

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: P596117

Luminaire Tested: **MSA-SA4A-AMB-U-T3-HSS**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596117
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 4/29/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4A-AMB-U-T3-HSS
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: (64) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2182 lumens
Efficiency: N/A
Efficacy: 27.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

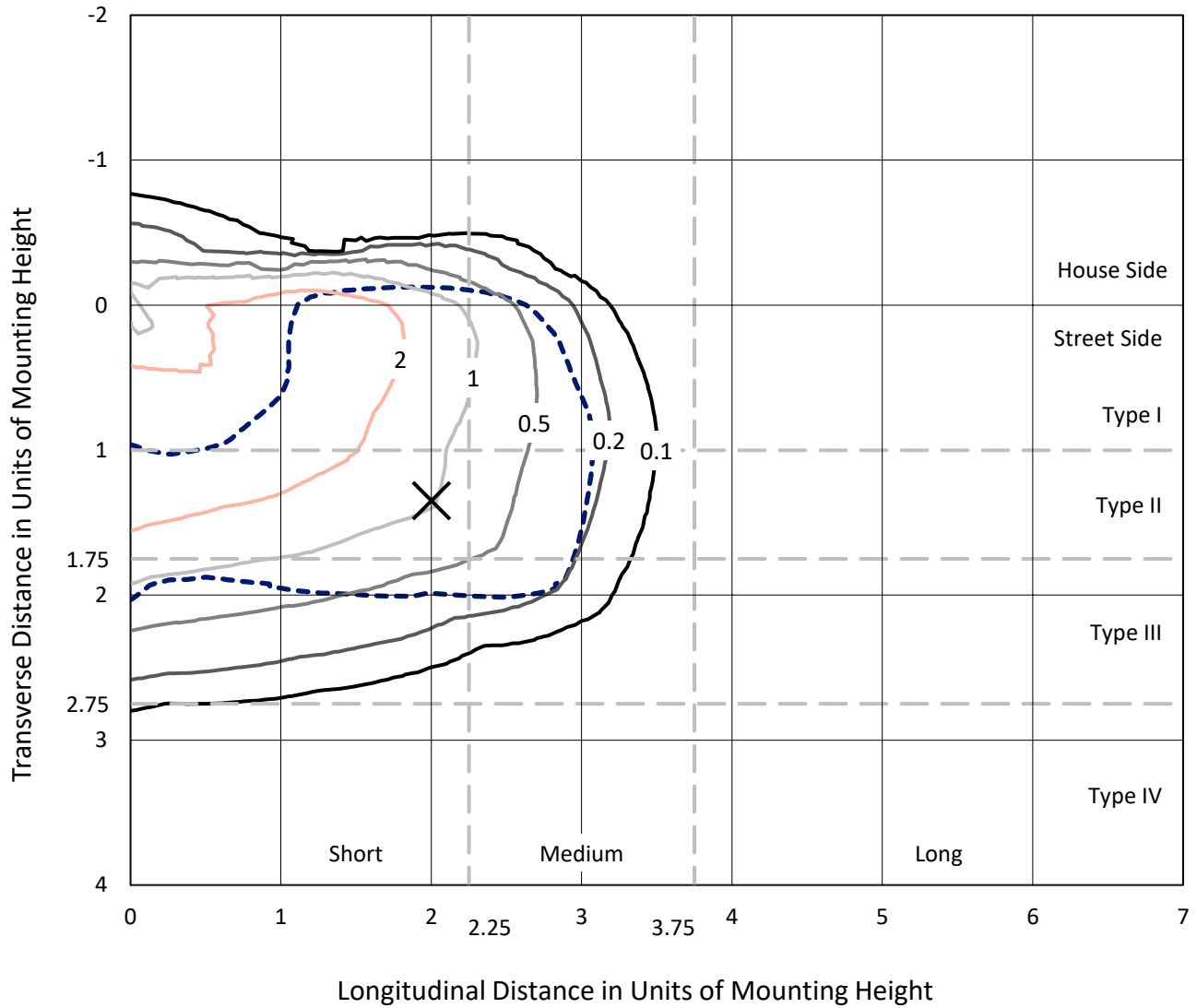
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

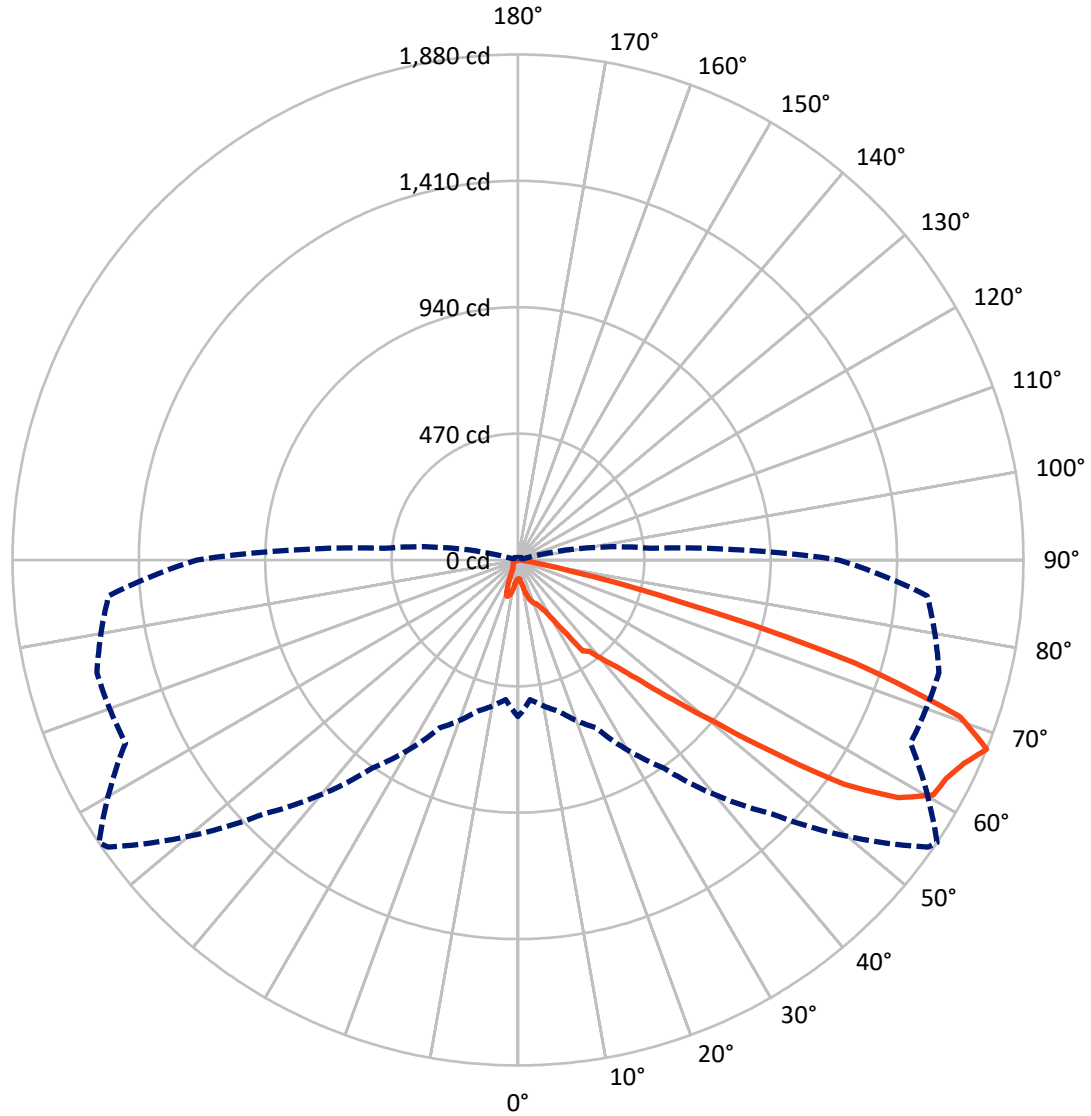
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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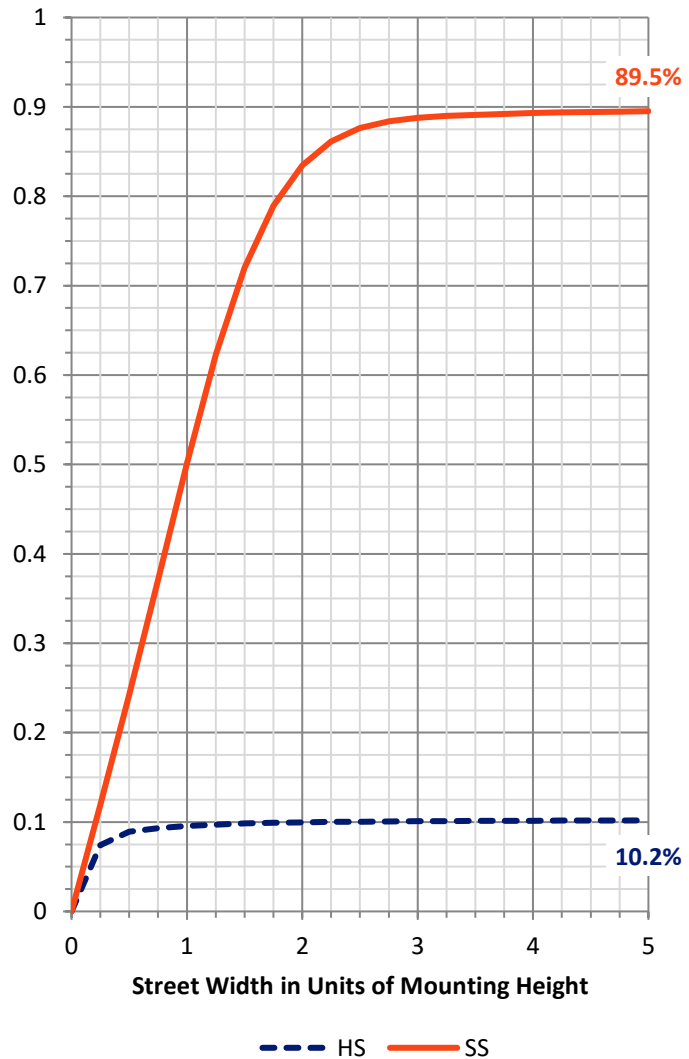
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	225.0	0.0	225.0
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	1957.0	0.0	1957.0
	% Fixture	89.7	0.0	89.7
Total	Lumens	2182.0	0.0	2182.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.9	0.4
10°-20°	36.8	1.7
20°-30°	80.0	3.7
30°-40°	169.4	7.8
40°-50°	343.4	15.7
50°-60°	657.6	30.1
60°-70°	683.5	31.3
70°-80°	191.9	8.8
80°-90°	10.5	0.5
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°	2182.0	100.0
0°-180°	2182.0	100.0

Coefficient of Utilization

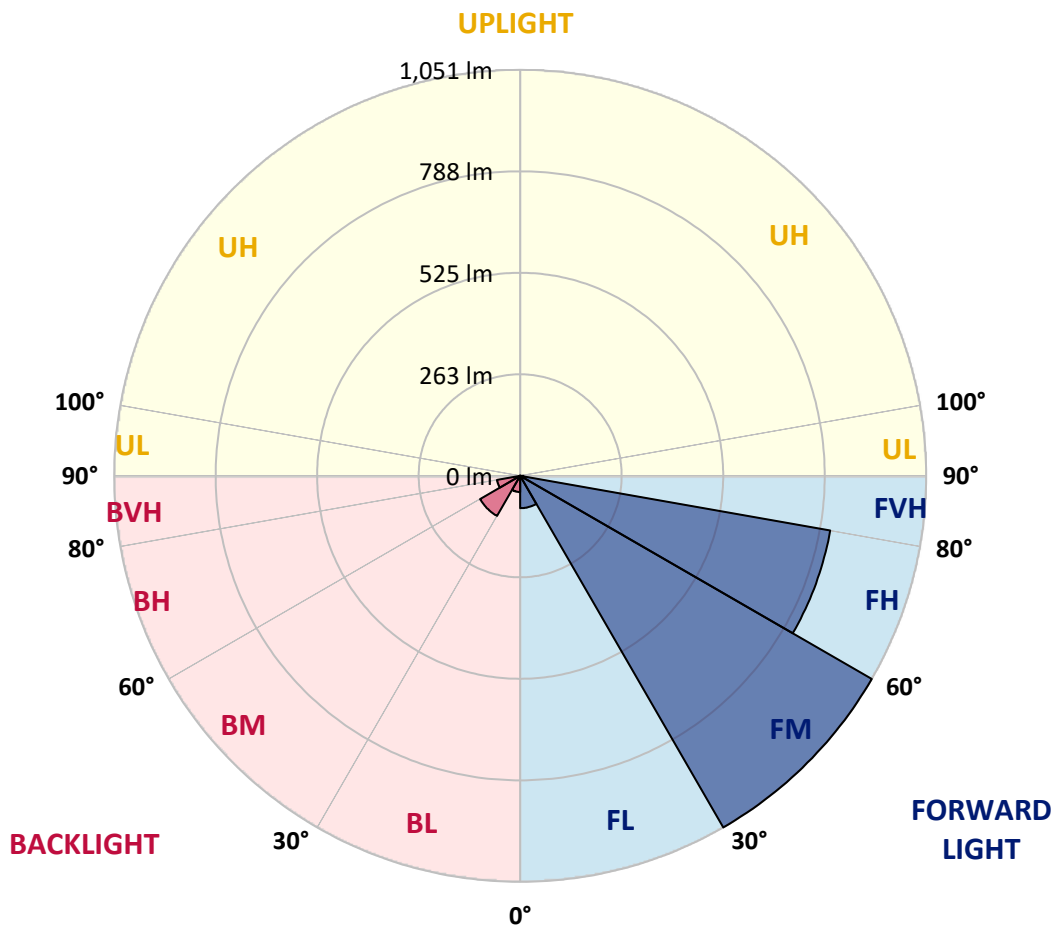


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	83.8	3.8			
FM (30°-60°)	1050.5	48.1			
FH (60°-80°)	814.5	37.3			G1/1800
FVH (80°-90°)	8.2	0.4			G0/10
BL (0°-30°)	42.0	1.9	B0/110		
BM (30°-60°)	119.8	5.5	B0/220		
BH (60°-80°)	60.9	2.8	B0/110		G0/110
BVH (80°-90°)	2.3	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°	56°	65°	75°	85°
0°	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
2.5°	87.0	79.0	76.0	68.0	67.0	70.0	71.0	71.0	71.0	78.0	82.0
5°	94.0	85.0	85.0	77.0	66.0	66.0	71.0	72.0	83.0	97.0	103.0
7.5°	103.0	95.0	94.0	84.0	75.0	75.0	84.0	84.0	100.0	115.0	123.0
10°	105.0	101.0	97.0	89.0	91.0	97.0	99.0	98.0	109.0	129.0	138.0
12.5°	109.0	108.0	111.0	108.0	112.0	120.0	124.0	125.0	138.0	152.0	153.0
15°	119.0	120.0	120.0	123.0	126.0	136.0	143.0	145.0	160.0	177.0	178.0
17.5°	143.0	147.0	140.0	140.0	143.0	149.0	160.0	161.0	178.0	203.0	209.0
20°	184.0	184.0	172.0	157.0	158.0	160.0	171.0	172.0	188.0	222.0	230.0
22.5°	257.0	250.0	218.0	191.0	175.0	169.0	178.0	177.0	200.0	235.0	253.0
25°	322.0	318.0	284.0	243.0	206.0	190.0	191.0	195.0	224.0	261.0	271.0
27.5°	398.0	398.0	347.0	317.0	259.0	213.0	214.0	215.0	251.0	276.0	298.0
30°	455.0	444.0	393.0	381.0	333.0	273.0	257.0	258.0	278.0	318.0	339.0
32.5°	514.9	510.9	431.0	417.0	387.0	353.0	319.0	315.0	340.0	397.0	391.0
35°	574.9	562.9	509.9	473.9	420.0	400.0	414.0	415.0	455.0	471.9	418.0
37.5°	649.9	643.9	575.9	529.9	492.9	452.0	439.0	431.0	450.0	478.9	474.9
40°	754.9	721.9	644.9	595.9	544.9	533.9	482.9	485.9	476.9	539.9	559.9
42.5°	860.9	833.9	743.9	691.9	616.9	583.9	546.9	547.9	549.9	628.9	648.9
45°	985.9	934.9	836.9	805.9	713.9	677.9	660.9	640.9	652.9	751.9	775.9
47.5°	1124.9	1063.9	974.9	930.9	849.9	846.9	777.9	775.9	794.9	947.9	951.9
50°	1253.9	1180.9	1097.9	1020.9	1010.9	1056.9	964.9	943.9	970.9	1176.9	1179.9
52.5°	1322.9	1228.9	1159.9	1142.9	1193.9	1209.9	1210.9	1184.9	1202.9	1400.8	1389.8
55°	1324.9	1239.9	1181.9	1210.9	1345.9	1394.8	1467.8	1473.8	1468.8	1597.8	1565.8
57.5°	1267.9	1177.9	1165.9	1216.9	1377.9	1515.8	1652.8	1667.8	1646.8	1736.8	1700.8
60°	1122.9	1040.9	1062.9	1161.9	1372.9	1511.8	1756.8	1774.8	1708.8	1813.8	1815.8
62.5°	1021.9	923.9	948.9	1053.9	1306.9	1498.8	1798.8	1787.8	1674.8	1805.8	1835.8
65°	847.9	766.9	783.9	923.9	1192.9	1454.8	1822.8	1822.8	1594.8	1724.8	1756.8
67.5°	582.9	520.9	581.9	688.9	944.9	1334.9	1861.8	1879.8	1610.8	1620.8	1527.8
70°	283.0	255.0	309.0	402.0	621.9	1009.9	1728.8	1743.8	1457.8	1370.9	1086.9
72.5°	105.0	91.0	119.0	173.0	314.0	525.9	1261.9	1311.9	1103.9	950.9	563.9
75°	47.0	46.0	54.0	69.0	121.0	150.0	575.9	628.9	579.9	452.0	189.0
77.5°	34.0	32.0	37.0	48.0	61.0	59.0	175.0	203.0	191.0	119.0	46.0
80°	24.0	23.0	26.0	34.0	41.0	36.0	58.0	63.0	70.0	48.0	24.0
82.5°	13.0	13.0	18.0	25.0	25.0	20.0	29.0	30.0	35.0	29.0	13.0
85°	4.0	5.0	11.0	16.0	13.0	10.0	14.0	15.0	16.0	18.0	8.0
87.5°	1.0	2.0	5.0	6.0	5.0	3.0	6.0	6.0	6.0	7.0	5.0
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°	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
2.5°	87.0	78.0	81.0	73.0	72.0	76.0	75.0	73.0	77.0	79.0	85.0
5°	113.0	101.0	99.0	91.0	79.0	73.0	75.0	88.0	98.0	100.0	109.0
7.5°	131.0	123.0	119.0	105.0	86.0	82.0	86.0	96.0	105.0	107.0	114.0
10°	141.0	135.0	130.0	113.0	111.0	106.0	96.0	93.0	100.0	102.0	104.0
12.5°	157.0	156.0	150.0	137.0	127.0	119.0	107.0	97.0	88.0	85.0	85.0
15°	177.0	174.0	173.0	152.0	135.0	121.0	95.0	71.0	64.0	58.0	55.0
17.5°	202.0	204.0	183.0	156.0	139.0	105.0	67.0	47.0	43.0	42.0	41.0
20°	224.0	222.0	193.0	158.0	123.0	71.0	44.0	39.0	40.0	42.0	41.0
22.5°	249.0	237.0	192.0	154.0	89.0	44.0	38.0	38.0	39.0	41.0	41.0
25°	263.0	251.0	194.0	146.0	61.0	37.0	37.0	37.0	38.0	39.0	39.0
27.5°	285.0	260.0	192.0	125.0	40.0	34.0	35.0	34.0	32.0	33.0	33.0
30°	310.0	291.0	201.0	91.0	34.0	31.0	31.0	30.0	27.0	28.0	28.0
32.5°	347.0	299.0	220.0	57.0	32.0	30.0	28.0	25.0	24.0	24.0	24.0
35°	369.0	326.0	216.0	40.0	31.0	28.0	24.0	22.0	21.0	21.0	21.0
37.5°	426.0	371.0	200.0	35.0	30.0	26.0	22.0	20.0	19.0	20.0	20.0
40°	504.9	443.0	169.0	34.0	28.0	24.0	20.0	18.0	18.0	18.0	19.0
42.5°	596.9	522.9	127.0	33.0	26.0	22.0	18.0	17.0	17.0	18.0	18.0
45°	718.9	597.9	86.0	31.0	25.0	21.0	17.0	16.0	16.0	17.0	17.0
47.5°	896.9	674.9	63.0	29.0	24.0	19.0	17.0	16.0	16.0	17.0	17.0
50°	1082.9	765.9	49.0	28.0	23.0	19.0	17.0	16.0	16.0	17.0	17.0
52.5°	1254.9	812.9	41.0	26.0	22.0	18.0	17.0	16.0	16.0	17.0	17.0
55°	1398.8	823.9	36.0	25.0	21.0	18.0	17.0	16.0	16.0	16.0	16.0
57.5°	1510.8	812.9	33.0	23.0	20.0	17.0	16.0	15.0	15.0	15.0	15.0
60°	1564.8	781.9	29.0	21.0	19.0	17.0	15.0	15.0	14.0	14.0	14.0
62.5°	1524.8	727.9	25.0	19.0	17.0	15.0	14.0	13.0	12.0	12.0	11.0
65°	1418.8	641.9	22.0	17.0	15.0	14.0	13.0	12.0	10.0	10.0	9.0
67.5°	1193.9	496.9	19.0	15.0	14.0	13.0	11.0	10.0	9.0	8.0	7.0
70°	806.9	315.0	17.0	14.0	12.0	11.0	10.0	10.0	9.0	8.0	7.0
72.5°	369.0	125.0	16.0	13.0	11.0	10.0	9.0	10.0	9.0	9.0	7.0
75°	117.0	41.0	14.0	12.0	10.0	8.0	9.0	9.0	8.0	7.0	5.0
77.5°	34.0	18.0	12.0	11.0	9.0	7.0	8.0	7.0	6.0	5.0	3.0
80°	16.0	11.0	9.0	8.0	7.0	4.0	6.0	6.0	6.0	5.0	3.0
82.5°	8.0	6.0	6.0	6.0	4.0	2.0	5.0	6.0	5.0	5.0	3.0
85°	5.0	5.0	5.0	5.0	4.0	1.0	4.0	5.0	5.0	5.0	3.0
87.5°	3.0	4.0	5.0	5.0	4.0	2.0	5.0	5.0	5.0	5.0	3.0
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)