

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: LUMARK

Report Number: P395103

Luminaire Tested: **LAS45S-T4-Switch-9**

Issue Date: 5/3/2020

Test Information

Test Method: LM-79-08
Report Number: P395103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2004-740-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LAS45S-T4-Switch-9
Description: AREA SITE SMALL HOUSING, TYPE IV, WATTAGE SWITCH ON POSTION 9
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4811 lumens
Efficiency: N/A
Efficacy: 164.2 lumens/watt
Luminous Opening: Rectangular (W 0.71' x L: 0.6' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

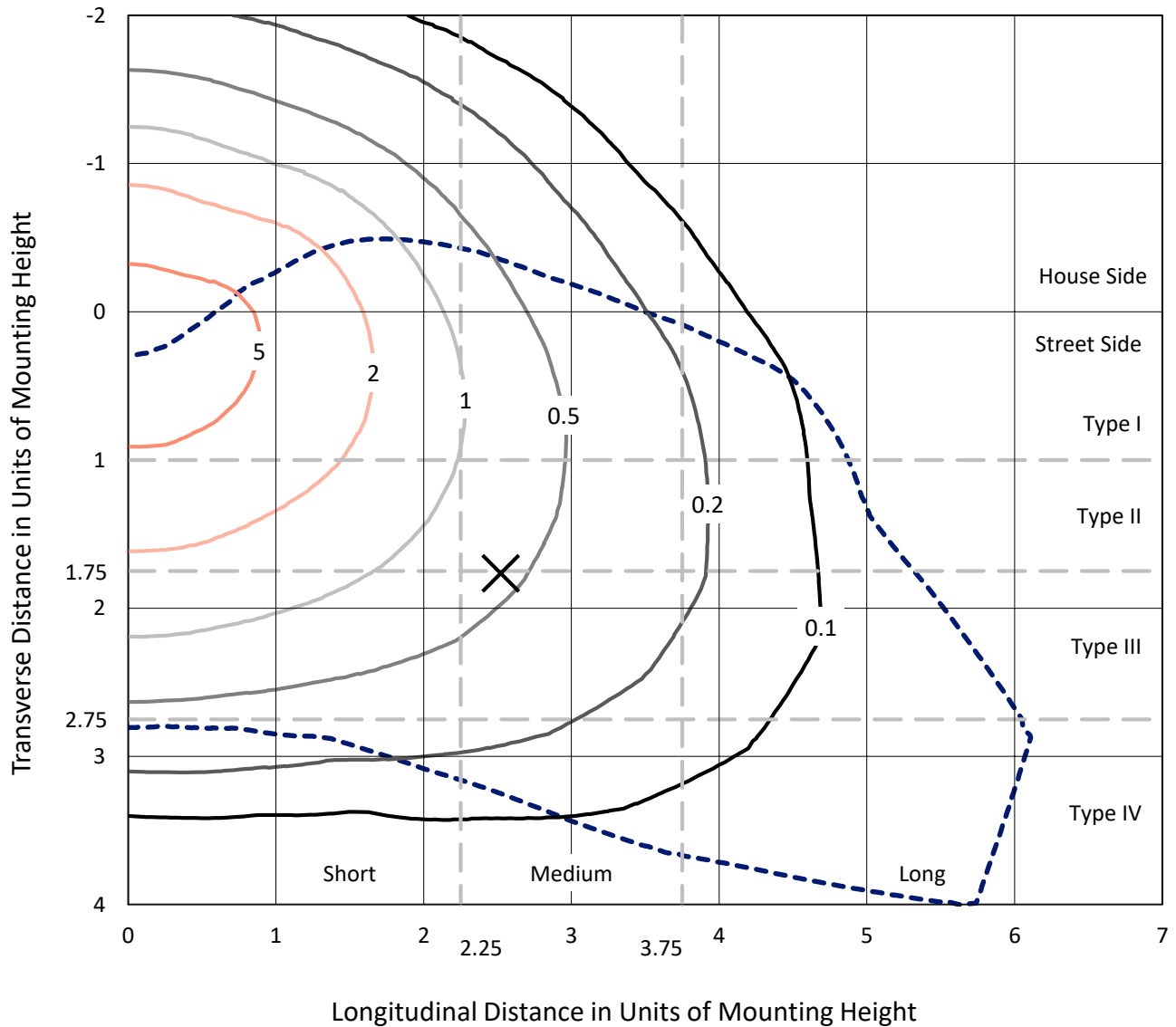
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

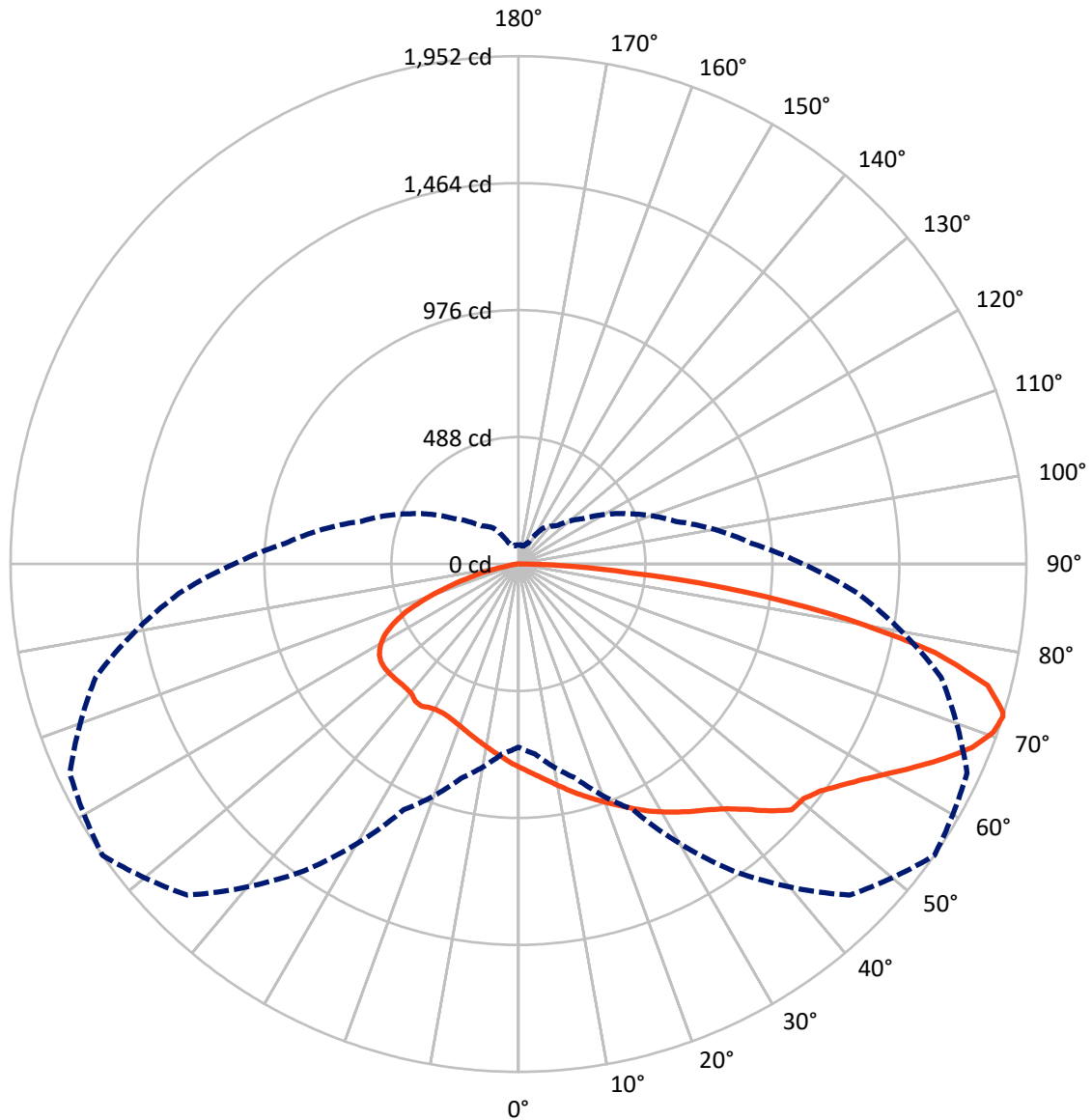
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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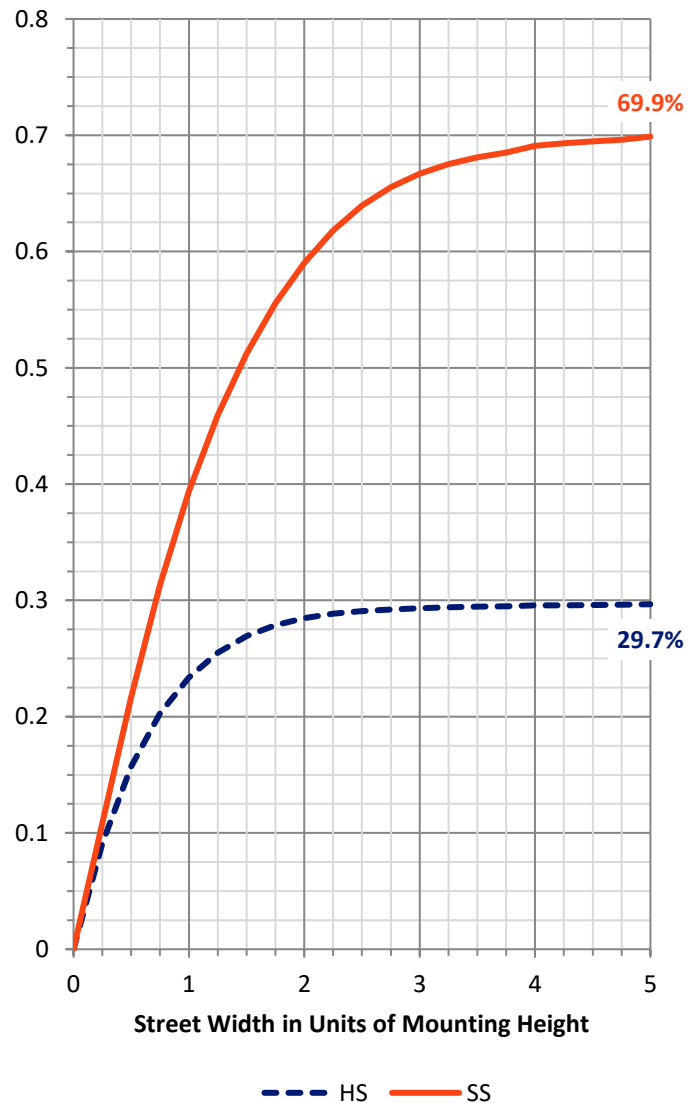
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1436.2	0.0	1436.2
	% Fixture	29.9	0.0	29.9
Street Side	Lumens	3374.8	0.0	3374.8
	% Fixture	70.1	0.0	70.1
Total	Lumens	4811.0	0.0	4811.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	1.6
10°-20°	227.5	4.7
20°-30°	389.0	8.1
30°-40°	563.8	11.7
40°-50°	756.4	15.7
50°-60°	927.1	19.3
60°-70°	1036.5	21.5
70°-80°	710.3	14.8
80°-90°	125.5	2.6
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°	4811.0	100.0
0°-180°	4811.0	100.0



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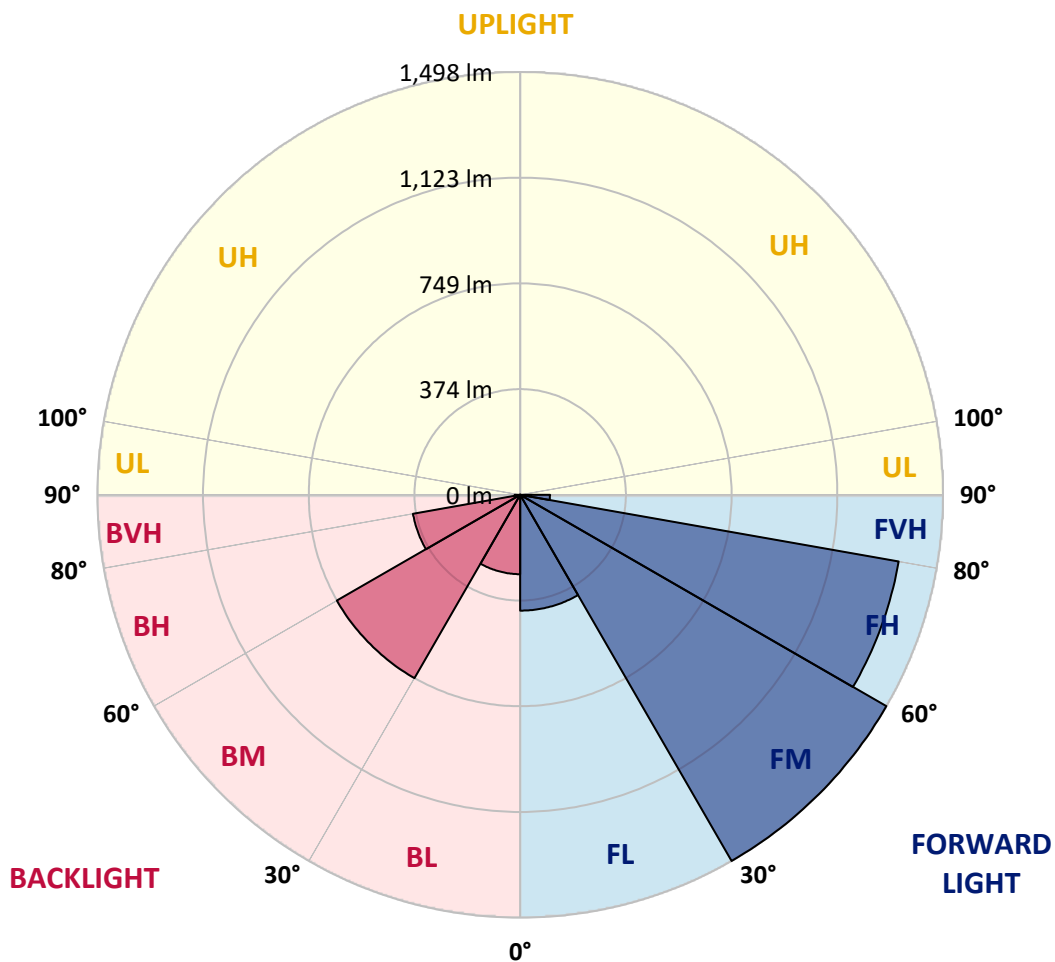
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	410.2	8.5			
FM	(30°-60°)	1497.6	31.1			
FH	(60°-80°)	1361.3	28.3			G1/1800
FVH	(80°-90°)	105.7	2.2			G2/225
BL	(0°-30°)	281.2	5.8	B1/500		
BM	(30°-60°)	749.7	15.6	B1/1000		
BH	(60°-80°)	385.6	8.0	B1/500		G1/500
BVH	(80°-90°)	19.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9
2.5°	811.5	808.4	808.5	807.4	804.3	801.5	799.5	794.3	790.4	786.0	783.0
5°	843.7	840.7	838.3	835.7	832.1	826.6	819.7	811.1	801.8	792.2	786.4
7.5°	875.2	872.3	869.5	865.7	860.5	852.3	842.2	829.8	815.7	800.9	792.6
10°	904.7	903.3	900.9	895.7	889.2	880.1	868.0	852.3	833.3	813.5	801.5
12.5°	932.3	933.2	931.2	926.8	919.7	908.4	895.0	876.1	854.0	827.0	812.8
15°	961.6	959.1	958.2	954.9	949.5	938.2	922.9	900.9	876.7	845.3	827.0
17.5°	988.5	985.6	984.7	981.3	973.9	965.3	950.6	927.5	900.4	864.0	844.6
20°	1011.6	1011.1	1009.1	1007.5	1000.9	991.5	979.2	957.8	927.7	889.0	864.5
22.5°	1037.1	1034.0	1034.9	1030.5	1026.3	1020.8	1010.2	989.9	957.0	913.7	887.3
25°	1057.8	1056.1	1055.6	1053.6	1052.2	1050.5	1042.5	1024.3	988.1	942.9	912.6
27.5°	1073.5	1072.3	1076.1	1075.8	1081.1	1081.2	1075.7	1056.3	1022.3	971.6	939.2
30°	1089.2	1088.9	1095.7	1100.1	1105.7	1110.6	1106.0	1089.5	1053.7	1003.5	969.4
32.5°	1108.1	1107.3	1115.0	1122.0	1130.5	1138.9	1136.3	1121.3	1088.4	1036.0	999.5
35°	1127.1	1127.7	1136.1	1143.6	1155.8	1166.8	1166.7	1155.8	1124.6	1072.6	1033.5
37.5°	1149.2	1150.3	1156.1	1166.5	1181.3	1192.6	1197.5	1189.4	1161.8	1113.2	1074.9
40°	1202.7	1199.8	1213.3	1217.8	1225.1	1229.9	1236.0	1230.1	1207.2	1158.5	1122.9
42.5°	1257.1	1263.0	1279.2	1279.5	1286.3	1288.5	1288.8	1279.8	1256.5	1210.9	1167.8
45°	1251.9	1258.1	1282.5	1298.4	1331.6	1351.6	1353.0	1340.3	1315.1	1246.8	1185.8
47.5°	1252.5	1259.6	1280.3	1286.8	1328.9	1381.6	1413.0	1407.9	1367.4	1270.9	1209.8
50°	1269.6	1278.2	1297.9	1289.9	1319.1	1370.8	1418.5	1432.4	1384.3	1299.6	1240.3
52.5°	1297.9	1305.3	1327.0	1314.4	1334.8	1388.9	1450.6	1469.2	1426.0	1337.0	1271.6
55°	1328.5	1337.8	1357.1	1352.0	1372.7	1433.6	1501.6	1523.1	1477.5	1373.6	1298.5
57.5°	1365.1	1369.5	1395.1	1398.5	1424.0	1489.8	1561.7	1580.9	1527.1	1403.7	1319.1
60°	1386.7	1391.2	1424.0	1443.9	1488.9	1563.4	1634.7	1649.8	1578.5	1427.4	1331.9
62.5°	1416.2	1420.2	1444.1	1481.6	1559.8	1646.0	1715.5	1720.7	1629.2	1445.8	1331.5
65°	1426.7	1426.8	1452.7	1513.1	1617.1	1731.9	1800.4	1789.5	1675.8	1446.4	1310.2
67.5°	1289.2	1305.0	1352.2	1489.5	1654.4	1806.5	1880.9	1852.7	1704.8	1424.4	1261.2
70°	1037.4	1032.3	1103.5	1307.9	1602.3	1837.8	1936.1	1892.4	1704.7	1373.4	1177.2
72°	703.9	733.1	852.3	1041.8	1440.0	1799.5	1951.8	1902.3	1682.1	1310.8	1092.5
72.5°	634.5	656.7	751.6	969.8	1398.9	1778.9	1946.8	1900.4	1672.6	1287.0	1065.7
75°	208.6	236.0	336.2	557.9	1039.5	1562.6	1862.4	1859.9	1575.7	1154.6	917.7
77.5°	82.2	83.7	93.4	213.6	621.7	1234.4	1637.2	1690.7	1300.3	951.8	724.6
80°	59.7	58.3	60.3	77.6	246.5	814.3	1280.1	1327.1	773.9	640.1	506.7
82.5°	41.1	40.6	41.4	49.3	102.4	447.0	872.2	766.9	277.2	286.0	288.9
85°	23.0	23.4	23.1	27.9	54.2	196.5	430.0	305.2	43.0	51.5	119.9
87.5°	8.6	8.7	9.0	10.1	18.9	54.6	155.3	49.7	7.3	7.3	19.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9	781.9
2.5°	781.1	775.7	769.7	765.7	760.4	757.7	754.2	754.2	752.6	751.4
5°	781.4	769.4	757.4	746.9	738.5	730.5	723.9	719.1	718.4	716.9
7.5°	783.8	765.9	747.1	730.8	716.6	703.8	693.2	687.3	683.5	680.8
10°	789.0	764.5	738.8	714.6	693.9	677.4	663.9	656.9	652.6	651.6
12.5°	797.3	764.3	730.9	700.4	673.9	654.2	640.1	630.8	627.6	625.2
15°	807.1	766.3	724.9	686.9	655.6	632.4	617.8	608.3	603.5	602.5
17.5°	820.7	771.2	720.1	674.2	638.3	612.5	597.1	587.4	583.1	582.4
20°	837.4	778.0	717.0	662.9	623.2	595.9	577.9	567.6	563.9	563.9
22.5°	856.7	787.4	715.7	653.1	609.1	580.0	561.2	551.8	549.5	548.7
25°	877.5	800.7	717.8	646.0	596.3	565.9	547.3	537.4	533.5	532.9
27.5°	901.8	816.4	723.3	642.1	586.9	552.5	534.3	522.5	519.0	517.3
30°	928.5	835.4	733.1	642.9	581.8	542.6	519.5	509.1	503.9	501.9
32.5°	958.5	859.1	749.0	649.8	581.2	535.0	507.7	493.5	487.9	487.4
35°	991.6	888.8	772.9	661.6	580.9	525.5	493.9	479.1	475.7	475.9
37.5°	1034.6	927.5	794.6	659.4	562.6	506.7	478.3	468.6	465.6	465.2
40°	1078.7	950.4	788.5	645.6	547.4	491.2	466.6	459.0	457.6	456.7
42.5°	1104.0	951.5	791.8	643.1	538.6	482.4	457.9	450.7	448.4	447.7
45°	1117.4	968.5	806.4	644.0	532.8	475.3	449.4	441.8	437.9	437.0
47.5°	1143.7	990.5	821.6	646.9	529.3	465.9	440.3	431.7	427.6	427.7
50°	1171.5	1010.9	833.7	649.8	525.2	457.6	430.5	420.5	417.6	416.5
52.5°	1196.0	1026.8	839.4	650.7	520.1	449.0	418.8	407.6	403.9	403.1
55°	1214.4	1034.4	836.6	648.4	512.9	437.7	405.2	391.7	387.2	386.3
57.5°	1225.4	1030.6	821.6	637.3	501.2	423.8	387.4	370.1	364.2	363.4
60°	1223.9	1009.1	790.4	615.0	482.5	401.2	358.0	338.1	330.4	329.1
62.5°	1205.8	968.7	748.4	583.2	452.6	363.6	319.8	295.8	283.6	279.8
65°	1167.4	909.0	695.7	531.1	400.5	313.8	269.4	240.8	208.3	200.7
67.5°	1101.8	827.0	623.6	469.5	336.5	262.8	221.3	152.0	118.9	111.4
70°	997.4	715.6	534.8	379.7	260.8	208.9	149.8	84.2	82.1	82.4
72°	900.9	629.5	457.0	304.6	208.0	169.7	89.9	71.3	73.7	72.7
72.5°	872.5	605.3	440.5	284.2	195.1	160.7	80.0	69.0	70.4	71.5
75°	734.9	472.8	317.0	194.8	144.6	107.5	59.4	58.7	60.6	61.0
77.5°	556.7	337.0	203.5	123.5	96.3	61.3	47.6	47.6	49.4	49.7
80°	366.0	207.9	84.8	48.9	60.6	40.4	35.2	36.1	38.2	39.0
82.5°	231.5	112.1	25.4	25.6	30.8	26.5	23.8	24.8	26.6	26.8
85°	112.8	23.0	13.7	13.9	14.2	14.4	12.4	13.2	13.7	13.2
87.5°	27.7	5.8	5.2	5.6	4.5	3.8	3.8	3.2	2.3	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)