

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: P196627

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196627
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
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
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6473.6 lumens
Efficiency: N/A
Efficacy: 96.6 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

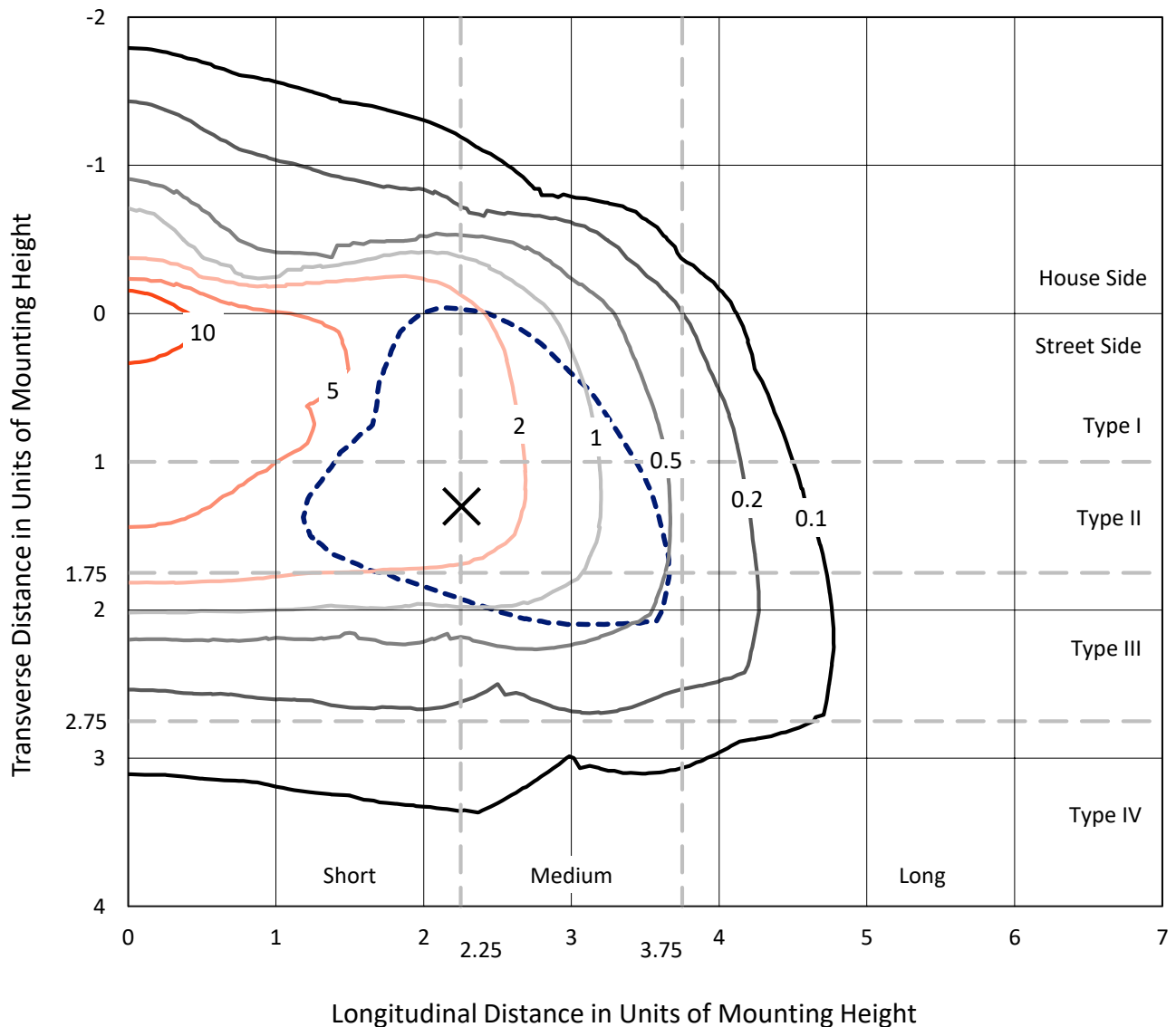
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

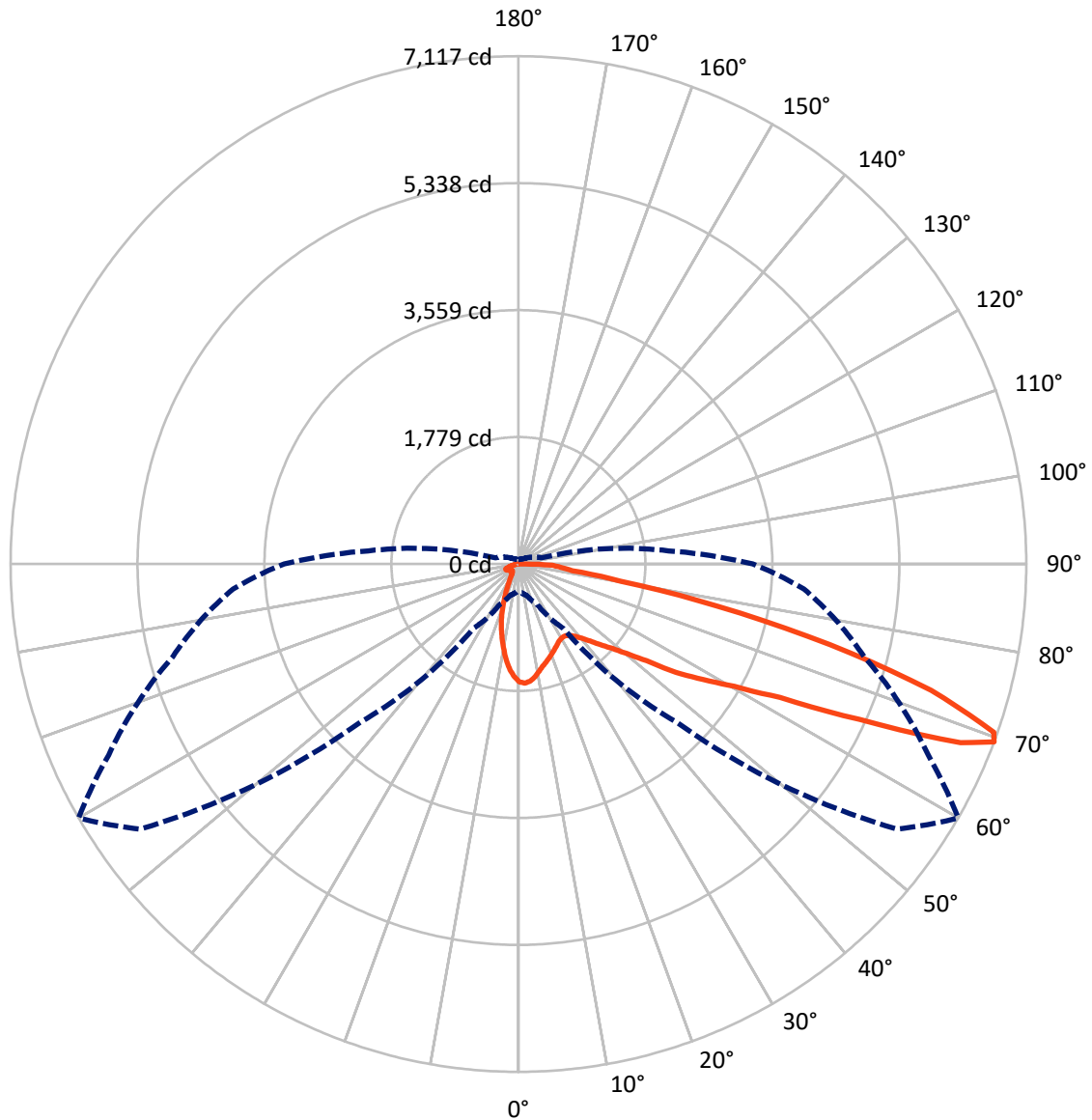
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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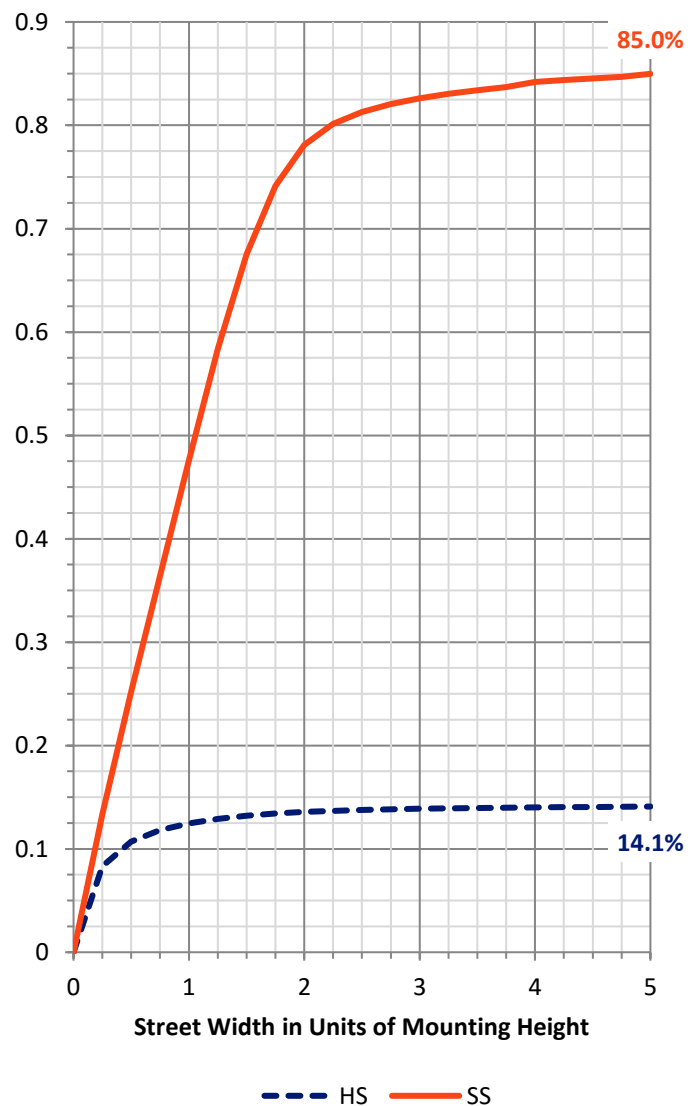
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	923.3	0.0	923.3
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	5550.3	0.0	5550.3
	% Fixture	85.7	0.0	85.7
Total	Lumens	6473.6	0.0	6473.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.1	2.2
10°-20°	300.0	4.6
20°-30°	382.7	5.9
30°-40°	526.7	8.1
40°-50°	853.1	13.2
50°-60°	1338.9	20.7
60°-70°	1785.1	27.6
70°-80°	992.9	15.3
80°-90°	154.0	2.4
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°	6473.6	100.0
0°-180°	6473.6	100.0

Coefficient of Utilization



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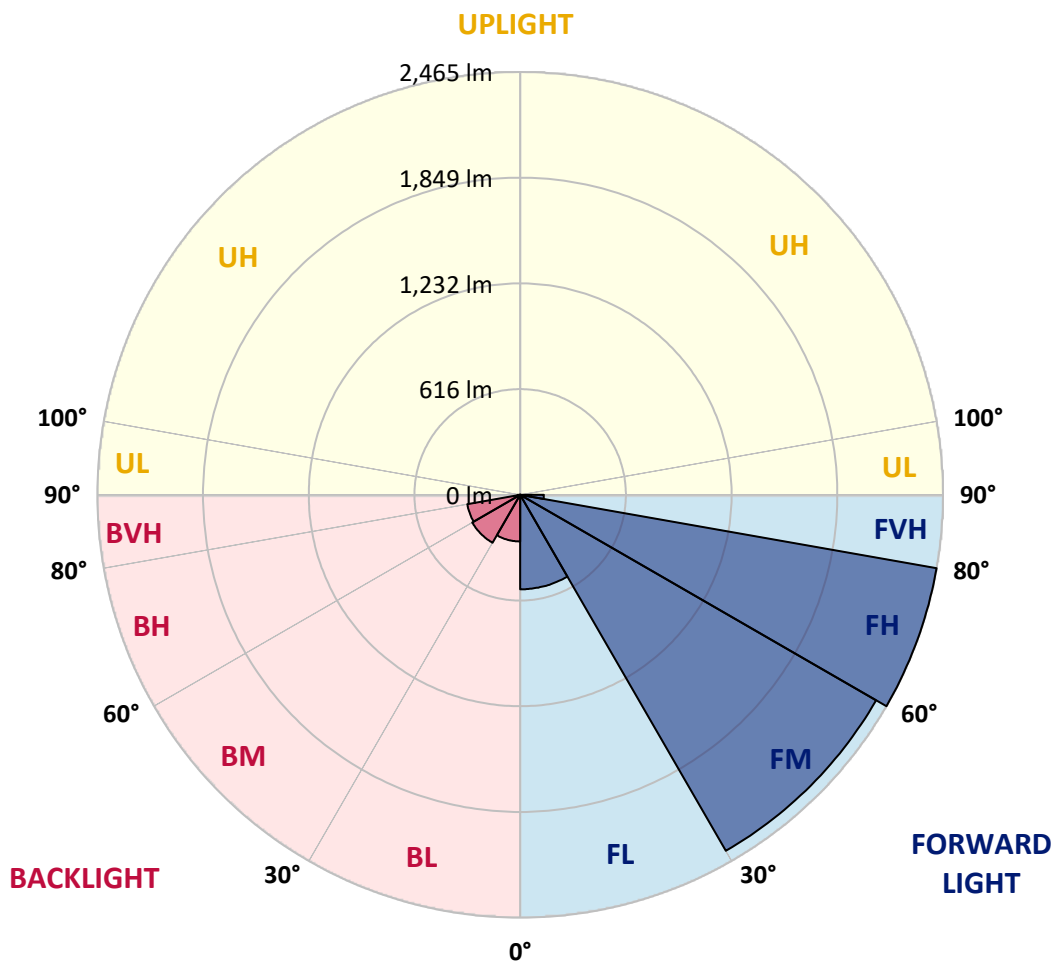
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	550.8	8.5			
FM	(30°-60°)	2396.2	37.0			
FH	(60°-80°)	2464.9	38.1			G2/5000
FVH	(80°-90°)	138.4	2.1			G2/225
BL	(0°-30°)	272.1	4.2	B1/500		
BM	(30°-60°)	322.6	5.0	B1/1000		
BH	(60°-80°)	313.1	4.8	B1/500		G1/500
BVH	(80°-90°)	15.6	0.2			G1/100
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°	60°	65°	75°	85°
0°	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8
2.5°	1695.8	1700.3	1700.3	1696.6	1694.5	1682.5	1675.4	1670.5	1661.8	1645.6	1631.0
5°	1635.2	1644.0	1647.6	1649.3	1660.0	1656.4	1656.7	1653.4	1646.0	1628.5	1604.8
7.5°	1523.9	1525.6	1532.3	1543.4	1569.6	1587.9	1602.8	1605.7	1604.0	1591.2	1557.9
10°	1414.4	1417.2	1425.1	1444.2	1469.1	1495.2	1527.7	1540.9	1550.9	1546.8	1504.8
12.5°	1323.3	1323.7	1332.5	1354.5	1382.3	1415.1	1459.1	1479.9	1503.5	1513.1	1466.1
15°	1235.8	1241.6	1249.9	1276.4	1311.0	1352.4	1403.1	1431.8	1462.9	1490.3	1436.3
17.5°	1169.4	1174.0	1178.9	1201.0	1240.7	1292.6	1355.4	1386.1	1427.2	1469.1	1405.6
20°	1132.9	1134.5	1130.9	1141.5	1175.2	1231.3	1303.9	1340.8	1389.8	1448.8	1374.1
22.5°	1125.4	1125.4	1111.7	1109.6	1124.6	1172.0	1250.8	1296.1	1355.8	1434.7	1345.8
25°	1160.3	1157.8	1132.0	1108.3	1103.0	1127.0	1200.1	1255.7	1326.7	1434.2	1324.7
27.5°	1226.2	1222.9	1190.9	1151.1	1116.6	1106.2	1161.1	1217.9	1303.9	1448.3	1313.9
30°	1308.5	1307.2	1274.8	1225.1	1168.2	1114.6	1145.7	1198.5	1288.5	1474.5	1313.4
32.5°	1398.5	1392.7	1372.9	1323.0	1249.1	1160.7	1154.9	1199.2	1284.4	1512.7	1323.0
35°	1494.4	1490.3	1485.3	1435.1	1352.1	1242.1	1195.1	1228.0	1304.8	1565.8	1350.0
37.5°	1616.5	1611.9	1620.2	1565.4	1474.5	1348.7	1263.2	1285.2	1346.2	1643.0	1400.1
40°	1833.6	1820.3	1797.1	1712.7	1617.2	1479.5	1361.6	1364.8	1417.2	1746.4	1480.7
42.5°	2190.2	2147.4	2032.4	1877.6	1768.1	1631.5	1489.9	1474.1	1515.2	1883.0	1597.8
45°	2547.6	2499.5	2305.2	2057.4	1924.0	1794.6	1648.4	1610.7	1637.2	2041.9	1748.4
47.5°	2778.4	2754.8	2535.6	2237.1	2087.6	1972.2	1829.9	1767.6	1786.7	2222.2	1934.4
50°	2846.1	2825.8	2653.5	2377.8	2242.1	2186.9	2054.4	1971.8	1975.2	2432.6	2157.4
52.5°	2795.4	2787.1	2672.9	2465.0	2384.0	2413.1	2365.4	2250.4	2223.0	2663.4	2399.0
55°	2727.7	2730.6	2686.6	2552.7	2528.5	2624.0	2772.1	2679.6	2563.3	2903.8	2650.5
57.5°	2514.8	2516.9	2632.3	2719.5	2804.1	2919.5	3088.9	3049.9	2914.6	3163.2	2932.4
60°	2024.9	2041.2	2298.0	2685.0	3119.3	3502.0	3543.5	3476.2	3288.1	3462.1	3299.0
62.5°	1446.7	1461.3	1758.8	2330.9	3082.3	4161.1	4382.8	4115.5	3795.0	3909.2	3814.6
65°	760.1	757.6	988.0	1610.7	2596.1	4313.9	5705.4	5250.5	4649.0	4524.0	4312.7
67.5°	424.7	438.3	527.6	812.4	1692.0	3796.6	6550.2	6684.3	5836.2	5011.7	4291.0
69°	392.7	397.2	457.0	628.0	1103.0	3132.5	6477.6	7117.2	6336.8	5013.8	4014.6
70°	381.6	386.4	440.9	578.6	926.5	2566.7	6213.1	7066.6	6458.5	4902.6	3763.1
72.5°	342.1	348.6	401.4	520.2	780.8	1323.0	5004.7	6048.3	5850.3	4284.8	2917.9
75°	291.8	303.0	382.7	516.4	739.8	841.1	3337.6	4506.2	4354.2	3064.4	1655.5
77.5°	120.8	122.1	167.2	378.1	776.3	804.9	1793.7	2854.4	2526.8	1343.8	498.6
80°	84.2	82.6	83.5	110.5	626.4	810.2	920.3	1451.7	1128.3	354.5	233.3
82.5°	71.0	70.2	73.4	69.4	212.1	919.5	769.6	756.7	531.3	190.9	111.2
85°	46.9	45.7	60.2	63.2	100.8	730.2	827.7	594.9	396.1	102.1	47.3
87.5°	22.8	23.3	34.4	42.7	53.5	231.2	792.9	470.4	305.9	44.5	19.1
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°	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8	1651.8
2.5°	1625.2	1612.7	1601.5	1587.4	1576.6	1567.6	1555.1	1554.6	1552.6	1555.5	1556.3
5°	1589.0	1568.3	1536.7	1501.4	1476.5	1443.8	1411.8	1401.0	1389.0	1387.7	1391.5
7.5°	1534.6	1502.4	1448.3	1394.3	1340.4	1285.2	1232.9	1206.3	1180.6	1172.7	1176.5
10°	1474.1	1433.1	1350.3	1262.4	1186.4	1104.2	1024.6	973.1	926.1	906.2	911.2
12.5°	1426.8	1374.5	1258.2	1144.1	1030.4	912.5	807.4	705.7	628.9	594.5	596.5
15°	1386.1	1319.3	1172.0	1019.9	877.6	716.0	570.4	452.5	385.2	360.3	359.5
17.5°	1342.0	1261.2	1081.7	904.5	719.8	520.2	381.9	312.2	285.6	277.3	277.3
20°	1295.2	1201.3	987.6	778.8	553.7	363.2	287.3	260.2	250.3	247.8	247.4
22.5°	1251.6	1142.9	892.9	644.6	400.6	275.7	244.5	234.2	232.5	234.6	234.6
25°	1217.1	1091.4	797.0	503.5	291.4	230.7	217.5	216.3	222.5	230.0	231.2
27.5°	1191.4	1045.3	702.4	367.7	229.1	200.9	196.3	201.8	216.3	231.2	234.2
30°	1173.6	1005.8	589.0	264.4	190.9	176.0	178.1	187.6	209.7	232.5	238.7
32.5°	1165.7	973.8	474.9	203.0	163.2	154.8	160.3	172.7	195.6	218.3	225.8
35°	1173.1	950.7	369.4	168.6	142.8	136.6	142.8	155.7	170.7	181.8	186.4
37.5°	1200.1	942.4	278.2	149.4	129.5	123.3	128.3	137.0	143.6	147.8	149.9
40°	1257.0	951.0	218.0	139.6	122.1	114.9	116.3	120.4	125.0	128.3	128.7
42.5°	1347.5	979.7	193.8	135.7	117.5	108.3	106.3	109.2	114.1	118.8	119.5
45°	1467.9	1027.5	191.4	137.0	115.4	102.9	98.8	101.7	108.3	115.9	117.0
47.5°	1623.5	1103.0	203.0	143.6	116.7	100.1	93.9	96.7	105.4	115.4	117.0
50°	1807.8	1207.6	224.5	153.6	122.5	100.1	91.8	94.2	103.4	114.6	116.3
52.5°	2024.9	1353.2	247.0	163.6	130.8	103.8	92.6	92.1	100.4	110.8	112.9
55°	2264.5	1534.3	268.6	172.3	135.4	108.7	94.6	89.7	96.2	104.6	106.3
57.5°	2546.4	1782.1	306.4	180.6	137.7	112.5	97.1	87.2	90.9	96.7	98.0
60°	2928.7	2146.2	379.7	194.7	142.4	114.1	97.6	84.6	84.2	88.4	88.8
62.5°	3427.3	2572.5	450.0	211.3	151.6	114.6	95.9	83.0	78.8	80.1	80.1
65°	3781.8	2729.4	429.6	225.4	159.8	114.1	94.2	81.7	74.8	72.6	72.6
67.5°	3580.0	2411.1	364.9	229.1	160.6	109.6	90.4	78.8	71.0	66.0	66.0
69°	3283.6	2113.4	335.0	222.5	154.0	104.3	86.4	75.9	68.5	62.8	62.8
70°	3042.0	1888.0	316.8	214.5	146.1	99.7	82.6	73.1	66.0	61.0	60.6
72.5°	2271.2	1259.9	270.6	185.2	119.9	84.2	72.2	65.2	59.3	56.0	56.0
75°	1198.5	631.4	221.7	151.1	92.6	67.3	59.3	54.8	51.5	51.1	50.7
77.5°	392.7	285.6	159.4	113.7	68.1	52.3	47.3	44.5	44.0	45.7	45.7
80°	212.1	170.7	102.4	76.8	47.3	39.0	36.5	36.2	37.3	39.9	39.9
82.5°	102.9	84.2	61.0	47.3	32.3	28.6	28.6	29.1	30.7	33.7	33.7
85°	44.5	39.9	35.3	26.6	19.8	17.8	20.3	22.4	23.7	25.7	26.6
87.5°	21.2	18.7	16.2	10.4	8.7	9.2	10.8	13.3	15.8	17.5	17.8
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)