

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: P367375

Luminaire Tested: **MSA-SA2B-830-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367375
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-830-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6500 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

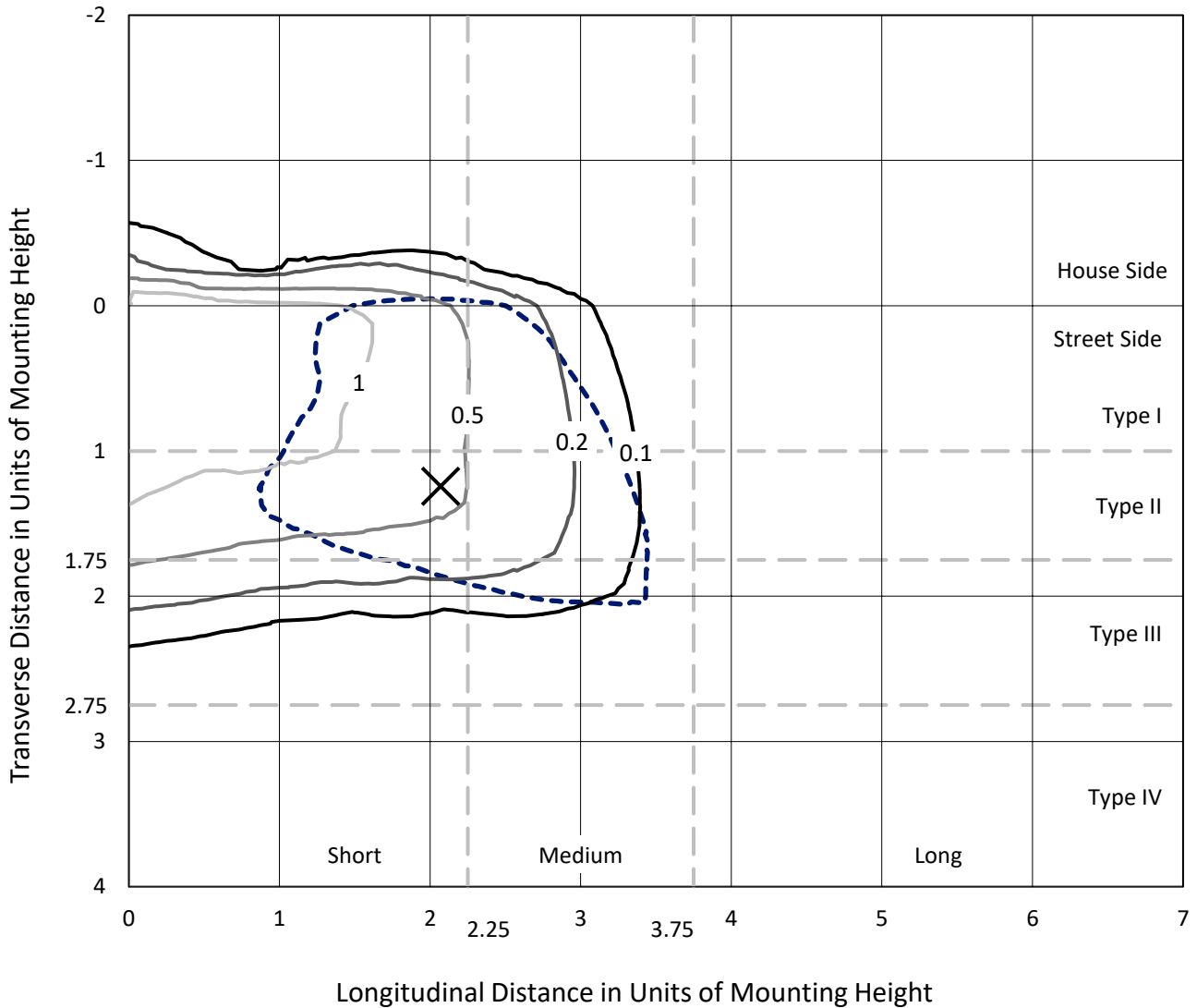
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367375
 CATALOG NUMBER: MSA-SA2B-830-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

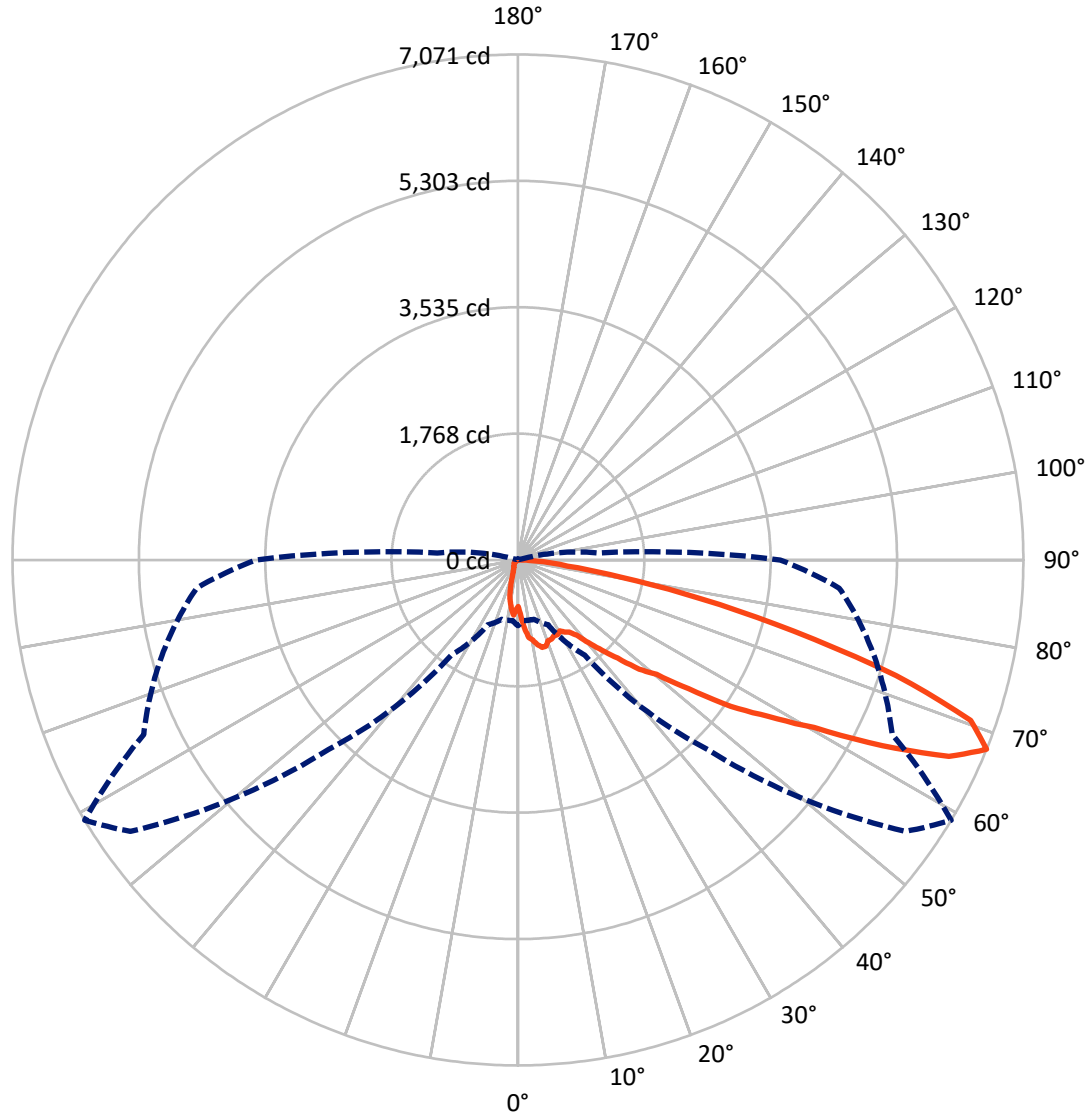
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type III - Short - N/A

REPORT NUMBER: P367375
CATALOG NUMBER: MSA-SA2B-830-U-SL3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367375
 CATALOG NUMBER: MSA-SA2B-830-U-SL3-HSS

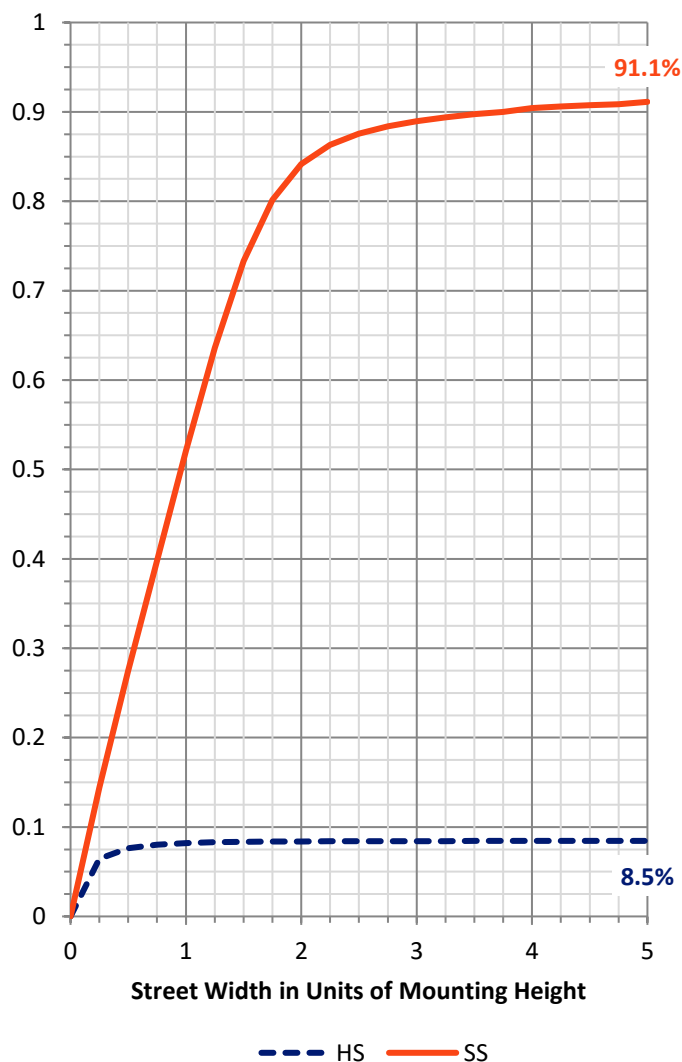
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	552.8	0.0	552.8
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	5947.2	0.0	5947.2
	% Fixture	91.5	0.0	91.5
Total	Lumens	6500.0	0.0	6500.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	1.2
10°-20°	222.7	3.4
20°-30°	331.2	5.1
30°-40°	510.9	7.9
40°-50°	911.9	14.0
50°-60°	1622.7	25.0
60°-70°	1889.9	29.1
70°-80°	840.4	12.9
80°-90°	91.3	1.4
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°	6500.0	100.0
0°-180°	6500.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367375

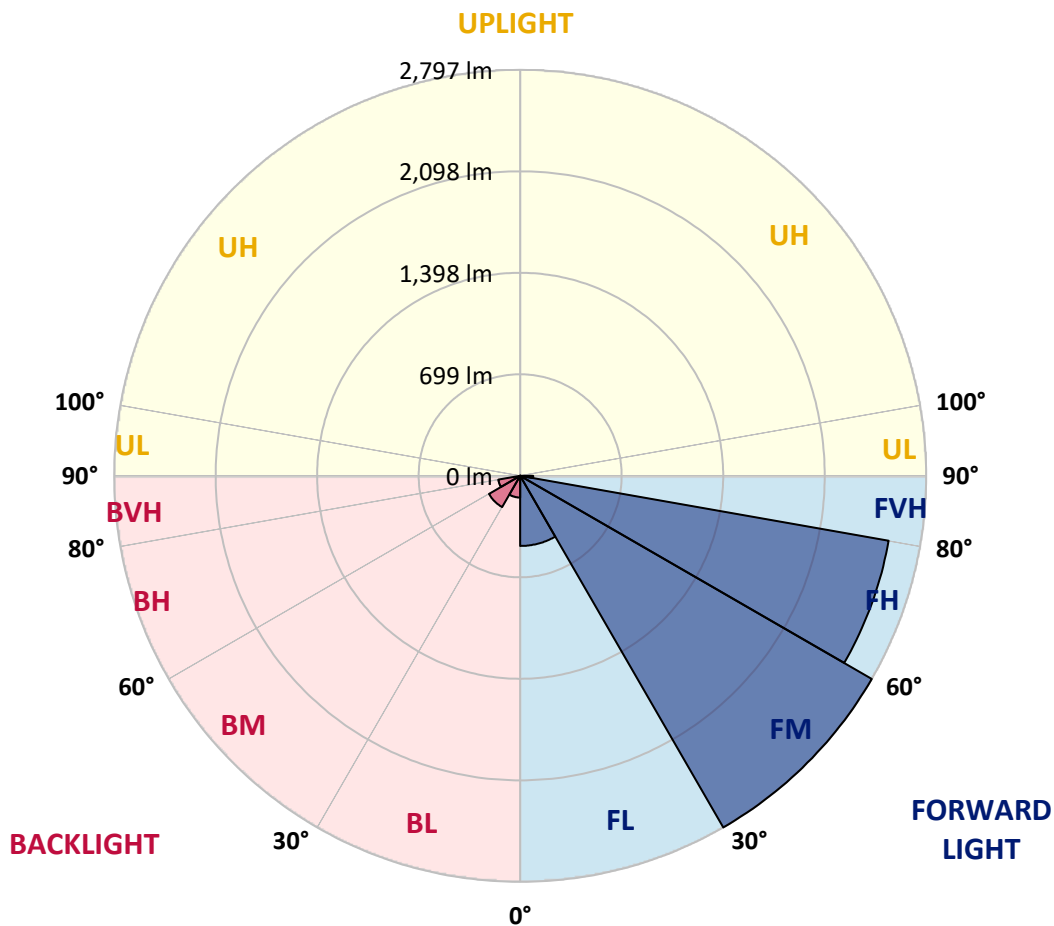
CATALOG NUMBER: MSA-SA2B-830-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	483.4	7.4			
FM (30°-60°)	2797.0	43.0			
FH (60°-80°)	2577.2	39.6			G2/5000
FVH (80°-90°)	89.7	1.4			G1/100
BL (0°-30°)	149.5	2.3	B1/500		
BM (30°-60°)	248.5	3.8	B1/1000		
BH (60°-80°)	153.1	2.4	B1/500		G1/500
BVH (80°-90°)	1.6	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 III Short





REPORT NUMBER: P367375

CATALOG NUMBER: MSA-SA2B-830-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3
2.5°	847.8	815.9	770.5	784.0	796.1	807.7	788.6	777.7	772.5	725.7	784.3
5°	1041.0	1001.2	980.5	975.2	962.0	932.7	981.4	959.7	967.0	976.2	995.3
7.5°	1099.9	1081.8	1051.9	1063.1	1013.0	1008.8	1076.2	1095.0	1119.7	1102.9	1125.9
10°	1069.6	1038.4	1052.5	1048.6	1046.6	1090.7	1138.1	1139.1	1176.0	1193.7	1115.7
12.5°	1009.7	1013.4	1064.1	1060.1	1125.9	1214.1	1225.0	1213.5	1273.7	1242.8	1230.9
15°	1049.6	1079.2	1051.2	1060.8	1084.1	1194.4	1232.9	1268.4	1325.4	1343.8	1263.8
17.5°	1097.6	1100.6	1049.6	1037.7	1096.6	1148.0	1238.8	1268.1	1273.7	1435.3	1337.9
20°	1071.6	1097.0	1036.1	961.4	1052.9	1122.6	1214.8	1205.6	1243.1	1462.3	1354.7
22.5°	1140.7	1104.5	1026.5	970.3	1001.2	1064.7	1142.7	1202.9	1259.2	1397.8	1376.4
25°	1147.3	1134.2	1064.7	1014.7	1009.4	1025.5	1134.2	1173.0	1261.2	1455.7	1358.0
27.5°	1221.4	1206.2	1064.1	1069.0	1019.6	969.9	1092.7	1183.9	1297.1	1420.5	1397.1
30°	1316.8	1318.1	1134.8	1150.3	1079.9	999.9	1126.6	1151.6	1321.4	1476.8	1426.1
32.5°	1413.6	1453.4	1274.7	1192.7	1170.7	1113.4	1084.5	1200.0	1294.8	1572.9	1498.5
35°	1560.7	1587.7	1389.9	1316.5	1229.9	1164.8	1199.0	1240.5	1390.5	1700.2	1593.6
37.5°	1809.8	1761.1	1596.6	1468.9	1448.1	1352.0	1369.1	1332.0	1488.3	1850.3	1781.9
40°	1950.1	1905.9	1734.8	1672.6	1540.3	1555.1	1501.1	1522.8	1630.1	2006.7	1953.3
42.5°	2096.2	2054.1	1904.0	1859.9	1733.8	1672.6	1648.2	1726.2	1847.7	2267.0	2199.2
45°	2243.0	2136.0	2072.5	2094.5	2037.9	1916.8	1888.5	1957.9	2085.3	2586.9	2458.5
47.5°	2366.7	2276.5	2228.8	2218.6	2196.6	2364.7	2249.6	2280.2	2336.4	2869.9	2781.7
50°	2589.9	2501.0	2426.3	2405.6	2512.8	2751.5	2573.7	2514.5	2627.1	3211.9	3156.3
52.5°	2912.1	2798.9	2680.0	2680.4	2882.8	3013.8	3098.0	2994.0	3015.1	3588.1	3563.4
55°	3171.1	3027.3	2928.9	3006.5	3308.3	3381.7	3703.3	3612.1	3584.8	3937.0	3906.7
57.5°	3206.6	3034.2	2987.4	3123.7	3536.7	4005.4	4351.3	4123.6	4081.8	4228.9	4289.1
60°	2874.9	2691.9	2727.1	2946.3	3611.1	4385.6	4946.4	4760.4	4494.8	4570.9	4612.3
62.5°	2144.2	1998.1	2096.8	2387.1	3324.5	4640.3	5635.2	5721.5	4974.0	4827.6	4818.7
65°	1391.2	1299.7	1364.5	1602.5	2515.8	4611.3	6250.7	6624.6	5351.5	5036.9	4883.5
67.5°	920.2	850.8	860.0	1000.9	1626.9	3750.3	6618.7	7070.5	5776.1	5155.7	4511.9
70°	685.9	631.3	634.5	710.9	965.6	2473.4	6105.5	6718.7	5931.1	4744.0	3641.7
72.5°	494.7	458.1	488.7	573.7	769.5	1307.9	4550.8	5533.2	5171.8	3741.8	2453.6
75°	342.6	318.6	368.6	479.9	702.3	811.9	3007.2	3983.0	3625.0	2347.6	1109.1
77.5°	189.9	182.7	254.7	391.0	637.5	665.5	1842.1	2617.2	2010.6	841.6	264.0
80°	82.9	80.3	123.4	293.6	535.8	601.3	1037.1	1451.1	790.9	150.1	85.2
82.5°	35.5	34.2	52.7	176.7	389.4	502.9	639.5	698.4	272.2	46.4	48.4
85°	6.3	6.9	21.1	93.1	237.0	255.4	463.1	413.4	136.9	22.1	34.6
87.5°	0.0	0.0	3.3	18.1	44.4	73.1	200.8	144.8	26.0	7.2	5.9
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: P367375
 CATALOG NUMBER: MSA-SA2B-830-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3	650.3
2.5°	792.5	774.1	704.0	695.1	685.6	671.4	666.1	635.9	631.9	670.8	670.8
5°	986.4	920.6	853.7	801.1	754.0	688.9	670.4	651.3	635.9	631.9	644.1
7.5°	1088.7	1008.4	903.4	769.5	660.9	566.4	526.9	499.3	468.3	477.6	482.5
10°	1083.1	997.9	863.9	691.8	571.4	467.0	366.6	308.1	275.5	259.3	257.4
12.5°	1138.1	1057.8	837.3	629.9	476.2	332.1	230.7	188.9	164.9	165.2	163.2
15°	1170.0	1082.5	806.3	551.6	335.4	213.6	160.0	150.7	147.4	151.1	149.1
17.5°	1226.3	1108.5	736.2	434.8	230.7	161.3	147.1	143.5	147.8	155.3	153.4
20°	1222.0	1063.4	636.5	306.4	170.5	145.1	139.2	133.6	142.5	150.4	149.1
22.5°	1218.1	1019.3	542.7	226.1	142.5	132.3	127.4	125.1	129.7	138.9	140.9
25°	1183.2	997.6	447.6	169.8	129.0	120.1	117.8	115.9	117.5	125.1	124.7
27.5°	1226.0	942.6	345.6	142.5	119.5	108.9	107.0	103.7	100.4	107.0	108.0
30°	1217.1	950.2	270.9	125.4	109.9	95.8	96.4	89.5	83.6	89.5	89.5
32.5°	1249.3	894.9	216.9	113.9	100.4	90.2	82.0	74.7	70.4	74.1	74.7
35°	1296.4	897.2	169.8	106.6	92.2	80.3	70.4	63.2	59.2	60.9	61.9
37.5°	1454.1	881.4	141.9	101.0	89.2	74.4	64.2	54.6	52.0	54.0	55.0
40°	1556.7	923.5	125.1	98.1	81.6	68.5	55.0	48.1	45.7	46.7	48.4
42.5°	1750.3	946.9	116.8	94.8	74.7	58.6	47.1	43.1	39.8	41.1	42.5
45°	1957.3	986.7	110.6	91.2	69.4	51.3	41.5	38.2	33.9	34.2	35.5
47.5°	2211.7	1081.5	103.3	84.9	62.2	46.7	36.9	31.9	28.0	27.6	29.3
50°	2553.3	1208.2	96.8	77.0	57.6	42.8	32.3	26.0	22.7	21.7	23.0
52.5°	2918.0	1372.1	89.9	71.4	52.0	37.5	27.6	21.1	18.1	17.4	18.4
55°	3279.4	1529.4	83.3	67.8	46.1	32.3	23.4	17.4	14.8	14.2	14.8
57.5°	3691.1	1699.6	74.7	60.6	40.5	28.0	19.4	14.5	12.2	11.5	11.8
60°	4001.1	1759.5	67.5	52.7	35.2	24.7	16.5	11.5	9.9	9.2	9.5
62.5°	4148.3	1661.7	60.6	45.7	30.9	21.4	13.8	9.5	8.2	7.6	7.6
65°	4110.1	1445.2	53.6	39.2	26.7	17.8	10.9	8.2	7.2	6.3	5.9
67.5°	3669.1	1130.9	45.7	32.9	22.4	14.5	9.2	7.9	6.6	5.9	4.9
70°	2909.8	818.9	37.2	27.3	18.8	11.8	7.2	7.2	6.3	5.9	4.6
72.5°	1907.3	515.4	30.3	22.1	15.5	9.2	5.6	6.6	5.9	5.9	4.3
75°	826.4	184.3	24.4	17.8	12.8	6.3	4.9	5.9	6.3	5.9	4.9
77.5°	193.5	57.3	19.1	14.2	10.5	4.3	4.9	5.9	6.3	5.6	4.3
80°	72.7	24.4	12.5	9.2	8.2	2.6	4.3	3.6	3.3	2.3	0.7
82.5°	44.1	10.2	6.6	4.6	3.9	0.7	2.0	1.3	0.7	0.7	0.0
85°	31.3	4.9	3.6	3.3	2.0	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	4.3	1.3	1.6	1.6	1.3	0.0	0.0	0.0	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)