

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: P596106

Luminaire Tested: **MSA-SA4A-AMB-U-SL3-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596106
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-20)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-AMB-U-SL3-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: (64) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2388 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

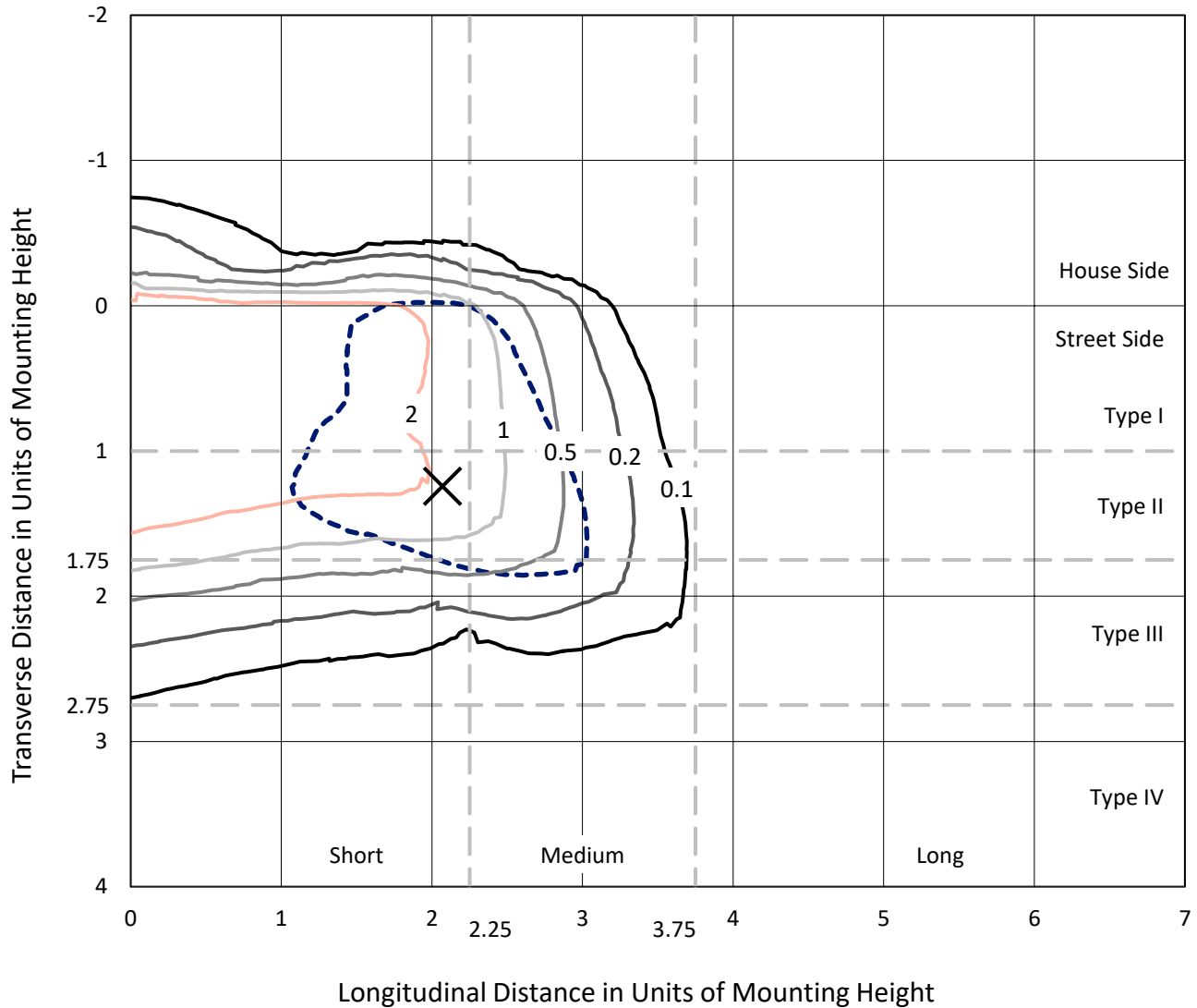
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

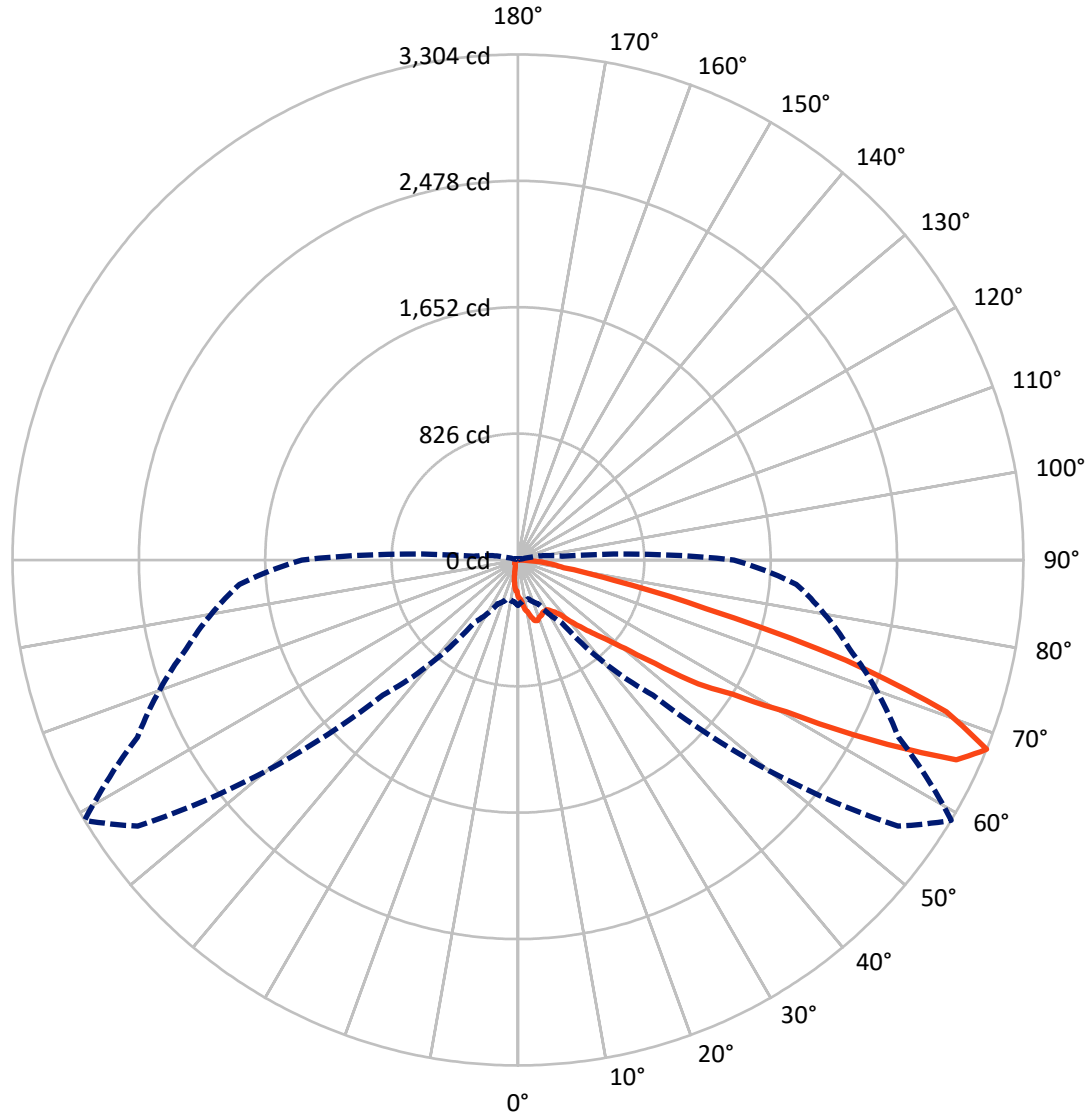
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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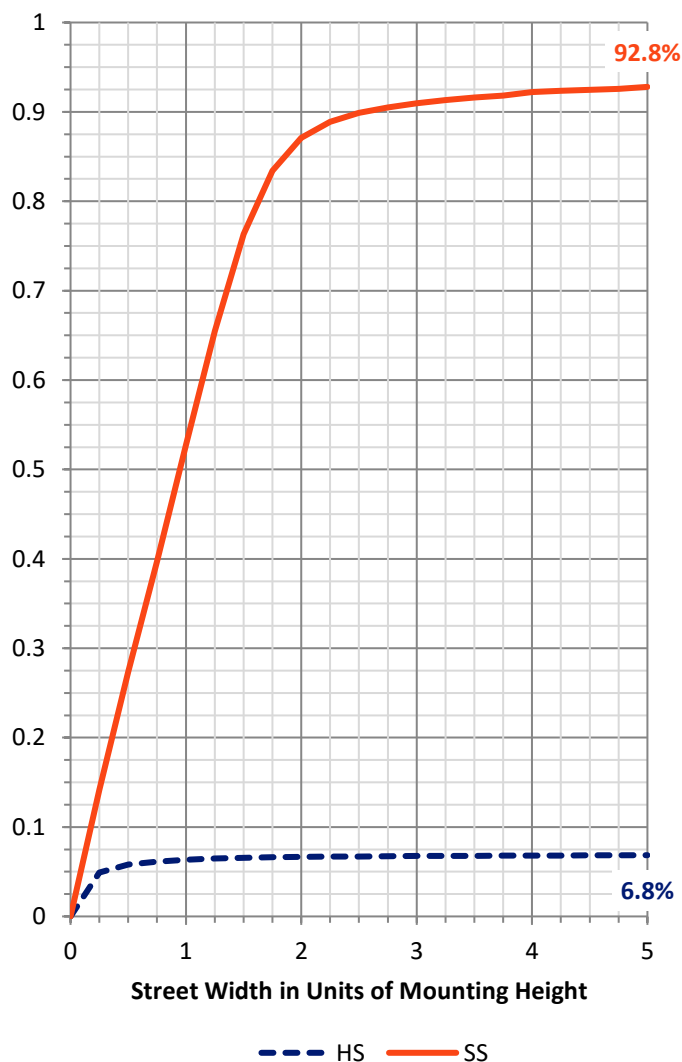
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	165.7	0.0	165.7
	% Fixture	6.9	0.0	6.9
Street Side	Lumens	2222.3	0.0	2222.3
	% Fixture	93.1	0.0	93.1
Total	Lumens	2388.0	0.0	2388.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.7	1.0
10°-20°	66.6	2.8
20°-30°	105.5	4.4
30°-40°	170.2	7.1
40°-50°	325.7	13.6
50°-60°	634.6	26.6
60°-70°	771.9	32.3
70°-80°	260.4	10.9
80°-90°	29.2	1.2
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°	2388.0	100.0
0°-180°	2388.0	100.0

Coefficient of Utilization



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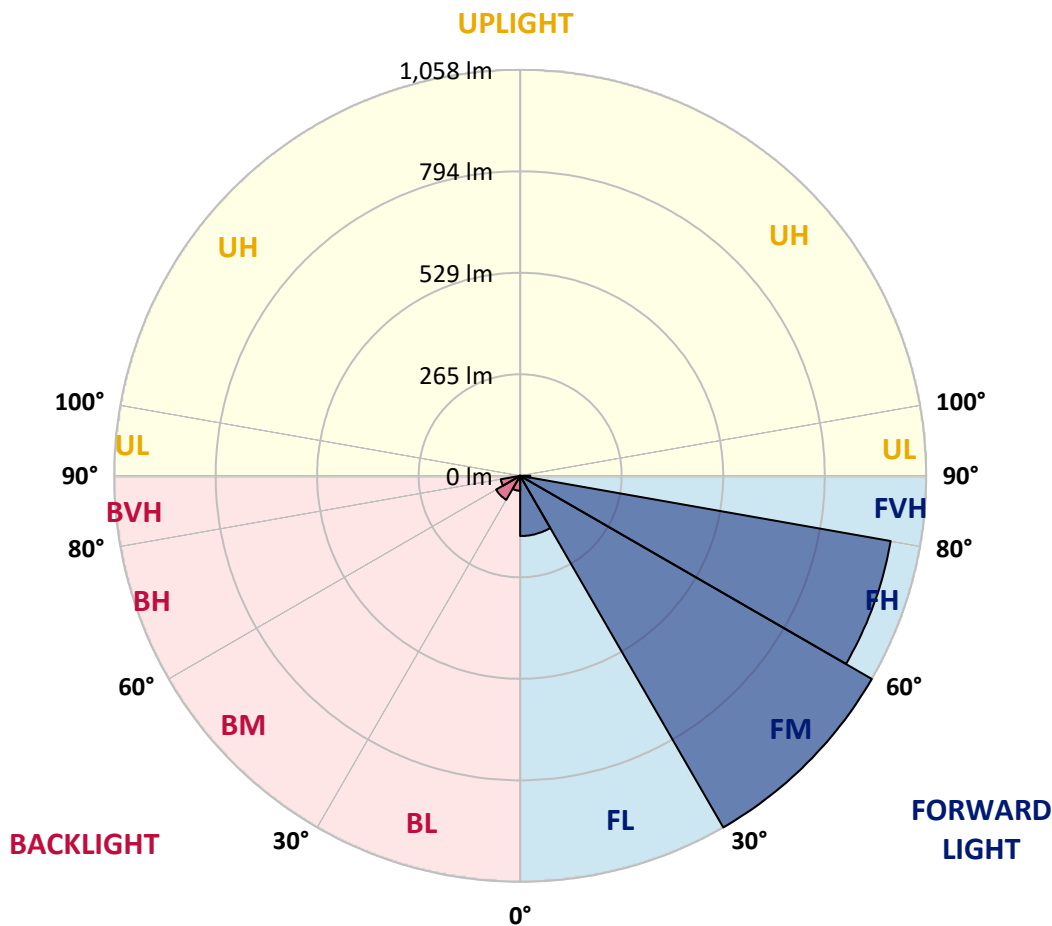
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	157.0	6.6			
FM (30°-60°)	1058.4	44.3			
FH (60°-80°)	980.8	41.1			G1/1800
FVH (80°-90°)	26.2	1.1			G1/100
BL (0°-30°)	39.0	1.6	B0/110		
BM (30°-60°)	72.2	3.0	B0/220		
BH (60°-80°)	51.5	2.2	B0/110		G0/110
BVH (80°-90°)	3.1	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°	55°	59°	65°	75°	85°
0°	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0
2.5°	349.0	302.0	286.0	254.0	258.0	266.0	264.0	251.0	252.0	263.0	268.0
5°	398.0	341.0	349.0	312.0	277.0	267.0	262.0	275.0	299.0	345.0	322.0
7.5°	403.0	370.0	373.0	337.0	286.0	282.0	314.0	326.0	355.0	371.0	352.0
10°	348.0	339.0	330.0	313.0	321.0	340.0	336.0	343.0	359.0	387.0	358.0
12.5°	309.0	312.0	336.0	323.0	351.0	377.0	389.0	380.0	403.0	406.0	368.0
15°	312.0	313.0	318.0	332.0	351.0	390.0	406.0	411.0	426.0	440.0	383.0
17.5°	324.0	327.0	322.0	335.0	358.0	386.0	408.0	416.0	429.0	469.0	416.0
20°	339.0	342.0	331.0	315.0	346.0	370.0	399.0	399.0	420.0	475.0	429.0
22.5°	370.0	360.0	333.0	317.0	324.0	341.0	375.0	393.0	412.0	473.0	453.0
25°	378.0	376.0	354.0	335.0	330.0	338.0	365.0	379.0	425.0	501.0	450.0
27.5°	407.0	400.0	353.0	358.0	336.0	322.0	358.0	378.0	430.0	493.0	460.0
30°	435.0	439.0	383.0	380.0	357.0	323.0	367.0	376.0	432.0	515.0	480.0
32.5°	486.0	482.0	427.0	399.0	374.0	367.0	364.0	397.0	429.0	552.0	509.0
35°	541.0	536.0	477.0	448.0	411.0	389.0	410.0	420.0	459.0	595.9	534.0
37.5°	638.9	618.9	550.0	504.0	481.0	452.0	467.0	455.0	517.0	661.9	612.9
40°	715.9	689.9	615.9	585.9	524.0	523.0	509.0	525.0	557.0	744.9	705.9
42.5°	791.9	765.9	694.9	670.9	605.9	564.0	560.0	596.9	631.9	846.9	796.9
45°	860.9	810.9	761.9	748.9	719.9	676.9	663.9	676.9	724.9	974.9	901.9
47.5°	925.9	878.9	842.9	828.9	813.9	860.9	781.9	772.9	822.9	1110.9	1035.9
50°	1049.9	980.9	932.9	916.9	954.9	999.9	937.9	908.9	939.9	1242.9	1166.9
52.5°	1236.9	1150.9	1096.9	1058.9	1102.9	1119.9	1215.9	1122.9	1104.9	1378.9	1326.9
55°	1339.9	1261.9	1231.9	1261.9	1316.9	1307.9	1483.9	1429.9	1358.9	1528.9	1529.9
57.5°	1310.9	1228.9	1225.9	1293.9	1460.9	1602.9	1715.9	1654.9	1592.9	1741.8	1791.8
60°	1058.9	981.9	1037.9	1183.9	1481.9	1794.8	2111.8	2015.8	1812.8	1974.8	2063.8
62.5°	707.9	661.9	729.9	820.9	1257.9	1911.8	2579.8	2586.8	2114.8	2198.8	2237.8
65°	434.0	394.0	417.0	534.0	854.9	1775.8	2934.7	3149.7	2454.8	2332.8	2174.8
67.5°	297.0	275.0	263.0	318.0	500.0	1248.9	3032.7	3303.7	2744.8	2243.8	1826.8
70°	229.0	210.0	195.0	223.0	317.0	685.9	2563.8	2969.7	2499.8	1750.8	1164.9
72.5°	169.0	155.0	156.0	178.0	264.0	338.0	1708.9	2241.8	1848.8	1067.9	542.0
75°	111.0	105.0	123.0	153.0	236.0	253.0	847.9	1269.9	1054.9	455.0	160.0
77.5°	67.0	61.0	80.0	124.0	202.0	221.0	369.0	639.9	397.0	124.0	47.0
80°	33.0	30.0	41.0	89.0	162.0	197.0	249.0	303.0	162.0	39.0	27.0
82.5°	13.0	13.0	20.0	55.0	111.0	151.0	209.0	217.0	92.0	20.0	20.0
85°	3.0	4.0	10.0	26.0	55.0	66.0	154.0	143.0	48.0	12.0	14.0
87.5°	2.0	2.0	4.0	6.0	9.0	10.0	34.0	31.0	10.0	7.0	6.0
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°	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0	241.0
2.5°	281.0	237.0	241.0	209.0	196.0	197.0	196.0	197.0	213.0	215.0	229.0
5°	343.0	294.0	271.0	226.0	180.0	158.0	158.0	174.0	185.0	178.0	194.0
7.5°	359.0	319.0	271.0	206.0	144.0	121.0	119.0	112.0	111.0	106.0	112.0
10°	339.0	298.0	236.0	163.0	119.0	93.0	70.0	58.0	54.0	54.0	54.0
12.5°	345.0	297.0	217.0	137.0	91.0	61.0	47.0	40.0	39.0	38.0	39.0
15°	340.0	295.0	199.0	111.0	66.0	47.0	40.0	39.0	38.0	39.0	39.0
17.5°	354.0	308.0	175.0	86.0	51.0	42.0	40.0	39.0	39.0	40.0	39.0
20°	366.0	299.0	146.0	63.0	43.0	40.0	39.0	37.0	38.0	40.0	39.0
22.5°	382.0	291.0	115.0	51.0	39.0	37.0	36.0	35.0	36.0	38.0	38.0
25°	379.0	278.0	92.0	43.0	37.0	35.0	33.0	33.0	33.0	35.0	35.0
27.5°	380.0	258.0	70.0	39.0	35.0	32.0	31.0	30.0	29.0	30.0	30.0
30°	373.0	255.0	55.0	36.0	32.0	28.0	28.0	27.0	25.0	26.0	26.0
32.5°	396.0	223.0	48.0	34.0	30.0	27.0	25.0	23.0	22.0	23.0	23.0
35°	404.0	209.0	43.0	33.0	29.0	25.0	23.0	21.0	20.0	20.0	20.0
37.5°	451.0	192.0	40.0	32.0	28.0	24.0	21.0	19.0	19.0	19.0	19.0
40°	510.0	190.0	38.0	31.0	27.0	23.0	20.0	18.0	17.0	17.0	18.0
42.5°	584.9	192.0	38.0	30.0	25.0	21.0	18.0	17.0	16.0	16.0	16.0
45°	666.9	194.0	36.0	29.0	24.0	20.0	17.0	16.0	14.0	14.0	15.0
47.5°	744.9	204.0	35.0	28.0	23.0	19.0	16.0	14.0	13.0	13.0	13.0
50°	843.9	227.0	34.0	27.0	22.0	18.0	15.0	13.0	12.0	12.0	11.0
52.5°	995.9	261.0	32.0	26.0	21.0	18.0	15.0	12.0	11.0	10.0	10.0
55°	1190.9	319.0	30.0	25.0	20.0	17.0	14.0	11.0	10.0	10.0	10.0
57.5°	1437.9	392.0	28.0	23.0	19.0	16.0	13.0	11.0	10.0	9.0	8.0
60°	1680.9	435.0	26.0	21.0	17.0	14.0	12.0	10.0	9.0	8.0	8.0
62.5°	1815.8	420.0	24.0	20.0	15.0	13.0	11.0	10.0	9.0	8.0	7.0
65°	1733.9	372.0	22.0	18.0	14.0	12.0	10.0	10.0	9.0	8.0	7.0
67.5°	1411.9	289.0	19.0	16.0	13.0	11.0	9.0	9.0	8.0	7.0	6.0
70°	867.9	174.0	17.0	14.0	11.0	10.0	9.0	9.0	8.0	7.0	6.0
72.5°	376.0	71.0	15.0	13.0	10.0	9.0	9.0	9.0	8.0	8.0	6.0
75°	117.0	29.0	14.0	12.0	10.0	8.0	9.0	9.0	8.0	7.0	6.0
77.5°	37.0	18.0	12.0	10.0	9.0	8.0	9.0	9.0	7.0	6.0	4.0
80°	22.0	12.0	10.0	9.0	8.0	5.0	8.0	8.0	7.0	6.0	4.0
82.5°	16.0	9.0	8.0	7.0	6.0	3.0	7.0	7.0	7.0	6.0	4.0
85°	11.0	7.0	7.0	6.0	5.0	3.0	6.0	6.0	7.0	7.0	4.0
87.5°	4.0	6.0	6.0	6.0	5.0	3.0	6.0	6.0	7.0	6.0	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

(END OF REPORT)