0	4.0	4.0	2.0	4.0	5.0	5.0	4.0	2.0
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)