

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: P395093

Luminaire Tested: **LAS45S-T3-Switch-9**

Issue Date: 5/3/2020

Test Information

Test Method: LM-79-08
Report Number: P395093
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2004-740-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LAS45S-T3-Switch-9
Description: AREA SITE SMALL HOUSING, TYPE III, 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: 4901 lumens
Efficiency: N/A
Efficacy: 167.3 lumens/watt
Luminous Opening: Rectangular (W 0.71' x L: 0.6' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G1

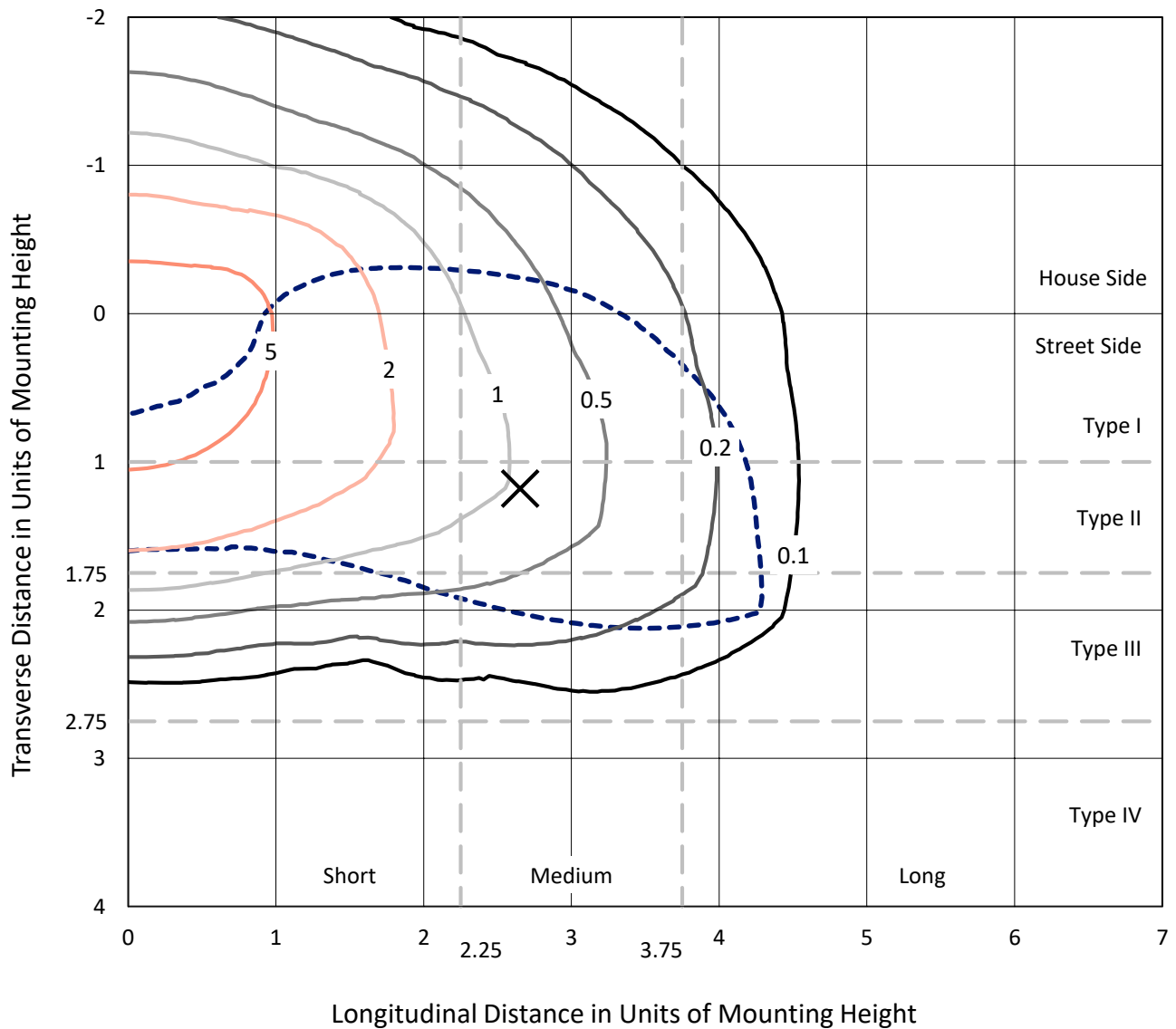
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

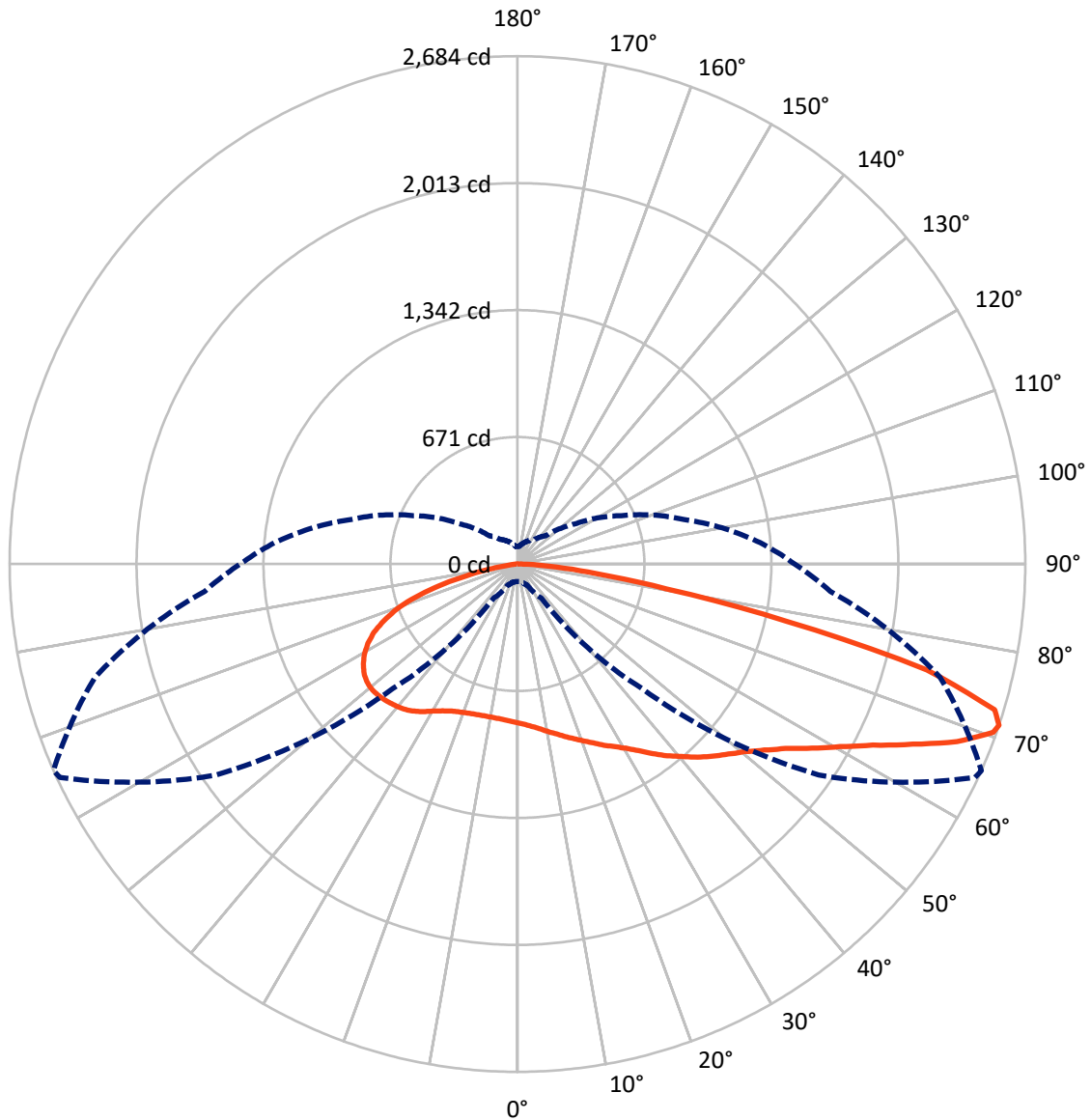
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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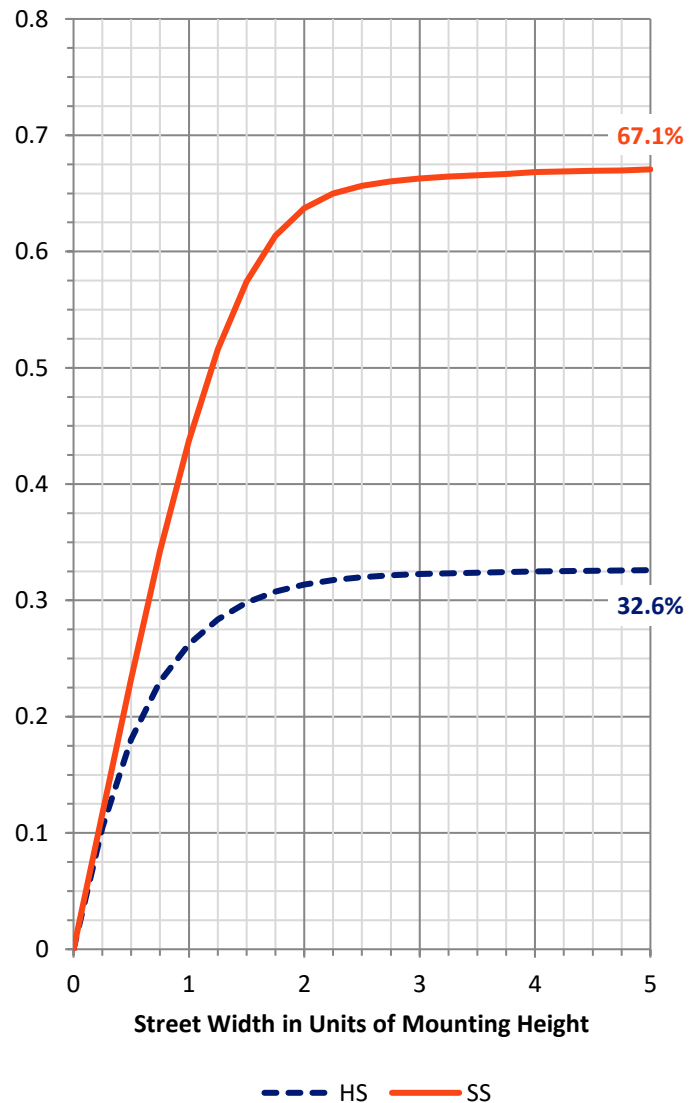
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1608.1	0.0	1608.1
	% Fixture	32.8	0.0	32.8
Street Side	Lumens	3292.9	0.0	3292.9
	% Fixture	67.2	0.0	67.2
Total	Lumens	4901.0	0.0	4901.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	1.6
10°-20°	243.8	5.0
20°-30°	420.4	8.6
30°-40°	631.4	12.9
40°-50°	851.6	17.4
50°-60°	1042.8	21.3
60°-70°	984.4	20.1
70°-80°	569.7	11.6
80°-90°	76.3	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°	4901.0	100.0
0°-180°	4901.0	100.0



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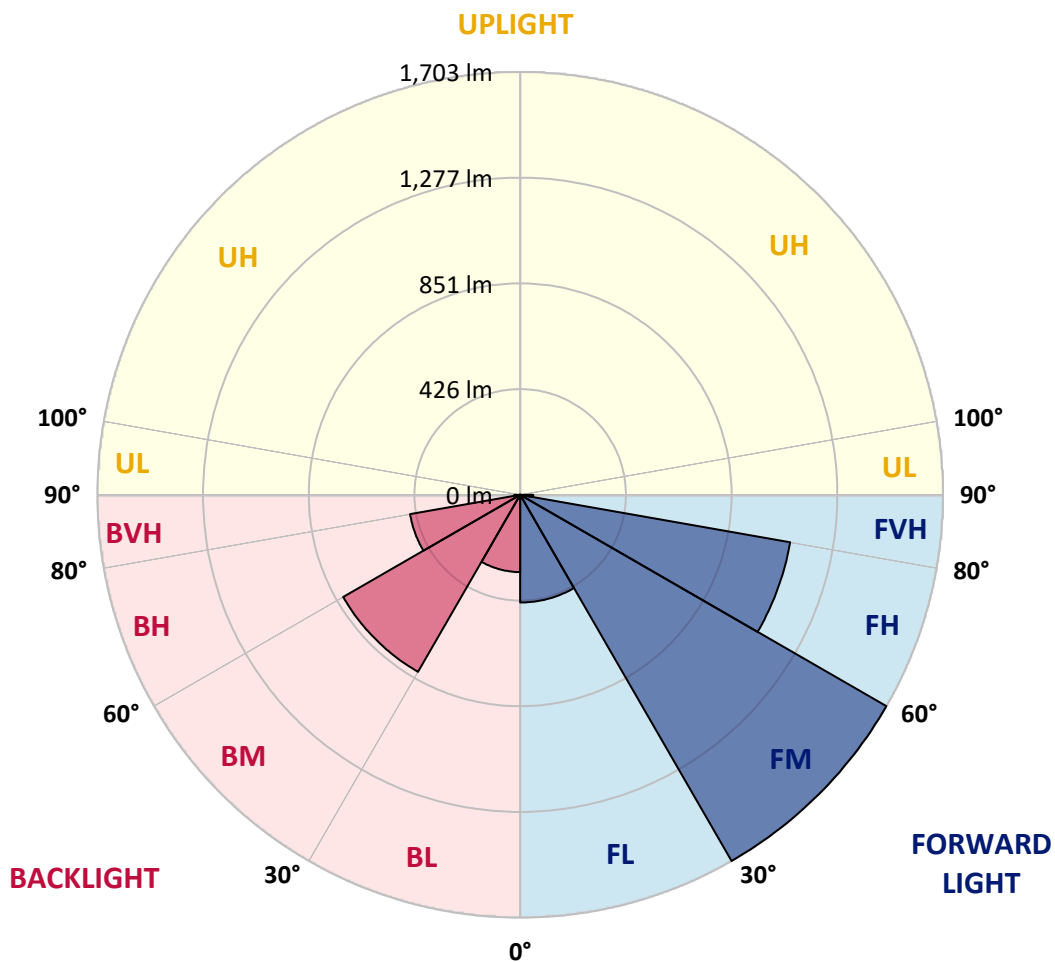
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	433.6	8.8			
FM	(30°-60°)	1702.6	34.7			
FH	(60°-80°)	1104.0	22.5			G1/1800
FVH	(80°-90°)	52.7	1.1			G1/100
BL	(0°-30°)	311.1	6.3	B1/500		
BM	(30°-60°)	823.1	16.8	B1/1000		
BH	(60°-80°)	450.2	9.2	B1/500		G1/500
BVH	(80°-90°)	23.6	0.5			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4
2.5°	861.9	861.5	861.8	860.8	858.3	857.3	854.7	850.5	850.4	846.7	844.3
5°	884.3	883.9	882.6	881.1	878.4	877.1	872.4	864.5	863.8	858.6	852.2
7.5°	905.0	904.9	904.6	901.6	898.8	895.6	890.9	882.8	880.5	873.1	863.3
10°	929.7	928.4	927.4	924.9	922.1	918.0	911.1	901.8	901.6	891.5	877.7
12.5°	953.9	954.5	952.5	950.1	944.6	940.9	933.2	924.6	921.5	911.4	895.0
15°	980.8	981.1	977.7	975.7	972.2	966.9	956.3	946.4	946.0	933.1	914.7
17.5°	1013.1	1014.5	1010.4	1007.7	1001.8	993.8	982.6	971.9	970.7	957.6	937.8
20°	1048.8	1047.1	1046.3	1040.9	1035.4	1024.9	1012.8	1000.5	998.0	983.8	963.3
22.5°	1086.3	1085.9	1085.7	1078.4	1072.3	1057.4	1041.9	1029.5	1026.7	1012.5	990.2
25°	1134.3	1135.7	1128.8	1123.0	1113.2	1093.9	1076.7	1059.0	1060.7	1044.7	1023.5
27.5°	1194.7	1194.7	1191.5	1182.3	1166.4	1139.4	1116.4	1093.5	1092.6	1079.7	1057.6
30°	1273.5	1272.9	1270.5	1261.8	1234.2	1202.8	1161.4	1134.2	1129.8	1112.6	1101.5
32.5°	1314.9	1317.0	1321.1	1319.2	1306.6	1276.1	1222.1	1177.0	1175.2	1155.9	1144.2
35°	1341.3	1343.5	1349.0	1354.4	1347.3	1327.8	1279.9	1235.6	1230.4	1201.8	1191.5
37.5°	1374.6	1375.1	1378.4	1386.0	1385.4	1370.6	1334.0	1290.5	1285.6	1252.8	1244.5
40°	1414.6	1414.7	1417.3	1422.8	1422.6	1409.1	1386.3	1345.3	1336.7	1309.5	1297.0
42.5°	1460.9	1457.1	1460.6	1465.6	1465.6	1455.3	1438.5	1398.7	1395.6	1363.5	1346.3
45°	1503.5	1501.9	1504.2	1506.8	1507.7	1502.6	1487.8	1453.2	1448.4	1414.4	1390.5
47.5°	1546.7	1545.1	1542.7	1552.0	1556.0	1562.2	1547.1	1506.4	1501.2	1456.0	1427.7
50°	1579.1	1578.1	1578.2	1588.1	1604.4	1620.9	1617.4	1568.2	1558.1	1498.9	1460.9
52.5°	1577.8	1576.5	1579.9	1603.6	1641.6	1682.9	1694.9	1644.0	1633.7	1552.5	1491.9
55°	1506.0	1509.6	1527.1	1585.1	1659.6	1750.1	1790.3	1739.1	1720.1	1615.4	1529.9
57.5°	1381.3	1374.3	1414.0	1499.7	1633.2	1795.1	1887.0	1847.5	1836.5	1689.2	1566.1
60°	1162.5	1161.4	1232.5	1348.0	1548.4	1810.1	1989.3	1978.2	1958.8	1776.5	1598.8
62.5°	862.6	866.7	920.9	1104.9	1391.6	1764.4	2091.7	2128.4	2108.2	1879.6	1630.2
65°	509.4	510.7	569.3	743.3	1127.1	1640.9	2161.9	2314.8	2295.8	2012.2	1661.1
67.5°	213.7	226.3	265.2	381.1	771.1	1413.2	2162.9	2503.0	2505.2	2164.0	1687.7
70°	104.8	106.3	122.2	155.6	321.3	1101.1	2032.7	2654.4	2666.6	2295.1	1682.6
71°	93.0	93.1	99.9	123.5	220.7	931.1	1943.3	2668.9	2684.0	2312.0	1659.9
72.5°	82.5	82.4	86.5	96.3	143.0	652.4	1723.3	2616.1	2637.2	2261.7	1592.3
75°	66.3	66.8	69.7	75.1	99.4	296.3	1254.0	2206.2	2235.1	1915.1	1327.0
77.5°	50.6	51.7	55.5	59.6	74.4	179.3	794.5	1503.3	1455.3	1217.3	950.4
80°	37.9	38.3	40.8	45.4	54.6	112.4	446.2	778.4	798.8	642.2	514.8
82.5°	26.3	27.2	29.2	31.4	35.4	71.1	270.6	421.4	418.3	275.3	201.0
85°	15.6	16.3	17.0	18.7	20.1	36.3	149.7	212.1	206.8	71.1	42.3
87.5°	5.8	6.1	6.8	6.3	7.3	12.0	51.4	53.1	51.8	12.3	9.0
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°	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4
2.5°	841.5	840.5	836.7	832.4	828.6	825.7	822.4	819.8	819.0	816.4	817.0
5°	847.0	843.9	834.6	825.7	816.6	808.8	801.9	796.6	792.6	789.7	791.9
7.5°	855.9	850.1	836.4	821.2	806.4	793.9	782.9	772.5	765.3	762.9	761.5
10°	868.3	860.4	840.1	818.6	797.9	779.1	760.8	748.1	736.0	731.1	728.3
12.5°	883.9	872.5	845.7	818.3	790.4	763.5	736.2	717.0	700.7	695.3	691.9
15°	902.6	888.3	855.2	819.8	782.4	743.1	709.5	683.5	663.6	656.2	654.2
17.5°	922.8	906.2	866.6	822.6	774.2	723.8	682.8	651.2	629.4	620.8	620.5
20°	947.6	928.8	881.1	828.3	766.0	704.8	656.2	621.8	599.4	588.4	586.5
22.5°	976.2	954.7	900.8	834.8	759.3	685.5	631.0	591.7	568.7	558.8	556.6
25°	1006.3	983.1	924.5	845.5	753.3	669.4	607.3	566.7	543.1	532.1	529.8
27.5°	1043.9	1018.3	952.4	861.8	750.4	654.3	587.0	543.4	519.4	506.6	505.8
30°	1086.1	1061.1	989.5	880.9	751.5	642.2	569.6	522.8	496.9	484.5	481.4
32.5°	1130.7	1106.9	1029.0	907.3	754.5	631.1	551.8	501.9	474.9	461.7	459.7
35°	1179.9	1157.4	1070.7	931.1	755.9	617.0	531.0	481.1	453.5	442.0	439.7
37.5°	1232.9	1207.0	1113.3	950.0	752.2	599.3	510.5	462.4	435.9	425.6	424.3
40°	1284.0	1255.6	1147.7	963.1	746.0	581.8	492.5	446.0	422.7	413.9	412.4
42.5°	1329.0	1297.1	1174.0	973.5	739.3	566.2	477.6	434.1	413.4	405.8	404.3
45°	1370.5	1333.3	1200.1	982.8	732.8	552.1	466.5	425.2	406.0	399.3	398.4
47.5°	1403.7	1366.1	1221.1	989.1	723.6	541.0	456.5	417.4	400.4	395.2	394.8
50°	1436.8	1394.9	1239.0	990.1	713.5	530.0	447.7	410.4	395.3	391.8	391.8
52.5°	1466.0	1420.2	1251.5	983.3	699.3	517.6	437.0	402.5	389.4	388.4	388.7
55°	1494.6	1443.7	1254.7	967.4	682.8	505.2	425.2	391.8	380.3	381.0	381.5
57.5°	1518.4	1454.3	1245.7	940.2	662.9	487.7	409.1	374.9	361.5	362.0	363.2
60°	1531.9	1452.6	1223.3	906.6	634.5	464.6	385.3	347.9	328.7	325.2	327.0
62.5°	1539.1	1441.5	1185.4	862.2	601.1	434.1	347.3	303.8	280.6	282.5	281.1
65°	1538.7	1421.6	1135.0	808.3	555.7	383.9	296.9	251.4	235.8	230.7	230.3
67.5°	1528.8	1384.2	1062.9	733.5	494.6	319.7	236.6	200.6	184.6	184.1	182.2
70°	1491.1	1324.0	965.6	648.8	406.7	239.0	180.7	151.1	136.9	119.4	118.7
71°	1464.9	1288.3	908.8	605.6	367.2	211.3	159.1	135.2	113.1	92.1	92.1
72.5°	1387.7	1221.8	830.5	537.9	299.3	172.8	131.4	108.6	77.0	72.3	72.5
75°	1204.9	1044.6	679.5	403.9	202.4	118.6	91.7	71.1	52.8	57.5	59.0
77.5°	906.0	797.4	505.0	254.2	115.2	75.6	63.4	46.8	42.0	47.3	47.2
80°	519.3	495.2	311.4	135.9	50.3	47.6	44.8	34.1	32.1	35.9	35.9
82.5°	255.5	274.5	170.1	50.7	23.1	27.7	28.7	23.8	22.4	24.2	24.8
85°	83.8	121.0	62.7	18.2	13.2	13.8	12.7	12.3	12.1	12.5	12.4
87.5°	12.1	21.8	9.0	7.0	5.5	4.8	3.9	3.7	3.1	2.7	2.5
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)