

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: P270279

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7027-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270279
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-SL3-7027-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE 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: 4942.7 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 67
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

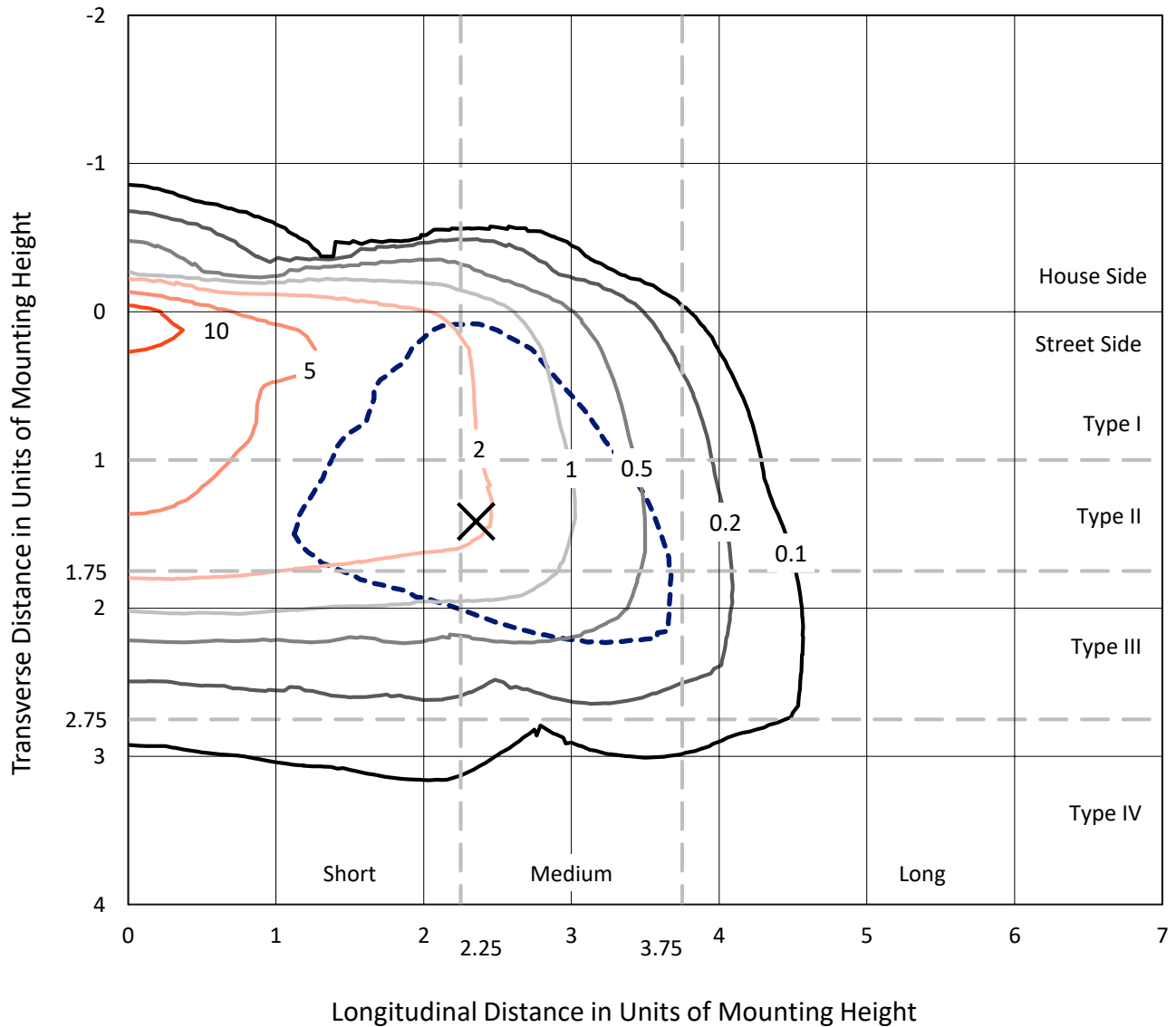


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

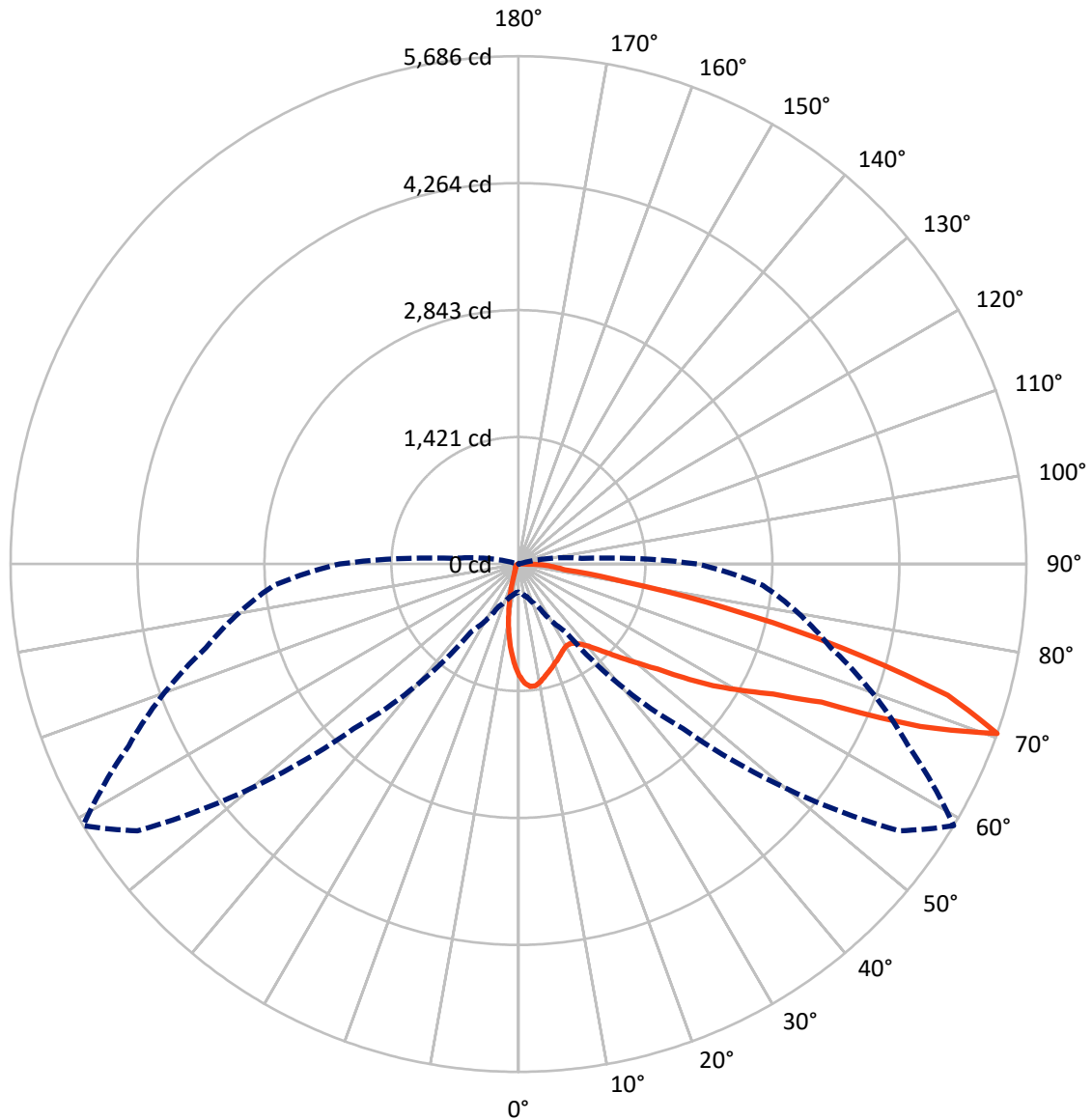


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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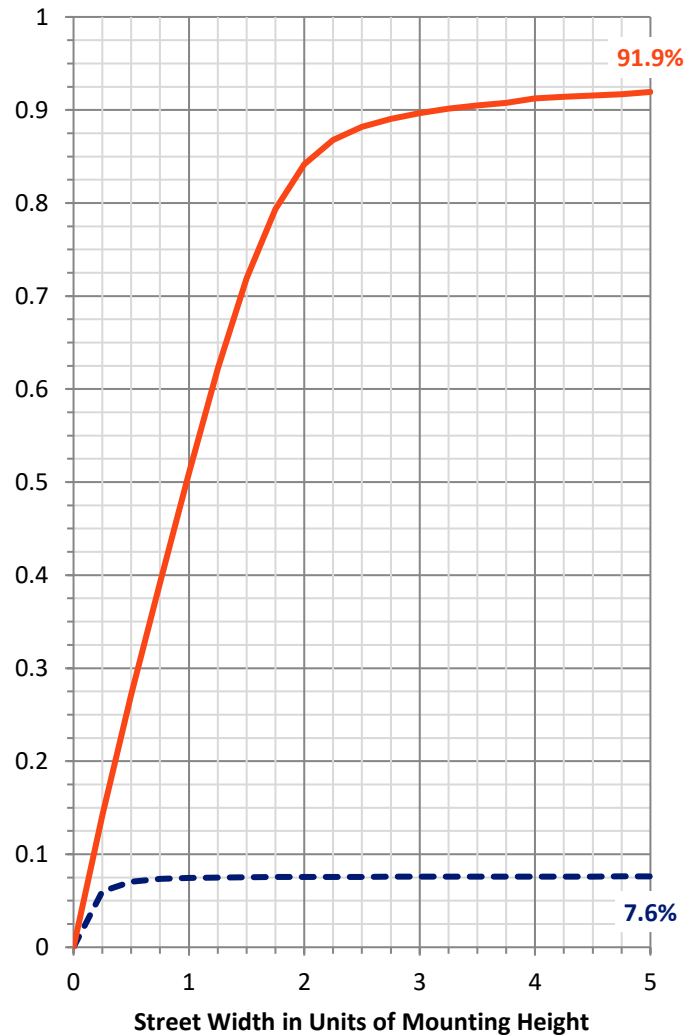
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	380.0	0.0	380.0
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	4562.8	0.0	4562.8
	% Fixture	92.3	0.0	92.3
Total	Lumens	4942.7	0.0	4942.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	2.1
10°-20°	215.6	4.4
20°-30°	291.8	5.9
30°-40°	421.1	8.5
40°-50°	699.4	14.1
50°-60°	1069.8	21.6
60°-70°	1330.5	26.9
70°-80°	735.5	14.9
80°-90°	76.3	1.5
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°	4942.7	100.0
0°-180°	4942.7	100.0



--- HS — SS

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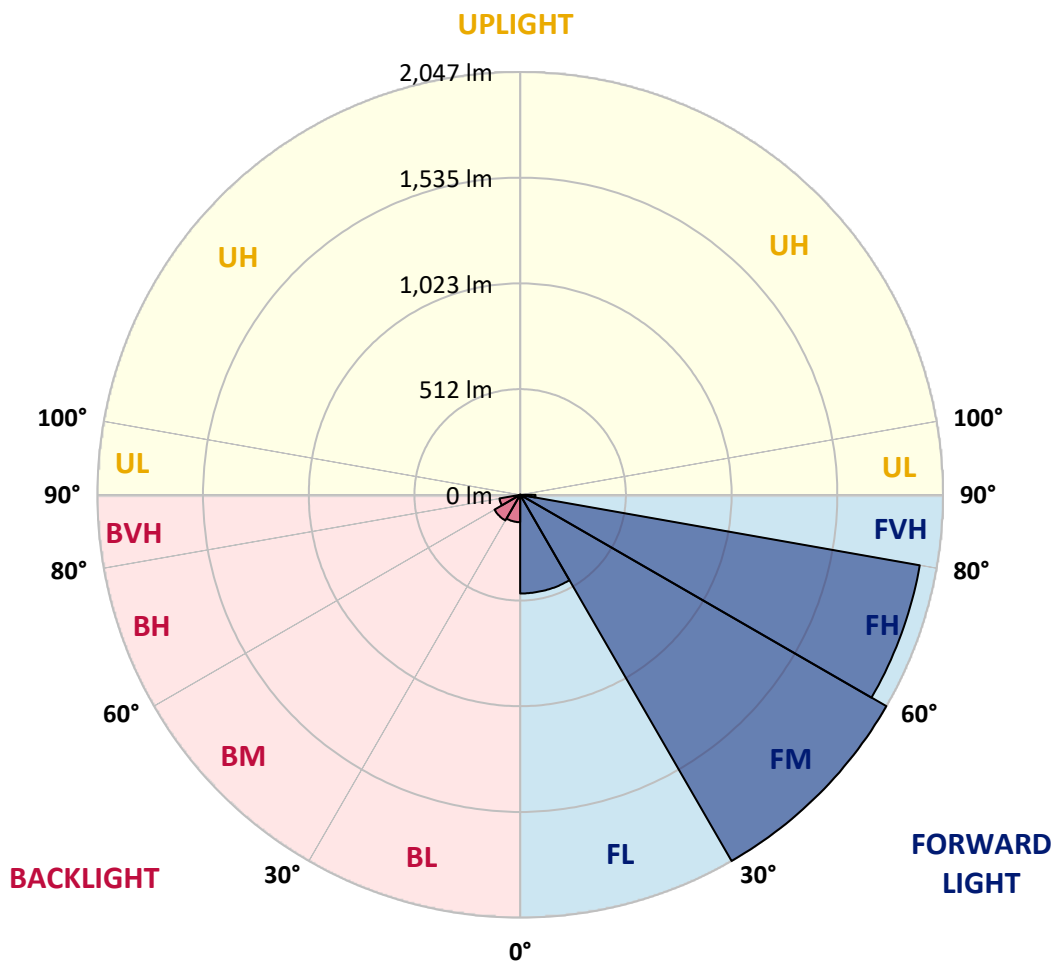
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	477.7	9.7			
FM	(30°-60°)	2046.8	41.4			
FH	(60°-80°)	1964.1	39.7			G2/5000
FVH	(80°-90°)	74.1	1.5			G1/100
BL	(0°-30°)	132.4	2.7	B1/500		
BM	(30°-60°)	143.4	2.9	B0/220		
BH	(60°-80°)	101.9	2.1	B0/110		G0/110
BVH	(80°-90°)	2.2	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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8
2.5°	1412.8	1410.6	1401.3	1399.4	1388.9	1368.1	1343.9	1334.2	1314.3	1283.0	1248.4
5°	1436.3	1437.4	1438.1	1434.1	1432.5	1415.4	1388.5	1377.0	1350.5	1299.0	1235.7
7.5°	1348.3	1351.3	1360.7	1364.6	1382.6	1389.3	1383.7	1376.3	1355.4	1294.5	1205.4
10°	1255.4	1261.0	1271.1	1277.7	1299.8	1317.8	1340.5	1342.2	1337.8	1279.6	1171.5
12.5°	1175.6	1180.8	1192.1	1205.4	1227.9	1251.0	1284.8	1296.9	1311.7	1269.9	1147.3
15°	1107.0	1108.5	1119.4	1136.1	1165.6	1197.4	1237.5	1255.0	1284.1	1266.3	1128.7
17.5°	1047.1	1047.3	1054.5	1069.7	1105.5	1147.3	1194.2	1217.5	1254.4	1261.0	1112.2
20°	1007.4	1007.1	1007.4	1015.7	1047.3	1097.0	1154.1	1178.2	1225.6	1254.8	1095.5
22.5°	994.1	992.2	983.6	980.6	1000.8	1044.4	1112.6	1144.4	1199.9	1252.9	1083.1
25°	1010.5	1009.3	991.1	973.9	975.7	1003.0	1070.5	1109.2	1179.7	1259.6	1080.2
27.5°	1063.5	1061.2	1033.2	999.6	978.4	983.3	1039.2	1079.9	1163.8	1276.0	1084.3
30°	1132.8	1133.1	1103.3	1062.7	1012.7	985.1	1022.5	1060.8	1152.9	1300.6	1093.2
32.5°	1209.9	1209.6	1188.3	1141.3	1077.5	1019.3	1029.8	1062.2	1154.4	1336.7	1110.3
35°	1289.7	1285.7	1278.6	1237.1	1162.5	1079.5	1063.9	1087.7	1170.0	1384.5	1139.5
37.5°	1381.9	1380.3	1387.4	1343.9	1267.8	1167.7	1123.4	1139.5	1209.6	1455.0	1186.4
40°	1528.3	1520.2	1523.5	1464.2	1386.4	1286.7	1207.0	1211.0	1272.5	1548.0	1260.6
42.5°	1807.7	1774.4	1712.2	1601.0	1516.8	1418.8	1316.1	1309.1	1361.7	1661.1	1358.3
45°	2141.4	2103.3	1946.4	1752.1	1647.3	1560.4	1451.2	1432.2	1471.3	1795.7	1484.4
47.5°	2419.9	2378.9	2170.8	1909.7	1780.0	1706.6	1600.7	1578.3	1602.5	1951.9	1635.8
50°	2515.0	2492.2	2309.5	2041.0	1913.8	1870.7	1788.3	1750.9	1756.9	2120.4	1812.5
52.5°	2471.3	2463.5	2341.3	2130.9	2037.7	2051.9	1993.7	1954.5	1947.9	2304.7	2007.9
55°	2379.3	2375.5	2315.9	2180.8	2146.9	2217.7	2282.0	2248.0	2184.6	2500.4	2169.3
57.5°	2247.6	2261.8	2304.7	2277.1	2281.2	2393.1	2549.7	2567.1	2472.4	2656.3	2289.1
60°	1896.1	1934.1	2130.5	2380.4	2571.7	2684.7	2836.4	2869.1	2716.4	2762.9	2427.3
62.5°	1401.5	1456.1	1736.1	2195.1	2731.6	3239.1	3217.8	3203.3	2949.0	2905.7	2679.0
65°	823.2	887.0	1123.8	1715.1	2490.3	3595.6	3929.9	3728.7	3303.5	3202.5	3079.8
67.5°	410.2	410.5	517.6	905.3	1840.4	3346.8	4969.6	4853.3	4057.6	3639.9	3237.9
70°	315.5	324.0	382.9	526.0	930.6	2606.7	5207.8	5685.5	4815.2	3620.4	2747.2
72.5°	267.3	272.9	340.7	457.9	695.7	1431.1	4508.4	5025.5	4594.8	3059.0	2025.0
75°	192.3	196.9	301.7	415.3	640.6	709.9	3092.5	3727.2	3447.5	2151.8	1114.4
77.5°	47.7	47.3	105.1	337.0	573.1	591.4	1774.4	2390.1	1978.1	881.1	286.4
80°	21.3	20.5	23.9	70.8	533.2	558.1	780.4	1207.0	758.8	142.8	87.7
82.5°	14.9	14.2	14.9	26.1	178.3	518.0	471.7	523.2	277.8	48.9	37.3
85°	4.9	4.5	8.3	22.0	49.9	298.6	460.1	390.8	206.6	20.9	25.1
87.5°	0.8	0.8	3.0	11.9	14.6	99.5	269.9	270.7	92.9	12.2	11.1
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°	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8	1249.8
2.5°	1230.8	1208.8	1177.9	1147.0	1119.0	1090.3	1067.1	1056.3	1051.5	1044.8	1030.3
5°	1202.6	1162.5	1094.8	1028.0	965.7	906.1	854.9	825.9	794.6	793.1	777.8
7.5°	1156.9	1100.3	993.3	889.6	794.6	703.6	625.3	574.6	539.9	518.3	503.4
10°	1106.4	1033.6	891.8	746.1	616.7	495.1	394.4	328.9	289.0	268.9	257.3
12.5°	1066.0	974.8	791.9	608.5	446.3	307.0	213.3	165.6	144.3	136.2	132.4
15°	1031.3	920.7	698.4	485.4	297.9	176.3	123.3	107.7	104.5	104.5	104.1
17.5°	996.3	868.4	607.4	364.6	187.6	115.6	97.3	95.1	95.5	96.6	96.6
20°	963.2	818.9	519.8	259.9	123.1	92.4	88.4	87.7	88.8	90.2	89.9
22.5°	936.3	775.1	437.7	178.7	94.7	83.9	81.2	80.2	80.8	82.0	81.7
25°	917.3	737.9	362.5	124.5	82.5	76.4	73.4	72.0	71.2	72.0	71.5
27.5°	905.8	706.5	291.6	93.7	73.8	69.0	65.2	62.3	60.4	60.4	59.6
30°	898.2	677.1	228.6	77.6	66.7	61.5	56.4	52.2	49.1	48.5	48.1
32.5°	897.9	651.8	170.8	68.6	60.0	54.1	47.7	42.5	39.2	38.4	38.0
35°	907.2	631.2	125.7	62.0	54.1	47.0	39.9	34.3	31.4	31.4	30.9
37.5°	931.5	619.3	95.1	56.7	49.1	41.1	33.5	28.3	25.7	26.5	26.5
40°	976.5	617.0	77.6	52.6	45.2	35.8	27.2	23.1	22.0	23.1	23.1
42.5°	1045.4	629.1	69.0	49.5	41.4	30.6	22.7	19.8	19.5	20.5	20.5
45°	1135.4	652.4	64.0	47.0	37.3	25.3	19.0	17.2	16.8	18.2	18.2
47.5°	1244.2	684.1	59.6	43.9	33.1	20.9	16.0	14.6	14.6	16.0	16.3
50°	1373.2	727.1	55.2	41.1	29.9	17.5	13.5	12.2	12.7	14.2	14.6
52.5°	1521.6	779.6	51.1	38.4	26.1	14.2	11.1	10.4	10.8	12.2	12.7
55°	1649.6	825.5	46.3	35.8	21.3	11.6	9.3	9.0	9.3	11.1	11.1
57.5°	1761.0	869.5	41.7	31.7	16.8	9.3	7.5	7.5	8.3	10.2	10.4
60°	1909.1	938.9	38.0	26.9	12.7	7.0	6.0	6.4	7.5	9.0	9.3
62.5°	2171.3	1056.6	33.1	22.4	9.3	5.6	4.9	5.2	6.6	8.5	9.0
65°	2499.4	1168.2	27.6	18.7	7.0	4.1	3.8	4.9	6.6	8.5	9.0
67.5°	2465.8	1016.1	21.6	14.9	5.2	3.4	3.0	4.5	6.4	8.5	9.0
70°	1999.6	712.1	16.0	10.2	4.1	3.0	3.0	4.5	6.4	8.3	8.5
72.5°	1387.1	396.3	12.2	6.6	3.8	3.0	2.6	4.1	6.0	8.3	8.5
75°	660.0	121.5	9.7	4.9	3.4	2.6	2.2	4.1	6.0	8.3	8.5
77.5°	126.8	30.9	7.8	4.1	3.0	2.6	2.2	3.8	6.0	7.8	8.3
80°	42.8	13.8	6.4	3.8	3.0	2.6	2.2	3.8	5.6	7.5	7.8
82.5°	23.4	7.8	5.6	3.4	3.0	2.2	1.8	3.4	5.2	7.5	7.8
85°	18.2	5.6	4.5	3.4	3.0	2.2	1.8	3.4	5.2	7.0	7.5
87.5°	9.3	4.1	3.8	3.4	3.0	2.2	1.8	3.0	4.9	6.6	7.5
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)