

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: P459868

Luminaire Tested: **NAV-SA5A-AMB-U-SL3-HSS**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459868
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA5A-AMB-U-SL3-HSS
Description: NAVION AREA AND ROADWAY LUMINAIRE
(5) NARROW BAND AMBER, 500mA 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: 4258 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

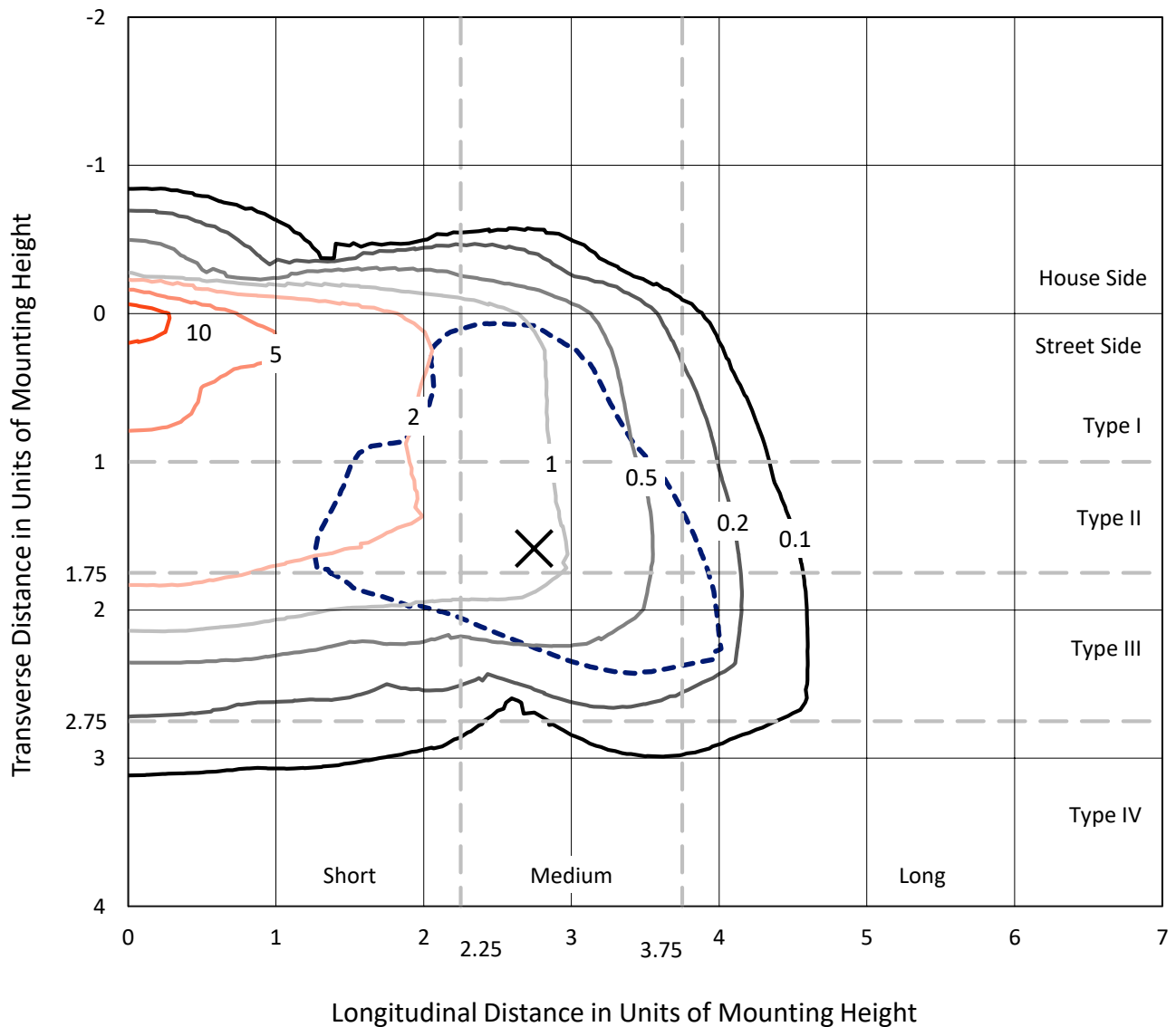
Input Watts (W): 101
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

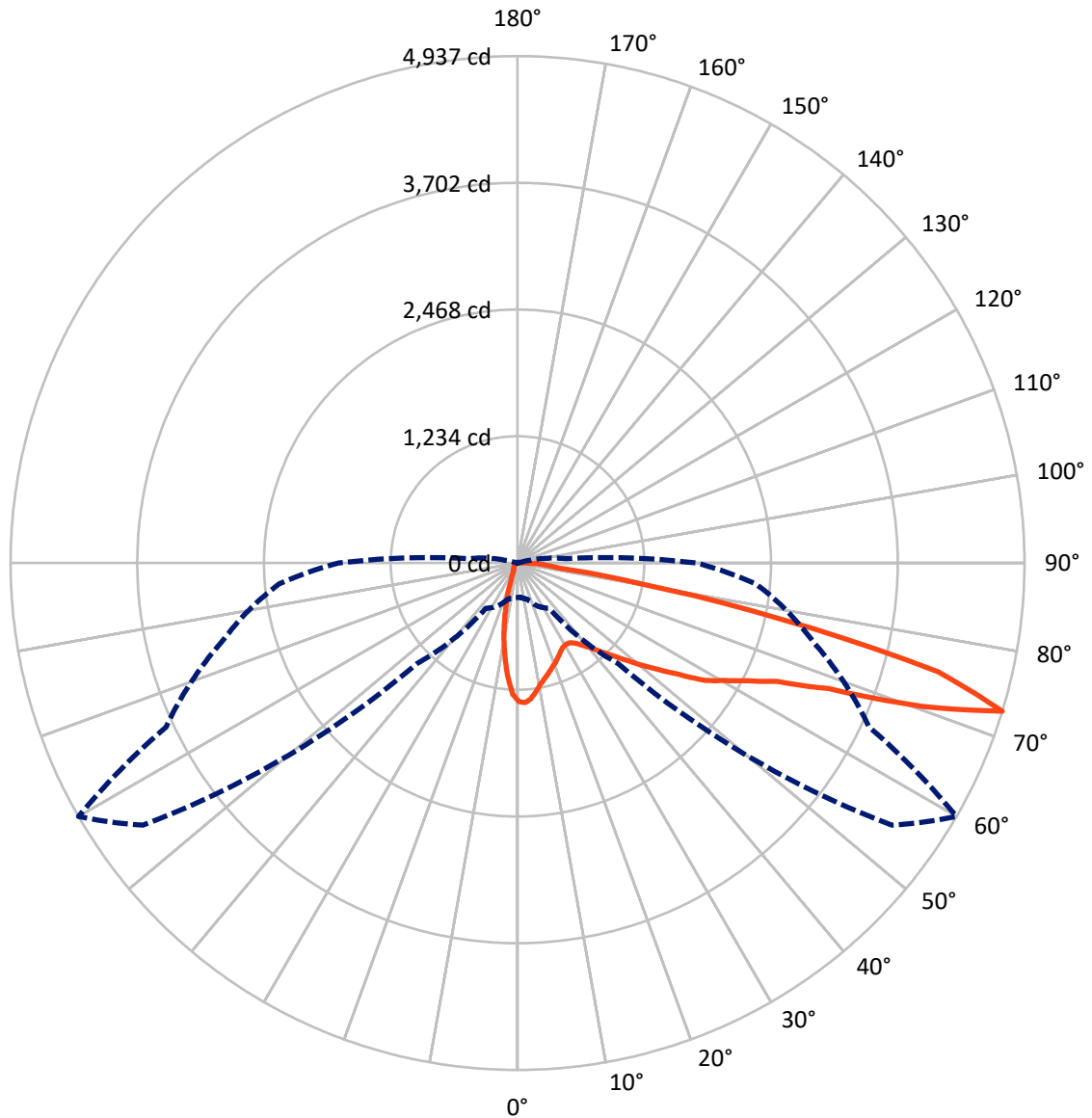


Based on 10 foot mounting height. Maximum calculated value = 13.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical



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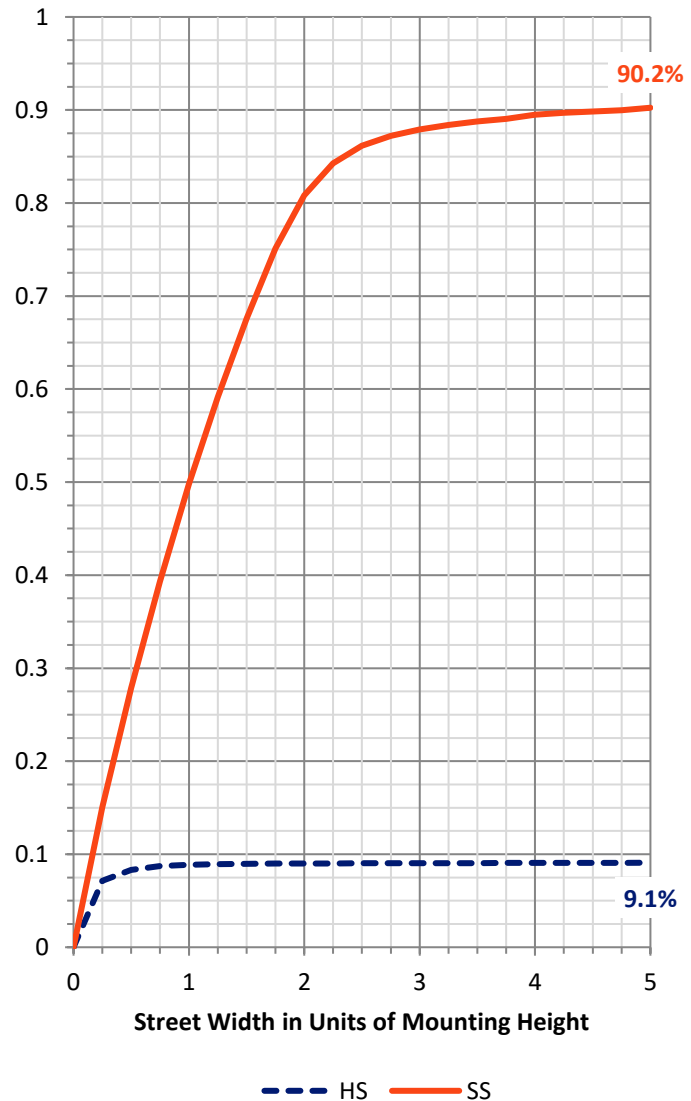
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	390.9	0.0	390.9
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	3867.1	0.0	3867.1
	% Fixture	90.8	0.0	90.8
Total	Lumens	4258.0	0.0	4258.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	2.5
10°-20°	204.6	4.8
20°-30°	268.5	6.3
30°-40°	362.1	8.5
40°-50°	539.1	12.7
50°-60°	836.3	19.6
60°-70°	1147.1	26.9
70°-80°	723.2	17.0
80°-90°	72.4	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°	4258.0	100.0
0°-180°	4258.0	100.0



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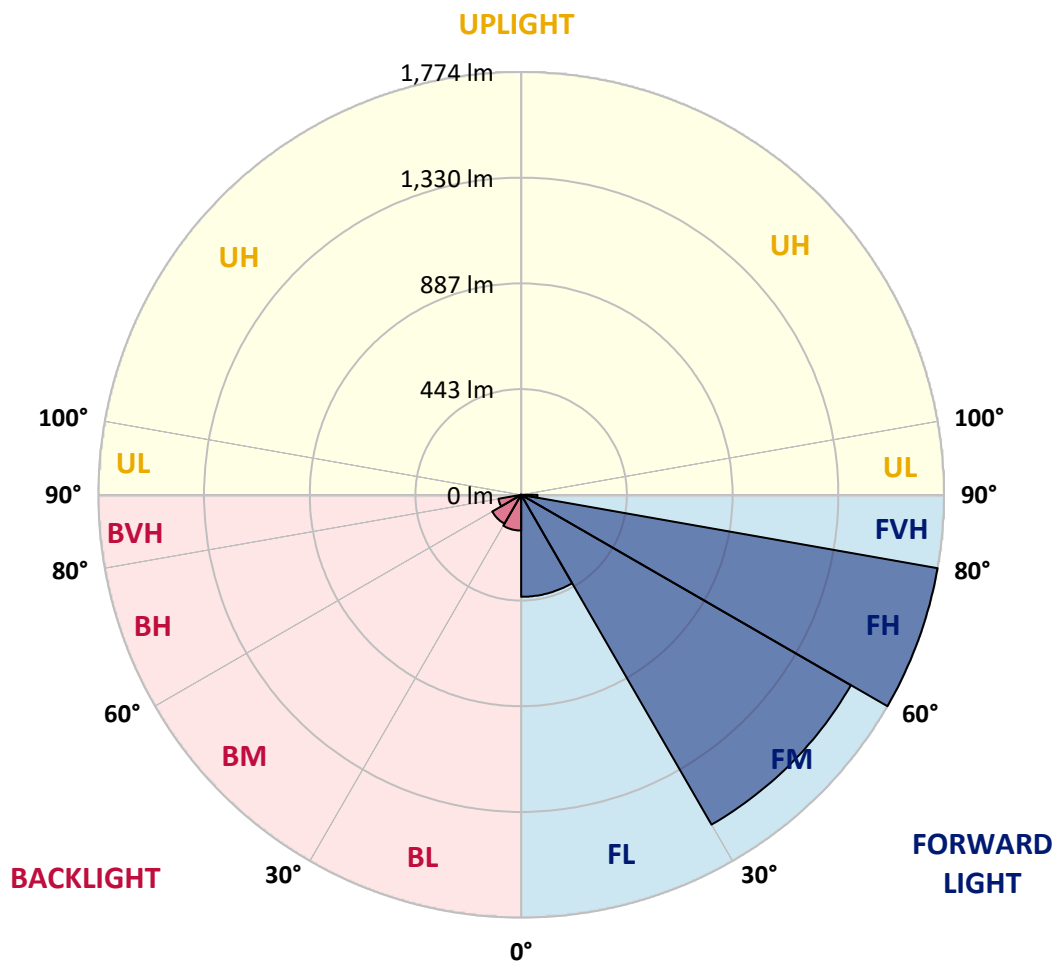
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	427.9	10.0			
FM	(30°-60°)	1597.2	37.5			
FH	(60°-80°)	1773.6	41.7			G1/1800
FVH	(80°-90°)	68.5	1.6			G1/100
BL	(0°-30°)	149.9	3.5	B1/500		
BM	(30°-60°)	140.3	3.3	B0/220		
BH	(60°-80°)	96.7	2.3	B0/110		G0/110
BVH	(80°-90°)	3.9	0.1			G0/10
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°	60°	65°	75°	85°
0°	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5
2.5°	1369.5	1367.2	1367.2	1369.5	1371.8	1364.9	1364.9	1362.6	1355.7	1353.4	1339.6
5°	1282.3	1289.2	1289.2	1298.4	1307.5	1312.1	1330.5	1330.5	1328.2	1328.2	1307.5
7.5°	1176.8	1176.8	1192.8	1208.9	1231.8	1238.7	1259.4	1268.5	1273.1	1284.6	1266.2
10°	1082.7	1089.6	1091.9	1114.8	1135.5	1160.7	1195.1	1206.6	1218.1	1241.0	1222.7
12.5°	1011.6	1016.2	1023.1	1043.7	1069.0	1096.5	1137.8	1158.4	1169.9	1202.0	1188.3
15°	938.2	942.8	956.6	974.9	1009.3	1043.7	1089.6	1117.1	1137.8	1174.5	1163.0
17.5°	890.0	892.3	894.6	910.7	945.1	991.0	1048.3	1075.8	1103.4	1149.3	1144.7
20°	867.1	869.4	867.1	876.3	896.9	935.9	1004.7	1041.4	1071.3	1137.8	1130.9
22.5°	860.2	862.5	857.9	855.6	864.8	899.2	961.2	1002.4	1043.7	1135.5	1126.3
25°	864.8	864.8	857.9	851.0	851.0	869.4	922.2	965.7	1016.2	1140.1	1121.7
27.5°	883.2	880.9	874.0	860.2	848.8	855.6	896.9	935.9	991.0	1147.0	1121.7
30°	906.1	903.8	901.5	890.0	869.4	855.6	885.5	922.2	977.2	1163.0	1124.0
32.5°	931.3	933.6	933.6	924.4	901.5	871.7	892.3	926.7	979.5	1186.0	1130.9
35°	977.2	972.6	979.5	974.9	949.7	910.7	926.7	956.6	1002.4	1211.2	1147.0
37.5°	1020.8	1020.8	1030.0	1032.3	1009.3	961.2	981.8	1011.6	1039.1	1252.5	1176.8
40°	1071.3	1069.0	1082.7	1096.5	1078.1	1036.9	1057.5	1082.7	1108.0	1314.4	1227.2
42.5°	1112.6	1117.1	1137.8	1160.7	1167.6	1110.3	1144.7	1172.2	1183.7	1383.2	1302.9
45°	1151.5	1158.4	1197.4	1234.1	1257.1	1211.2	1250.2	1280.0	1291.5	1470.4	1394.7
47.5°	1192.8	1202.0	1250.2	1307.5	1348.8	1325.9	1369.5	1406.2	1413.1	1578.2	1532.3
50°	1236.4	1245.6	1300.7	1378.6	1447.5	1461.2	1516.3	1559.9	1553.0	1686.0	1672.3
52.5°	1291.5	1302.9	1378.6	1465.8	1559.9	1601.2	1686.0	1725.0	1704.4	1826.0	1800.7
55°	1436.0	1440.6	1493.3	1582.8	1679.1	1761.7	1885.6	1920.0	1867.3	1929.2	1931.5
57.5°	1681.4	1681.4	1692.9	1720.4	1809.9	1931.5	2128.8	2158.6	2059.9	2034.7	2046.2
60°	1828.3	1851.2	1899.4	1952.1	1993.4	2115.0	2321.4	2321.4	2181.5	2144.8	2149.4
62.5°	1791.6	1809.9	1952.1	2071.4	2257.2	2413.2	2530.2	2525.6	2319.2	2248.0	2280.2
65°	1312.1	1344.2	1527.8	1901.7	2360.4	2826.1	2878.9	2777.9	2488.9	2404.0	2534.8
67.5°	704.2	729.5	883.2	1218.1	1862.7	3108.3	3594.6	3264.2	2794.0	2722.9	2794.0
70°	463.4	458.8	470.3	598.7	1018.5	2576.1	4553.4	4177.2	3300.9	2977.5	2796.3
72.5°	334.9	334.9	364.7	463.4	539.1	1383.2	4450.2	4936.5	3775.8	2984.4	2330.6
75°	224.8	229.4	277.6	373.9	502.4	454.2	3461.5	4230.0	3711.6	2241.2	1215.8
77.5°	117.0	123.9	183.5	295.9	461.1	406.0	1938.4	2619.7	2181.5	1030.0	270.7
80°	52.8	55.1	80.3	222.5	422.1	376.2	633.1	1167.6	690.5	123.9	45.9
82.5°	25.2	25.2	34.4	110.1	348.7	323.4	390.0	415.2	162.9	39.0	32.1
85°	9.2	9.2	18.4	61.9	206.5	195.0	332.6	277.6	91.8	25.2	22.9
87.5°	4.6	4.6	6.9	18.4	55.1	158.3	229.4	183.5	39.0	9.2	9.2
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°	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5	1346.5
2.5°	1332.8	1325.9	1307.5	1291.5	1270.8	1243.3	1238.7	1211.2	1188.3	1186.0	1179.1
5°	1296.1	1275.4	1229.5	1163.0	1101.1	1050.6	995.6	961.2	942.8	922.2	935.9
7.5°	1245.6	1211.2	1119.4	1016.2	915.3	828.1	743.2	681.3	656.1	619.4	626.2
10°	1192.8	1144.7	1011.6	855.6	724.9	596.4	486.3	394.6	346.4	330.3	330.3
12.5°	1156.1	1087.3	901.5	706.5	534.5	369.3	268.4	195.0	146.8	130.8	130.8
15°	1119.4	1034.6	800.6	564.3	353.3	213.3	128.5	110.1	107.8	107.8	107.8
17.5°	1087.3	972.6	695.1	431.3	231.7	119.3	105.5	103.2	100.9	100.9	100.9
20°	1055.2	917.6	605.6	309.7	128.5	100.9	96.3	96.3	96.3	96.3	94.1
22.5°	1025.4	869.4	509.3	213.3	98.6	91.8	89.5	89.5	89.5	87.2	87.2
25°	1002.4	825.8	422.1	135.3	87.2	84.9	82.6	80.3	78.0	78.0	78.0
27.5°	979.5	784.5	330.3	94.1	80.3	75.7	73.4	71.1	66.5	66.5	64.2
30°	963.4	743.2	263.8	80.3	73.4	68.8	64.2	59.6	55.1	52.8	52.8
32.5°	954.3	711.1	197.3	73.4	66.5	59.6	55.1	50.5	45.9	41.3	41.3
35°	947.4	679.0	135.3	66.5	59.6	52.8	48.2	41.3	34.4	32.1	32.1
37.5°	958.9	656.1	91.8	61.9	55.1	48.2	39.0	34.4	29.8	27.5	27.5
40°	984.1	637.7	73.4	57.3	50.5	41.3	34.4	27.5	22.9	20.6	20.6
42.5°	1027.7	630.8	64.2	55.1	45.9	36.7	27.5	22.9	20.6	18.4	18.4
45°	1108.0	628.5	59.6	50.5	41.3	29.8	22.9	18.4	16.1	13.8	13.8
47.5°	1197.4	633.1	57.3	48.2	36.7	27.5	20.6	16.1	13.8	11.5	11.5
50°	1307.5	651.5	52.8	43.6	34.4	22.9	16.1	13.8	9.2	9.2	9.2
52.5°	1413.1	669.8	50.5	41.3	29.8	20.6	13.8	9.2	9.2	6.9	6.9
55°	1516.3	711.1	45.9	41.3	27.5	16.1	11.5	9.2	6.9	4.6	4.6
57.5°	1619.5	740.9	43.6	36.7	22.9	13.8	9.2	6.9	4.6	4.6	4.6
60°	1725.0	768.5	39.0	32.1	18.4	11.5	6.9	4.6	4.6	4.6	4.6
62.5°	1858.1	814.3	34.4	27.5	16.1	9.2	6.9	4.6	2.3	2.3	2.3
65°	2108.1	892.3	29.8	22.9	11.5	9.2	6.9	4.6	2.3	2.3	2.3
67.5°	2268.7	880.9	25.2	18.4	11.5	6.9	4.6	4.6	2.3	2.3	2.3
70°	2236.6	796.0	20.6	16.1	9.2	6.9	4.6	4.6	2.3	2.3	2.3
72.5°	1738.8	484.0	18.4	13.8	9.2	6.9	4.6	4.6	2.3	2.3	2.3
75°	793.7	107.8	16.1	11.5	6.9	6.9	4.6	4.6	2.3	2.3	2.3
77.5°	139.9	27.5	13.8	9.2	9.2	6.9	6.9	4.6	2.3	2.3	2.3
80°	36.7	18.4	13.8	9.2	9.2	11.5	9.2	6.9	2.3	2.3	2.3
82.5°	25.2	13.8	13.8	11.5	11.5	13.8	11.5	6.9	2.3	2.3	2.3
85°	18.4	11.5	13.8	13.8	9.2	11.5	11.5	6.9	2.3	2.3	2.3
87.5°	9.2	4.6	4.6	4.6	4.6	6.9	6.9	2.3	2.3	2.3	2.3
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)