

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: P197007

Luminaire Tested: **NAV-AF-03-D-UNV-RW-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197007  
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-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15104 lumens  
Efficiency: N/A  
Efficacy: 91.0 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

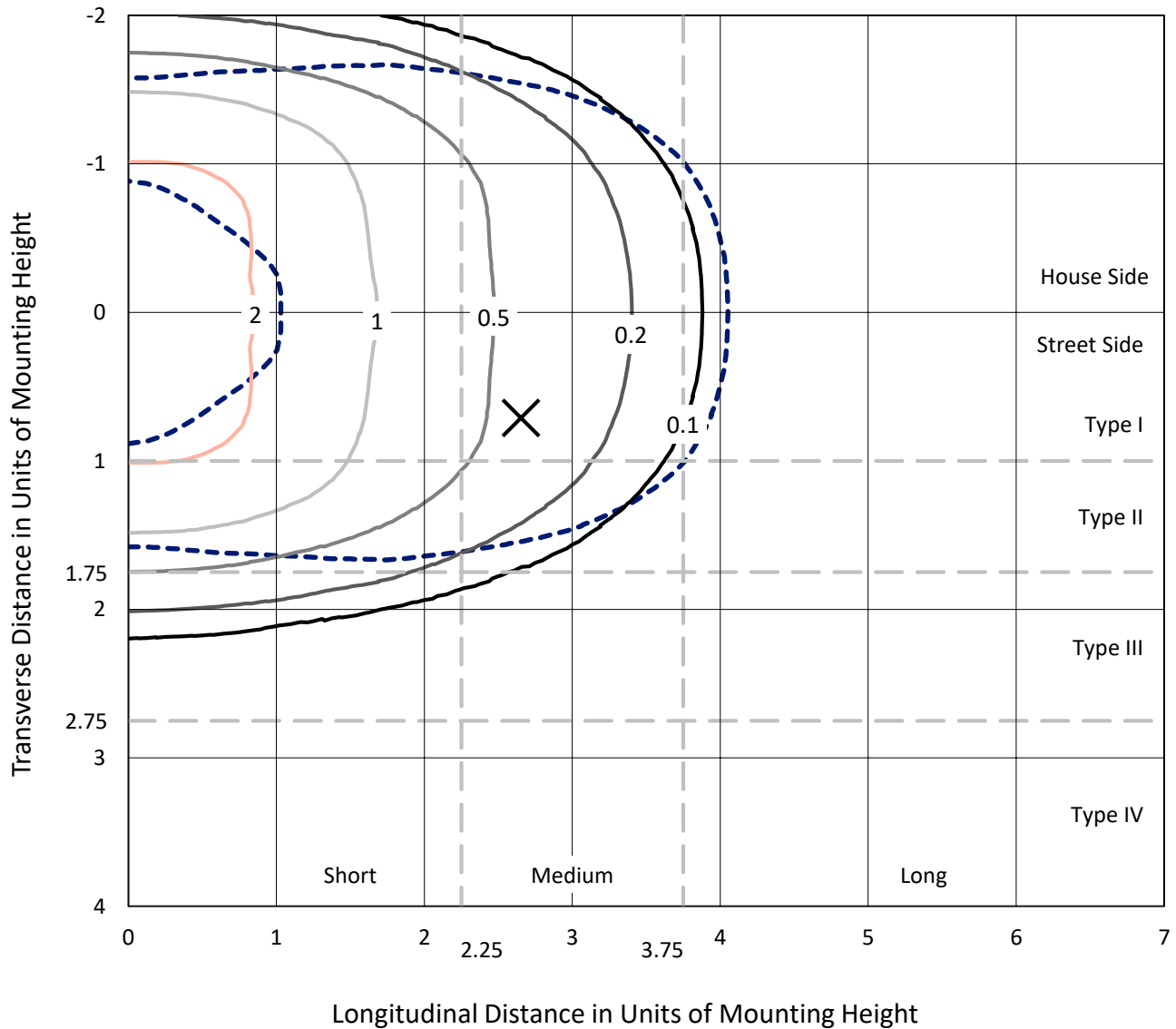
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

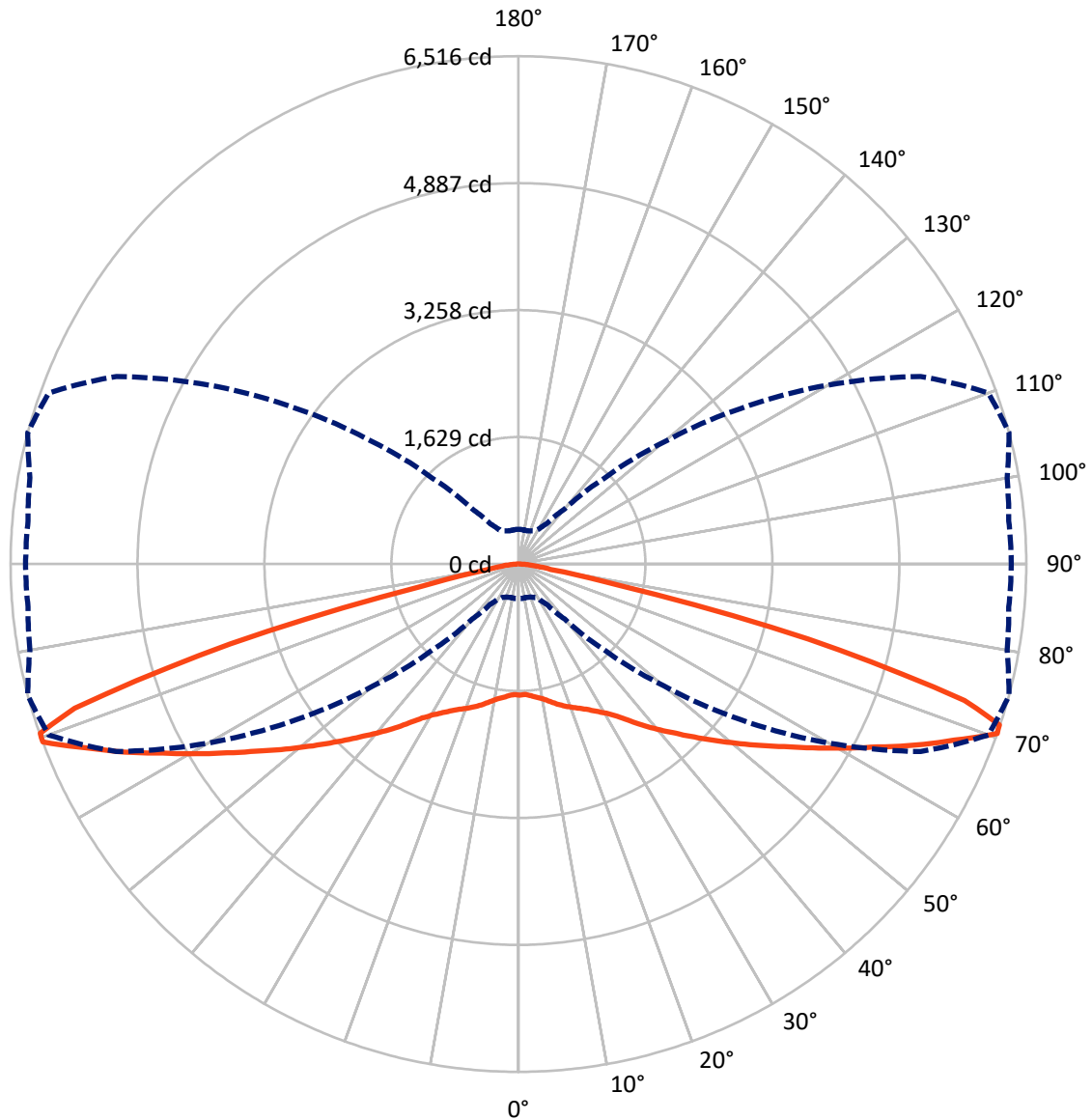
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7552.0	0.0	7552.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7552.0	0.0	7552.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	15104.0	0.0	15104.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.3	1.1
10°-20°	500.3	3.3
20°-30°	939.7	6.2
30°-40°	1655.4	11.0
40°-50°	2743.5	18.2
50°-60°	3816.6	25.3
60°-70°	3602.9	23.9
70°-80°	1538.8	10.2
80°-90°	145.4	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°	15104.0	100.0
0°-180°	15104.0	100.0



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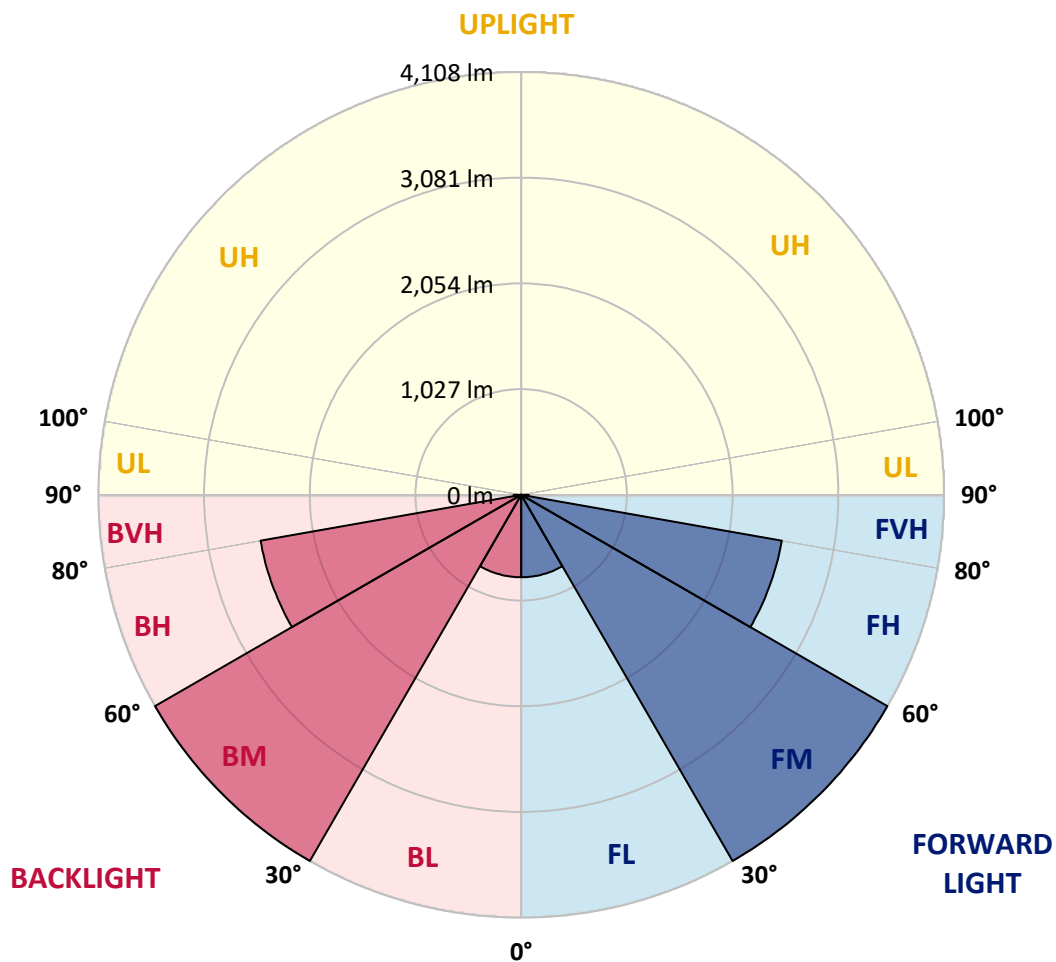
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	800.7	5.3			
FM	(30°-60°)	4107.7	27.2			
FH	(60°-80°)	2570.9	17.0			G2/5000
FVH	(80°-90°)	72.7	0.5			G1/100
BL	(0°-30°)	800.7	5.3	B2/1000		
BM	(30°-60°)	4107.7	27.2	B3/5000		
BH	(60°-80°)	2570.9	17.0	B4/5000		G4/5000
BVH	(80°-90°)	72.7	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0
2.5°	1692.4	1691.4	1692.4	1689.5	1690.5	1689.5	1689.5	1685.8	1685.8	1683.9	1681.0
5°	1673.5	1675.4	1675.4	1675.4	1678.2	1678.2	1682.0	1682.9	1685.8	1688.6	1690.5
7.5°	1642.2	1643.2	1646.0	1647.9	1653.6	1661.2	1668.7	1677.2	1684.8	1694.3	1704.7
10°	1615.7	1617.6	1622.3	1627.1	1637.5	1647.0	1660.2	1673.5	1686.7	1702.8	1718.9
12.5°	1601.5	1604.4	1611.9	1619.5	1635.6	1647.9	1665.9	1686.7	1704.7	1719.8	1737.8
15°	1603.4	1604.4	1614.8	1625.2	1647.9	1664.9	1690.5	1715.1	1736.9	1753.9	1774.7
17.5°	1630.9	1632.8	1643.2	1658.3	1680.1	1701.9	1729.3	1754.9	1784.2	1804.1	1828.7
20°	1684.8	1687.7	1699.0	1715.1	1738.8	1761.5	1789.9	1816.4	1846.7	1870.3	1894.9
22.5°	1754.9	1759.6	1771.9	1791.8	1815.4	1842.9	1872.2	1899.7	1928.1	1951.7	1972.6
25°	1848.6	1854.2	1867.5	1887.4	1911.0	1940.4	1970.7	1999.1	2028.4	2046.4	2063.4
27.5°	1974.5	1983.9	1998.1	2014.2	2035.0	2066.3	2094.7	2118.3	2146.7	2166.6	2178.0
30°	2143.9	2157.1	2168.5	2185.5	2200.7	2233.8	2256.5	2275.4	2297.2	2308.6	2311.4
32.5°	2351.2	2363.5	2374.8	2387.1	2408.0	2438.3	2460.0	2470.4	2481.8	2479.9	2469.5
35°	2585.0	2594.4	2601.1	2622.8	2656.9	2676.8	2692.9	2696.7	2698.5	2678.7	2658.8
37.5°	2831.1	2842.4	2848.1	2882.2	2914.4	2937.1	2944.6	2953.2	2947.5	2914.4	2878.4
40°	3097.0	3109.3	3126.4	3155.7	3193.6	3215.4	3224.8	3223.9	3219.1	3180.3	3121.6
42.5°	3358.3	3373.4	3387.6	3438.7	3470.0	3506.9	3511.6	3510.7	3500.3	3455.8	3387.6
45°	3579.8	3597.7	3627.1	3683.9	3734.0	3778.5	3796.5	3803.1	3792.7	3745.4	3667.8
47.5°	3762.4	3774.7	3811.7	3880.8	3945.1	4010.4	4046.4	4072.0	4071.0	4036.9	3954.6
50°	3887.4	3901.6	3947.0	4024.6	4105.1	4181.8	4252.7	4310.5	4337.9	4313.3	4236.7
52.5°	3923.4	3941.3	4001.0	4093.7	4187.4	4290.6	4396.6	4498.8	4560.4	4575.5	4515.9
55°	3771.9	3791.8	3878.9	4007.6	4161.9	4314.3	4475.2	4620.9	4747.8	4806.5	4782.8
57.5°	3330.8	3345.0	3455.8	3622.4	3842.9	4110.8	4381.5	4648.4	4866.1	5018.5	5045.0
60°	2634.2	2652.2	2773.3	2949.4	3200.2	3539.1	3917.7	4355.0	4781.9	5131.1	5304.3
62.5°	1777.6	1789.9	1906.3	2067.2	2341.7	2668.3	3090.4	3644.1	4252.7	4876.5	5364.9
65°	933.3	933.3	1011.8	1124.5	1343.1	1635.6	2068.2	2636.1	3360.2	4139.2	4956.0
67.5°	541.4	540.5	558.5	584.0	653.1	771.4	1009.9	1427.4	2112.6	3019.4	3948.9
70°	446.8	443.9	441.1	441.1	451.5	469.5	514.9	629.4	921.0	1557.0	2429.7
71°	426.9	425.0	417.4	414.6	419.3	428.8	448.7	501.7	654.0	1062.0	1814.5
72.5°	403.2	398.5	387.1	382.4	383.3	387.1	392.8	413.6	460.0	603.9	1034.6
75°	367.3	355.9	341.7	335.1	332.2	331.3	331.3	337.0	347.4	364.4	424.0
77.5°	325.6	309.5	294.4	287.7	283.0	280.2	278.3	274.5	272.6	280.2	301.9
80°	275.4	258.4	246.1	242.3	239.5	233.8	226.2	218.6	213.9	217.7	231.0
82.5°	213.0	195.9	197.8	198.8	194.0	184.6	177.0	168.5	160.0	158.1	164.7
85°	169.4	160.9	155.2	167.5	157.1	145.8	135.4	121.2	101.3	83.3	90.9
87.5°	72.9	73.8	106.0	160.0	140.1	112.6	93.7	75.7	48.3	36.0	36.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0	1682.0
2.5°	1680.1	1680.1	1677.2	1675.4	1675.4	1675.4	1673.5	1674.4
5°	1691.4	1693.3	1695.2	1694.3	1697.1	1700.0	1699.0	1698.1
7.5°	1710.4	1716.1	1721.7	1724.6	1728.4	1732.1	1733.1	1730.3
10°	1729.3	1740.7	1749.2	1756.8	1761.5	1765.3	1768.1	1767.2
12.5°	1753.0	1769.1	1784.2	1799.3	1809.8	1815.4	1821.1	1819.2
15°	1791.8	1809.8	1828.7	1848.6	1864.7	1873.2	1881.7	1879.8
17.5°	1844.8	1860.9	1876.0	1895.9	1915.8	1925.2	1934.7	1933.8
20°	1911.0	1923.3	1931.9	1943.2	1962.1	1972.6	1981.1	1978.2
22.5°	1986.8	1990.5	1991.5	1995.3	2010.4	2022.7	2034.1	2036.9
25°	2069.1	2066.3	2060.6	2057.7	2068.2	2081.4	2095.6	2099.4
27.5°	2171.3	2161.9	2147.7	2136.3	2139.2	2156.2	2172.3	2176.1
30°	2300.1	2278.3	2248.0	2226.2	2222.4	2240.4	2257.5	2263.1
32.5°	2446.8	2417.4	2375.8	2342.7	2328.5	2344.5	2359.7	2368.2
35°	2620.9	2588.8	2538.6	2496.0	2473.3	2483.7	2510.2	2519.7
37.5°	2827.3	2782.8	2726.9	2673.0	2635.1	2637.0	2665.4	2676.8
40°	3055.4	2991.0	2920.0	2852.8	2797.9	2794.1	2819.7	2828.2
42.5°	3293.0	3210.6	3127.3	3039.3	2971.1	2958.8	2992.0	2992.9
45°	3548.5	3442.5	3339.3	3237.1	3166.1	3144.4	3176.5	3180.3
47.5°	3821.1	3688.6	3566.5	3455.8	3379.1	3345.0	3376.3	3381.9
50°	4105.1	3967.8	3825.9	3702.8	3612.9	3571.2	3608.2	3611.9
52.5°	4386.2	4256.5	4115.5	3974.5	3865.6	3818.3	3861.8	3875.1
55°	4669.2	4544.3	4411.8	4270.7	4133.5	4091.8	4139.2	4153.4
57.5°	4963.6	4843.4	4723.2	4581.2	4447.7	4384.3	4435.4	4455.3
60°	5288.2	5182.2	5068.6	4925.7	4794.2	4720.3	4763.9	4786.6
62.5°	5607.2	5585.5	5482.3	5333.7	5167.1	5093.3	5130.2	5146.3
65°	5633.7	5986.8	5982.0	5834.4	5601.5	5477.5	5488.0	5495.5
67.5°	4917.2	5727.4	6245.2	6291.6	6032.2	5838.2	5815.5	5820.2
70°	3481.3	4593.5	5692.4	6413.7	6515.9	6365.4	6316.2	6323.7
71°	2789.4	3941.3	5151.0	6121.2	6508.3	6464.8	6437.3	6457.2
72.5°	1780.4	2903.9	4081.4	5241.9	5984.9	6197.9	6229.1	6241.4
75°	646.5	1249.4	2114.5	3029.8	3840.1	4397.6	4704.2	4728.8
77.5°	347.4	447.7	691.9	1033.6	1298.6	1440.6	1457.7	1464.3
80°	255.6	296.3	338.9	387.1	417.4	423.1	412.7	390.9
82.5°	180.8	204.4	221.5	238.5	250.8	240.4	199.7	152.4
85°	105.1	115.5	124.9	133.5	135.4	127.8	84.2	69.1
87.5°	41.6	45.4	44.5	50.2	48.3	44.5	33.1	28.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)