

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: P195561

Luminaire Tested: **NAV-AF-03-D-UNV-RW-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195561
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 5000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14955 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 124
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

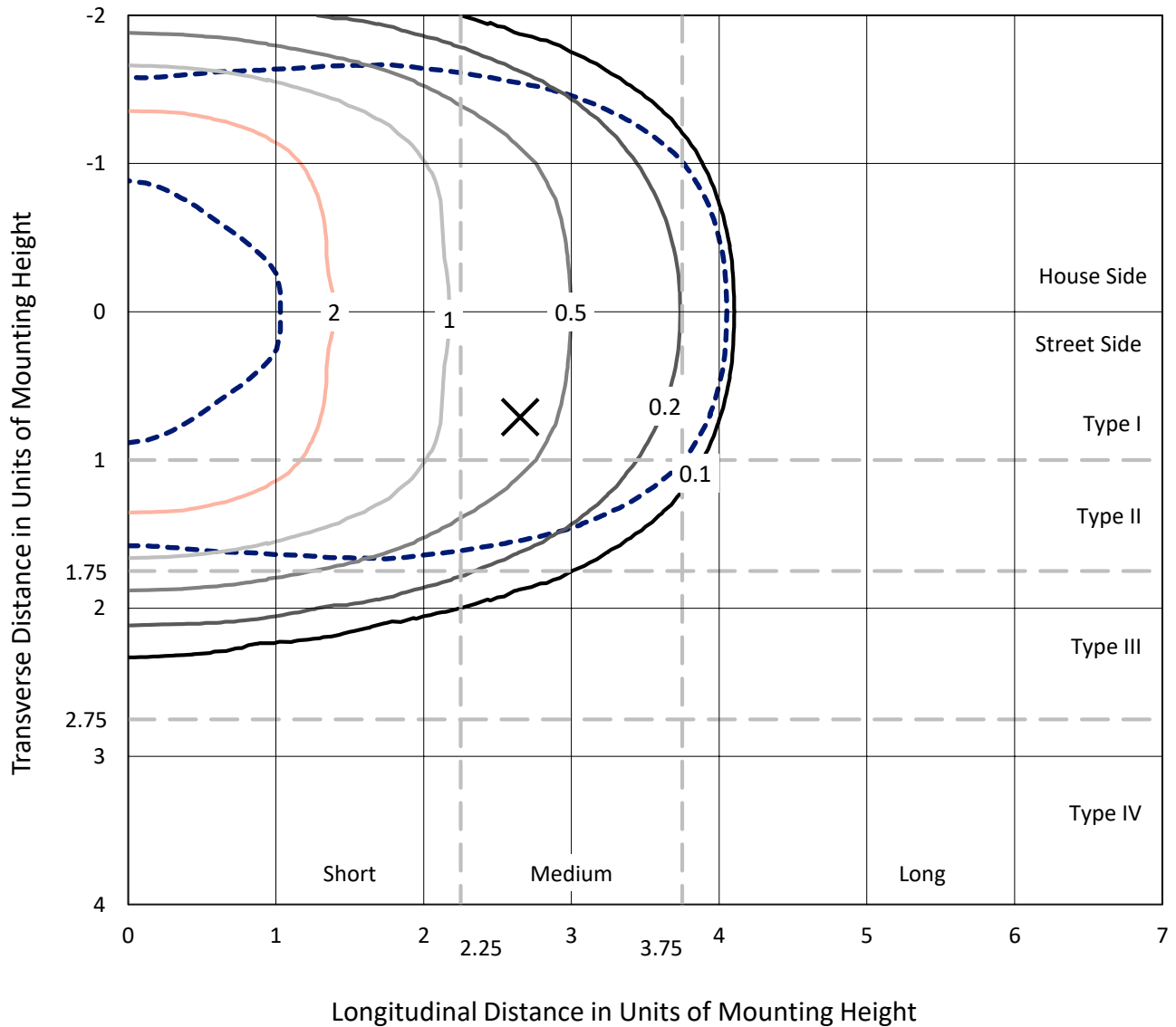


REPORT NUMBER: P195561

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7050-800

Iso-Footcandle Lines of Horizontal Illumination

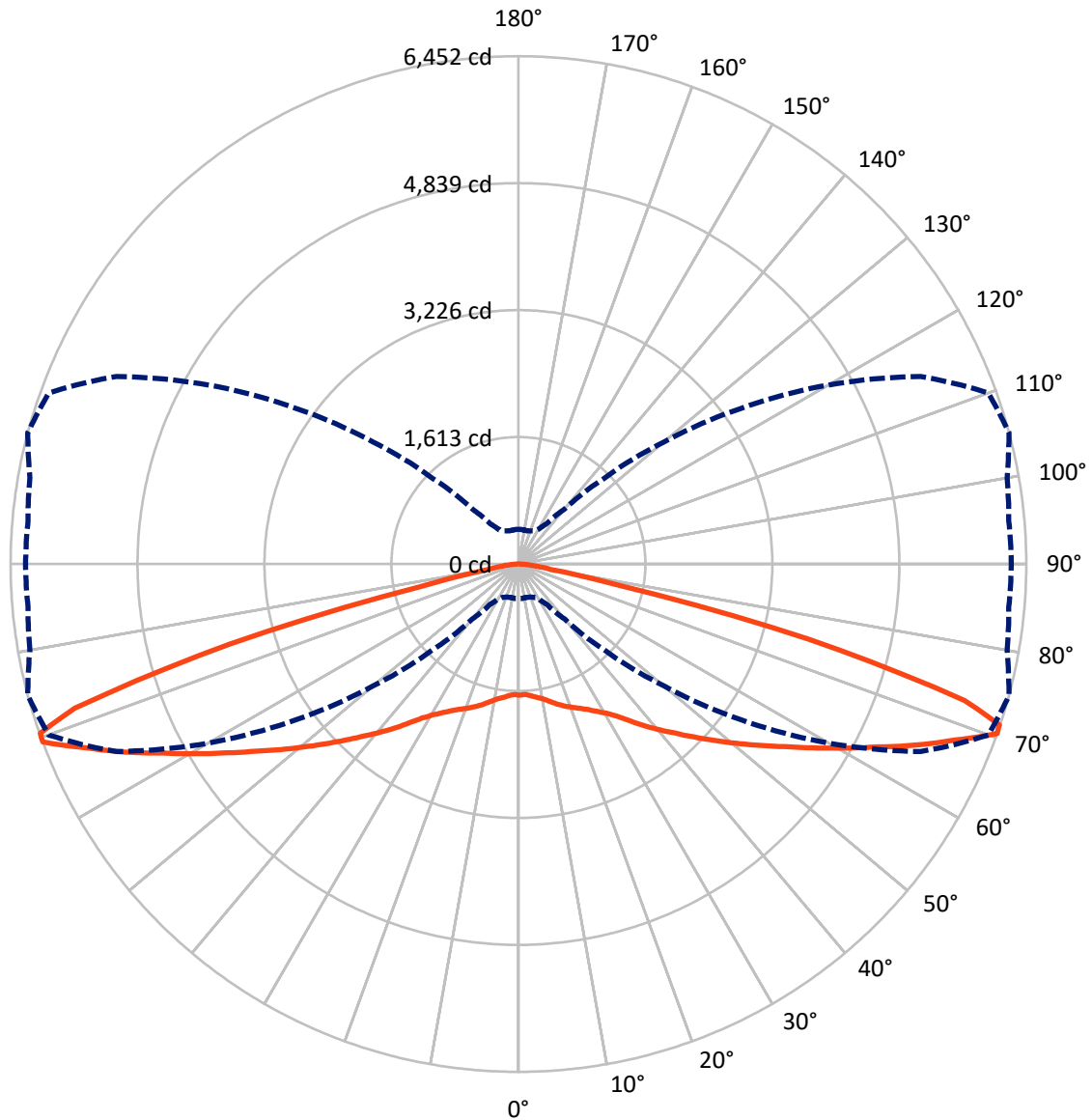
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P195561
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7050-800

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P195561

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7050-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7477.5	0.0	7477.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7477.5	0.0	7477.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	14955.0	0.0	14955.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.7	1.1
10°-20°	495.4	3.3
20°-30°	930.5	6.2
30°-40°	1639.0	11.0
40°-50°	2716.4	18.2
50°-60°	3778.9	25.3
60°-70°	3567.4	23.9
70°-80°	1523.7	10.2
80°-90°	144.0	1.0
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°	14955.0	100.0
0°-180°	14955.0	100.0



REPORT NUMBER: P195561

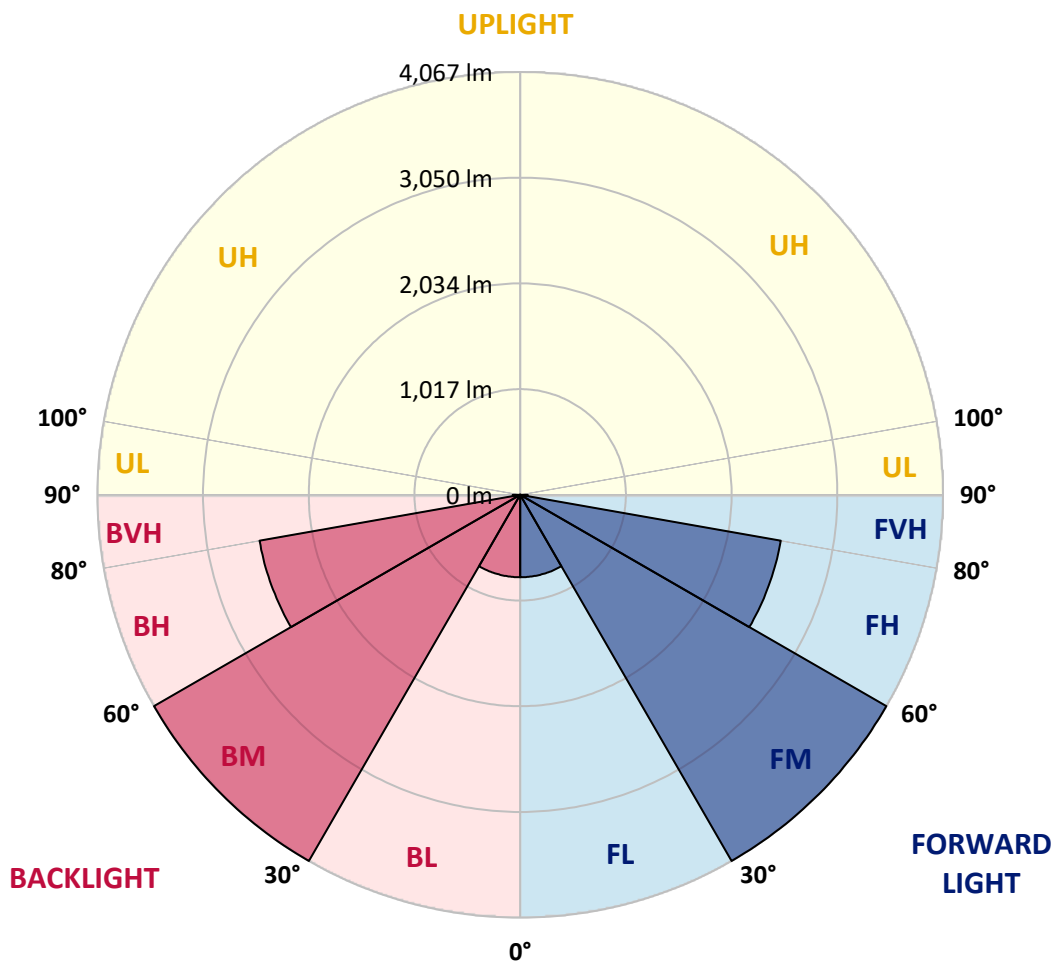
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7050-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	792.8	5.3			
FM	(30°-60°)	4067.2	27.2			
FH	(60°-80°)	2545.5	17.0			G2/5000
FVH	(80°-90°)	72.0	0.5			G1/100
BL	(0°-30°)	792.8	5.3	B2/1000		
BM	(30°-60°)	4067.2	27.2	B3/5000		
BH	(60°-80°)	2545.5	17.0	B4/5000		G4/5000
BVH	(80°-90°)	72.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





REPORT NUMBER: P195561

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7050-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4
2.5°	1675.7	1674.8	1675.7	1672.9	1673.8	1672.9	1672.9	1669.1	1669.1	1667.3	1664.4
5°	1657.0	1658.8	1658.8	1658.8	1661.6	1661.6	1665.4	1666.3	1669.1	1671.9	1673.8
7.5°	1626.0	1627.0	1629.8	1631.6	1637.3	1644.8	1652.3	1660.7	1668.2	1677.6	1687.9
10°	1599.8	1601.7	1606.3	1611.0	1621.3	1630.7	1643.8	1657.0	1670.1	1686.0	1701.9
12.5°	1585.7	1588.5	1596.0	1603.5	1619.5	1631.6	1649.5	1670.1	1687.9	1702.9	1720.7
15°	1587.6	1588.5	1598.8	1609.2	1631.6	1648.5	1673.8	1698.2	1719.7	1736.6	1757.2
17.5°	1614.8	1616.7	1627.0	1642.0	1663.5	1685.1	1712.2	1737.5	1766.6	1786.3	1810.6
20°	1668.2	1671.0	1682.3	1698.2	1721.6	1744.1	1772.2	1798.5	1828.5	1851.9	1876.3
22.5°	1737.5	1742.2	1754.4	1774.1	1797.5	1824.7	1853.8	1880.9	1909.1	1932.5	1953.1
25°	1830.3	1836.0	1849.1	1868.8	1892.2	1921.2	1951.2	1979.3	2008.4	2026.2	2043.1
27.5°	1955.0	1964.3	1978.4	1994.3	2015.0	2045.9	2074.0	2097.4	2125.5	2145.2	2156.5
30°	2122.7	2135.9	2147.1	2164.0	2179.0	2211.8	2234.3	2253.0	2274.6	2285.8	2288.6
32.5°	2328.0	2340.2	2351.4	2363.6	2384.2	2414.2	2435.8	2446.1	2457.3	2455.4	2445.1
35°	2559.5	2568.8	2575.4	2597.0	2630.7	2650.4	2666.3	2670.1	2671.9	2652.2	2632.6
37.5°	2803.1	2814.4	2820.0	2853.7	2885.6	2908.1	2915.6	2924.0	2918.4	2885.6	2850.0
40°	3066.5	3078.7	3095.5	3124.6	3162.1	3183.6	3193.0	3192.1	3187.4	3149.0	3090.8
42.5°	3325.1	3340.1	3354.2	3404.8	3435.7	3472.3	3477.0	3476.0	3465.7	3421.7	3354.2
45°	3544.4	3562.3	3591.3	3647.5	3697.2	3741.3	3759.1	3765.6	3755.3	3708.5	3631.6
47.5°	3725.3	3737.5	3774.1	3842.5	3906.2	3970.9	4006.5	4031.8	4030.9	3997.1	3915.6
50°	3849.0	3863.1	3908.1	3984.9	4064.6	4140.5	4210.8	4268.0	4295.1	4270.8	4194.9
52.5°	3884.6	3902.5	3961.5	4053.3	4146.1	4248.3	4353.2	4454.5	4515.4	4530.4	4471.3
55°	3734.7	3754.4	3840.6	3968.1	4120.8	4271.7	4431.0	4575.4	4700.9	4759.0	4735.6
57.5°	3298.0	3312.0	3421.7	3586.6	3805.0	4070.2	4338.2	4602.5	4818.1	4969.0	4995.2
60°	2608.2	2626.0	2746.0	2920.3	3168.6	3504.2	3879.0	4312.0	4734.7	5080.5	5252.0
62.5°	1760.0	1772.2	1887.5	2046.8	2318.6	2641.9	3059.9	3608.2	4210.8	4828.4	5312.0
65°	924.1	924.1	1001.9	1113.4	1329.9	1619.5	2047.8	2610.1	3327.0	4098.3	4907.1
67.5°	536.1	535.1	552.9	578.2	646.7	763.8	1000.0	1413.3	2091.8	2989.6	3910.0
70°	442.4	439.5	436.7	436.7	447.0	464.8	509.8	623.2	911.9	1541.7	2405.8
71°	422.7	420.8	413.3	410.5	415.2	424.5	444.2	496.7	647.6	1051.5	1796.6
72.5°	399.2	394.6	383.3	378.6	379.6	383.3	388.9	409.6	455.5	597.9	1024.3
75°	363.6	352.4	338.3	331.8	329.0	328.0	328.0	333.6	343.9	360.8	419.9
77.5°	322.4	306.5	291.5	284.9	280.2	277.4	275.5	271.8	269.9	277.4	299.0
80°	272.7	255.9	243.7	239.9	237.1	231.5	224.0	216.5	211.8	215.6	228.7
82.5°	210.9	194.0	195.9	196.8	192.1	182.8	175.3	166.8	158.4	156.5	163.1
85°	167.8	159.3	153.7	165.9	155.6	144.3	134.0	120.0	100.3	82.5	90.0
87.5°	72.2	73.1	105.0	158.4	138.7	111.5	92.8	75.0	47.8	35.6	36.6
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: P195561

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-7050-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4	1665.4
2.5°	1663.5	1663.5	1660.7	1658.8	1658.8	1658.8	1657.0	1657.9
5°	1674.8	1676.6	1678.5	1677.6	1680.4	1683.2	1682.3	1681.3
7.5°	1693.5	1699.1	1704.7	1707.6	1711.3	1715.1	1716.0	1713.2
10°	1712.2	1723.5	1731.9	1739.4	1744.1	1747.9	1750.7	1749.7
12.5°	1735.7	1751.6	1766.6	1781.6	1791.9	1797.5	1803.2	1801.3
15°	1774.1	1791.9	1810.6	1830.3	1846.3	1854.7	1863.1	1861.3
17.5°	1826.6	1842.5	1857.5	1877.2	1896.9	1906.2	1915.6	1914.7
20°	1892.2	1904.4	1912.8	1924.0	1942.8	1953.1	1961.5	1958.7
22.5°	1967.2	1970.9	1971.8	1975.6	1990.6	2002.8	2014.0	2016.8
25°	2048.7	2045.9	2040.3	2037.4	2047.8	2060.9	2074.9	2078.7
27.5°	2149.9	2140.5	2126.5	2115.2	2118.0	2134.9	2150.8	2154.6
30°	2277.4	2255.8	2225.8	2204.3	2200.5	2218.3	2235.2	2240.8
32.5°	2422.6	2393.6	2352.3	2319.5	2305.5	2321.4	2336.4	2344.8
35°	2595.1	2563.2	2513.5	2471.4	2448.9	2459.2	2485.4	2494.8
37.5°	2799.4	2755.3	2700.0	2646.6	2609.1	2611.0	2639.1	2650.4
40°	3025.2	2961.5	2891.2	2824.7	2770.3	2766.6	2791.9	2800.3
42.5°	3260.5	3178.9	3096.5	3009.3	2941.8	2929.7	2962.5	2963.4
45°	3513.5	3408.6	3306.4	3205.2	3134.9	3113.3	3145.2	3149.0
47.5°	3783.4	3652.2	3531.3	3421.7	3345.8	3312.0	3343.0	3348.6
50°	4064.6	3928.7	3788.1	3666.3	3577.3	3536.0	3572.6	3576.3
52.5°	4342.9	4214.5	4074.9	3935.3	3827.5	3780.6	3823.7	3836.9
55°	4623.2	4499.4	4368.2	4228.6	4092.7	4051.5	4098.3	4112.4
57.5°	4914.6	4795.6	4676.6	4536.0	4403.9	4341.1	4391.7	4411.3
60°	5236.1	5131.1	5018.6	4877.1	4746.9	4673.8	4716.9	4739.4
62.5°	5551.9	5530.4	5428.2	5281.1	5116.1	5043.0	5079.6	5095.5
65°	5578.1	5927.7	5923.0	5776.8	5546.3	5423.5	5433.8	5441.3
67.5°	4868.7	5670.9	6183.6	6229.5	5972.7	5780.6	5758.1	5762.8
70°	3447.0	4548.2	5636.3	6350.4	6451.6	6302.6	6253.9	6261.4
71°	2761.9	3902.5	5100.2	6060.8	6444.1	6401.0	6373.8	6393.5
72.5°	1762.9	2875.3	4041.2	5190.2	5925.8	6136.7	6167.6	6179.8
75°	640.1	1237.1	2093.7	2999.9	3802.2	4354.2	4657.8	4682.2
77.5°	343.9	443.3	685.1	1023.4	1285.8	1426.4	1443.3	1449.8
80°	253.0	293.3	335.5	383.3	413.3	418.9	408.6	387.1
82.5°	179.0	202.4	219.3	236.2	248.4	238.0	197.7	150.9
85°	104.0	114.3	123.7	132.1	134.0	126.5	83.4	68.4
87.5°	41.2	45.0	44.0	49.7	47.8	44.0	32.8	28.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)