

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: P195005

Luminaire Tested: **NAV-AF-05-D-UNV-5WQ-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195005  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-05-D-UNV-5WQ-7060-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20612 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 162  
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

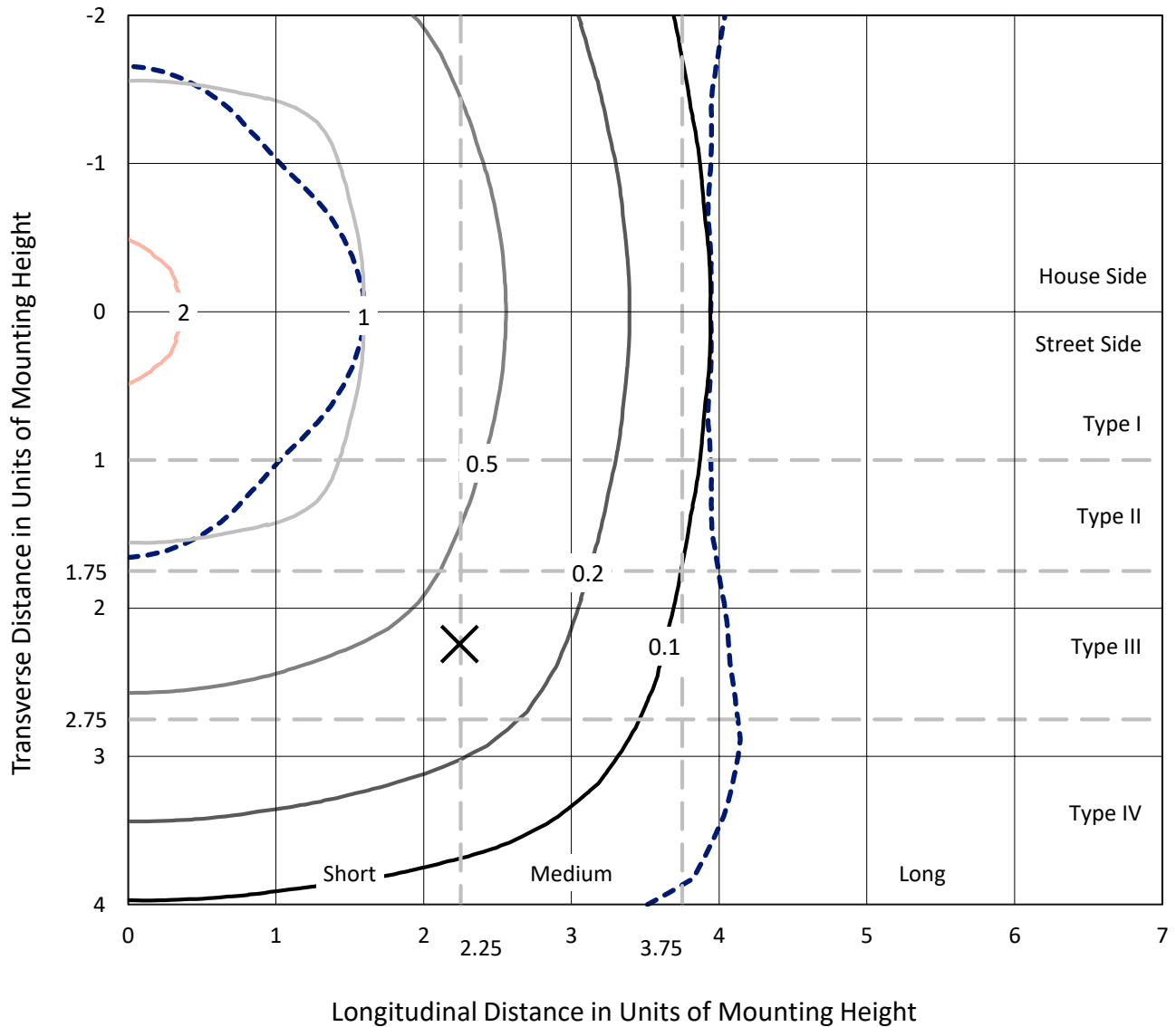


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### Iso-Footcandle Lines of Horizontal Illumination

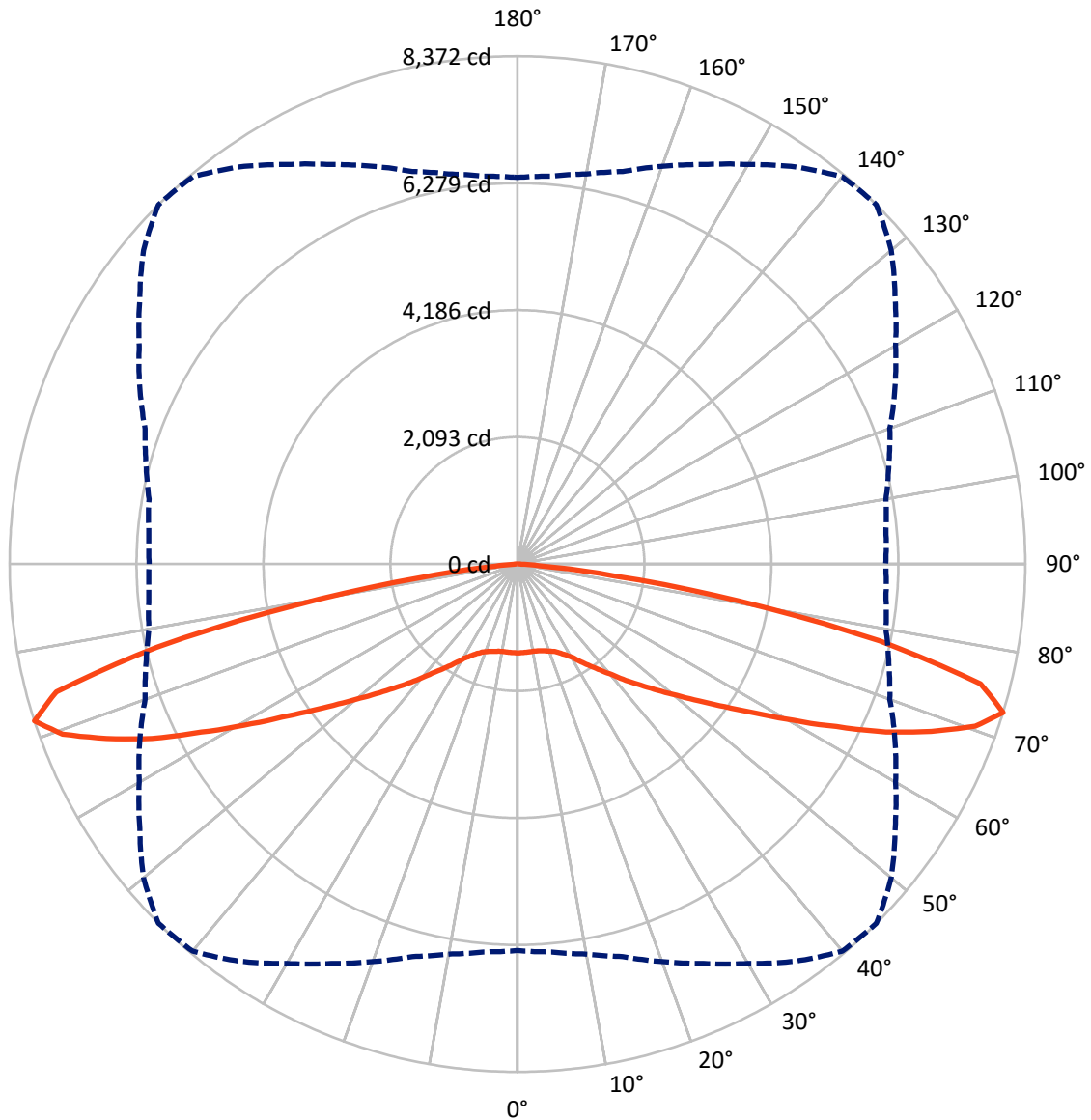
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10306.0	0.0	10306.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10306.0	0.0	10306.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20612.0	0.0	20612.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.9	0.7
10°-20°	423.3	2.1
20°-30°	764.2	3.7
30°-40°	1303.5	6.3
40°-50°	2219.2	10.8
50°-60°	3571.4	17.3
60°-70°	5939.3	28.8
70°-80°	5745.6	27.9
80°-90°	505.7	2.5
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°	20612.0	100.0
0°-180°	20612.0	100.0



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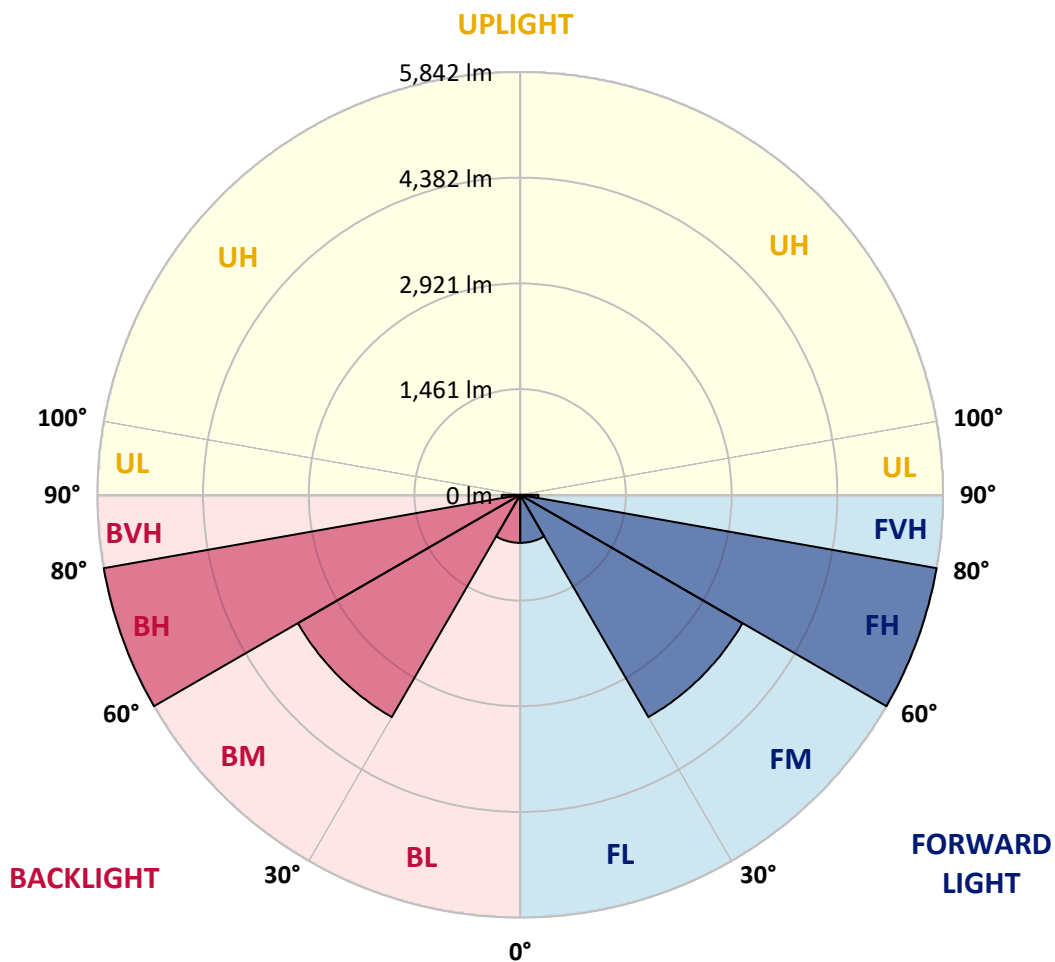
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	663.7	3.2			
FM (30°-60°)	3547.0	17.2			
FH (60°-80°)	5842.5	28.3			G3/7500
FVH (80°-90°)	252.8	1.2			G3/500
BL (0°-30°)	663.7	3.2	B2/1000		
BM (30°-60°)	3547.0	17.2	B3/5000		
BH (60°-80°)	5842.5	28.3	B5		G3/7500
BVH (80°-90°)	252.8	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4
2.5°	1476.8	1476.8	1478.0	1476.8	1474.2	1473.0	1469.2	1466.6	1464.1	1462.8	1460.3
5°	1478.0	1478.0	1479.3	1478.0	1475.5	1473.0	1470.4	1466.6	1464.1	1461.6	1460.3
7.5°	1483.1	1484.4	1485.7	1484.4	1479.3	1476.8	1473.0	1469.2	1464.1	1461.6	1459.0
10°	1493.3	1493.3	1493.3	1492.0	1488.2	1483.1	1478.0	1474.2	1467.9	1461.6	1457.7
12.5°	1500.9	1502.2	1502.2	1499.6	1494.5	1488.2	1483.1	1479.3	1474.2	1469.2	1465.4
15°	1512.3	1512.3	1511.0	1506.0	1498.3	1493.3	1490.7	1489.5	1488.2	1485.7	1481.9
17.5°	1535.1	1533.9	1530.1	1522.5	1513.6	1509.8	1507.2	1507.2	1507.2	1506.0	1503.4
20°	1568.1	1568.1	1563.0	1550.4	1542.7	1538.9	1535.1	1535.1	1535.1	1531.3	1527.5
22.5°	1621.4	1622.7	1615.1	1599.8	1589.7	1582.1	1577.0	1573.2	1569.4	1566.9	1560.5
25°	1693.7	1692.5	1683.6	1664.5	1656.9	1649.3	1639.2	1632.8	1627.8	1623.9	1616.3
27.5°	1769.8	1768.6	1758.4	1741.9	1736.9	1725.4	1717.8	1709.0	1702.6	1696.3	1688.7
30°	1867.5	1861.2	1853.6	1840.9	1838.4	1829.5	1819.3	1806.6	1796.5	1786.3	1777.5
32.5°	1955.1	1955.1	1943.7	1937.3	1942.4	1938.6	1939.9	1932.2	1925.9	1922.1	1913.2
35°	2076.9	2076.9	2071.8	2064.2	2065.5	2056.6	2055.3	2056.6	2061.7	2061.7	2051.5
37.5°	2239.3	2241.8	2225.3	2222.8	2216.4	2203.7	2197.4	2199.9	2211.4	2217.7	2203.7
40°	2441.0	2446.1	2441.0	2424.5	2416.9	2395.3	2382.6	2382.6	2391.5	2397.9	2392.8
42.5°	2640.2	2649.1	2640.2	2627.5	2621.2	2604.7	2598.3	2603.4	2614.8	2622.4	2614.8
45°	2862.2	2868.6	2857.1	2841.9	2834.3	2825.4	2821.6	2825.4	2838.1	2845.7	2843.2
47.5°	3080.4	3089.3	3075.3	3069.0	3069.0	3060.1	3070.3	3080.4	3091.8	3109.6	3102.0
50°	3293.6	3305.0	3296.1	3297.4	3307.5	3324.0	3343.0	3363.3	3383.6	3402.7	3405.2
52.5°	3483.9	3501.6	3502.9	3525.7	3557.5	3582.8	3636.1	3680.5	3728.7	3745.2	3737.6
55°	3684.3	3708.4	3740.2	3775.7	3826.4	3878.4	3968.5	4048.4	4111.9	4151.2	4144.9
57.5°	3971.1	3995.2	4028.1	4086.5	4162.6	4233.7	4356.7	4481.1	4577.5	4637.1	4607.9
60°	4342.8	4368.2	4411.3	4473.5	4572.4	4668.8	4837.6	5016.5	5166.2	5234.7	5181.4
62.5°	4835.0	4859.2	4887.1	4969.5	5079.9	5204.2	5416.1	5645.8	5836.1	5902.0	5827.2
65°	5536.6	5565.8	5574.7	5641.9	5749.8	5865.2	6093.6	6352.4	6569.4	6677.2	6527.5
67.5°	6327.0	6338.5	6374.0	6452.7	6563.0	6667.1	6847.2	7092.1	7300.1	7359.8	7199.9
70°	6790.1	6813.0	6875.1	6984.2	7116.2	7279.9	7476.5	7740.4	7976.4	8004.3	7801.3
72.5°	6371.5	6418.4	6528.8	6698.8	6975.4	7265.9	7604.6	7994.1	8332.9	8372.2	8046.2
75°	5110.4	5163.6	5295.6	5482.1	5809.4	6240.8	6730.5	7315.4	7822.9	7887.6	7456.2
77.5°	2723.9	2789.9	2981.5	3232.7	3699.6	4270.5	4860.4	5527.8	5959.1	6105.0	5794.2
80°	686.4	721.9	814.5	961.7	1277.6	1738.1	2246.9	2965.0	3500.4	3727.5	3500.4
82.5°	266.4	293.1	318.4	336.2	366.7	430.1	593.8	968.0	1304.2	1606.2	1390.5
85°	102.8	109.1	157.3	178.9	178.9	196.6	225.8	266.4	329.9	360.3	302.0
87.5°	40.6	44.4	54.6	83.7	86.3	76.1	81.2	91.3	69.8	58.4	66.0
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°	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4	1465.4
2.5°	1459.0	1457.7	1455.2	1456.5	1455.2	1455.2	1455.2	1455.2
5°	1457.7	1457.7	1455.2	1455.2	1455.2	1456.5	1455.2	1455.2
7.5°	1456.5	1455.2	1452.7	1451.4	1451.4	1450.1	1450.1	1450.1
10°	1453.9	1451.4	1448.9	1447.6	1447.6	1445.1	1445.1	1445.1
12.5°	1460.3	1456.5	1453.9	1452.7	1452.7	1452.7	1453.9	1453.9
15°	1478.0	1470.4	1466.6	1465.4	1466.6	1469.2	1470.4	1471.7
17.5°	1497.1	1489.5	1483.1	1480.6	1481.9	1485.7	1489.5	1492.0
20°	1521.2	1514.8	1507.2	1504.7	1504.7	1509.8	1512.3	1516.1
22.5°	1555.4	1550.4	1544.0	1540.2	1537.7	1544.0	1547.8	1550.4
25°	1610.0	1604.9	1599.8	1596.0	1594.8	1601.1	1603.6	1604.9
27.5°	1682.3	1677.2	1674.7	1673.4	1669.6	1672.2	1676.0	1674.7
30°	1776.2	1780.0	1776.2	1776.2	1769.8	1772.4	1769.8	1767.3
32.5°	1901.8	1898.0	1886.6	1879.0	1870.1	1870.1	1866.3	1862.5
35°	2027.4	2014.7	2008.4	2012.2	2008.4	2010.9	2004.6	1998.2
37.5°	2175.8	2168.2	2167.0	2178.4	2175.8	2178.4	2178.4	2169.5
40°	2372.5	2367.4	2376.3	2395.3	2402.9	2401.7	2404.2	2392.8
42.5°	2598.3	2589.4	2593.2	2609.7	2618.6	2621.2	2619.9	2609.7
45°	2824.1	2826.7	2826.7	2844.4	2853.3	2858.4	2849.5	2845.7
47.5°	3079.2	3083.0	3074.1	3085.5	3088.0	3096.9	3089.3	3083.0
50°	3373.5	3359.5	3339.2	3343.0	3343.0	3340.5	3331.6	3324.0
52.5°	3702.1	3670.4	3632.3	3619.6	3605.7	3591.7	3574.0	3560.0
55°	4076.4	4021.8	3953.3	3921.6	3894.9	3863.2	3822.6	3808.7
57.5°	4510.3	4416.4	4325.0	4267.9	4199.4	4157.6	4105.5	4103.0
60°	5025.4	4898.5	4737.4	4652.4	4583.8	4534.4	4495.0	4479.8
62.5°	5620.4	5402.2	5228.3	5137.0	5057.1	5026.6	4977.1	4983.5
65°	6230.6	6008.6	5839.9	5766.3	5691.4	5671.1	5625.5	5641.9
67.5°	6891.6	6708.9	6523.7	6455.2	6386.7	6366.4	6319.4	6333.4
70°	7484.1	7251.9	7041.3	6906.8	6790.1	6696.2	6636.6	6612.5
72.5°	7602.1	7199.9	6868.8	6532.6	6338.5	6168.5	6098.7	6072.0
75°	6830.7	6206.5	5734.6	5340.0	5121.8	4874.4	4847.7	4810.9
77.5°	5313.4	4602.9	4032.0	3524.5	3231.4	2929.4	2825.4	2746.8
80°	3169.2	2435.9	1887.8	1323.3	1079.7	869.1	817.0	762.5
82.5°	1134.2	727.0	489.7	381.9	341.3	314.6	294.3	267.7
85°	274.0	230.9	218.2	197.9	195.4	166.2	118.0	105.3
87.5°	87.5	79.9	81.2	77.4	81.2	60.9	49.5	44.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)