

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: P596867

Luminaire Tested: **MSA-SA1B-835-U-T4FT-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3126 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

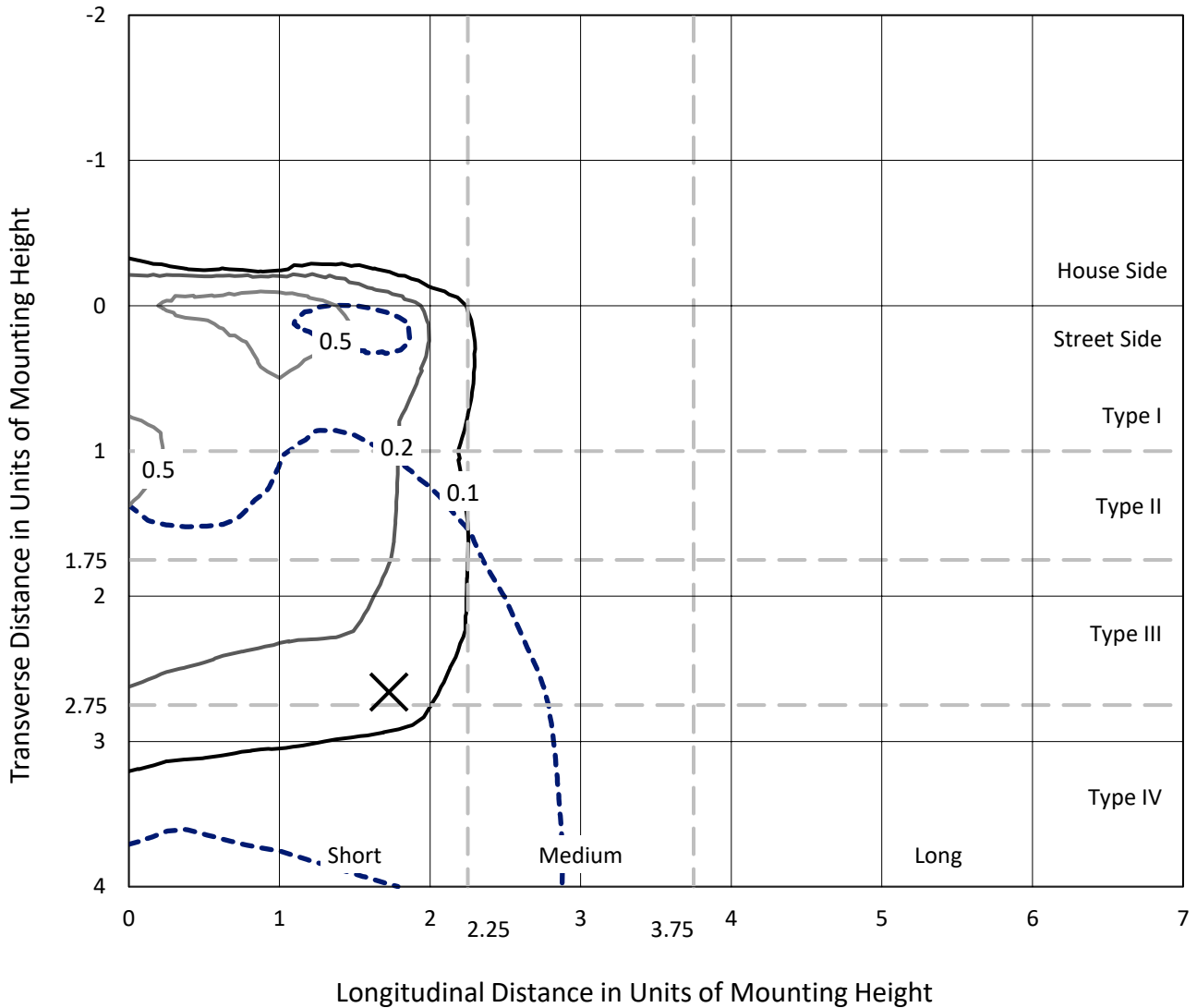
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596867
 CATALOG NUMBER: MSA-SA1B-835-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

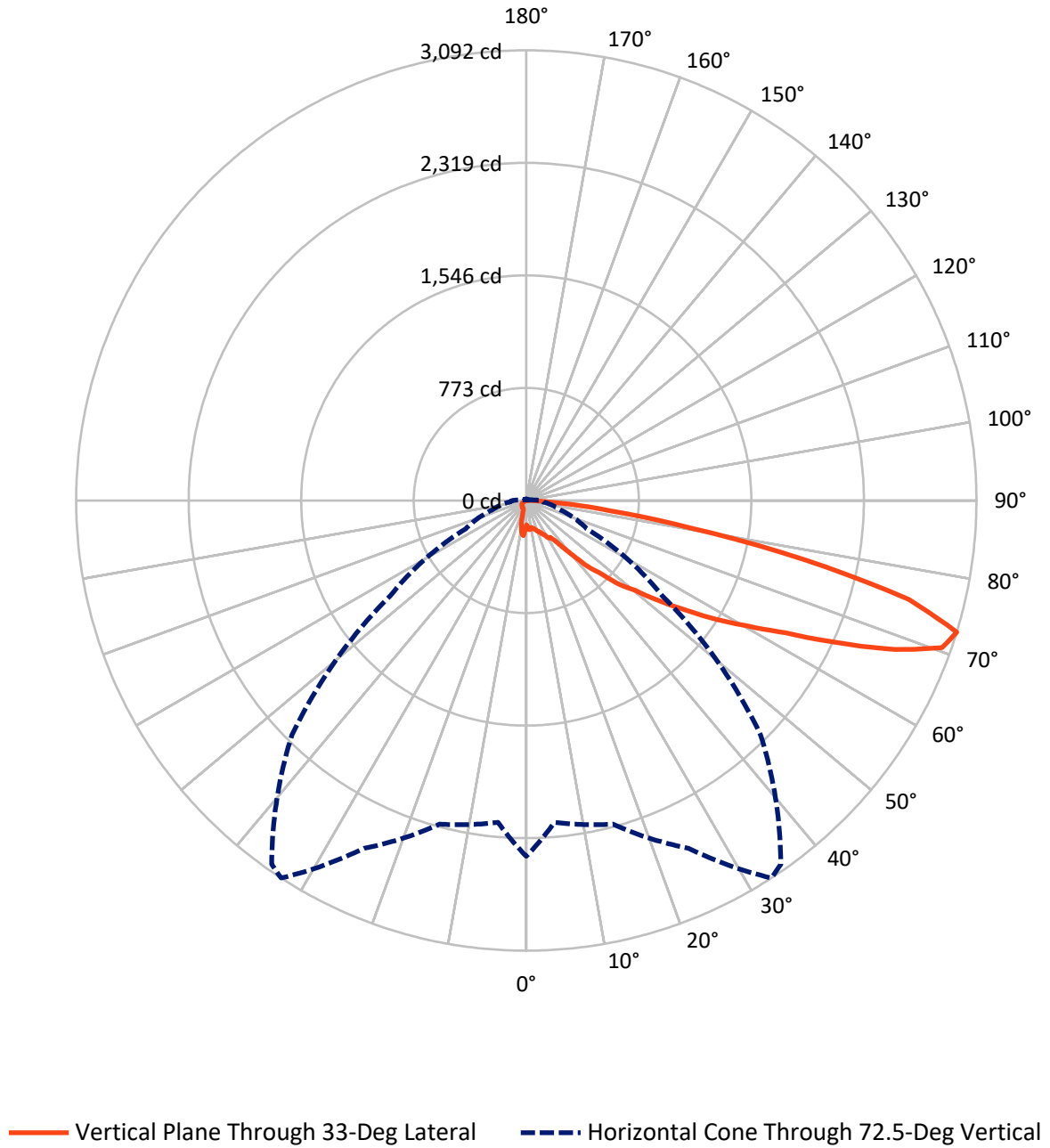
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P596867
CATALOG NUMBER: MSA-SA1B-835-U-T4FT-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P596867
 CATALOG NUMBER: MSA-SA1B-835-U-T4FT-HSS

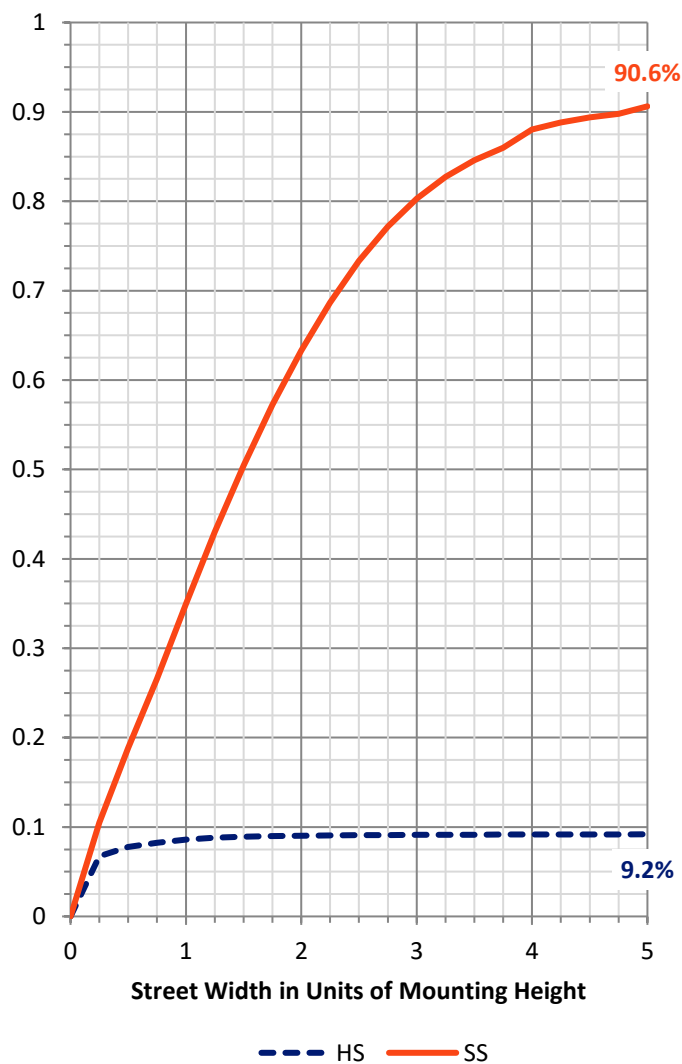
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	289.1	0.0	289.1
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	2837.0	0.0	2837.0
	% Fixture	90.8	0.0	90.8
Total	Lumens	3126.0	0.0	3126.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	0.7
10°-20°	64.1	2.1
20°-30°	108.8	3.5
30°-40°	199.0	6.4
40°-50°	420.1	13.4
50°-60°	702.8	22.5
60°-70°	940.7	30.1
70°-80°	614.5	19.7
80°-90°	54.5	1.7
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°	3126.0	100.0
0°-180°	3126.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596867

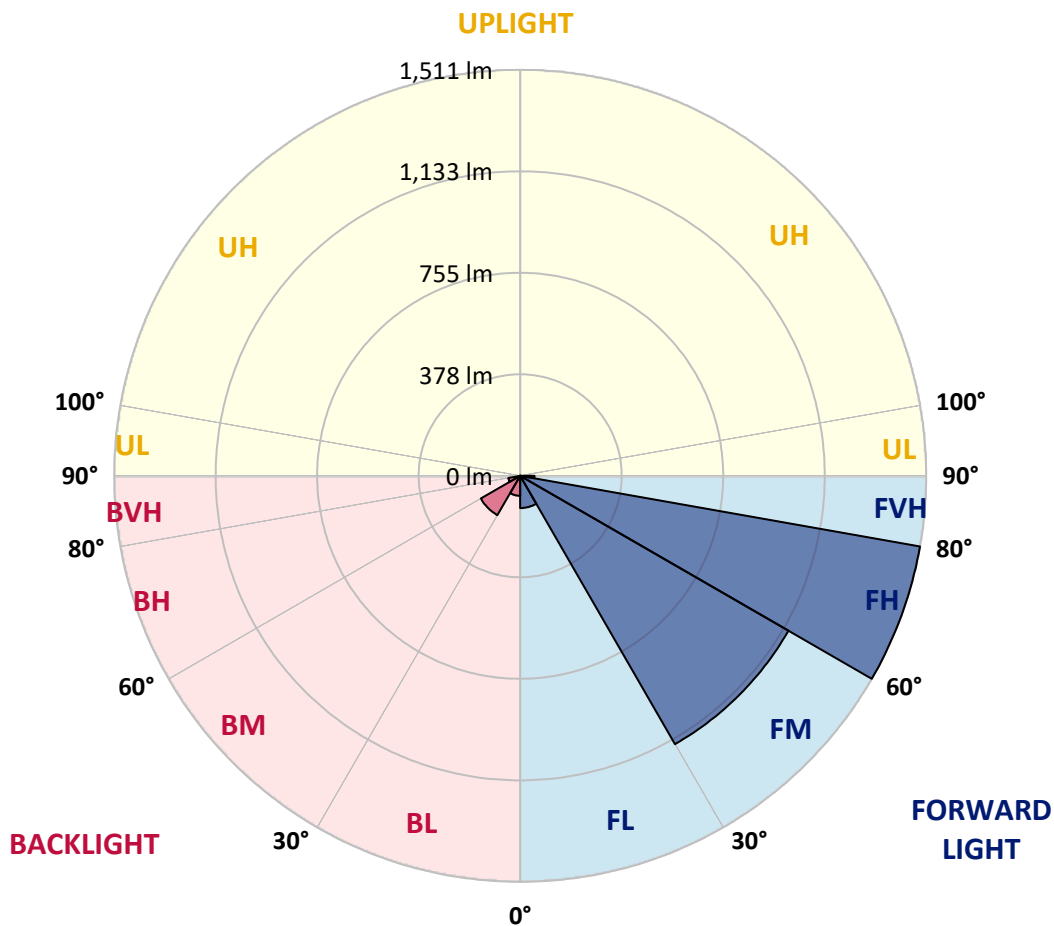
CATALOG NUMBER: MSA-SA1B-835-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	120.0	3.8			
FM (30°-60°)	1152.9	36.9			
FH (60°-80°)	1510.6	48.3			G1/1800
FVH (80°-90°)	53.4	1.7			G1/100
BL (0°-30°)	74.4	2.4	B0/110		
BM (30°-60°)	169.0	5.4	B0/220		
BH (60°-80°)	44.6	1.4	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			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 IV Short





REPORT NUMBER: P596867

CATALOG NUMBER: MSA-SA1B-835-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3
2.5°	198.2	190.6	179.5	180.2	182.1	183.6	187.8	186.1	182.8	182.6	198.2
5°	210.0	201.5	200.8	201.8	201.3	204.1	200.6	211.9	221.5	232.9	251.3
7.5°	204.3	200.3	195.3	200.5	200.3	198.9	201.2	224.1	247.1	261.7	292.1
10°	187.8	183.3	187.1	188.8	187.6	193.7	208.8	227.5	255.1	285.7	300.4
12.5°	183.1	185.9	187.3	187.3	198.9	202.0	225.1	242.8	275.6	299.7	342.6
15°	201.3	206.7	197.2	195.1	198.7	200.5	226.1	247.5	289.5	333.6	369.5
17.5°	230.3	230.0	215.2	207.1	212.8	216.9	231.2	256.2	280.8	360.1	412.2
20°	250.3	250.6	224.1	207.1	226.0	228.4	244.2	264.2	283.6	373.5	440.1
22.5°	276.0	266.8	237.4	220.9	233.8	236.0	253.4	269.2	297.8	371.9	475.9
25°	297.0	291.1	254.1	242.6	254.1	251.0	266.8	290.5	313.1	396.7	496.9
27.5°	329.6	319.5	265.9	268.0	267.3	269.5	273.2	309.6	340.0	398.0	545.5
30°	360.0	354.1	292.3	292.3	299.0	294.7	297.3	341.4	366.0	426.1	600.2
32.5°	391.4	391.7	323.3	306.8	301.5	319.3	336.9	356.8	397.4	474.3	683.8
35°	474.5	467.6	382.9	341.7	337.4	336.4	364.5	418.4	453.2	537.2	796.4
37.5°	642.0	617.9	510.9	420.9	404.6	399.0	430.9	486.3	520.8	629.5	982.7
40°	813.8	769.5	650.8	549.3	496.4	472.4	509.6	556.6	618.0	731.5	1155.0
42.5°	964.6	910.0	756.2	687.8	618.9	608.5	573.6	650.1	756.9	880.1	1323.9
45°	1111.6	1004.0	849.9	795.8	712.1	718.0	706.2	772.5	901.1	1042.9	1473.7
47.5°	1212.8	1116.1	964.8	894.5	861.0	826.5	920.2	989.1	1029.5	1146.3	1603.1
50°	1321.8	1223.9	1063.6	1014.4	970.4	1005.2	1126.9	1136.1	1132.8	1242.8	1691.3
52.5°	1462.6	1347.1	1176.9	1121.3	1146.3	1181.1	1321.5	1323.2	1224.6	1324.1	1754.8
55°	1592.7	1464.8	1327.9	1275.5	1327.7	1357.0	1512.7	1455.6	1278.1	1379.3	1786.1
57.5°	1776.2	1628.1	1528.7	1436.4	1542.2	1514.1	1680.9	1596.0	1338.1	1415.9	1774.6
60°	2008.0	1833.8	1734.2	1636.5	1750.0	1769.1	1845.1	1666.1	1361.4	1427.8	1705.7
62.5°	2243.9	2068.6	1937.6	1871.3	2000.1	2062.9	1997.1	1701.0	1333.4	1404.4	1549.7
65°	2536.5	2312.1	2159.0	2120.2	2358.8	2451.1	2176.9	1709.5	1279.5	1275.5	1246.0
67.5°	2737.0	2518.5	2378.1	2443.2	2731.4	2738.9	2338.3	1712.1	1097.7	998.6	817.8
70°	2784.5	2550.6	2487.8	2679.4	3028.7	2934.8	2390.4	1580.2	814.2	592.7	373.8
72.5°	2444.4	2219.1	2300.8	2634.8	3091.9	3048.9	2275.3	1140.1	458.4	237.1	114.7
75°	1499.4	1363.1	1726.0	2233.8	2714.1	2686.3	1775.1	589.0	184.7	94.8	42.9
77.5°	652.1	605.5	900.8	1482.2	1950.3	1925.4	1040.1	216.9	95.5	66.6	21.7
80°	215.7	209.3	341.2	701.9	1142.3	1120.5	438.2	90.2	68.0	53.5	12.1
82.5°	51.2	50.9	119.1	323.0	581.9	563.7	134.5	49.8	49.3	42.2	6.4
85°	12.8	13.2	33.0	132.1	236.4	208.4	35.1	24.8	34.7	28.6	3.3
87.5°	0.0	0.0	8.5	18.9	35.8	22.4	3.8	6.6	9.7	10.2	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596867
 CATALOG NUMBER: MSA-SA1B-835-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3	166.3
2.5°	201.7	199.8	184.1	188.0	193.9	193.3	197.2	194.2	191.6	204.4	203.2
5°	256.5	246.1	241.2	248.0	244.4	235.9	243.0	241.8	239.7	244.0	247.3
7.5°	297.6	288.1	283.8	269.5	248.9	232.6	235.2	229.1	223.4	230.1	237.1
10°	311.2	306.0	305.5	277.7	258.3	234.6	206.7	182.6	176.2	167.7	171.5
12.5°	348.0	351.1	331.5	299.0	261.5	216.3	166.6	132.4	118.5	109.5	110.0
15°	378.2	389.1	360.6	302.3	230.1	164.9	110.9	80.2	71.5	69.2	68.6
17.5°	423.1	433.7	369.7	278.9	185.5	111.8	71.3	62.5	63.0	64.6	64.2
20°	456.5	454.9	361.9	237.4	136.8	73.2	59.7	58.5	61.3	65.8	64.7
22.5°	488.6	477.8	357.0	199.1	88.5	58.8	57.6	57.4	60.1	64.4	65.6
25°	511.5	513.2	348.8	155.9	64.4	54.7	55.7	57.3	59.9	64.6	63.9
27.5°	577.1	528.5	314.8	113.2	54.3	52.4	55.0	58.1	59.0	64.9	65.1
30°	619.6	586.1	292.6	76.2	50.2	48.4	53.6	57.8	58.8	66.5	67.0
32.5°	693.7	610.9	266.9	56.6	46.7	47.2	50.5	56.1	60.9	69.1	69.4
35°	785.9	690.6	220.4	50.9	45.5	44.6	46.2	52.6	60.6	69.4	71.2
37.5°	961.3	738.3	174.8	49.3	45.5	43.9	45.5	49.3	59.5	72.9	76.5
40°	1078.8	835.5	126.0	48.9	44.6	43.2	43.7	47.6	56.6	70.8	76.2
42.5°	1223.6	876.5	92.9	48.1	43.7	41.7	42.0	46.9	53.6	66.5	70.5
45°	1342.1	906.3	73.1	47.7	41.7	41.0	41.7	46.3	50.9	57.1	60.7
47.5°	1432.2	941.0	58.7	45.5	41.1	41.0	40.1	43.4	46.2	47.7	50.2
50°	1498.1	933.2	48.6	42.0	39.4	40.4	38.9	39.4	40.1	39.2	42.0
52.5°	1538.6	905.1	40.4	37.8	37.3	38.2	36.3	34.7	33.5	32.8	34.5
55°	1553.3	848.7	34.4	32.5	33.7	34.0	32.5	29.7	27.6	26.6	27.9
57.5°	1525.4	762.8	29.9	26.9	29.7	29.7	27.6	24.6	22.2	20.5	21.9
60°	1454.6	667.8	26.6	22.4	25.3	25.5	23.1	20.0	18.0	16.3	17.2
62.5°	1322.7	564.4	23.3	19.4	21.9	22.0	19.1	16.1	14.8	12.8	13.5
65°	1058.9	431.6	19.8	17.2	18.9	18.4	15.8	13.7	12.0	10.2	10.6
67.5°	687.3	266.4	17.2	15.6	16.0	15.4	13.4	12.0	10.1	8.7	8.9
70°	307.7	114.7	15.1	14.1	13.9	13.0	11.3	11.1	9.9	8.7	8.7
72.5°	94.9	43.2	13.0	12.7	12.0	10.9	9.9	10.6	9.7	8.3	8.2
75°	37.5	19.8	10.8	10.8	10.4	9.0	8.9	9.5	9.0	7.6	7.3
77.5°	19.6	12.5	8.9	9.2	9.0	6.9	8.0	8.7	8.3	6.4	5.4
80°	11.6	7.6	6.6	7.5	7.3	4.9	6.1	5.6	4.0	1.9	0.5
82.5°	6.4	3.5	3.0	4.3	4.3	1.7	3.1	2.8	1.6	0.0	0.0
85°	3.1	2.4	2.3	2.4	1.7	0.5	1.6	1.6	0.9	0.0	0.0
87.5°	1.6	1.4	1.0	0.9	0.7	0.0	0.5	0.7	0.0	0.0	0.0
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)