

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: P196592

Luminaire Tested: **NAV-AF-02-D-UNV-SL3-7030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196592
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-02-D-UNV-SL3-7030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 800mA 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: 8079.7 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 85
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

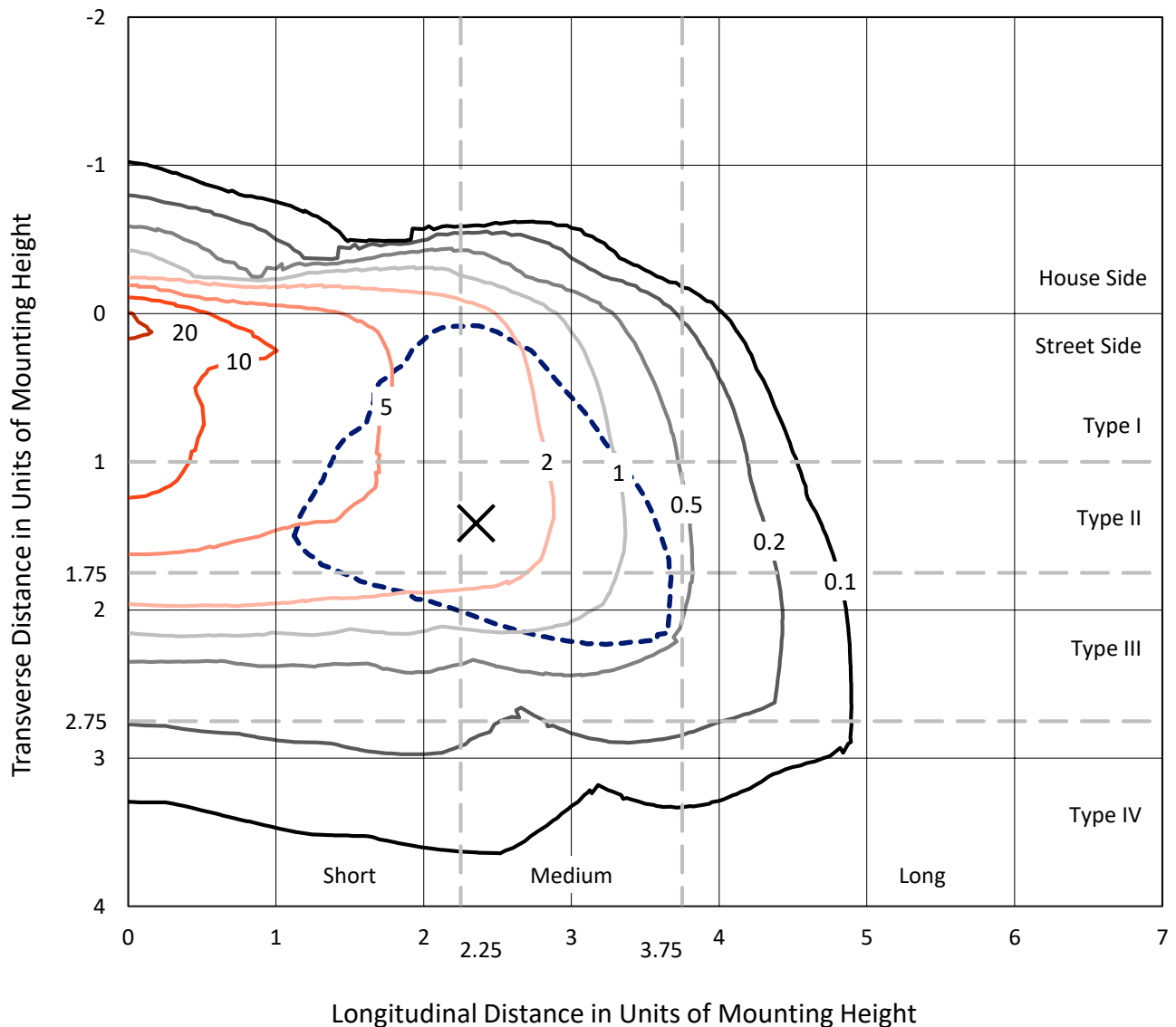


REPORT NUMBER: P196592

CATALOG NUMBER: NAV-AF-02-D-UNV-SL3-7030-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

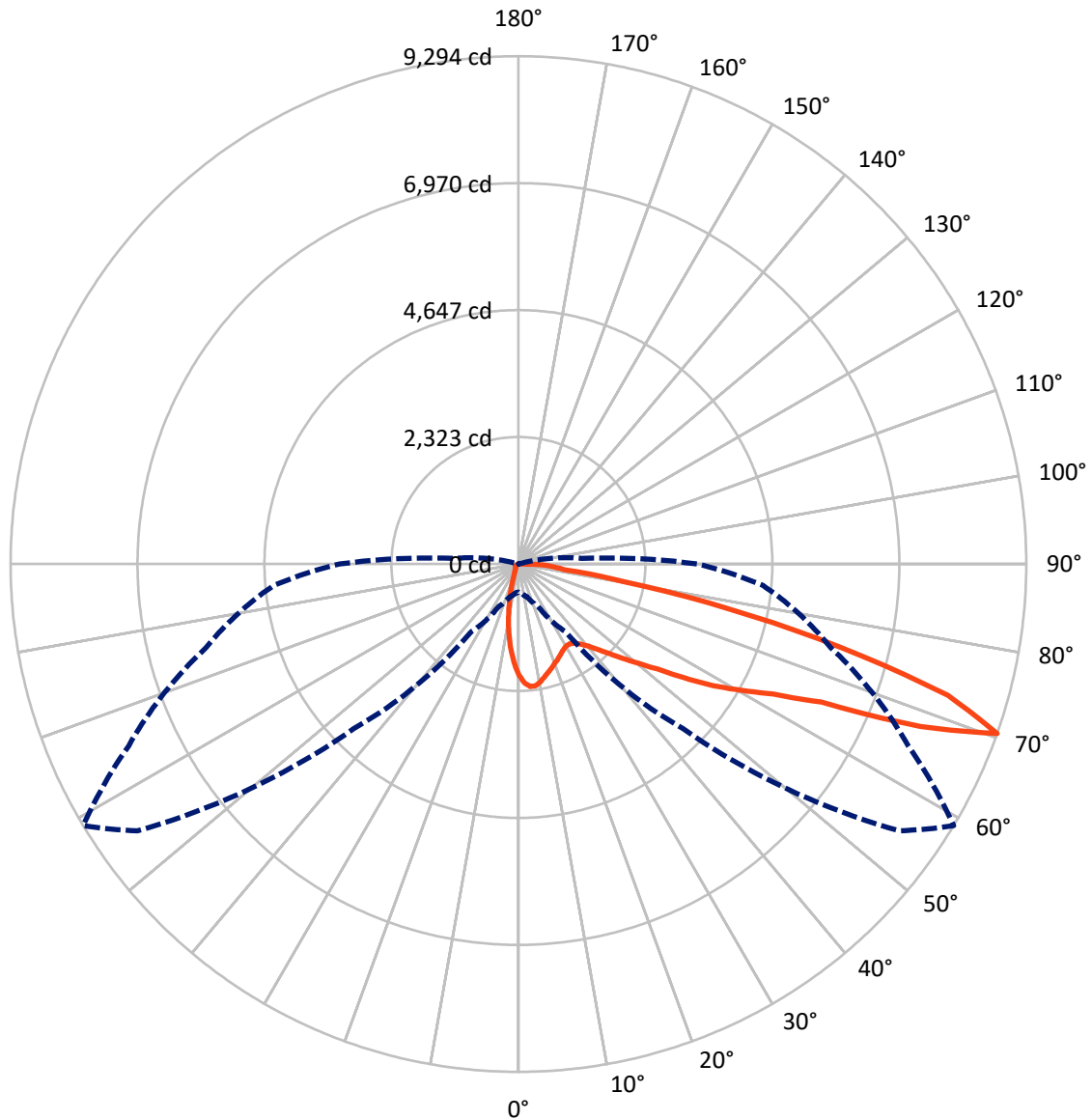


Based on 10 foot mounting height. Maximum calculated value = 21.7 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P196592

CATALOG NUMBER: NAV-AF-02-D-UNV-SL3-7030-800-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196592

CATALOG NUMBER: NAV-AF-02-D-UNV-SL3-7030-800-HSS

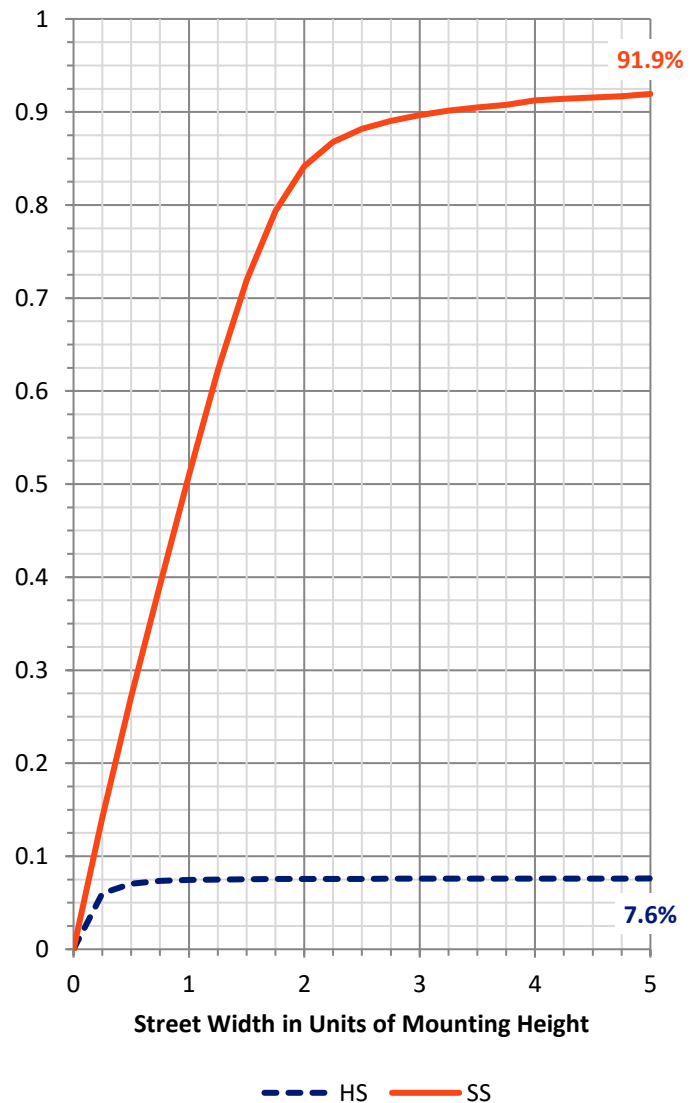
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	621.1	0.0	621.1
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	7458.6	0.0	7458.6
	% Fixture	92.3	0.0	92.3
Total	Lumens	8079.7	0.0	8079.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.0	2.1
10°-20°	352.4	4.4
20°-30°	477.0	5.9
30°-40°	688.4	8.5
40°-50°	1143.2	14.1
50°-60°	1748.7	21.6
60°-70°	2175.0	26.9
70°-80°	1202.3	14.9
80°-90°	124.7	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°	8079.7	100.0
0°-180°	8079.7	100.0



REPORT NUMBER: P196592

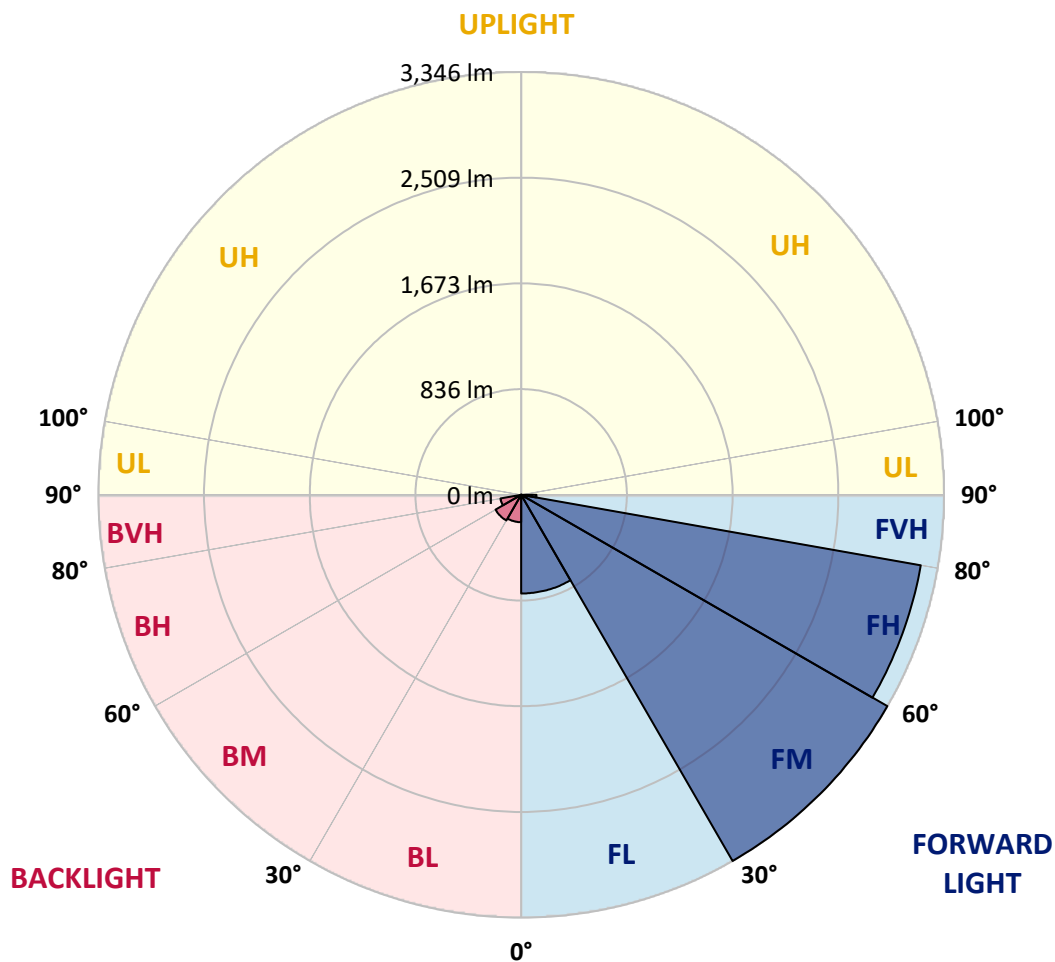
CATALOG NUMBER: NAV-AF-02-D-UNV-SL3-7030-800-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	780.9	9.7			
FM (30°-60°)	3345.9	41.4			
FH (60°-80°)	3210.7	39.7			G2/5000
FVH (80°-90°)	121.1	1.5			G2/225
BL (0°-30°)	216.4	2.7	B1/500		
BM (30°-60°)	234.5	2.9	B1/1000		
BH (60°-80°)	166.6	2.1	B1/500		G1/500
BVH (80°-90°)	3.6	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





REPORT NUMBER: P196592

CATALOG NUMBER: NAV-AF-02-D-UNV-SL3-7030-800-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0
2.5°	2309.4	2305.8	2290.5	2287.5	2270.4	2236.3	2196.6	2180.9	2148.5	2097.3	2040.6
5°	2347.9	2349.6	2350.8	2344.1	2341.8	2313.7	2269.9	2251.0	2207.7	2123.6	2019.8
7.5°	2204.0	2208.9	2224.1	2230.7	2260.0	2271.1	2261.8	2249.6	2215.6	2116.3	1970.5
10°	2052.2	2061.4	2077.8	2088.8	2124.8	2154.0	2191.2	2194.3	2187.0	2091.9	1915.1
12.5°	1921.8	1930.3	1948.6	1970.5	2007.1	2044.9	2100.4	2119.8	2144.2	2076.0	1875.4
15°	1809.7	1812.1	1829.8	1857.2	1905.4	1957.2	2022.9	2051.6	2099.2	2069.9	1845.0
17.5°	1711.5	1712.1	1723.7	1748.7	1807.1	1875.4	1952.3	1990.0	2050.4	2061.4	1818.2
20°	1646.9	1646.3	1646.9	1660.3	1712.1	1793.2	1886.5	1926.0	2003.5	2051.1	1790.8
22.5°	1624.9	1622.0	1607.9	1603.1	1635.9	1707.2	1818.7	1870.6	1961.4	2047.9	1770.6
25°	1651.8	1650.0	1620.1	1592.0	1595.0	1639.6	1749.9	1813.2	1928.5	2058.9	1765.7
27.5°	1738.4	1734.7	1688.9	1634.1	1599.3	1607.3	1698.7	1765.1	1902.3	2085.8	1772.4
30°	1851.7	1852.3	1803.6	1737.1	1655.4	1610.4	1671.2	1734.1	1884.6	2125.9	1787.1
32.5°	1977.8	1977.3	1942.5	1865.7	1761.5	1666.4	1683.4	1736.4	1887.0	2185.0	1815.2
35°	2108.2	2101.6	2090.0	2022.4	1900.4	1764.5	1739.0	1777.9	1912.6	2263.1	1862.7
37.5°	2258.8	2256.4	2268.0	2196.6	2072.3	1909.0	1836.4	1862.7	1977.3	2378.2	1939.5
40°	2498.3	2485.0	2490.4	2393.6	2266.1	2103.5	1973.0	1979.7	2080.3	2530.7	2060.7
42.5°	2954.9	2900.7	2798.9	2617.2	2479.5	2319.1	2151.6	2140.0	2225.9	2715.3	2220.4
45°	3500.4	3438.3	3181.6	2864.1	2692.8	2550.7	2372.2	2341.1	2405.2	2935.4	2426.4
47.5°	3955.7	3888.6	3548.5	3121.9	2909.8	2789.7	2616.6	2580.0	2619.7	3190.8	2673.9
50°	4111.1	4074.0	3775.4	3336.4	3128.6	3057.9	2923.2	2862.3	2872.0	3466.2	2962.8
52.5°	4039.9	4027.0	3827.2	3483.3	3331.0	3354.2	3258.9	3195.1	3184.1	3767.4	3282.1
55°	3889.3	3883.2	3785.7	3565.0	3509.5	3625.3	3730.2	3674.7	3571.1	4087.4	3546.1
57.5°	3674.1	3697.3	3767.4	3722.3	3729.0	3911.8	4167.8	4196.4	4041.6	4342.2	3741.8
60°	3099.3	3161.5	3482.7	3891.0	4203.8	4388.5	4636.5	4690.2	4440.3	4516.4	3967.9
62.5°	2291.1	2380.1	2837.9	3588.2	4465.2	5294.8	5260.1	5236.2	4820.6	4749.9	4379.3
65°	1345.7	1450.0	1837.0	2803.7	4070.9	5877.5	6424.2	6095.0	5400.2	5235.0	5034.5
67.5°	670.5	671.1	846.0	1479.9	3008.6	5470.9	8123.5	7933.4	6632.7	5950.0	5292.9
70°	515.6	529.7	625.9	860.0	1521.3	4261.1	8513.1	9293.8	7871.1	5918.3	4490.9
72.5°	437.0	446.1	557.1	748.4	1137.4	2339.2	7369.5	8214.9	7510.9	5000.4	3310.2
75°	314.5	321.8	493.1	679.0	1047.1	1160.6	5055.2	6092.7	5635.5	3517.5	1821.8
77.5°	78.0	77.3	171.9	551.0	936.8	966.7	2900.7	3906.9	3233.4	1440.2	468.0
80°	34.8	33.6	39.0	115.9	871.6	912.5	1275.7	1973.0	1240.3	233.5	143.2
82.5°	24.4	23.2	24.4	42.6	291.4	846.6	771.1	855.2	454.1	79.9	60.9
85°	7.9	7.3	13.4	35.9	81.7	488.2	752.1	638.7	337.7	34.1	40.9
87.5°	1.2	1.2	4.9	19.5	23.8	162.7	441.3	442.5	151.8	20.1	18.2
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: P196592

CATALOG NUMBER: NAV-AF-02-D-UNV-SL3-7030-800-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0	2043.0
2.5°	2012.0	1976.1	1925.4	1874.9	1829.1	1782.2	1744.5	1726.8	1718.8	1707.8	1684.1
5°	1965.7	1900.4	1789.5	1680.4	1578.6	1481.1	1397.7	1350.0	1298.9	1296.5	1271.4
7.5°	1891.3	1798.6	1623.7	1454.2	1298.9	1150.2	1022.1	939.3	882.6	847.2	822.8
10°	1808.5	1689.5	1457.9	1219.7	1008.1	809.4	644.8	537.5	472.3	439.4	420.5
12.5°	1742.5	1593.2	1294.6	994.7	729.7	501.6	348.6	270.6	235.9	222.5	216.4
15°	1685.9	1504.8	1141.6	793.6	487.0	288.3	201.7	176.1	170.7	170.7	170.0
17.5°	1628.6	1419.5	992.8	596.1	306.6	188.9	159.1	155.4	156.0	157.9	157.9
20°	1574.3	1338.4	849.6	424.8	201.1	151.1	144.4	143.2	145.1	147.5	146.9
22.5°	1530.5	1267.2	715.5	291.9	154.8	137.1	132.9	131.0	132.3	134.1	133.6
25°	1499.4	1206.2	592.4	203.5	134.7	125.0	120.0	117.7	116.5	117.7	117.0
27.5°	1480.5	1155.0	476.6	153.0	120.7	112.7	106.6	101.8	98.8	98.8	97.6
30°	1468.3	1106.9	373.6	126.7	109.2	100.5	92.0	85.3	80.5	79.2	78.6
32.5°	1467.7	1065.4	279.1	112.1	98.2	88.4	78.0	69.5	64.0	62.9	62.2
35°	1482.9	1031.9	205.4	101.2	88.4	76.8	65.2	56.0	51.3	51.3	50.6
37.5°	1522.5	1012.4	155.4	92.7	80.5	67.0	54.8	46.3	42.1	43.2	43.2
40°	1596.3	1008.7	126.7	86.0	73.8	58.6	44.5	37.8	35.9	37.8	37.8
42.5°	1709.1	1028.2	112.7	81.1	67.6	49.9	37.1	32.3	31.6	33.6	33.6
45°	1856.0	1066.6	104.9	76.8	60.9	41.4	31.1	28.1	27.5	29.8	29.8
47.5°	2034.0	1118.5	97.6	71.9	54.2	34.1	26.2	23.8	23.8	26.2	26.8
50°	2244.8	1188.5	90.2	67.0	48.7	28.6	22.0	20.1	20.8	23.2	23.8
52.5°	2487.4	1274.5	83.5	62.9	42.6	23.2	18.2	17.1	17.7	20.1	20.8
55°	2696.4	1349.5	75.6	58.6	34.8	18.9	15.2	14.6	15.2	18.2	18.2
57.5°	2878.7	1421.4	68.3	51.8	27.5	15.2	12.2	12.2	13.4	16.5	17.1
60°	3120.7	1534.8	62.2	43.9	20.8	11.6	9.8	10.4	12.2	14.6	15.2
62.5°	3549.2	1727.4	54.2	36.6	15.2	9.2	7.9	8.5	10.9	13.9	14.6
65°	4085.5	1909.7	45.2	30.5	11.6	6.7	6.1	7.9	10.9	13.9	14.6
67.5°	4030.7	1661.0	35.4	24.4	8.5	5.5	4.9	7.3	10.4	13.9	14.6
70°	3268.8	1164.1	26.2	16.5	6.7	4.9	4.9	7.3	10.4	13.4	13.9
72.5°	2267.3	647.9	20.1	10.9	6.1	4.9	4.3	6.7	9.8	13.4	13.9
75°	1078.8	198.8	15.9	7.9	5.5	4.3	3.6	6.7	9.8	13.4	13.9
77.5°	207.3	50.6	12.8	6.7	4.9	4.3	3.6	6.1	9.8	12.8	13.4
80°	70.2	22.5	10.4	6.1	4.9	4.3	3.6	6.1	9.2	12.2	12.8
82.5°	38.4	12.8	9.2	5.5	4.9	3.6	3.1	5.5	8.5	12.2	12.8
85°	29.8	9.2	7.3	5.5	4.9	3.6	3.1	5.5	8.5	11.6	12.2
87.5°	15.2	6.7	6.1	5.5	4.9	3.6	3.1	4.9	7.9	10.9	12.2
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)