

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: P196911

Luminaire Tested: **NAV-AF-03-D-UNV-5NQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196911  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-03-D-UNV-5NQ-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15195 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

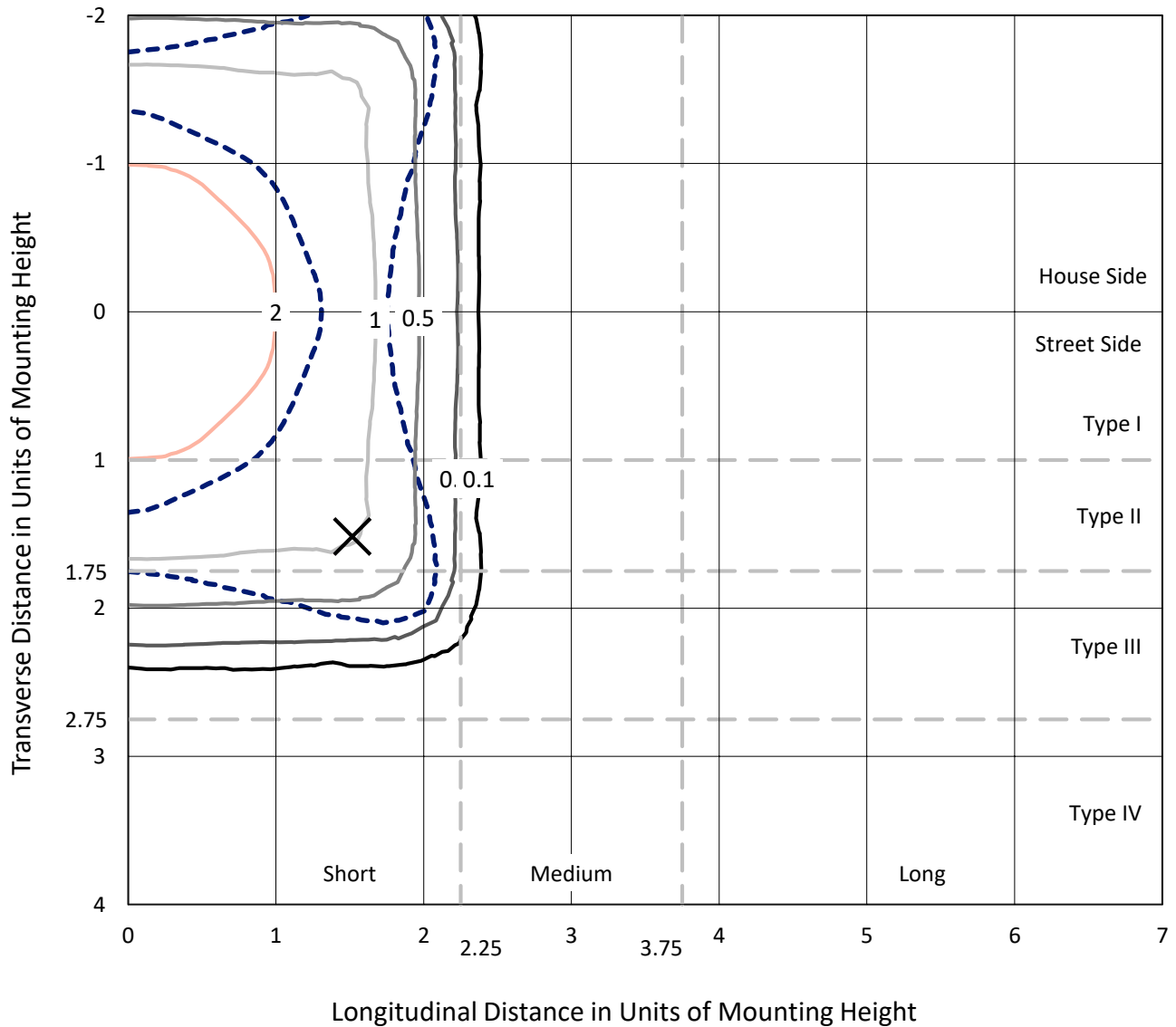
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196911  
 CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-8030

### Iso-Footcandle Lines of Horizontal Illumination

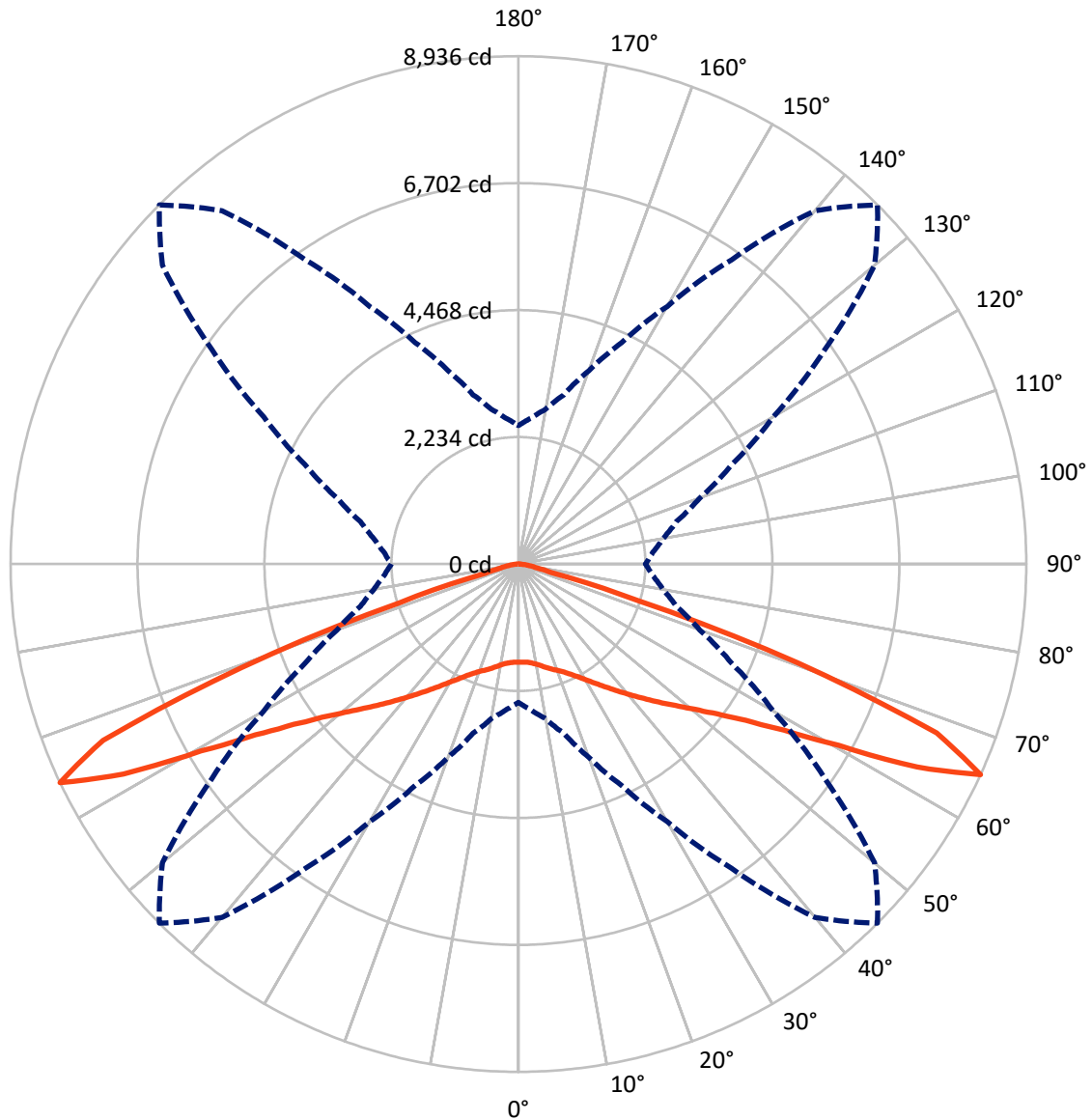
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P196911  
CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-8030

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P196911  
 CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-8030

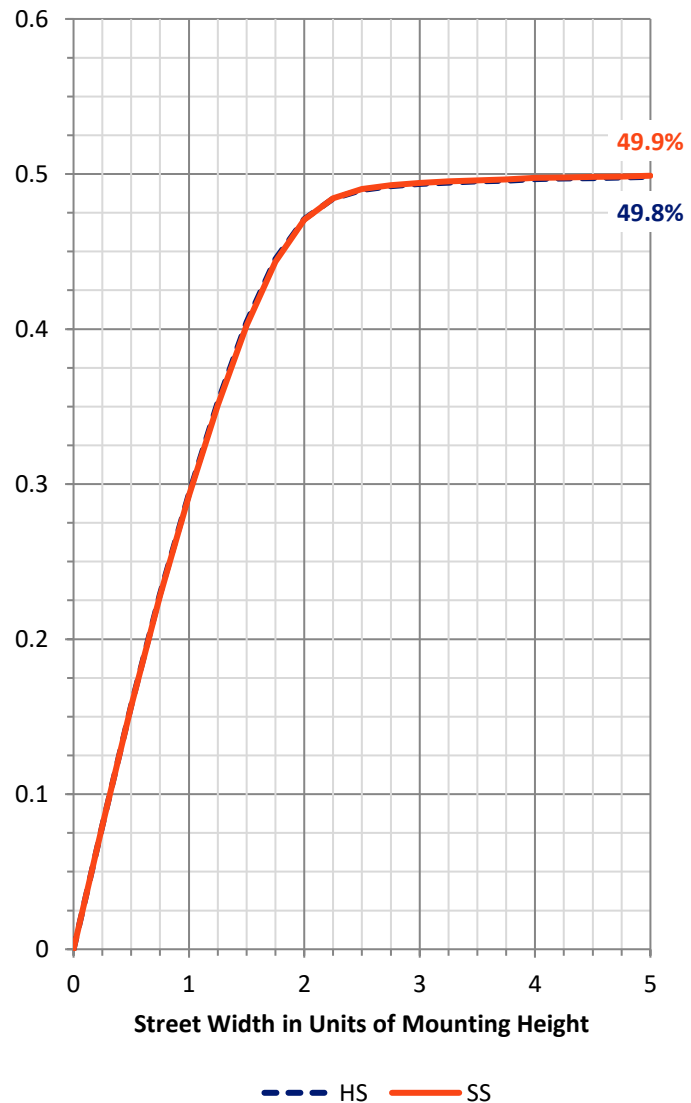
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7597.5	0.0	7597.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7597.5	0.0	7597.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15195.0	0.0	15195.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.3	1.1
10°-20°	539.5	3.6
20°-30°	1006.3	6.6
30°-40°	1696.8	11.2
40°-50°	2756.2	18.1
50°-60°	4318.4	28.4
60°-70°	4076.4	26.8
70°-80°	549.4	3.6
80°-90°	83.7	0.6
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°	15195.0	100.0
0°-180°	15195.0	100.0



REPORT NUMBER: P196911

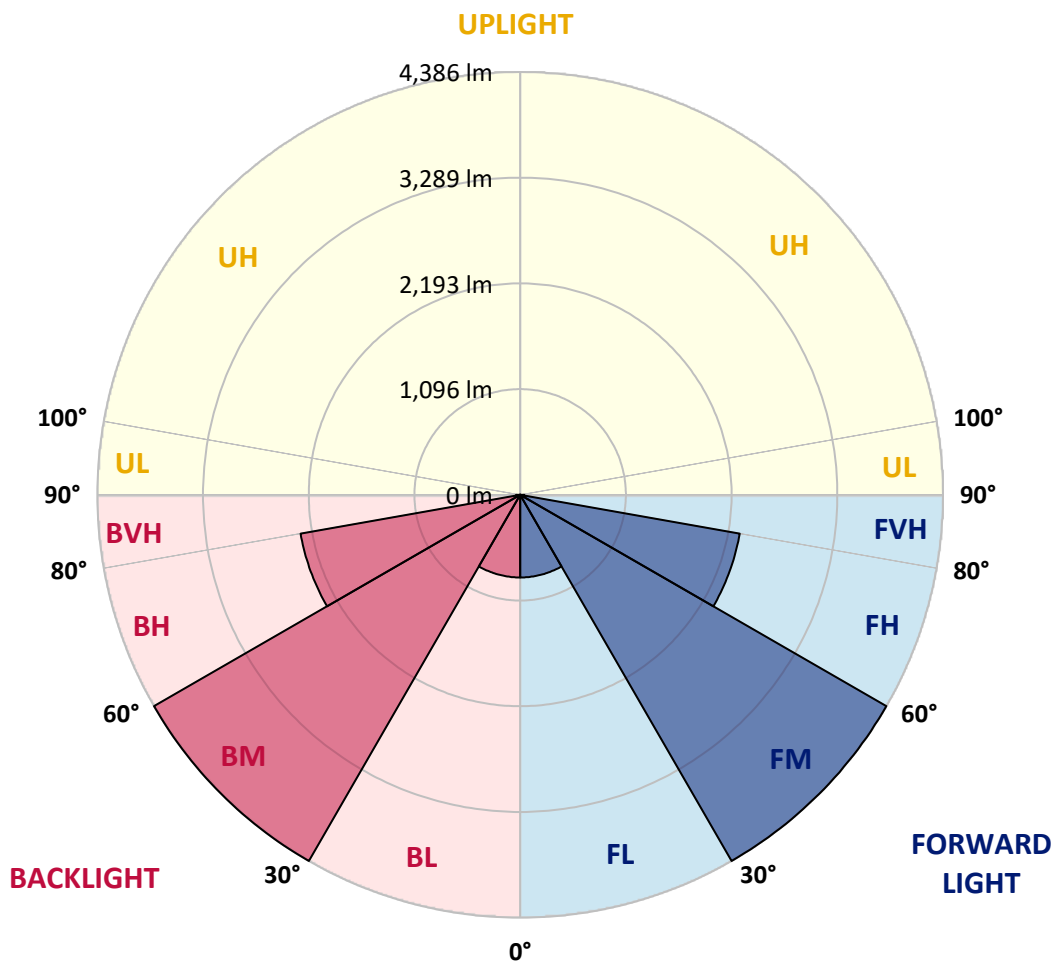
CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	857.1	5.6			
FM	(30°-60°)	4385.7	28.9			
FH	(60°-80°)	2312.9	15.2			G2/5000
FVH	(80°-90°)	41.8	0.3			G1/100
BL	(0°-30°)	857.1	5.6	B2/1000		
BM	(30°-60°)	4385.7	28.9	B3/5000		
BH	(60°-80°)	2312.9	15.2	B3/2500		G2/5000
BVH	(80°-90°)	41.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





REPORT NUMBER: P196911  
 CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-8030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4
2.5°	1742.6	1742.6	1745.5	1744.5	1740.7	1737.9	1735.0	1731.3	1729.4	1727.5	1726.5
5°	1752.1	1752.1	1754.9	1754.0	1751.1	1747.3	1745.5	1742.6	1739.8	1737.9	1738.8
7.5°	1775.7	1776.7	1777.6	1776.7	1773.8	1771.0	1767.2	1766.3	1762.5	1759.6	1761.5
10°	1811.7	1811.7	1812.7	1813.6	1811.7	1805.1	1805.1	1803.2	1799.4	1795.6	1796.6
12.5°	1851.5	1851.5	1852.4	1852.4	1852.4	1848.6	1849.6	1848.6	1843.9	1842.0	1843.9
15°	1890.3	1891.2	1891.2	1893.1	1893.1	1894.1	1897.8	1897.8	1896.0	1895.0	1895.0
17.5°	1935.7	1937.6	1938.5	1941.4	1942.3	1944.2	1948.0	1949.0	1949.9	1947.1	1948.0
20°	1996.3	1997.2	2000.1	2001.0	2004.8	2004.8	2006.7	2005.8	2003.9	2000.1	2000.1
22.5°	2064.4	2066.3	2072.0	2072.0	2076.7	2073.9	2074.9	2072.0	2067.3	2065.4	2063.5
25°	2153.4	2156.3	2161.0	2159.1	2161.0	2156.3	2156.3	2156.3	2153.4	2150.6	2149.6
27.5°	2266.1	2261.3	2266.1	2262.3	2261.3	2257.5	2258.5	2256.6	2253.8	2252.8	2249.0
30°	2383.4	2377.8	2380.6	2381.5	2379.6	2378.7	2374.9	2372.1	2367.3	2368.3	2365.4
32.5°	2517.8	2512.2	2515.0	2515.9	2514.1	2515.9	2515.0	2508.4	2502.7	2506.5	2506.5
35°	2677.8	2674.0	2681.6	2684.4	2678.8	2675.9	2672.1	2664.6	2656.0	2661.7	2662.7
37.5°	2870.0	2865.2	2870.9	2878.5	2868.1	2862.4	2847.2	2835.9	2830.2	2833.0	2836.8
40°	3069.7	3070.6	3086.7	3088.6	3077.3	3070.6	3055.5	3038.4	3022.4	3022.4	3027.1
42.5°	3279.8	3282.7	3301.6	3308.2	3304.4	3292.1	3271.3	3250.5	3229.7	3233.4	3239.1
45°	3517.4	3513.6	3533.5	3549.6	3546.7	3543.0	3523.1	3485.2	3466.3	3465.3	3474.8
47.5°	3767.3	3774.9	3795.7	3823.1	3822.2	3812.7	3787.2	3752.2	3717.1	3720.0	3731.3
50°	4058.8	4069.2	4104.3	4131.7	4135.5	4132.7	4102.4	4061.7	4012.5	4015.3	4030.4
52.5°	4320.1	4335.2	4375.9	4432.7	4467.7	4483.8	4464.0	4426.1	4375.9	4378.8	4394.9
55°	4556.7	4580.4	4641.0	4718.6	4788.6	4853.9	4883.3	4882.3	4845.4	4853.9	4874.8
57.5°	4705.3	4738.5	4830.3	4955.2	5094.4	5225.9	5339.5	5446.5	5470.2	5514.6	5514.6
60°	4505.6	4583.2	4705.3	4919.3	5192.8	5488.1	5808.1	6119.5	6320.2	6478.2	6393.0
62.5°	3762.6	3877.1	4048.4	4330.5	4756.4	5283.7	5926.4	6650.5	7405.9	7867.8	7528.9
65°	2434.5	2578.4	2764.9	3082.0	3618.7	4297.4	5233.5	6535.0	8115.8	8935.5	8178.3
67.5°	964.5	1062.0	1175.6	1400.9	1866.6	2533.0	3583.7	5189.0	7166.4	7939.7	7090.7
70°	461.0	477.1	498.8	547.1	663.5	895.4	1439.7	2556.7	4394.9	5209.8	4289.8
72.5°	333.2	336.0	346.4	362.5	396.6	443.9	539.5	781.9	1515.4	2203.6	1517.3
75°	252.7	256.5	262.2	270.7	288.7	311.4	347.4	416.5	518.7	598.2	517.8
77.5°	192.2	195.9	200.7	209.2	218.7	234.7	248.0	275.4	319.0	336.0	334.1
80°	140.1	146.7	154.3	161.9	168.5	176.1	177.0	190.3	214.9	231.0	226.2
82.5°	89.0	94.7	114.5	123.1	124.0	125.9	124.9	125.9	139.1	150.5	146.7
85°	56.8	60.6	71.0	80.5	78.6	82.4	82.4	80.5	74.8	64.4	76.7
87.5°	28.4	29.3	34.1	42.6	40.7	36.0	35.0	35.0	25.6	21.8	23.7
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: P196911

CATALOG NUMBER: NAV-AF-03-D-UNV-5NQ-8030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4	1728.4
2.5°	1723.7	1725.6	1722.7	1722.7	1721.8	1723.7	1720.8	1720.8
5°	1736.9	1739.8	1738.8	1738.8	1740.7	1742.6	1741.7	1740.7
7.5°	1760.6	1762.5	1764.4	1765.3	1767.2	1766.3	1768.2	1767.2
10°	1796.6	1794.7	1797.5	1794.7	1795.6	1793.7	1794.7	1794.7
12.5°	1842.0	1839.2	1837.3	1835.4	1835.4	1831.6	1831.6	1832.5
15°	1894.1	1889.3	1885.5	1883.6	1881.8	1881.8	1878.9	1880.8
17.5°	1945.2	1940.4	1933.8	1933.8	1931.0	1929.1	1927.2	1931.9
20°	1999.1	1994.4	1990.6	1989.7	1984.0	1982.1	1983.0	1988.7
22.5°	2061.6	2058.8	2058.8	2056.9	2053.1	2050.2	2050.2	2056.9
25°	2145.8	2140.2	2141.1	2142.1	2140.2	2140.2	2138.3	2143.0
27.5°	2249.0	2244.3	2247.1	2249.0	2247.1	2250.0	2247.1	2250.9
30°	2370.2	2367.3	2370.2	2373.0	2368.3	2368.3	2366.4	2369.2
32.5°	2515.0	2511.2	2513.1	2513.1	2506.5	2500.8	2493.2	2498.9
35°	2674.0	2669.3	2673.1	2675.9	2668.3	2662.7	2651.3	2656.0
37.5°	2849.1	2851.0	2855.8	2868.1	2866.2	2856.7	2848.2	2852.0
40°	3045.1	3054.5	3075.4	3083.9	3082.0	3072.5	3061.2	3063.1
42.5°	3266.6	3278.9	3300.6	3314.8	3308.2	3295.0	3280.8	3286.4
45°	3507.9	3526.9	3555.3	3569.5	3560.9	3546.7	3526.9	3537.3
47.5°	3763.5	3801.4	3839.2	3858.2	3855.3	3835.4	3809.9	3812.7
50°	4069.2	4119.4	4167.7	4186.6	4172.4	4142.1	4106.2	4105.2
52.5°	4449.8	4503.7	4543.5	4538.7	4503.7	4456.4	4415.7	4413.8
55°	4924.9	4942.9	4937.2	4896.5	4835.0	4761.2	4709.1	4700.6
57.5°	5499.5	5438.9	5349.9	5226.9	5088.7	4948.6	4853.9	4818.9
60°	6201.8	5928.3	5610.2	5275.2	4969.4	4740.4	4595.5	4507.5
62.5°	6782.1	5989.8	5278.9	4696.8	4220.7	3937.7	3739.8	3617.7
65°	6583.3	5174.8	4145.0	3394.4	2874.7	2582.2	2373.0	2233.9
67.5°	5085.9	3457.8	2406.1	1667.8	1264.6	1070.6	935.2	847.2
70°	2564.2	1326.1	803.6	567.0	484.6	450.6	427.8	414.6
72.5°	752.5	502.6	417.4	369.2	339.8	319.0	305.7	299.1
75°	416.5	339.8	300.1	272.6	253.7	239.5	231.0	225.3
77.5°	286.8	247.1	227.2	209.2	194.0	183.6	177.0	171.3
80°	200.7	180.8	172.3	162.8	151.4	142.9	133.5	129.7
82.5°	133.5	124.9	123.1	115.5	108.9	99.4	82.4	76.7
85°	78.6	77.6	77.6	74.8	70.0	61.5	49.2	49.2
87.5°	27.5	28.4	29.3	31.2	30.3	25.6	20.8	19.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)