

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: P195486

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195486
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-06-D-UNV-5WQ-7050-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 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: 24692 lumens
Efficiency: N/A
Efficacy: 127.9 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

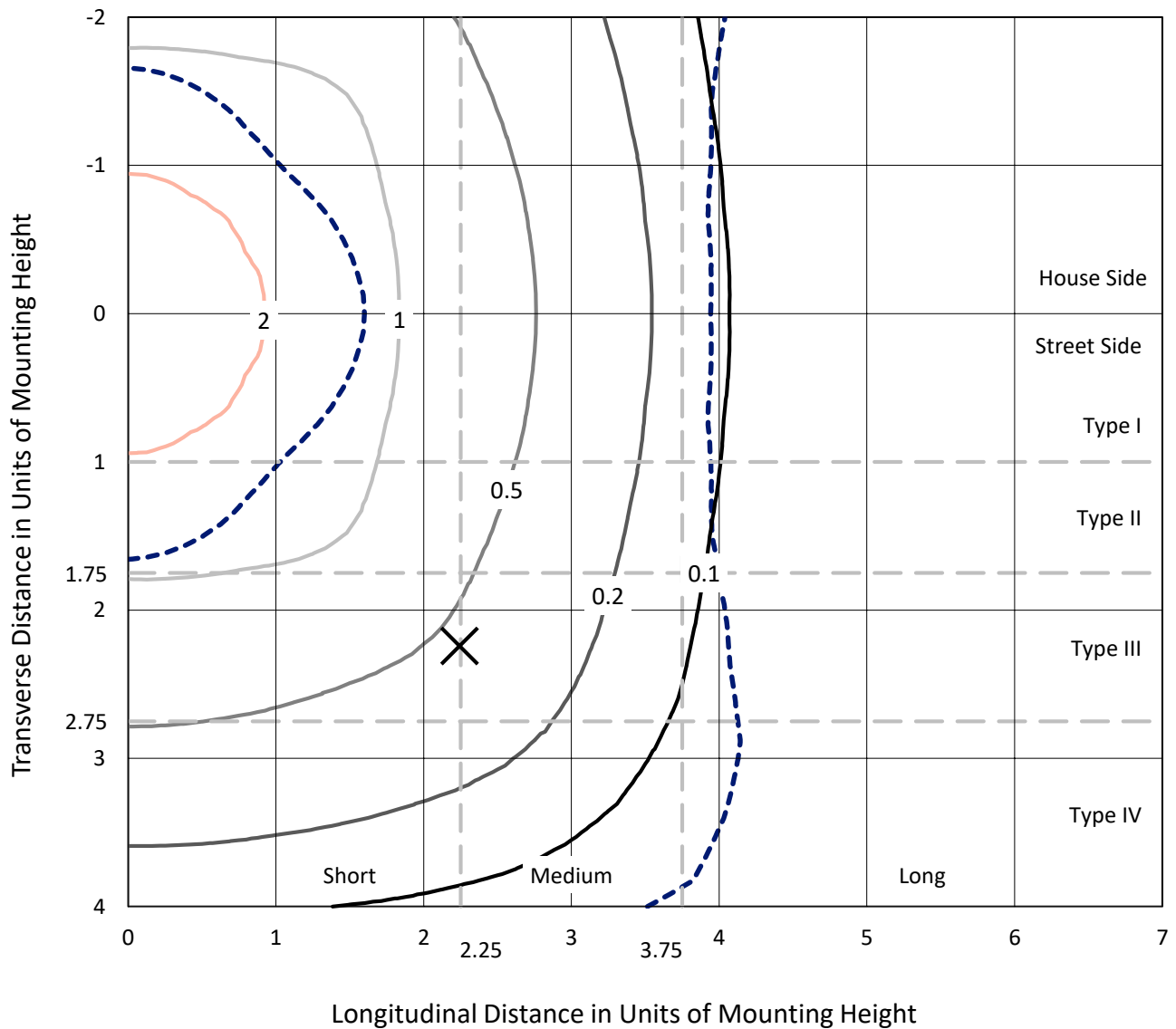
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

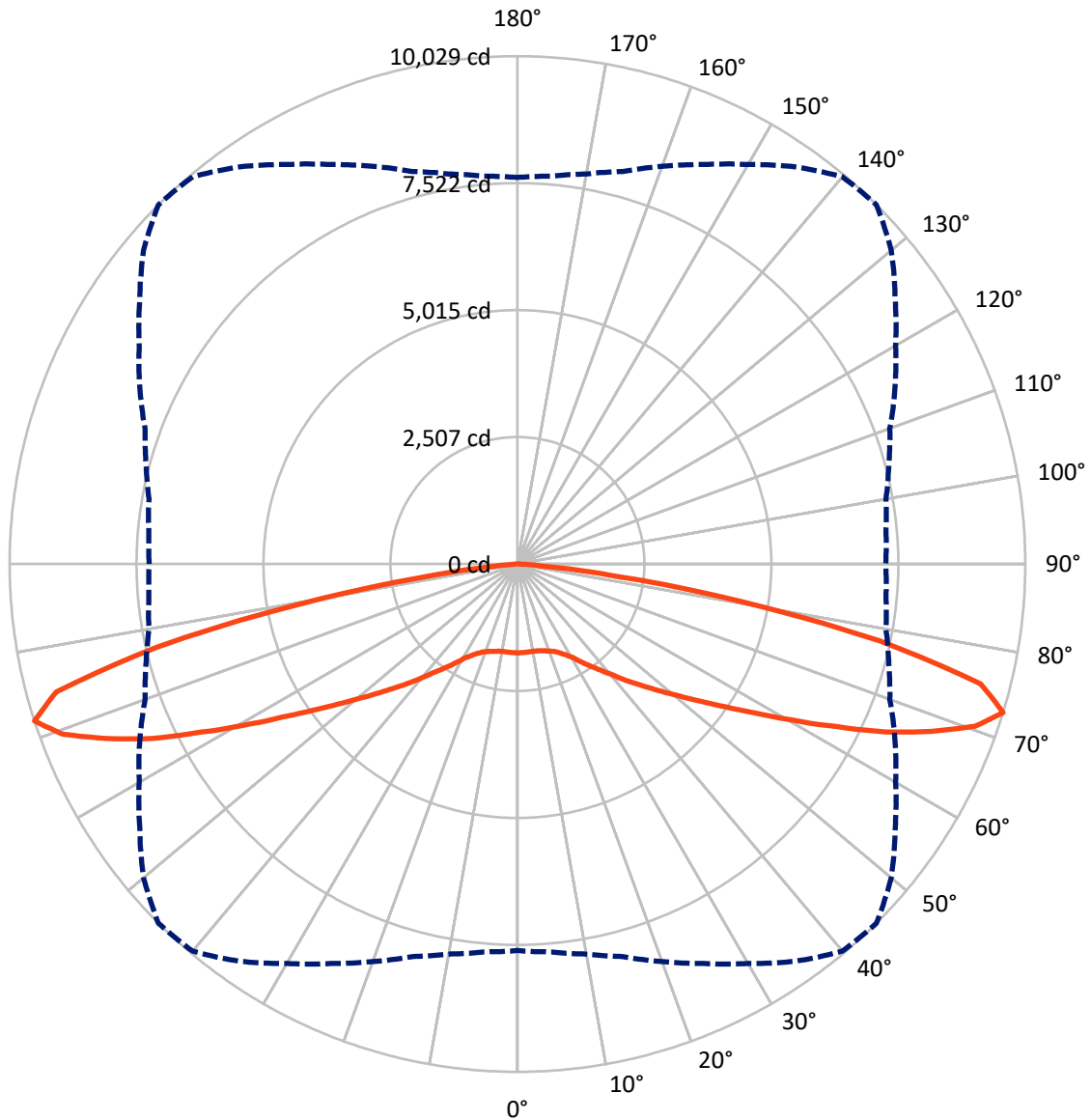
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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
House Side	Lumens	12346.0	0.0	12346.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12346.0	0.0	12346.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	24692.0	0.0	24692.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.6	0.7
10°-20°	507.1	2.1
20°-30°	915.4	3.7
30°-40°	1561.5	6.3
40°-50°	2658.4	10.8
50°-60°	4278.3	17.3
60°-70°	7115.0	28.8
70°-80°	6882.9	27.9
80°-90°	605.8	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°	24692.0	100.0
0°-180°	24692.0	100.0



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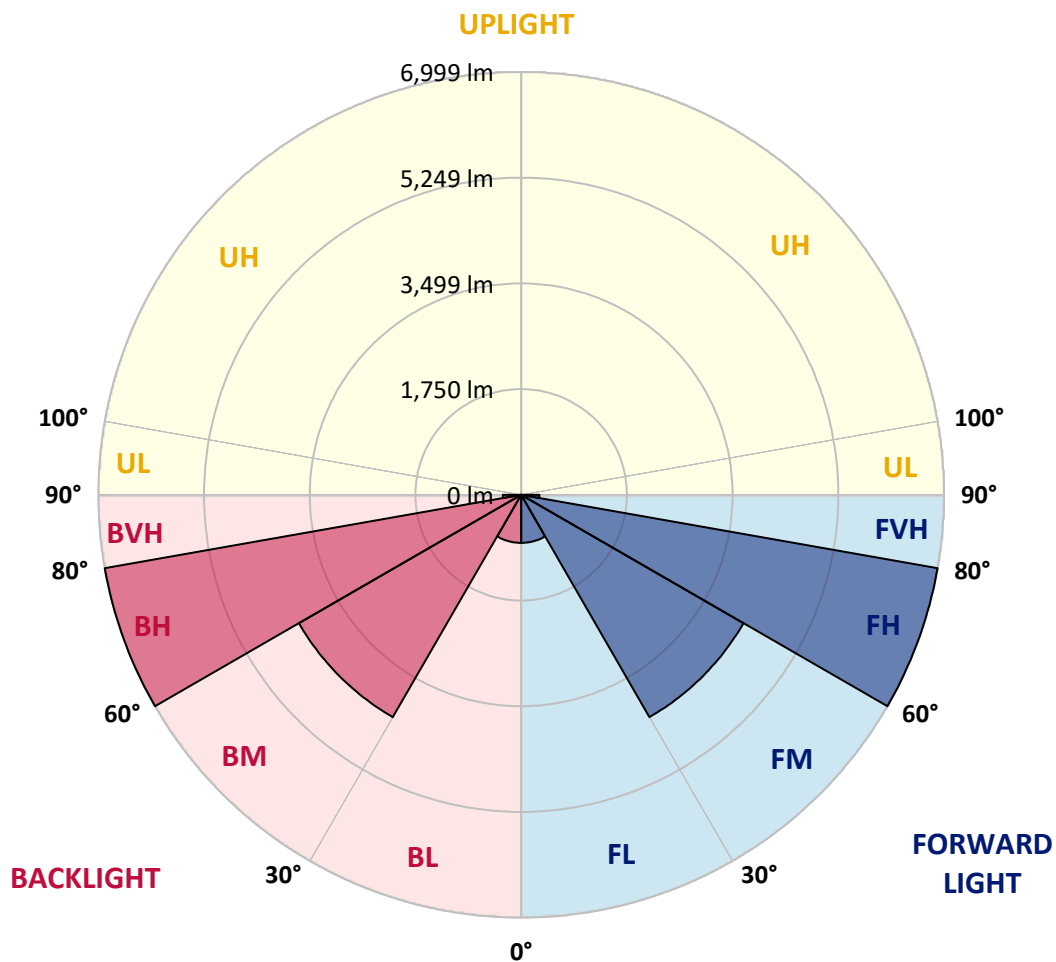
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	795.0	3.2			
FM	(30°-60°)	4249.1	17.2			
FH	(60°-80°)	6999.0	28.3			G3/7500
FVH	(80°-90°)	302.9	1.2			G3/500
BL	(0°-30°)	795.0	3.2	B2/1000		
BM	(30°-60°)	4249.1	17.2	B3/5000		
BH	(60°-80°)	6999.0	28.3	B5		G3/7500
BVH	(80°-90°)	302.9	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°	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4
2.5°	1769.1	1769.1	1770.6	1769.1	1766.1	1764.5	1760.0	1756.9	1753.9	1752.4	1749.3
5°	1770.6	1770.6	1772.1	1770.6	1767.6	1764.5	1761.5	1756.9	1753.9	1750.9	1749.3
7.5°	1776.7	1778.2	1779.7	1778.2	1772.1	1769.1	1764.5	1760.0	1753.9	1750.9	1747.8
10°	1788.9	1788.9	1788.9	1787.3	1782.8	1776.7	1770.6	1766.1	1758.5	1750.9	1746.3
12.5°	1798.0	1799.5	1799.5	1796.5	1790.4	1782.8	1776.7	1772.1	1766.1	1760.0	1755.4
15°	1811.6	1811.6	1810.1	1804.1	1794.9	1788.9	1785.8	1784.3	1782.8	1779.7	1775.2
17.5°	1839.0	1837.5	1832.9	1823.8	1813.2	1808.6	1805.6	1805.6	1805.6	1804.1	1801.0
20°	1878.5	1878.5	1872.4	1857.2	1848.1	1843.6	1839.0	1839.0	1839.0	1834.4	1829.9
22.5°	1942.4	1943.9	1934.8	1916.5	1904.4	1895.2	1889.2	1884.6	1880.0	1877.0	1869.4
25°	2029.0	2027.5	2016.8	1994.0	1984.9	1975.8	1963.6	1956.0	1950.0	1945.4	1936.3
27.5°	2120.2	2118.7	2106.5	2086.7	2080.7	2067.0	2057.9	2047.2	2039.6	2032.0	2022.9
30°	2237.2	2229.6	2220.5	2205.3	2202.2	2191.6	2179.5	2164.3	2152.1	2139.9	2129.3
32.5°	2342.1	2342.1	2328.4	2320.8	2326.9	2322.3	2323.8	2314.7	2307.1	2302.6	2291.9
35°	2488.0	2488.0	2481.9	2472.8	2474.3	2463.7	2462.1	2463.7	2469.7	2469.7	2457.6
37.5°	2682.5	2685.6	2665.8	2662.8	2655.2	2640.0	2632.4	2635.4	2649.1	2656.7	2640.0
40°	2924.2	2930.3	2924.2	2904.4	2895.3	2869.5	2854.3	2854.3	2864.9	2872.5	2866.4
42.5°	3162.8	3173.4	3162.8	3147.6	3140.0	3120.2	3112.6	3118.7	3132.4	3141.5	3132.4
45°	3428.8	3436.4	3422.7	3404.4	3395.3	3384.7	3380.1	3384.7	3399.9	3409.0	3406.0
47.5°	3690.2	3700.8	3684.1	3676.5	3676.5	3665.9	3678.0	3690.2	3703.9	3725.1	3716.0
50°	3945.5	3959.2	3948.5	3950.1	3962.2	3982.0	4004.8	4029.1	4053.4	4076.2	4079.3
52.5°	4173.5	4194.8	4196.3	4223.6	4261.6	4292.0	4355.9	4409.1	4466.8	4486.6	4477.5
55°	4413.6	4442.5	4480.5	4523.0	4583.8	4646.2	4754.1	4849.8	4925.8	4972.9	4965.3
57.5°	4757.1	4786.0	4825.5	4895.4	4986.6	5071.7	5219.1	5368.1	5483.6	5555.0	5520.1
60°	5202.4	5232.8	5284.5	5359.0	5477.5	5593.0	5795.2	6009.4	6188.8	6270.9	6207.0
62.5°	5792.1	5821.0	5854.4	5953.2	6085.4	6234.4	6488.2	6763.3	6991.3	7070.3	6980.6
65°	6632.6	6667.5	6678.2	6758.7	6887.9	7026.2	7299.8	7609.8	7869.7	7998.9	7819.6
67.5°	7579.4	7593.1	7635.7	7729.9	7862.1	7986.8	8202.6	8495.9	8745.2	8816.6	8625.1
70°	8134.2	8161.5	8236.0	8366.7	8524.8	8720.8	8956.4	9272.5	9555.2	9588.7	9345.5
72.5°	7632.6	7688.9	7821.1	8024.8	8356.1	8704.1	9109.9	9576.5	9982.3	10029.4	9638.8
75°	6121.9	6185.8	6343.8	6567.2	6959.3	7476.1	8062.8	8763.4	9371.3	9448.8	8932.1
77.5°	3263.1	3342.1	3571.6	3872.6	4431.9	5115.8	5822.5	6621.9	7138.7	7313.5	6941.1
80°	822.2	864.8	975.7	1152.0	1530.5	2082.2	2691.6	3551.9	4193.2	4465.3	4193.2
82.5°	319.2	351.1	381.5	402.8	439.2	515.2	711.3	1159.6	1562.4	1924.1	1665.7
85°	123.1	130.7	188.5	214.3	214.3	235.6	270.5	319.2	395.2	431.6	361.7
87.5°	48.6	53.2	65.4	100.3	103.3	91.2	97.3	109.4	83.6	69.9	79.0
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°	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4	1755.4
2.5°	1747.8	1746.3	1743.3	1744.8	1743.3	1743.3	1743.3	1743.3
5°	1746.3	1746.3	1743.3	1743.3	1743.3	1744.8	1743.3	1743.3
7.5°	1744.8	1743.3	1740.2	1738.7	1738.7	1737.2	1737.2	1737.2
10°	1741.7	1738.7	1735.7	1734.1	1734.1	1731.1	1731.1	1731.1
12.5°	1749.3	1744.8	1741.7	1740.2	1740.2	1740.2	1741.7	1741.7
15°	1770.6	1761.5	1756.9	1755.4	1756.9	1760.0	1761.5	1763.0
17.5°	1793.4	1784.3	1776.7	1773.7	1775.2	1779.7	1784.3	1787.3
20°	1822.3	1814.7	1805.6	1802.5	1802.5	1808.6	1811.6	1816.2
22.5°	1863.3	1857.2	1849.6	1845.1	1842.0	1849.6	1854.2	1857.2
25°	1928.7	1922.6	1916.5	1912.0	1910.4	1918.0	1921.1	1922.6
27.5°	2015.3	2009.2	2006.2	2004.7	2000.1	2003.1	2007.7	2006.2
30°	2127.8	2132.3	2127.8	2127.8	2120.2	2123.2	2120.2	2117.1
32.5°	2278.2	2273.7	2260.0	2250.9	2240.2	2240.2	2235.7	2231.1
35°	2428.7	2413.5	2405.9	2410.5	2405.9	2408.9	2401.3	2393.7
37.5°	2606.5	2597.4	2595.9	2609.6	2606.5	2609.6	2609.6	2598.9
40°	2842.1	2836.0	2846.7	2869.5	2878.6	2877.1	2880.1	2866.4
42.5°	3112.6	3102.0	3106.6	3126.3	3137.0	3140.0	3138.5	3126.3
45°	3383.2	3386.2	3386.2	3407.5	3418.1	3424.2	3413.6	3409.0
47.5°	3688.7	3693.2	3682.6	3696.3	3699.3	3709.9	3700.8	3693.2
50°	4041.3	4024.5	4000.2	4004.8	4004.8	4001.7	3991.1	3982.0
52.5°	4434.9	4396.9	4351.3	4336.1	4319.4	4302.7	4281.4	4264.7
55°	4883.2	4817.9	4735.8	4697.8	4665.9	4627.9	4579.3	4562.6
57.5°	5403.0	5290.6	5181.1	5112.7	5030.7	4980.5	4918.2	4915.2
60°	6020.1	5868.1	5675.1	5573.3	5491.2	5431.9	5384.8	5366.6
62.5°	6732.9	6471.5	6263.3	6153.8	6058.1	6021.6	5962.3	5969.9
65°	7463.9	7198.0	6995.8	6907.7	6818.0	6793.7	6739.0	6758.7
67.5°	8255.8	8036.9	7815.0	7732.9	7650.9	7626.6	7570.3	7587.0
70°	8965.5	8687.4	8435.1	8274.0	8134.2	8021.7	7950.3	7921.4
72.5°	9106.9	8625.1	8228.4	7825.7	7593.1	7389.5	7305.9	7274.0
75°	8182.8	7435.1	6869.7	6397.0	6135.6	5839.2	5807.3	5763.2
77.5°	6365.1	5514.0	4830.1	4222.1	3871.0	3509.3	3384.7	3290.5
80°	3796.6	2918.1	2261.5	1585.2	1293.4	1041.1	978.8	913.4
82.5°	1358.7	870.9	586.7	457.5	408.8	376.9	352.6	320.7
85°	328.3	276.6	261.4	237.1	234.1	199.1	141.3	126.1
87.5°	104.9	95.7	97.3	92.7	97.3	73.0	59.3	53.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)