

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: P196603

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196603
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-SL3-7030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 5502.3 lumens
Efficiency: N/A
Efficacy: 82.1 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

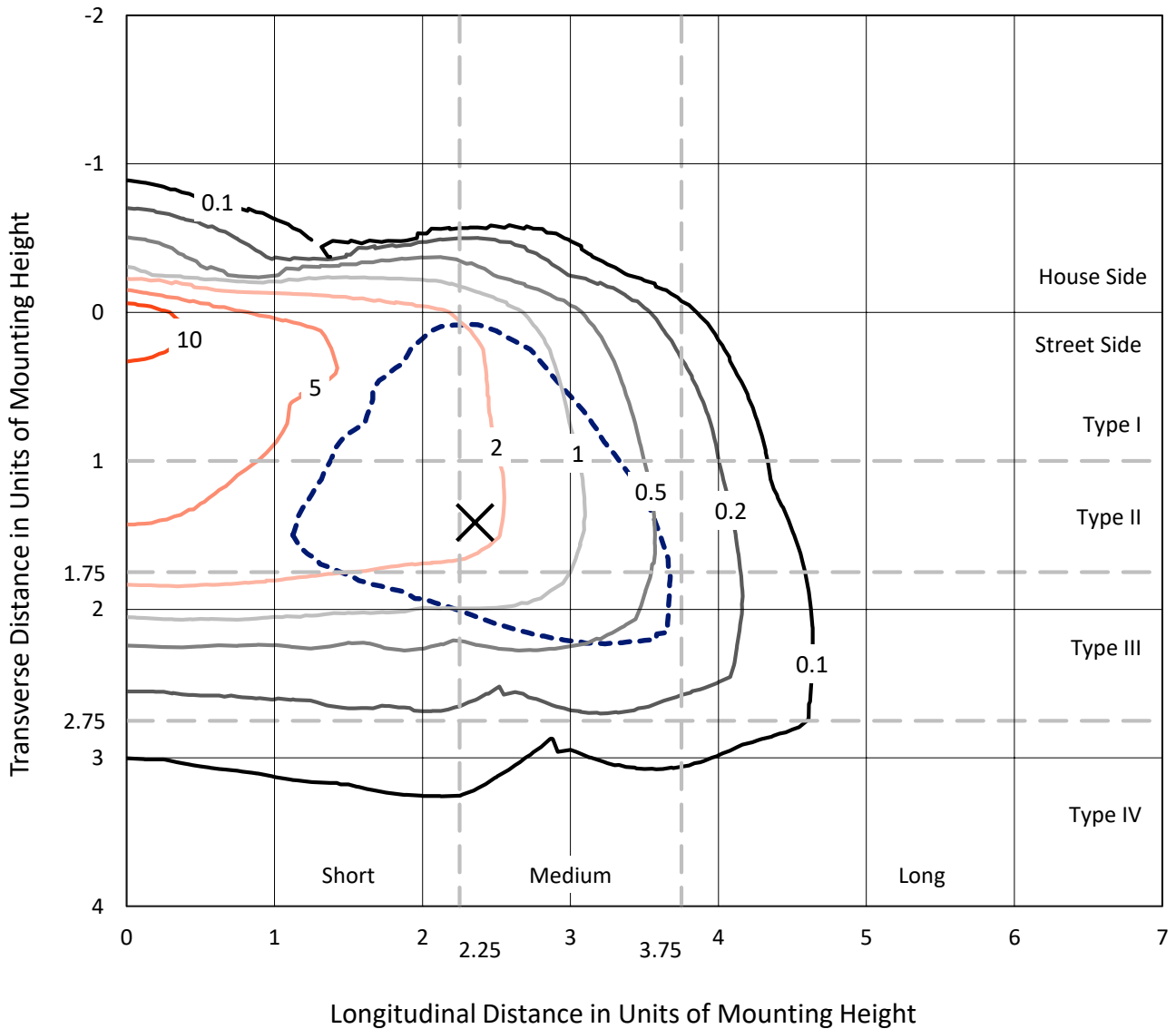
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

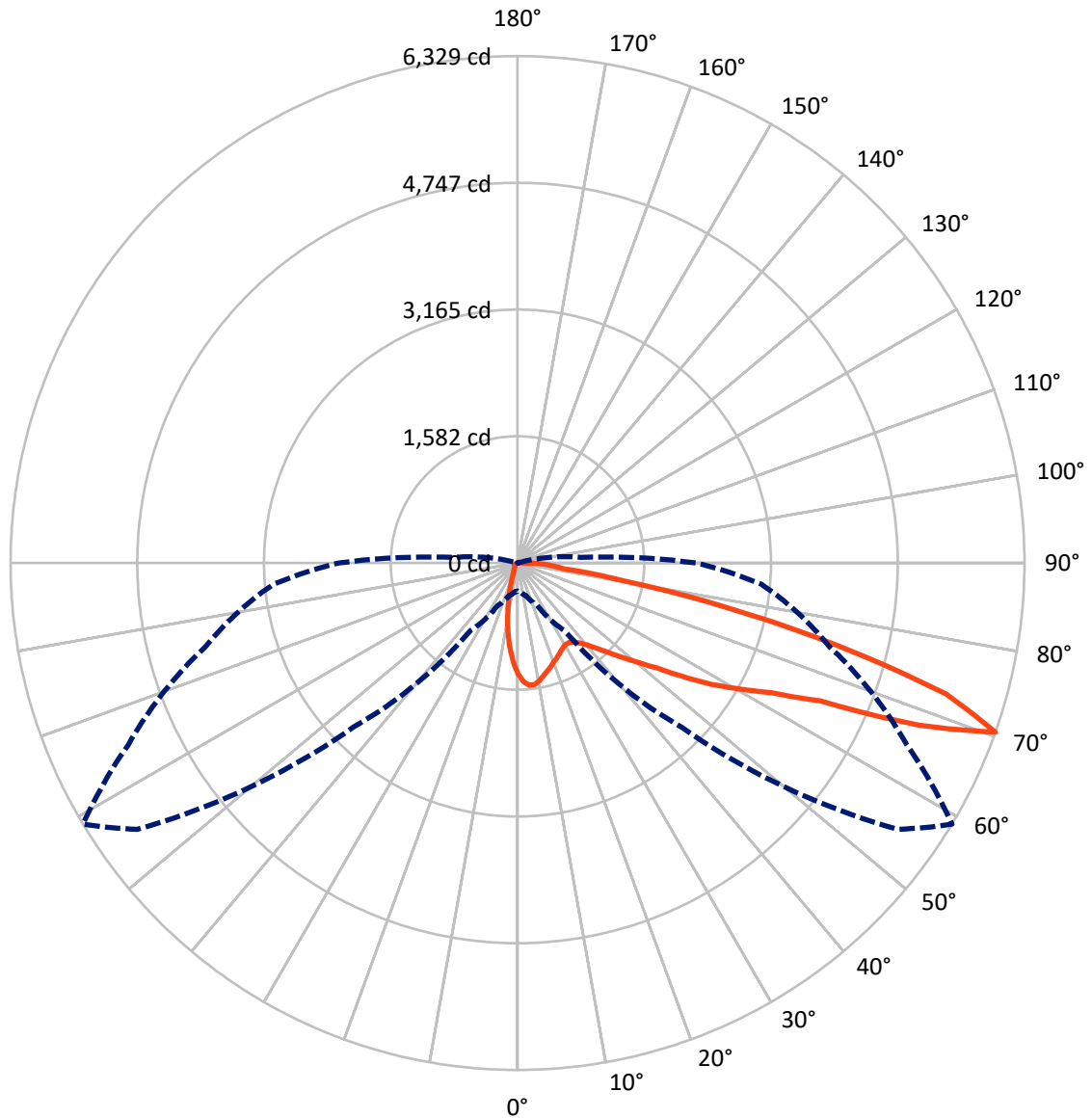
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.8 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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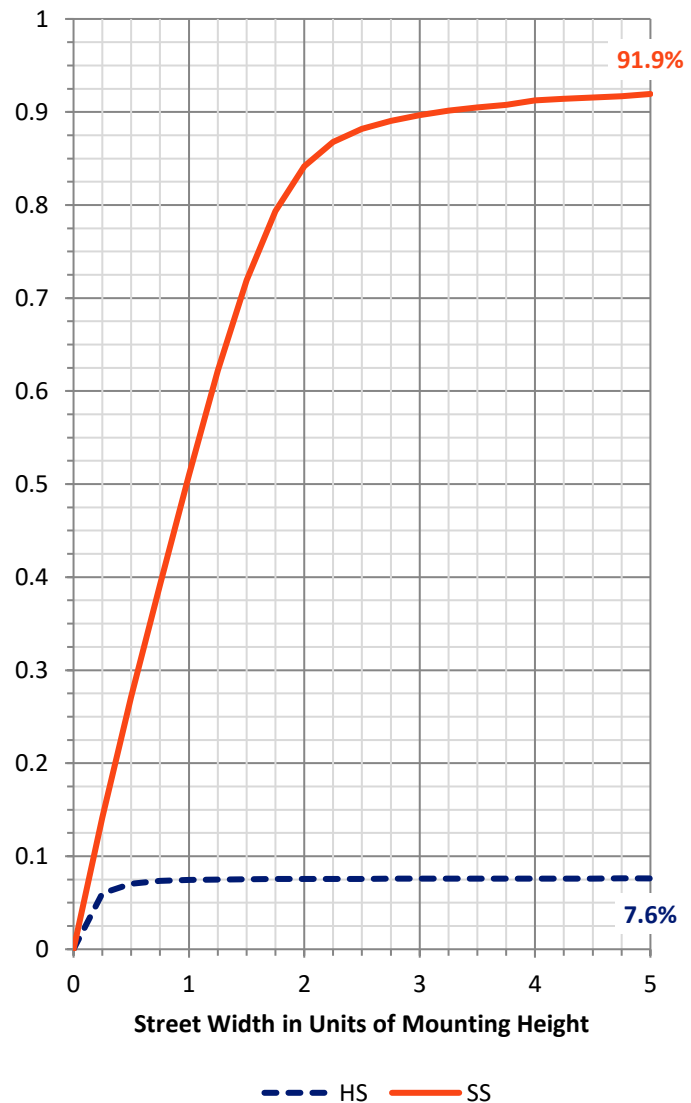
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	423.0	0.0	423.0
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	5079.3	0.0	5079.3
	% Fixture	92.3	0.0	92.3
Total	Lumens	5502.3	0.0	5502.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	2.1
10°-20°	240.0	4.4
20°-30°	324.8	5.9
30°-40°	468.8	8.5
40°-50°	778.5	14.1
50°-60°	1190.9	21.6
60°-70°	1481.2	26.9
70°-80°	818.8	14.9
80°-90°	84.9	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°	5502.3	100.0
0°-180°	5502.3	100.0



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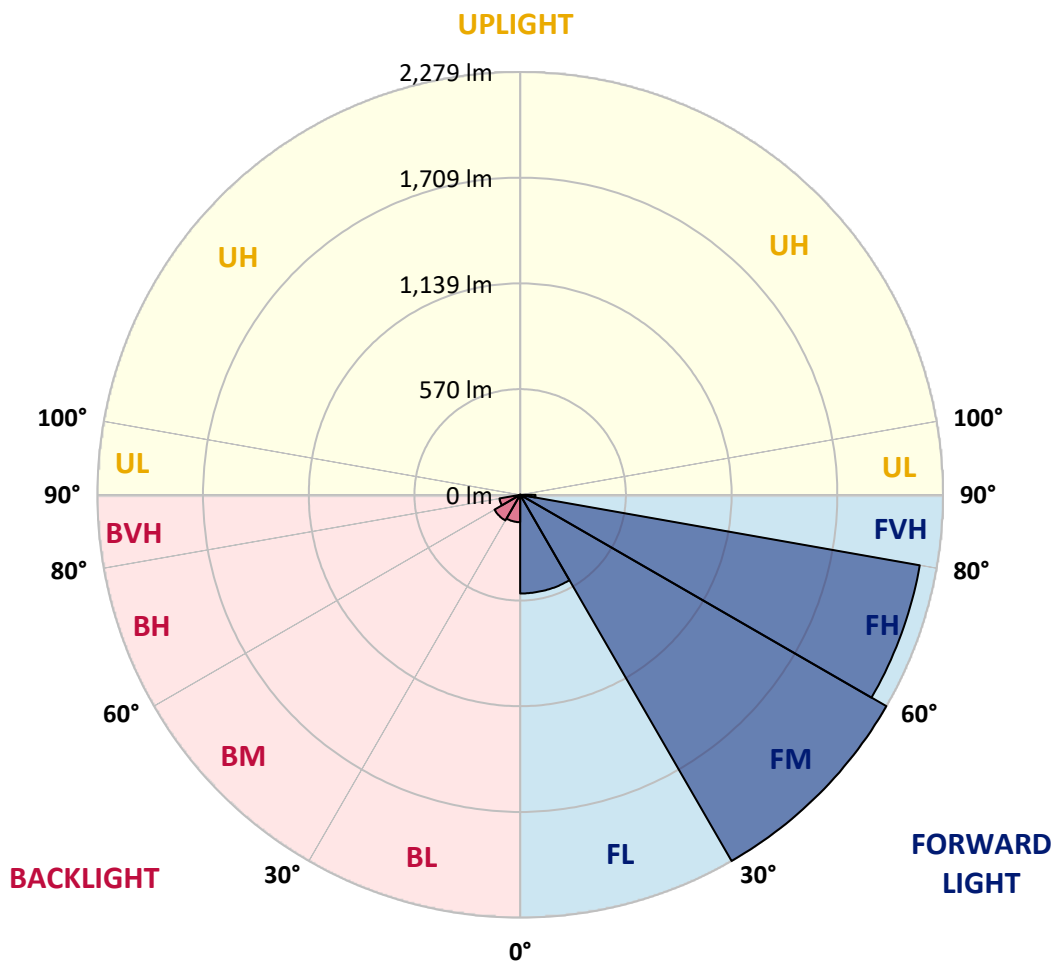
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	531.8	9.7			
FM	(30°-60°)	2278.5	41.4			
FH	(60°-80°)	2186.5	39.7			G2/5000
FVH	(80°-90°)	82.5	1.5			G1/100
BL	(0°-30°)	147.4	2.7	B1/500		
BM	(30°-60°)	159.7	2.9	B0/220		
BH	(60°-80°)	113.5	2.1	B1/500		G1/500
BVH	(80°-90°)	2.5	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°	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3
2.5°	1572.7	1570.3	1559.9	1557.8	1546.1	1523.0	1496.0	1485.2	1463.1	1428.2	1389.7
5°	1598.9	1600.1	1600.9	1596.4	1594.7	1575.6	1545.7	1532.9	1503.4	1446.1	1375.6
7.5°	1500.9	1504.3	1514.7	1519.1	1539.1	1546.6	1540.3	1532.1	1508.8	1441.1	1341.9
10°	1397.5	1403.8	1415.0	1422.4	1446.9	1467.0	1492.2	1494.2	1489.3	1424.5	1304.1
12.5°	1308.7	1314.5	1327.0	1341.9	1366.9	1392.6	1430.3	1443.7	1460.2	1413.7	1277.2
15°	1232.3	1234.0	1246.1	1264.7	1297.6	1332.9	1377.6	1397.1	1429.5	1409.6	1256.5
17.5°	1165.6	1165.9	1173.9	1190.8	1230.7	1277.2	1329.4	1355.3	1396.4	1403.8	1238.1
20°	1121.5	1121.1	1121.5	1130.7	1165.9	1221.2	1284.7	1311.6	1364.3	1396.8	1219.5
22.5°	1106.6	1104.5	1095.0	1091.6	1114.1	1162.6	1238.6	1273.9	1335.7	1394.7	1205.7
25°	1124.9	1123.6	1103.3	1084.2	1086.2	1116.5	1191.7	1234.8	1313.3	1402.2	1202.5
27.5°	1183.9	1181.3	1150.2	1112.8	1089.2	1094.6	1156.8	1202.1	1295.5	1420.4	1207.0
30°	1261.0	1261.4	1228.2	1183.0	1127.3	1096.6	1138.2	1180.9	1283.4	1447.8	1217.0
32.5°	1346.9	1346.5	1322.8	1270.5	1199.5	1134.7	1146.4	1182.5	1285.1	1488.0	1236.0
35°	1435.7	1431.2	1423.3	1377.2	1294.1	1201.7	1184.3	1210.8	1302.5	1541.2	1268.5
37.5°	1538.3	1536.6	1544.5	1496.0	1411.3	1299.9	1250.6	1268.5	1346.5	1619.7	1320.7
40°	1701.3	1692.3	1696.0	1630.0	1543.3	1432.4	1343.6	1348.1	1416.6	1723.3	1403.3
42.5°	2012.3	1975.3	1906.0	1782.3	1688.5	1579.4	1465.1	1457.3	1515.9	1849.2	1512.1
45°	2383.8	2341.4	2166.7	1950.4	1833.8	1737.1	1615.5	1594.3	1637.9	1999.0	1652.4
47.5°	2693.8	2648.2	2416.6	2125.9	1981.5	1899.8	1781.9	1757.0	1783.9	2172.9	1821.0
50°	2799.7	2774.3	2571.0	2272.1	2130.5	2082.5	1990.7	1949.1	1955.8	2360.5	2017.7
52.5°	2751.1	2742.4	2606.3	2372.1	2268.4	2284.2	2219.4	2175.8	2168.4	2565.6	2235.2
55°	2648.6	2644.4	2578.1	2427.7	2390.0	2468.8	2540.3	2502.5	2431.9	2783.5	2414.9
57.5°	2502.0	2517.9	2565.6	2534.9	2539.4	2664.0	2838.3	2857.7	2752.3	2957.0	2548.2
60°	2110.7	2153.0	2371.7	2649.9	2862.8	2988.6	3157.5	3193.9	3023.9	3075.7	2702.1
62.5°	1560.2	1620.9	1932.6	2443.6	3040.8	3605.8	3582.1	3565.9	3282.8	3234.7	2982.3
65°	916.4	987.4	1251.0	1909.3	2772.2	4002.6	4374.8	4150.8	3677.5	3565.1	3428.5
67.5°	456.6	457.0	576.2	1007.8	2048.8	3725.7	5532.2	5402.7	4516.9	4052.0	3604.5
70°	351.2	360.7	426.3	585.6	1036.0	2901.8	5797.4	6329.1	5360.3	4030.3	3058.2
72.5°	297.6	303.8	379.3	509.7	774.5	1593.1	5018.8	5594.4	5115.0	3405.3	2254.2
75°	214.1	219.2	335.8	462.3	713.1	790.3	3442.6	4149.1	3837.8	2395.4	1240.6
77.5°	53.1	52.7	117.0	375.2	638.0	658.3	1975.3	2660.7	2202.0	980.8	318.8
80°	23.7	22.8	26.6	78.8	593.6	621.3	868.7	1343.6	844.7	159.0	97.6
82.5°	16.6	15.8	16.6	29.1	198.5	576.6	525.1	582.4	309.2	54.4	41.5
85°	5.4	5.0	9.2	24.5	55.6	332.4	512.2	435.0	230.0	23.3	27.9
87.5°	0.9	0.9	3.3	13.3	16.2	110.8	300.5	301.3	103.4	13.6	12.4
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°	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3	1391.3
2.5°	1370.1	1345.6	1311.2	1276.8	1245.7	1213.7	1187.9	1175.9	1170.5	1163.1	1146.9
5°	1338.7	1294.1	1218.7	1144.4	1075.0	1008.7	951.7	919.4	884.6	882.9	865.9
7.5°	1287.9	1224.9	1105.8	990.3	884.6	783.3	696.1	639.6	601.0	577.0	560.4
10°	1231.6	1150.6	992.8	830.6	686.5	551.2	439.1	366.1	321.7	299.3	286.4
12.5°	1186.7	1085.1	881.6	677.4	496.8	341.7	237.4	184.3	160.6	151.6	147.4
15°	1148.1	1024.9	777.5	540.4	331.6	196.3	137.3	119.9	116.3	116.3	115.9
17.5°	1109.1	966.7	676.2	405.9	208.8	128.7	108.3	105.9	106.3	107.5	107.5
20°	1072.2	911.6	578.6	289.3	137.0	102.9	98.4	97.6	98.8	100.4	100.1
22.5°	1042.3	862.9	487.3	198.9	105.4	93.4	90.4	89.3	90.0	91.3	90.9
25°	1021.1	821.4	403.5	138.6	91.8	85.1	81.7	80.1	79.3	80.1	79.6
27.5°	1008.3	786.5	324.6	104.3	82.2	76.8	72.6	69.3	67.2	67.2	66.4
30°	999.9	753.8	254.5	86.4	74.3	68.5	62.8	58.1	54.7	54.0	53.5
32.5°	999.5	725.6	190.1	76.4	66.8	60.2	53.1	47.3	43.6	42.7	42.3
35°	1009.9	702.7	139.9	69.0	60.2	52.3	44.4	38.2	34.9	34.9	34.4
37.5°	1036.9	689.4	105.9	63.1	54.7	45.7	37.3	31.5	28.6	29.5	29.5
40°	1087.1	686.9	86.4	58.6	50.3	39.9	30.3	25.7	24.5	25.7	25.7
42.5°	1163.8	700.3	76.8	55.1	46.1	34.1	25.3	22.0	21.7	22.8	22.8
45°	1263.9	726.3	71.3	52.3	41.5	28.2	21.2	19.1	18.7	20.3	20.3
47.5°	1385.1	761.6	66.4	48.9	36.9	23.3	17.8	16.2	16.2	17.8	18.2
50°	1528.7	809.4	61.4	45.7	33.3	19.5	15.0	13.6	14.1	15.8	16.2
52.5°	1693.9	867.9	56.9	42.7	29.1	15.8	12.4	11.6	12.0	13.6	14.1
55°	1836.3	919.0	51.5	39.9	23.7	12.9	10.4	10.0	10.4	12.4	12.4
57.5°	1960.4	967.9	46.4	35.3	18.7	10.4	8.3	8.3	9.2	11.3	11.6
60°	2125.2	1045.2	42.3	29.9	14.1	7.8	6.7	7.1	8.3	10.0	10.4
62.5°	2417.1	1176.2	36.9	24.9	10.4	6.2	5.4	5.8	7.4	9.5	10.0
65°	2782.3	1300.4	30.7	20.8	7.8	4.6	4.2	5.4	7.4	9.5	10.0
67.5°	2744.9	1131.1	24.0	16.6	5.8	3.8	3.3	5.0	7.1	9.5	10.0
70°	2226.0	792.7	17.8	11.3	4.6	3.3	3.3	5.0	7.1	9.2	9.5
72.5°	1544.1	441.2	13.6	7.4	4.2	3.3	2.9	4.6	6.7	9.2	9.5
75°	734.7	135.3	10.8	5.4	3.8	2.9	2.5	4.6	6.7	9.2	9.5
77.5°	141.2	34.4	8.7	4.6	3.3	2.9	2.5	4.2	6.7	8.7	9.2
80°	47.7	15.4	7.1	4.2	3.3	2.9	2.5	4.2	6.2	8.3	8.7
82.5°	26.1	8.7	6.2	3.8	3.3	2.5	2.0	3.8	5.8	8.3	8.7
85°	20.3	6.2	5.0	3.8	3.3	2.5	2.0	3.8	5.8	7.8	8.3
87.5°	10.4	4.6	4.2	3.8	3.3	2.5	2.0	3.3	5.4	7.4	8.3
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)