

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: P196111

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196111
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-SL3-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 800mA 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: 4286.2 lumens
Efficiency: N/A
Efficacy: 97.4 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 - G1

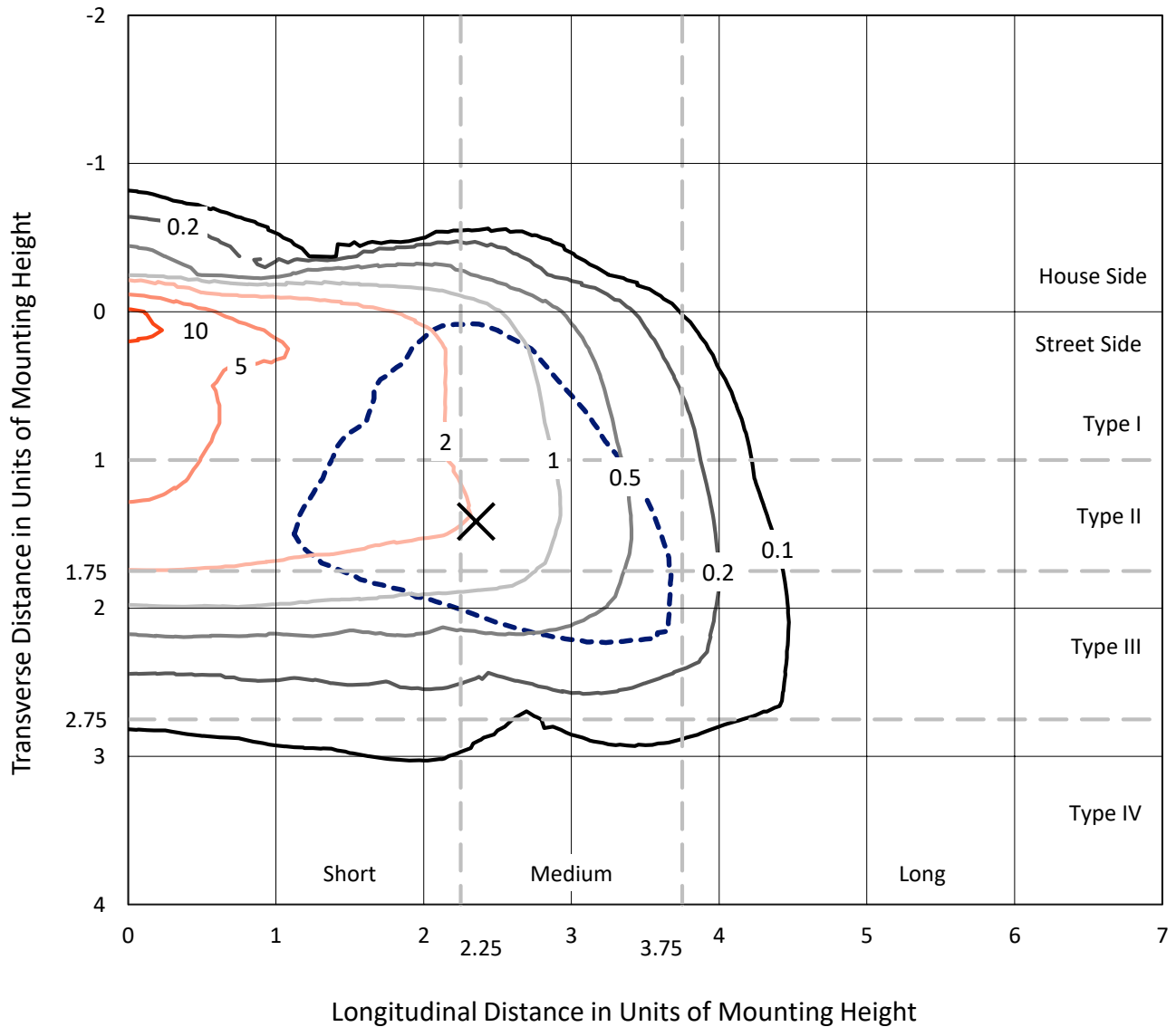
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196111
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Iso-Footcandle Lines of Horizontal Illumination

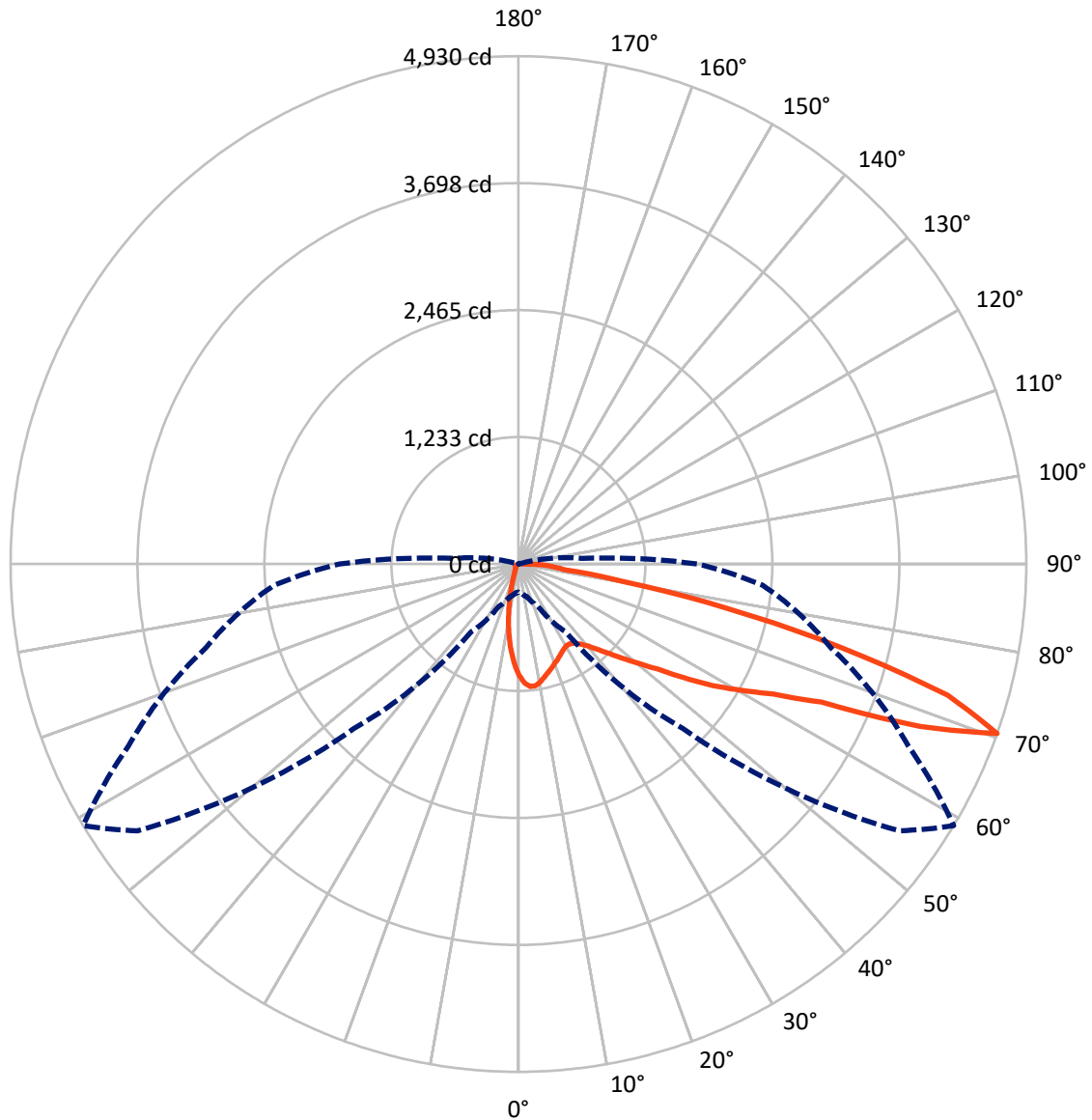
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P196111
CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-800-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196111

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-800-HSS

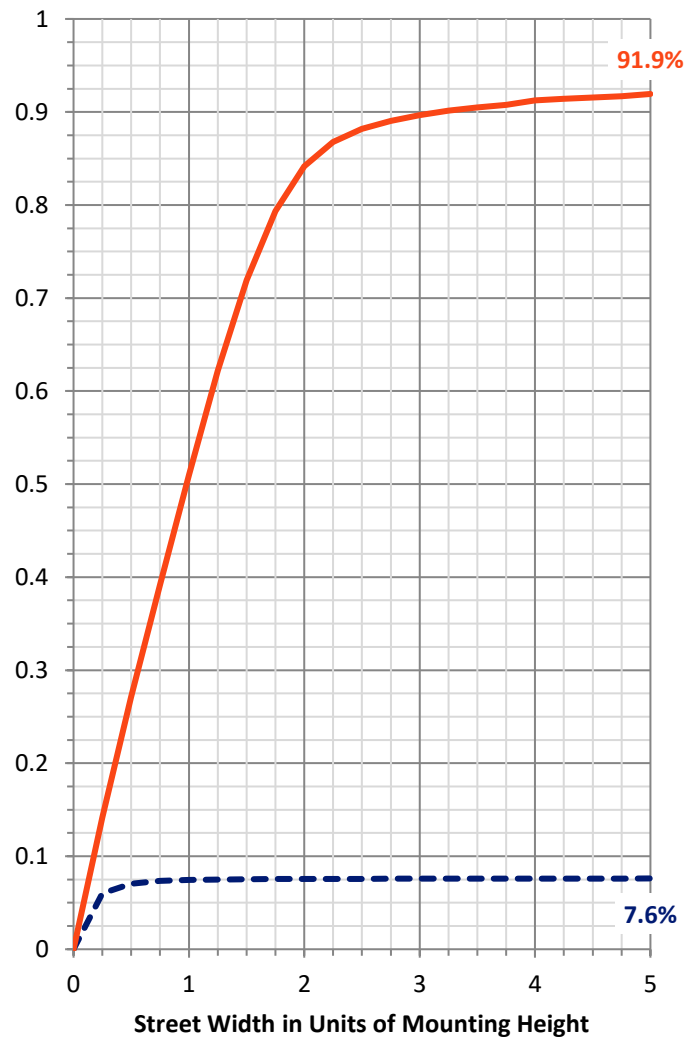
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	329.5	0.0	329.5
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	3956.7	0.0	3956.7
	% Fixture	92.3	0.0	92.3
Total	Lumens	4286.2	0.0	4286.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	2.1
10°-20°	186.9	4.4
20°-30°	253.0	5.9
30°-40°	365.2	8.5
40°-50°	606.5	14.1
50°-60°	927.7	21.6
60°-70°	1153.8	26.9
70°-80°	637.8	14.9
80°-90°	66.1	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°	4286.2	100.0
0°-180°	4286.2	100.0



--- HS — SS

REPORT NUMBER: P196111

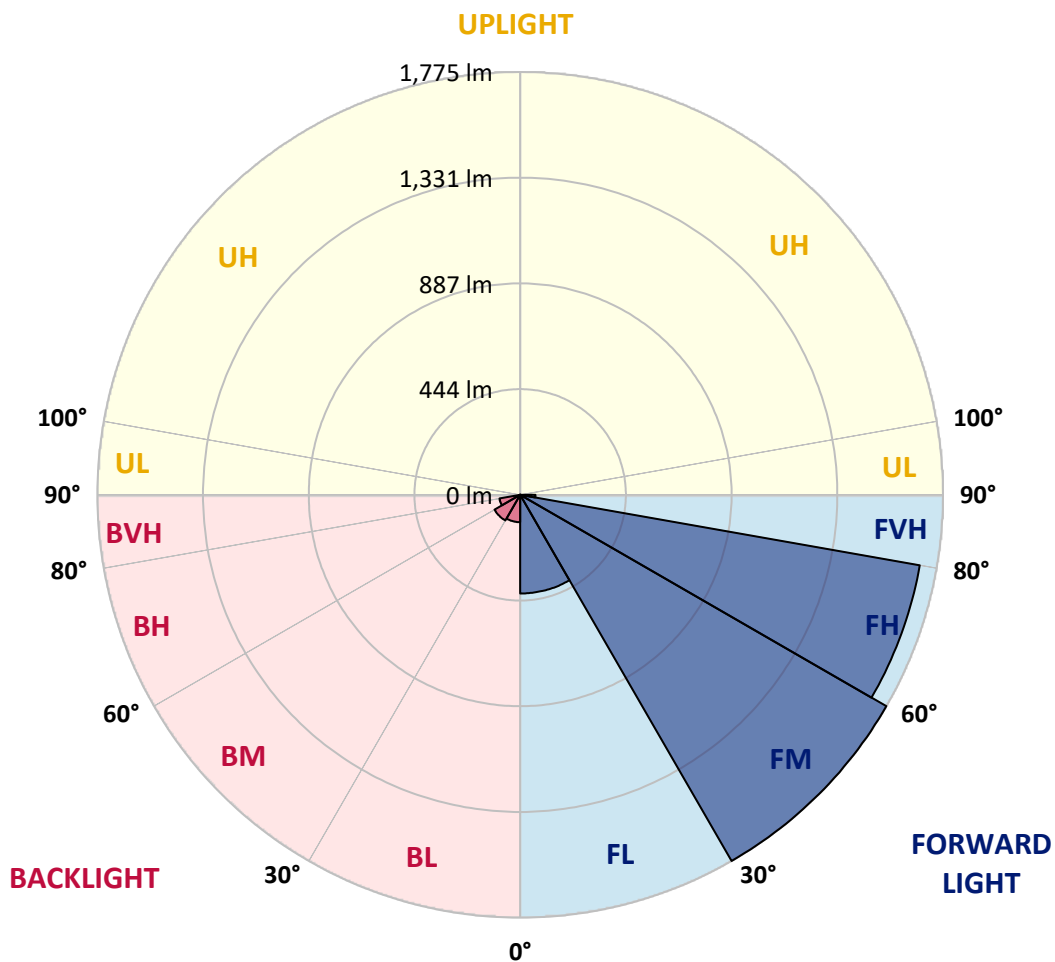
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	414.3	9.7			
FM	(30°-60°)	1774.9	41.4			
FH	(60°-80°)	1703.2	39.7			G1/1800
FVH	(80°-90°)	64.2	1.5			G1/100
BL	(0°-30°)	114.8	2.7	B1/500		
BM	(30°-60°)	124.4	2.9	B0/220		
BH	(60°-80°)	88.4	2.1	B0/110		G0/110
BVH	(80°-90°)	1.9	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-G1

Type III Medium





REPORT NUMBER: P196111
 CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-800-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8
2.5°	1225.1	1223.1	1215.1	1213.4	1204.4	1186.3	1165.3	1156.9	1139.8	1112.6	1082.5
5°	1245.4	1246.5	1247.1	1243.5	1242.3	1227.3	1204.1	1194.1	1171.1	1126.5	1071.5
7.5°	1169.1	1171.8	1179.9	1183.5	1198.9	1204.7	1199.9	1193.5	1175.4	1122.6	1045.4
10°	1088.6	1093.5	1102.2	1108.1	1127.2	1142.6	1162.4	1164.0	1160.1	1109.7	1015.9
12.5°	1019.5	1024.0	1033.7	1045.4	1064.8	1084.7	1114.2	1124.5	1137.5	1101.3	994.9
15°	959.9	961.3	970.7	985.2	1010.8	1038.2	1073.2	1088.3	1113.6	1098.0	978.8
17.5°	908.0	908.3	914.4	927.6	958.7	994.9	1035.6	1055.7	1087.7	1093.5	964.5
20°	873.6	873.3	873.6	880.8	908.3	951.2	1000.8	1021.7	1062.8	1088.0	949.9
22.5°	862.0	860.4	852.9	850.4	867.9	905.6	964.8	992.3	1040.4	1086.4	939.3
25°	876.3	875.2	859.4	844.5	846.2	869.8	928.3	961.9	1023.1	1092.2	936.7
27.5°	922.2	920.2	896.0	866.8	848.4	852.6	901.1	936.4	1009.1	1106.4	940.3
30°	982.3	982.6	956.8	921.5	878.2	854.3	886.6	919.8	999.7	1127.8	948.0
32.5°	1049.2	1048.9	1030.4	989.7	934.5	884.0	893.0	921.2	1001.1	1159.1	962.9
35°	1118.4	1114.8	1108.7	1072.9	1008.1	936.1	922.5	943.2	1014.7	1200.5	988.1
37.5°	1198.3	1197.0	1203.1	1165.3	1099.4	1012.7	974.2	988.1	1048.9	1261.6	1028.9
40°	1325.3	1318.3	1321.1	1269.7	1202.2	1115.8	1046.7	1050.2	1103.6	1342.5	1093.2
42.5°	1567.6	1538.7	1484.7	1388.3	1315.3	1230.3	1141.4	1135.3	1180.8	1440.4	1177.9
45°	1856.9	1823.9	1687.8	1519.4	1428.4	1353.2	1258.4	1242.0	1275.9	1557.1	1287.2
47.5°	2098.5	2062.9	1882.4	1656.2	1543.6	1479.9	1388.0	1368.7	1389.7	1692.7	1418.4
50°	2180.9	2161.2	2002.7	1769.9	1659.6	1622.2	1550.7	1518.4	1523.6	1838.8	1571.8
52.5°	2143.1	2136.2	2030.3	1847.9	1767.0	1779.3	1728.9	1694.9	1689.1	1998.5	1741.2
55°	2063.2	2059.9	2008.3	1891.2	1861.8	1923.1	1978.8	1949.3	1894.4	2168.2	1881.2
57.5°	1949.0	1961.3	1998.5	1974.6	1978.2	2075.2	2211.0	2226.1	2144.0	2303.5	1984.9
60°	1644.2	1677.1	1847.6	2064.2	2230.0	2328.0	2459.6	2488.0	2355.4	2396.0	2104.9
62.5°	1215.4	1262.6	1505.5	1903.5	2368.7	2808.8	2790.4	2777.7	2557.3	2519.7	2323.1
65°	713.9	769.3	974.6	1487.4	2159.6	3118.0	3408.0	3233.3	2864.8	2777.1	2670.7
67.5°	355.7	356.0	448.8	785.0	1596.0	2902.2	4309.4	4208.5	3518.5	3156.4	2807.8
70°	273.5	281.0	332.0	456.2	807.0	2260.4	4516.0	4930.2	4175.6	3139.5	2382.4
72.5°	231.8	236.7	295.5	397.0	603.3	1240.9	3909.4	4357.9	3984.5	2652.6	1756.0
75°	166.8	170.7	261.6	360.2	555.5	615.6	2681.8	3232.0	2989.6	1866.0	966.5
77.5°	41.4	41.0	91.1	292.3	496.9	512.8	1538.7	2072.6	1715.3	764.0	248.3
80°	18.4	17.8	20.7	61.5	462.4	484.1	676.8	1046.7	658.0	123.9	76.0
82.5°	12.9	12.3	12.9	22.6	154.6	449.1	409.0	453.7	240.9	42.4	32.3
85°	4.2	3.9	7.2	19.0	43.4	259.0	399.0	338.9	179.1	18.1	21.7
87.5°	0.6	0.6	2.6	10.3	12.6	86.3	234.1	234.8	80.5	10.6	9.7
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: P196111

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-800-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8	1083.8
2.5°	1067.3	1048.2	1021.4	994.6	970.4	945.4	925.4	916.1	911.8	906.0	893.3
5°	1042.8	1008.1	949.3	891.4	837.4	785.7	741.4	716.2	689.1	687.7	674.4
7.5°	1003.3	954.2	861.3	771.5	689.1	610.1	542.3	498.3	468.2	449.5	436.5
10°	959.3	896.3	773.5	647.0	534.8	429.4	342.1	285.2	250.6	233.1	223.1
12.5°	924.4	845.2	686.8	527.6	387.0	266.1	184.9	143.5	125.1	118.0	114.8
15°	894.4	798.3	605.6	420.9	258.3	152.9	107.0	93.4	90.5	90.5	90.2
17.5°	864.0	753.1	526.7	316.2	162.6	100.2	84.4	82.4	82.8	83.8	83.8
20°	835.1	710.0	450.7	225.4	106.7	80.2	76.6	76.0	76.9	78.3	77.9
22.5°	811.9	672.2	379.6	154.9	82.1	72.7	70.5	69.6	70.2	71.1	70.8
25°	795.4	639.9	314.3	108.0	71.5	66.3	63.7	62.4	61.8	62.4	62.1
27.5°	785.4	612.7	252.9	81.1	64.0	59.8	56.6	54.0	52.4	52.4	51.8
30°	778.9	587.2	198.2	67.2	57.9	53.4	48.8	45.3	42.7	42.0	41.7
32.5°	778.6	565.2	148.1	59.5	52.1	46.9	41.4	36.8	34.0	33.3	32.9
35°	786.6	547.4	108.9	53.7	46.9	40.7	34.6	29.8	27.2	27.2	26.8
37.5°	807.7	537.0	82.4	49.1	42.7	35.6	29.1	24.6	22.3	22.9	22.9
40°	846.8	535.1	67.2	45.6	39.1	31.0	23.6	20.0	19.0	20.0	20.0
42.5°	906.6	545.4	59.8	43.0	35.9	26.5	19.7	17.2	16.8	17.8	17.8
45°	984.6	565.8	55.6	40.7	32.3	22.0	16.5	14.8	14.5	15.9	15.9
47.5°	1079.0	593.3	51.8	38.2	28.7	18.1	13.9	12.6	12.6	13.9	14.2
50°	1190.8	630.5	47.9	35.6	25.9	15.2	11.7	10.6	10.9	12.3	12.6
52.5°	1319.5	676.1	44.3	33.3	22.6	12.3	9.7	9.1	9.4	10.6	10.9
55°	1430.4	715.9	40.1	31.0	18.4	10.0	8.1	7.8	8.1	9.7	9.7
57.5°	1527.1	754.0	36.2	27.5	14.5	8.1	6.4	6.4	7.2	8.7	9.1
60°	1655.4	814.2	32.9	23.3	10.9	6.1	5.2	5.5	6.4	7.8	8.1
62.5°	1882.7	916.4	28.7	19.4	8.1	4.8	4.2	4.5	5.8	7.5	7.8
65°	2167.3	1013.0	23.9	16.2	6.1	3.6	3.3	4.2	5.8	7.5	7.8
67.5°	2138.2	881.1	18.7	12.9	4.5	2.9	2.6	3.9	5.5	7.5	7.8
70°	1734.0	617.6	13.9	8.7	3.6	2.6	2.6	3.9	5.5	7.2	7.5
72.5°	1202.8	343.7	10.6	5.8	3.3	2.6	2.3	3.6	5.2	7.2	7.5
75°	572.3	105.4	8.4	4.2	2.9	2.3	1.9	3.6	5.2	7.2	7.5
77.5°	110.0	26.8	6.8	3.6	2.6	2.3	1.9	3.3	5.2	6.8	7.2
80°	37.1	12.0	5.5	3.3	2.6	2.3	1.9	3.3	4.8	6.4	6.8
82.5°	20.4	6.8	4.8	2.9	2.6	1.9	1.6	2.9	4.5	6.4	6.8
85°	15.9	4.8	3.9	2.9	2.6	1.9	1.6	2.9	4.5	6.1	6.4
87.5°	8.1	3.6	3.3	2.9	2.6	1.9	1.6	2.6	4.2	5.8	6.4
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)