

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: P596116

Luminaire Tested: **MSA-SA4A-AMB-U-T2**

Issue Date: 4/29/2022

Test Information

Test Method: LM-79-08
Report Number: P596116
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-SA4A-AMB-U-T2
Description: POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH
AND TYPE II OPTICS.
Light Source: (64) 1549K CCT, -21.5 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2859.1 lumens
Efficiency: N/A
Efficacy: 36.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

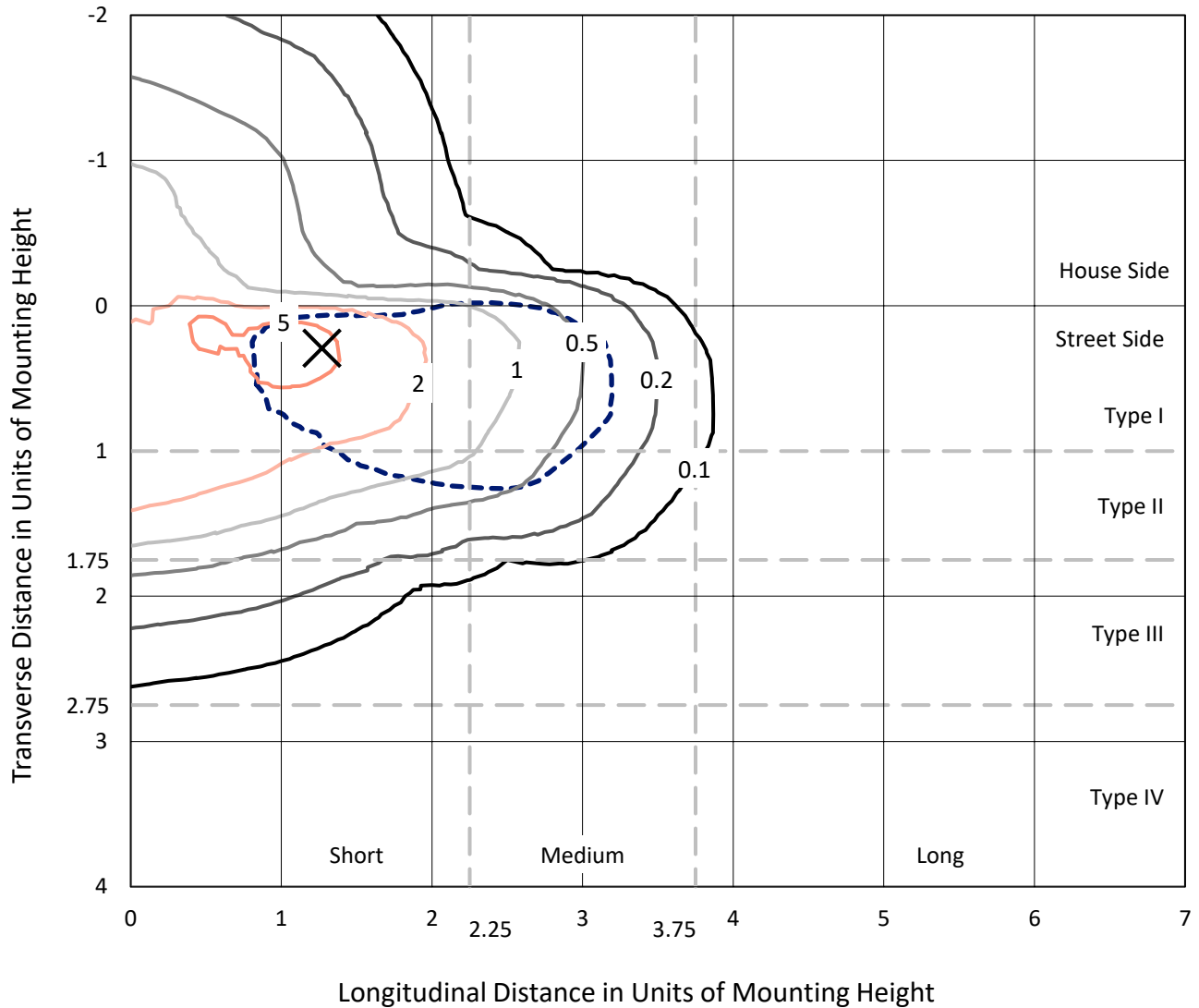
Input Watts (W): 79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

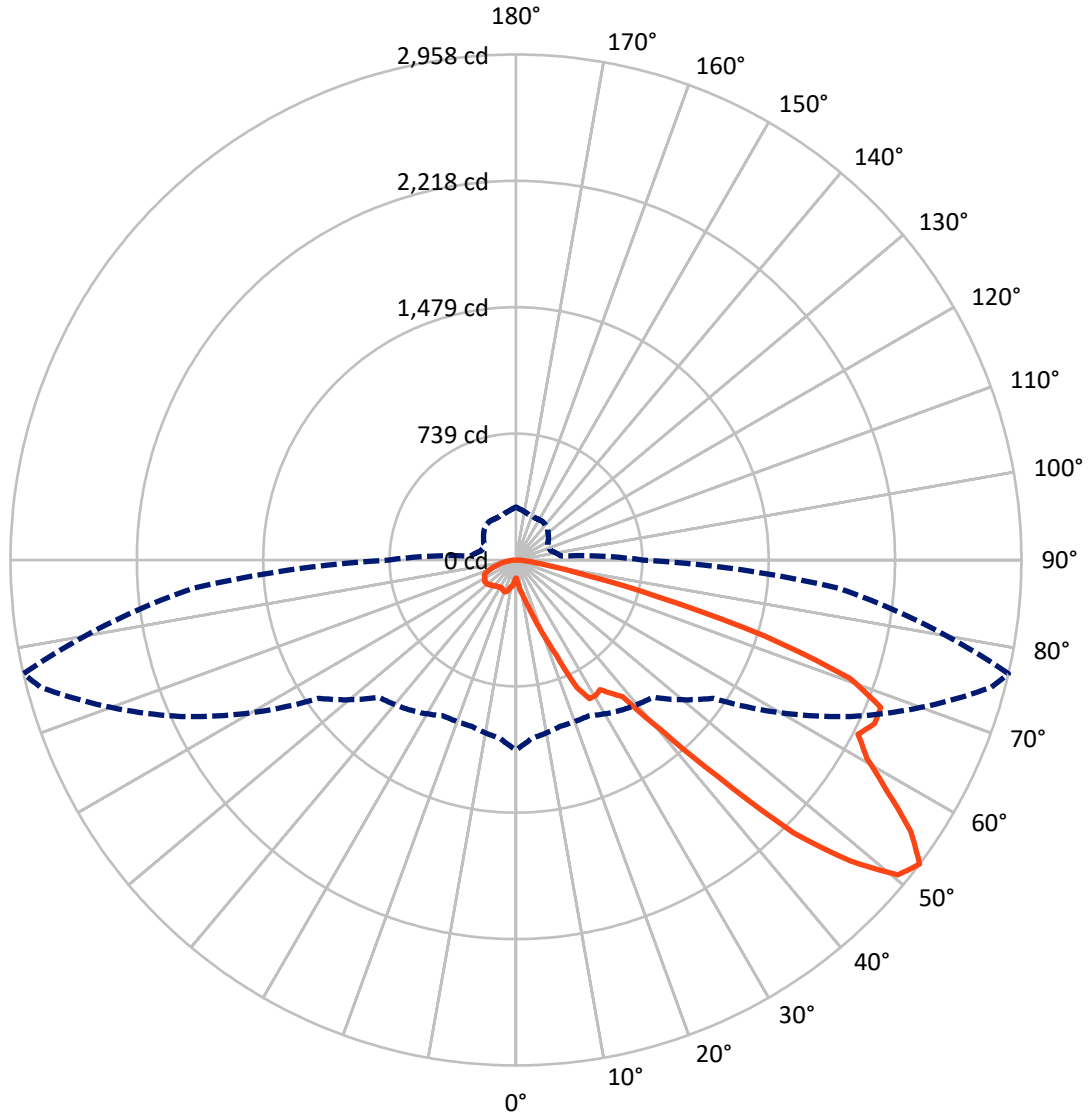
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 52.5-Deg Vertical

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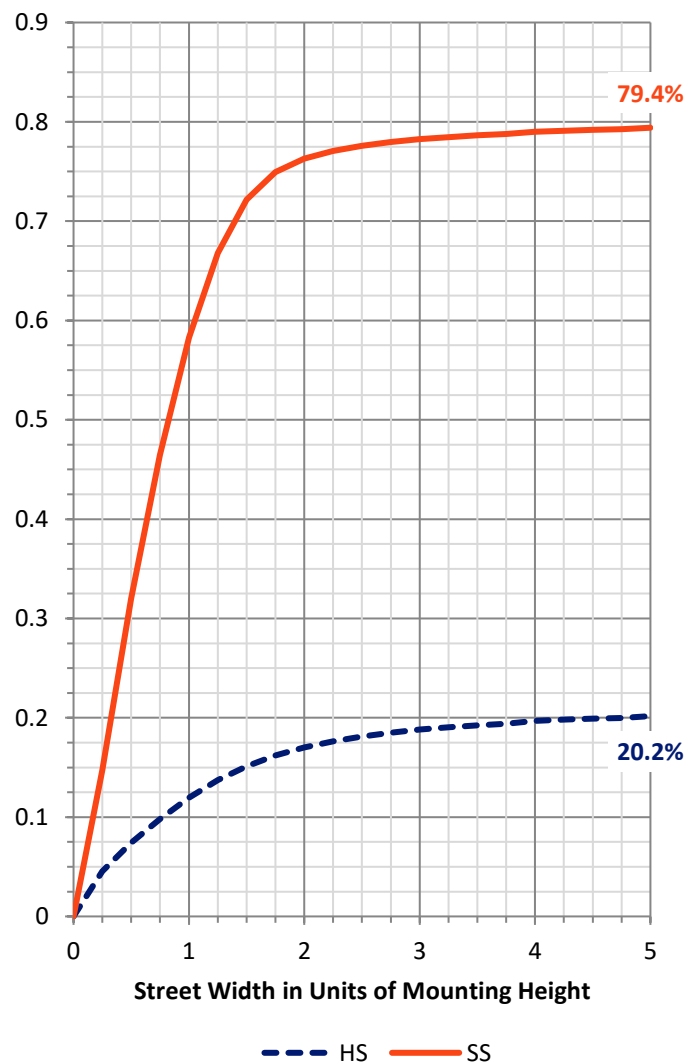
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	584.4	0.0	584.4
	% Fixture	20.4	0.0	20.4
Street Side	Lumens	2274.6	0.0	2274.6
	% Fixture	79.6	0.0	79.6
Total	Lumens	2859.1	0.0	2859.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.9	0.5
10°-20°	69.6	2.4
20°-30°	165.7	5.8
30°-40°	297.9	10.4
40°-50°	578.8	20.2
50°-60°	758.9	26.5
60°-70°	648.2	22.7
70°-80°	281.1	9.8
80°-90°	45.1	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°	2859.1	100.0
0°-180°	2859.1	100.0

Coefficient of Utilization

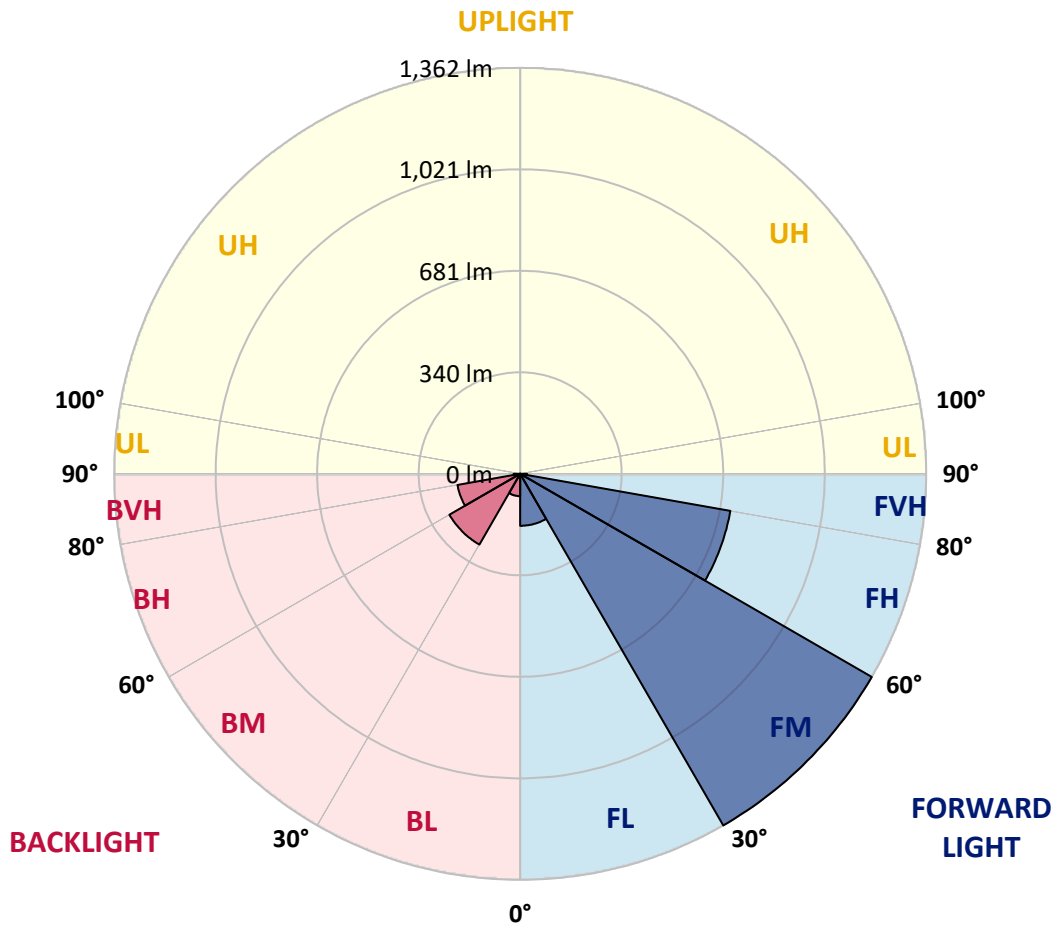


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	174.4	6.1			
FM (30°-60°)	1361.5	47.6			
FH (60°-80°)	715.7	25.0			G1/1800
FVH (80°-90°)	23.0	0.8			G1/100
BL (0°-30°)	74.9	2.6	B0/110		
BM (30°-60°)	274.0	9.6	B1/1000		
BH (60°-80°)	213.5	7.5	B1/500		G1/500
BVH (80°-90°)	22.0	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
2.5°	137.0	118.0	117.0	113.0	112.0	115.0	113.0	109.0	116.0	114.0	119.0
5°	188.0	164.0	161.0	142.0	123.0	120.0	119.0	130.0	150.0	148.0	152.0
7.5°	220.0	206.0	205.0	183.0	158.0	151.0	155.0	170.0	176.0	176.0	173.0
10°	237.0	232.0	220.0	205.0	206.0	209.0	209.0	203.0	207.0	203.0	193.0
12.5°	243.0	239.0	256.0	248.0	266.0	282.0	278.0	273.0	248.0	240.0	214.0
15°	271.0	275.0	274.0	285.0	308.0	335.0	348.0	343.0	311.0	296.0	252.0
17.5°	307.0	303.0	301.0	314.0	336.0	373.0	411.9	426.9	390.9	376.0	307.0
20°	340.0	339.0	331.0	322.0	351.0	390.9	470.9	515.9	500.9	478.9	368.0
22.5°	389.9	385.9	355.0	343.0	358.0	397.9	511.9	663.9	630.9	602.9	438.9
25°	434.9	431.9	401.9	380.0	375.0	412.9	560.9	844.9	869.9	823.9	535.9
27.5°	483.9	487.9	435.9	427.9	410.9	422.9	604.9	1032.9	1004.9	917.9	577.9
30°	563.9	549.9	497.9	482.9	458.9	459.9	606.9	988.9	975.9	919.9	570.9
32.5°	665.9	666.9	588.9	540.9	518.9	516.9	615.9	919.9	980.9	903.9	594.9
35°	792.9	787.9	707.9	648.9	583.9	568.9	675.9	941.9	1006.9	956.9	603.9
37.5°	980.9	956.9	846.9	773.9	712.9	700.9	761.9	998.9	1078.9	1015.9	670.9
40°	1088.9	1042.9	949.9	866.9	811.9	834.9	880.9	1117.9	1335.8	1304.8	786.9
42.5°	1117.9	1081.9	997.9	950.9	909.9	945.9	1054.9	1406.8	1763.8	1731.8	985.9
45°	1119.9	1065.9	997.9	984.9	950.9	1095.9	1247.8	1697.8	2223.7	2276.7	1270.8
47.5°	1118.9	1062.9	994.9	993.9	970.9	1185.8	1365.8	1979.7	2634.7	2632.7	1524.8
50°	1149.9	1080.9	1020.9	998.9	1028.9	1156.8	1404.8	2108.7	2863.6	2896.6	1773.8
52.5°	1111.9	1047.9	1006.9	1005.9	1072.9	1134.9	1409.8	2165.7	2878.6	2957.6	1894.8
55°	1025.9	962.9	952.9	974.9	1098.9	1147.9	1383.8	2160.7	2699.6	2803.6	1862.8
57.5°	844.9	800.9	839.9	885.9	1027.9	1167.8	1386.8	2060.7	2485.7	2564.7	1843.8
60°	591.9	560.9	591.9	666.9	872.9	1069.9	1424.8	2028.7	2247.7	2359.7	1865.8
62.5°	406.9	390.9	413.9	455.9	610.9	899.9	1394.8	2082.7	2175.7	2246.7	1999.7
65°	305.0	290.0	298.0	328.0	389.9	616.9	1252.8	2107.7	2213.7	2306.7	2242.7
67.5°	248.0	237.0	242.0	261.0	281.0	368.0	919.9	2016.7	2230.7	2302.7	2283.7
70°	207.0	196.0	202.0	216.0	230.0	225.0	519.9	1638.8	1986.7	2070.7	2019.7
72.5°	173.0	163.0	168.0	176.0	196.0	166.0	265.0	1085.9	1455.8	1521.8	1401.8
75°	145.0	135.0	137.0	145.0	160.0	137.0	156.0	563.9	807.9	841.9	707.9
77.5°	114.0	111.0	110.0	118.0	129.0	111.0	115.0	247.0	351.0	375.0	298.0
80°	85.0	83.0	85.0	88.0	96.0	87.0	85.0	137.0	174.0	167.0	118.0
82.5°	54.0	53.0	63.0	64.0	69.0	60.0	60.0	86.0	93.0	87.0	68.0
85°	31.0	30.0	41.0	39.0	40.0	34.0	33.0	43.0	47.0	44.0	34.0
87.5°	5.0	6.0	8.0	11.0	12.0	9.0	13.0	13.0	16.0	14.0	12.0
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°	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0	105.0
2.5°	121.0	113.0	113.0	105.0	99.0	98.0	98.0	100.0	108.0	110.0	112.0
5°	154.0	143.0	135.0	119.0	102.0	96.0	102.0	116.0	128.0	133.0	136.0
7.5°	178.0	164.0	150.0	124.0	110.0	108.0	117.0	125.0	139.0	147.0	152.0
10°	184.0	172.0	153.0	132.0	134.0	137.0	136.0	138.0	149.0	152.0	153.0
12.5°	202.0	185.0	164.0	152.0	157.0	159.0	158.0	159.0	163.0	167.0	168.0
15°	227.0	206.0	179.0	167.0	168.0	170.0	173.0	175.0	181.0	182.0	181.0
17.5°	259.0	231.0	185.0	175.0	175.0	182.0	184.0	187.0	194.0	200.0	195.0
20°	296.0	241.0	187.0	173.0	176.0	181.0	184.0	187.0	197.0	209.0	210.0
22.5°	319.0	244.0	183.0	168.0	170.0	176.0	183.0	186.0	196.0	210.0	210.0
25°	338.0	237.0	177.0	167.0	167.0	169.0	176.0	182.0	188.0	205.0	205.0
27.5°	355.0	229.0	171.0	167.0	166.0	165.0	174.0	178.0	181.0	195.0	198.0
30°	357.0	232.0	171.0	168.0	166.0	164.0	169.0	173.0	179.0	195.0	197.0
32.5°	364.0	226.0	177.0	169.0	167.0	167.0	170.0	177.0	186.0	200.0	203.0
35°	354.0	222.0	181.0	173.0	172.0	172.0	179.0	184.0	199.0	217.0	220.0
37.5°	359.0	219.0	185.0	179.0	178.0	185.0	185.0	196.0	218.0	237.0	248.0
40°	389.9	221.0	189.0	186.0	187.0	193.0	196.0	210.0	234.0	259.0	265.0
42.5°	422.9	227.0	195.0	192.0	201.0	204.0	215.0	225.0	246.0	262.0	270.0
45°	487.9	232.0	199.0	198.0	208.0	228.0	230.0	239.0	253.0	264.0	274.0
47.5°	583.9	239.0	205.0	202.0	219.0	244.0	239.0	246.0	259.0	274.0	284.0
50°	663.9	254.0	209.0	204.0	228.0	252.0	258.0	259.0	269.0	285.0	298.0
52.5°	741.9	264.0	210.0	204.0	232.0	260.0	274.0	270.0	277.0	297.0	310.0
55°	822.9	273.0	209.0	200.0	229.0	267.0	281.0	277.0	285.0	308.0	321.0
57.5°	881.9	277.0	204.0	196.0	227.0	262.0	277.0	273.0	285.0	310.0	325.0
60°	986.9	286.0	193.0	189.0	222.0	252.0	272.0	267.0	278.0	308.0	323.0
62.5°	1204.8	317.0	179.0	179.0	209.0	241.0	262.0	254.0	266.0	299.0	315.0
65°	1466.8	362.0	166.0	170.0	198.0	224.0	251.0	240.0	252.0	288.0	304.0
67.5°	1492.8	338.0	154.0	159.0	181.0	207.0	237.0	226.0	234.0	269.0	284.0
70°	1315.8	276.0	139.0	146.0	165.0	188.0	215.0	207.0	213.0	245.0	260.0
72.5°	913.9	202.0	125.0	132.0	149.0	166.0	193.0	187.0	190.0	219.0	230.0
75°	446.9	132.0	109.0	117.0	129.0	145.0	170.0	164.0	164.0	186.0	200.0
77.5°	188.0	99.0	93.0	101.0	109.0	122.0	144.0	141.0	137.0	152.0	158.0
80°	92.0	72.0	73.0	82.0	86.0	96.0	116.0	111.0	108.0	116.0	119.0
82.5°	57.0	48.0	52.0	57.0	60.0	71.0	89.0	82.0	76.0	74.0	73.0
85°	28.0	27.0	32.0	34.0	31.0	36.0	54.0	45.0	41.0	37.0	37.0
87.5°	7.0	9.0	11.0	11.0	9.0	5.0	10.0	8.0	8.0	7.0	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)