

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: P367537

Luminaire Tested: **MSA-SA2D-727-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2D-727-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8507 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

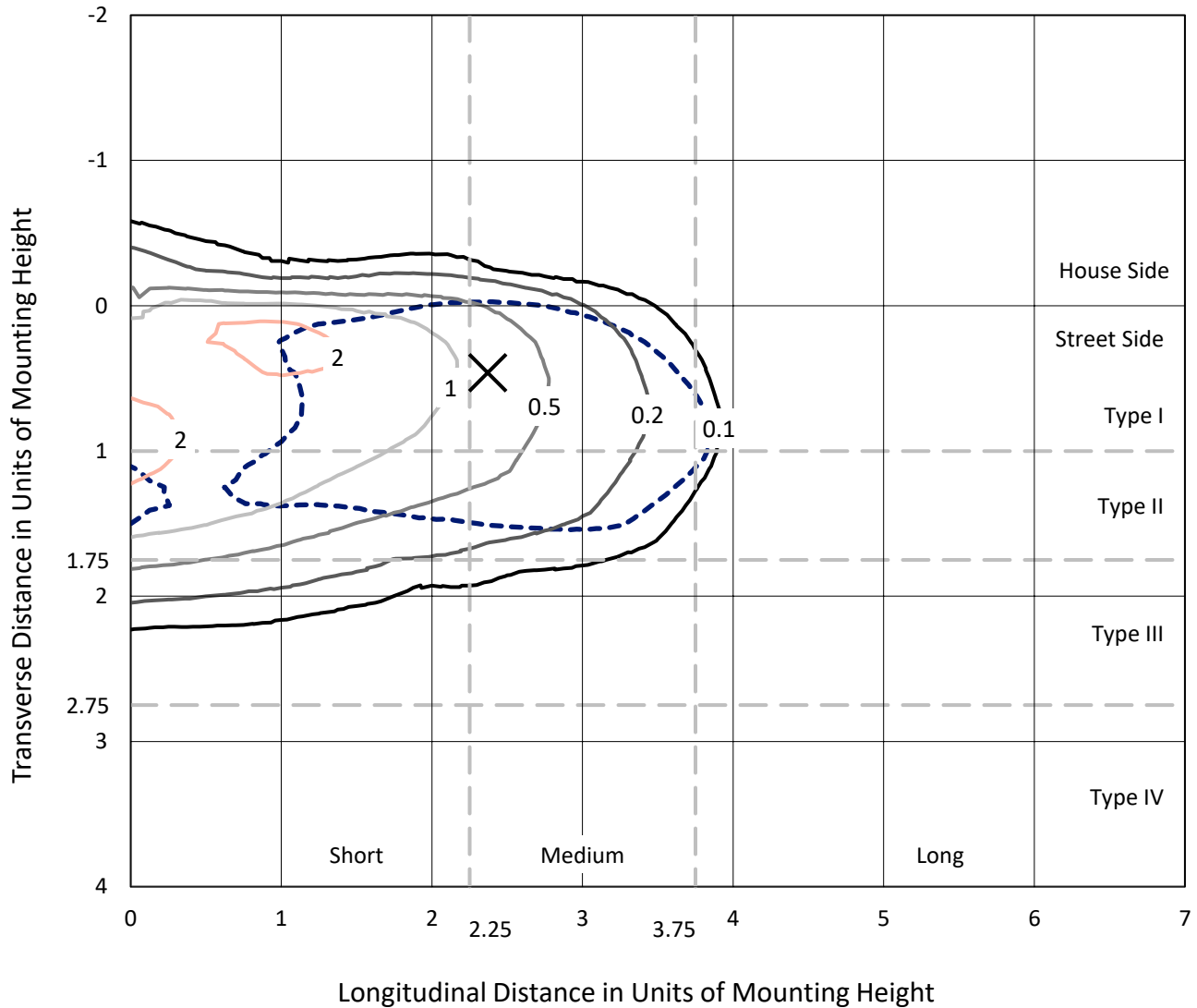
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367537
 CATALOG NUMBER: MSA-SA2D-727-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

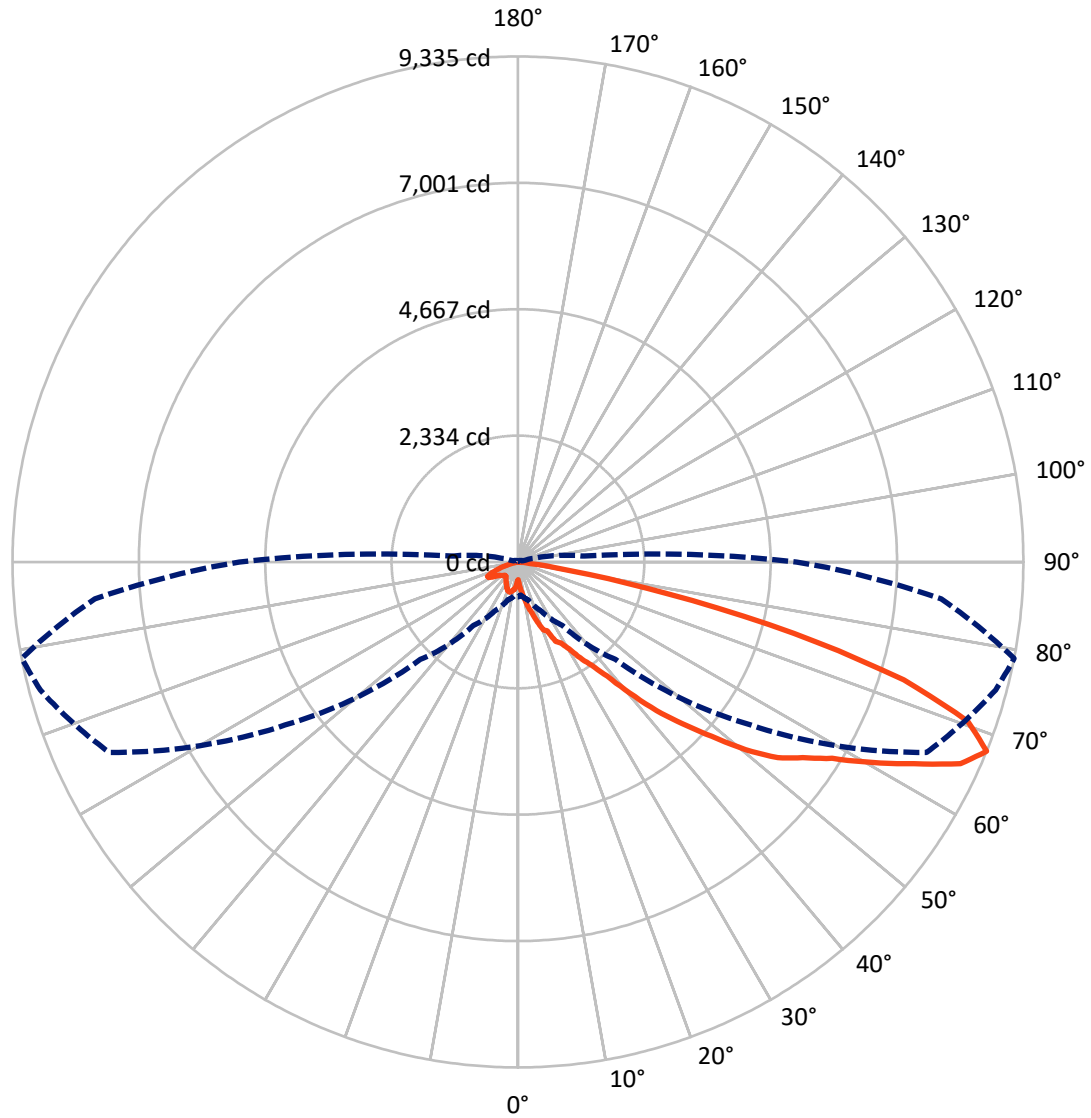
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type II - Medium - N/A

REPORT NUMBER: P367537
CATALOG NUMBER: MSA-SA2D-727-U-T2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P367537
 CATALOG NUMBER: MSA-SA2D-727-U-T2-HSS

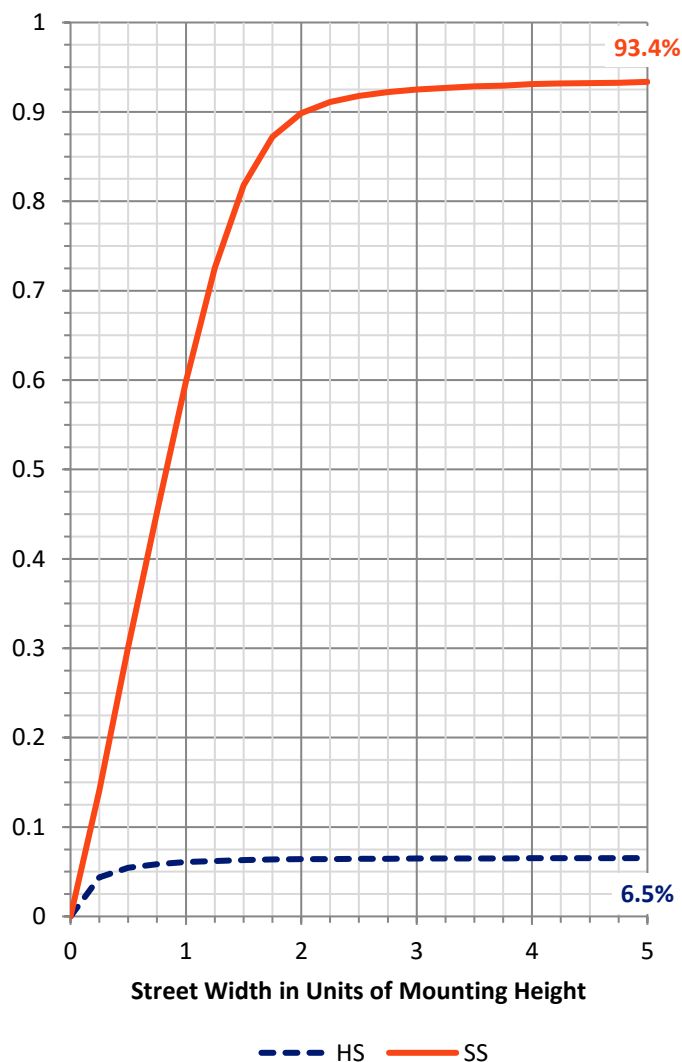
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	559.0	0.0	559.0
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	7948.0	0.0	7948.0
	% Fixture	93.4	0.0	93.4
Total	Lumens	8507.0	0.0	8507.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	0.6
10°-20°	190.1	2.2
20°-30°	366.7	4.3
30°-40°	720.4	8.5
40°-50°	1443.1	17.0
50°-60°	2306.6	27.1
60°-70°	2320.8	27.3
70°-80°	1047.0	12.3
80°-90°	64.8	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°	8507.0	100.0
0°-180°	8507.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367537

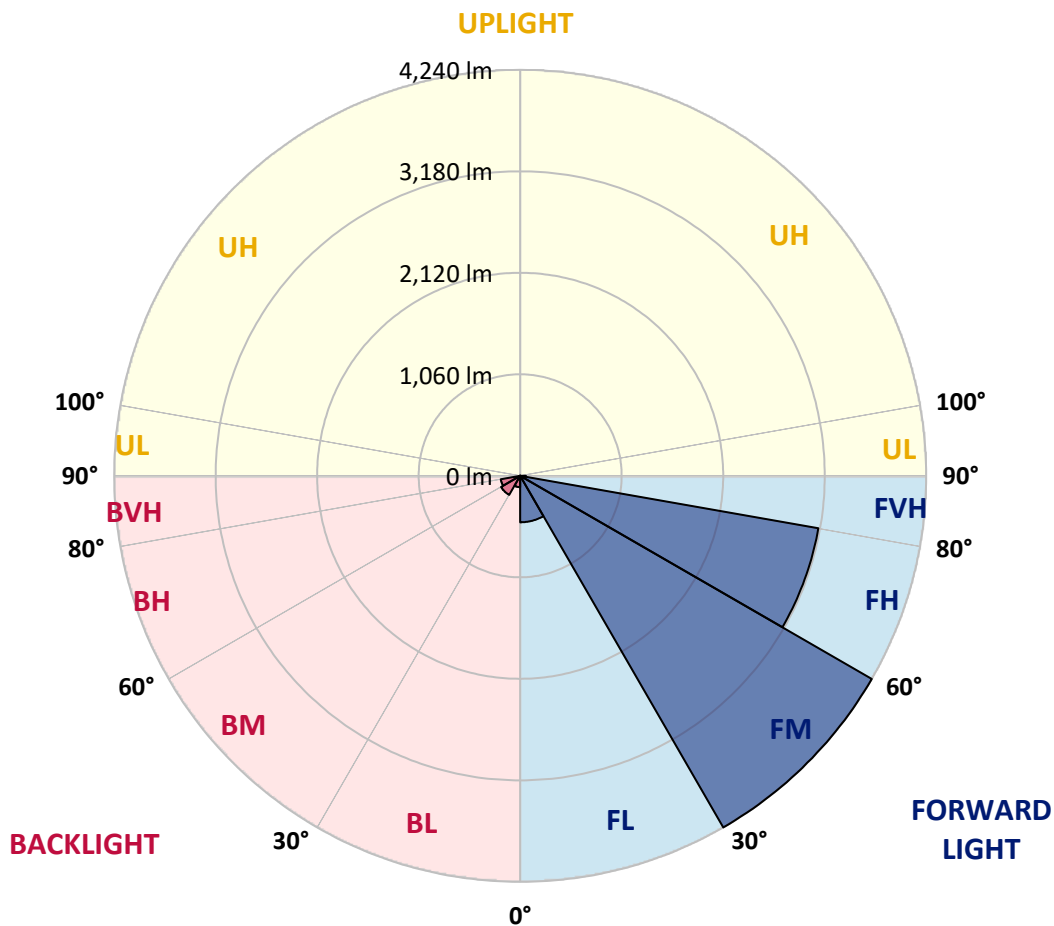
CATALOG NUMBER: MSA-SA2D-727-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.7	5.7			
FM (30°-60°)	4240.0	49.8			
FH (60°-80°)	3161.7	37.2			G2/5000
FVH (80°-90°)	60.7	0.7			G1/100
BL (0°-30°)	118.8	1.4	B1/500		
BM (30°-60°)	230.0	2.7	B1/1000		
BH (60°-80°)	206.1	2.4	B1/500		G1/500
BVH (80°-90°)	4.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





REPORT NUMBER: P367537

CATALOG NUMBER: MSA-SA2D-727-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8
2.5°	442.7	426.7	401.0	415.5	414.6	422.1	408.0	392.5	367.7	392.5	394.4
5°	637.3	607.8	589.0	585.3	564.6	545.4	541.2	525.2	513.0	491.0	510.7
7.5°	793.9	780.3	747.0	743.3	692.6	664.5	673.4	666.4	620.0	597.0	616.2
10°	860.5	837.1	841.8	837.1	815.5	823.5	805.2	784.1	747.0	709.1	661.2
12.5°	886.3	882.6	921.5	916.8	967.4	1028.4	987.6	952.4	866.6	857.2	792.1
15°	941.7	965.1	959.5	979.2	1011.5	1115.2	1114.2	1122.7	1031.7	982.9	888.7
17.5°	990.9	1008.2	980.1	1002.6	1090.8	1153.6	1237.6	1204.7	1215.1	1165.3	1019.5
20°	969.8	989.5	961.3	947.8	1103.0	1222.1	1334.2	1310.2	1372.2	1341.2	1140.0
22.5°	1101.6	1064.5	993.7	949.6	1065.5	1220.7	1368.4	1468.3	1457.5	1381.5	1252.1
25°	1264.3	1241.8	1156.9	1079.1	1089.4	1212.2	1476.3	1623.0	1654.9	1622.6	1358.6
27.5°	1483.8	1478.6	1305.1	1271.3	1171.0	1175.2	1493.1	1818.1	1745.4	1694.8	1482.8
30°	1770.3	1729.5	1523.6	1479.5	1331.4	1258.7	1596.3	1986.5	1933.0	1864.1	1599.6
32.5°	2078.4	2084.5	1821.9	1676.5	1557.4	1471.1	1555.5	2065.3	2165.1	2109.3	1745.4
35°	2428.2	2455.4	2134.2	1963.5	1731.8	1604.8	1730.9	2307.2	2486.4	2339.6	1941.0
37.5°	2967.1	2966.1	2591.0	2251.0	2082.6	1944.7	2023.1	2527.2	2881.2	2674.9	2291.8
40°	3441.2	3338.0	2989.1	2598.5	2335.8	2298.3	2241.6	2828.2	3302.8	3178.6	2603.6
42.5°	3795.2	3722.5	3300.9	2997.1	2671.6	2552.5	2532.3	3269.5	3925.1	3751.1	3048.7
45°	4218.7	3980.5	3670.0	3396.1	3064.6	3029.9	2982.5	3717.4	4649.2	4257.1	3435.5
47.5°	4598.1	4373.9	4080.3	3728.6	3347.8	3633.9	3451.9	4110.8	5175.8	4807.7	3862.3
50°	4917.4	4679.2	4350.5	4082.7	3919.5	4113.6	3810.2	4434.9	5744.7	5446.4	4261.4
52.5°	5080.1	4810.5	4556.3	4390.8	4490.7	4447.1	4296.1	4827.4	6229.5	6006.3	4614.9
55°	4946.5	4682.9	4576.5	4658.6	4962.0	4835.8	4848.0	5435.6	6687.2	6379.6	4922.6
57.5°	4353.7	4113.2	4160.5	4385.2	4966.7	5296.8	5477.3	6026.5	7054.4	6844.8	5397.2
60°	3293.4	3099.8	3275.2	3673.8	4499.6	5204.9	5923.8	6617.4	7579.2	7513.5	6115.6
62.5°	2011.3	1906.3	2154.8	2651.9	3585.6	4754.2	6184.1	7405.2	8140.5	8210.4	6877.6
65°	1026.1	978.7	1186.0	1623.0	2422.6	3905.4	5996.0	7894.8	8720.6	8978.5	7604.0
67.5°	646.2	615.7	726.4	990.0	1429.4	2547.3	5249.9	8322.9	9130.5	9334.5	7846.5
70°	447.8	428.6	524.3	679.5	901.8	1372.2	3897.9	7923.4	8805.5	8814.9	7259.8
72.5°	284.2	269.2	362.5	503.2	665.4	708.6	2234.6	6217.4	7537.5	7450.7	5879.2
75°	184.3	176.8	230.3	368.6	511.2	437.1	1104.4	4195.2	5404.7	5268.7	3905.0
77.5°	132.2	127.6	154.3	246.2	363.9	305.8	495.2	2500.4	3098.8	2801.5	1895.5
80°	79.7	79.3	111.6	154.3	258.9	215.7	228.8	1135.3	1201.5	979.6	579.2
82.5°	39.9	41.3	62.4	99.4	166.5	141.2	104.6	378.0	322.6	237.8	117.2
85°	9.4	11.7	32.8	68.5	83.5	56.3	49.7	98.9	88.6	67.1	34.2
87.5°	0.0	0.0	10.3	16.4	22.5	9.4	16.9	18.8	23.9	18.8	7.0
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: P367537
 CATALOG NUMBER: MSA-SA2D-727-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8	327.8
2.5°	394.9	389.2	355.0	346.1	345.1	335.3	337.6	328.3	328.7	349.8	349.8
5°	503.2	470.4	437.5	408.5	388.8	360.6	350.3	346.1	342.3	350.8	355.9
7.5°	590.9	542.6	483.5	420.2	361.6	321.2	315.6	305.3	301.5	310.0	316.5
10°	629.8	569.8	488.6	396.3	341.4	308.6	281.4	266.8	264.0	263.6	265.9
12.5°	712.3	637.8	494.3	387.4	327.8	291.7	260.7	236.4	213.8	216.2	213.8
15°	778.5	690.3	494.3	365.8	295.0	258.9	204.5	192.3	189.0	194.1	189.9
17.5°	878.3	742.3	469.4	327.3	266.8	201.2	180.5	179.6	186.2	193.7	189.0
20°	938.4	749.4	427.7	283.2	219.0	174.4	166.9	159.4	168.8	174.9	172.6
22.5°	1000.7	749.9	385.9	259.8	176.3	159.0	146.8	140.7	142.1	147.7	148.7
25°	1027.5	731.6	347.0	228.8	159.9	142.1	129.4	122.9	120.5	123.3	122.4
27.5°	1100.2	696.4	304.8	195.1	151.9	126.1	114.4	106.5	99.4	104.1	105.0
30°	1110.5	685.1	281.8	173.5	141.6	111.6	101.3	92.9	87.7	94.3	94.3
32.5°	1143.3	623.2	270.1	164.6	130.8	103.2	89.1	83.0	82.1	86.3	86.8
35°	1193.9	596.0	252.8	157.6	121.0	93.3	80.2	77.4	76.4	79.7	79.7
37.5°	1365.6	562.3	233.5	151.5	112.5	88.2	77.8	73.2	73.6	76.4	78.3
40°	1479.5	566.5	204.9	144.0	102.7	83.5	73.2	69.9	69.4	70.8	72.2
42.5°	1691.0	569.8	192.3	136.0	95.2	77.8	68.5	66.1	64.2	65.7	67.1
45°	1927.4	587.1	185.7	129.4	91.0	74.6	64.2	62.8	58.6	59.6	61.4
47.5°	2155.3	650.4	177.7	120.1	87.2	72.7	60.0	56.7	53.9	53.5	55.3
50°	2414.2	711.9	168.8	109.7	83.5	69.9	55.8	50.6	48.8	48.8	50.2
52.5°	2645.8	770.5	160.4	102.7	80.7	64.7	52.1	46.9	45.5	45.5	47.4
55°	2889.7	831.9	152.9	96.1	76.9	59.6	48.8	44.1	43.6	42.7	44.1
57.5°	3320.2	966.0	143.5	90.5	71.7	55.3	46.0	41.3	40.3	38.9	40.3
60°	3947.2	1171.9	131.3	84.9	65.7	52.5	43.6	38.0	36.6	34.2	34.7
62.5°	4560.1	1338.4	117.2	77.8	60.0	49.7	39.9	34.2	31.9	29.1	29.5
65°	5085.3	1404.0	102.2	69.4	54.4	43.1	34.7	30.0	26.7	23.0	22.5
67.5°	5147.2	1239.9	87.7	61.4	48.8	36.6	29.5	26.7	21.6	18.3	17.4
70°	4632.3	923.8	73.2	54.4	42.2	31.0	25.3	23.4	20.2	17.4	15.9
72.5°	3688.8	681.9	61.4	48.3	37.0	26.3	21.6	22.0	20.2	16.9	15.0
75°	2439.5	390.2	50.2	40.3	31.0	21.1	19.7	19.7	19.2	15.9	14.1
77.5°	1173.8	168.4	38.5	31.9	24.9	15.9	17.8	17.8	18.3	14.5	11.7
80°	333.0	50.6	23.9	21.6	18.3	10.8	14.1	13.6	12.2	8.4	5.2
82.5°	59.6	19.7	10.8	11.3	10.3	4.2	8.0	7.5	6.1	3.3	0.5
85°	16.4	7.5	6.1	6.6	5.2	1.4	3.3	4.2	3.3	1.9	0.0
87.5°	4.2	3.3	4.2	4.7	3.8	0.5	1.4	0.5	1.4	0.5	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)