

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: P966820

Luminaire Tested: **NAV-SB4C-830-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27476.2 lumens
Efficiency: N/A
Efficacy: 136.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

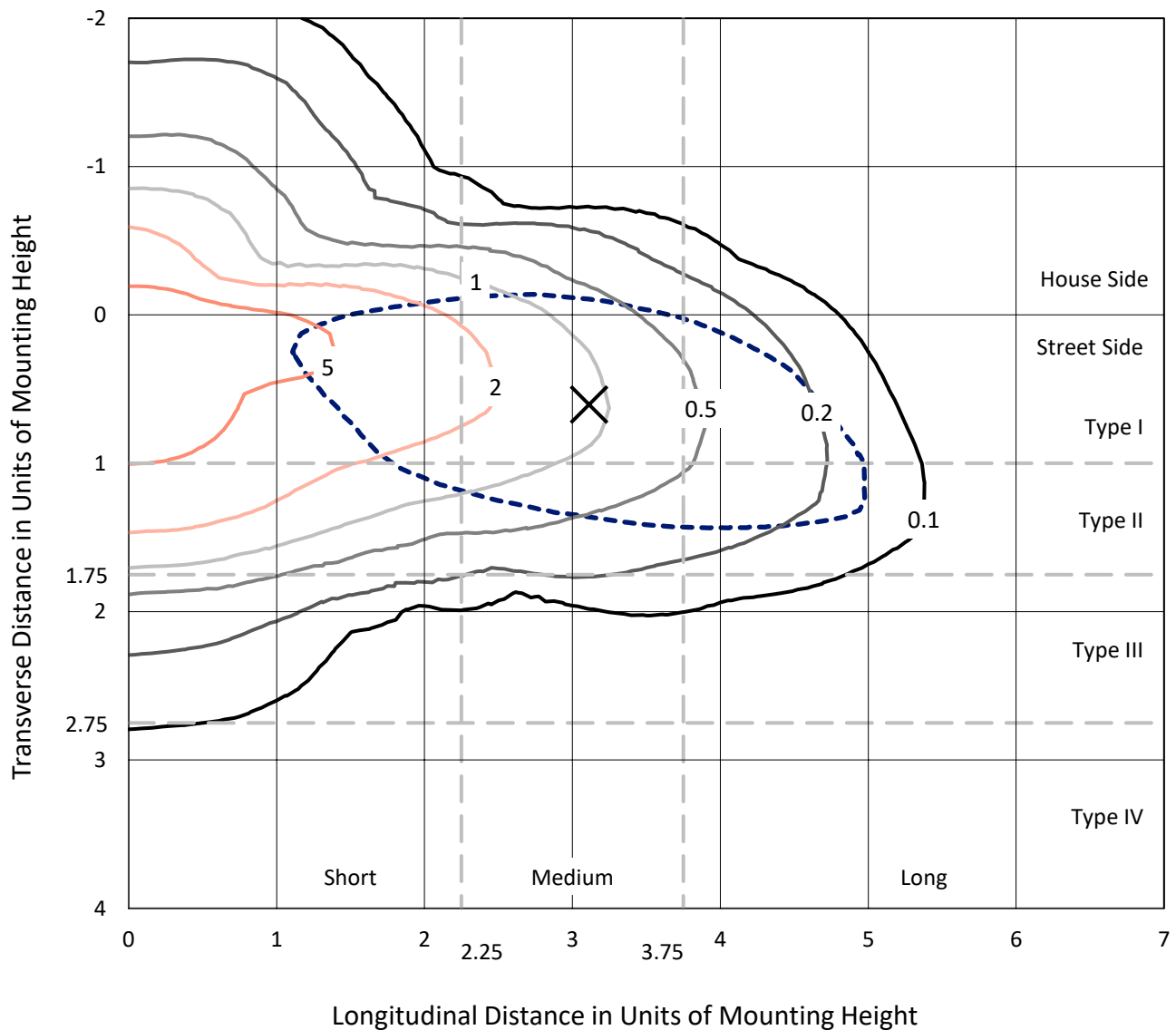
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

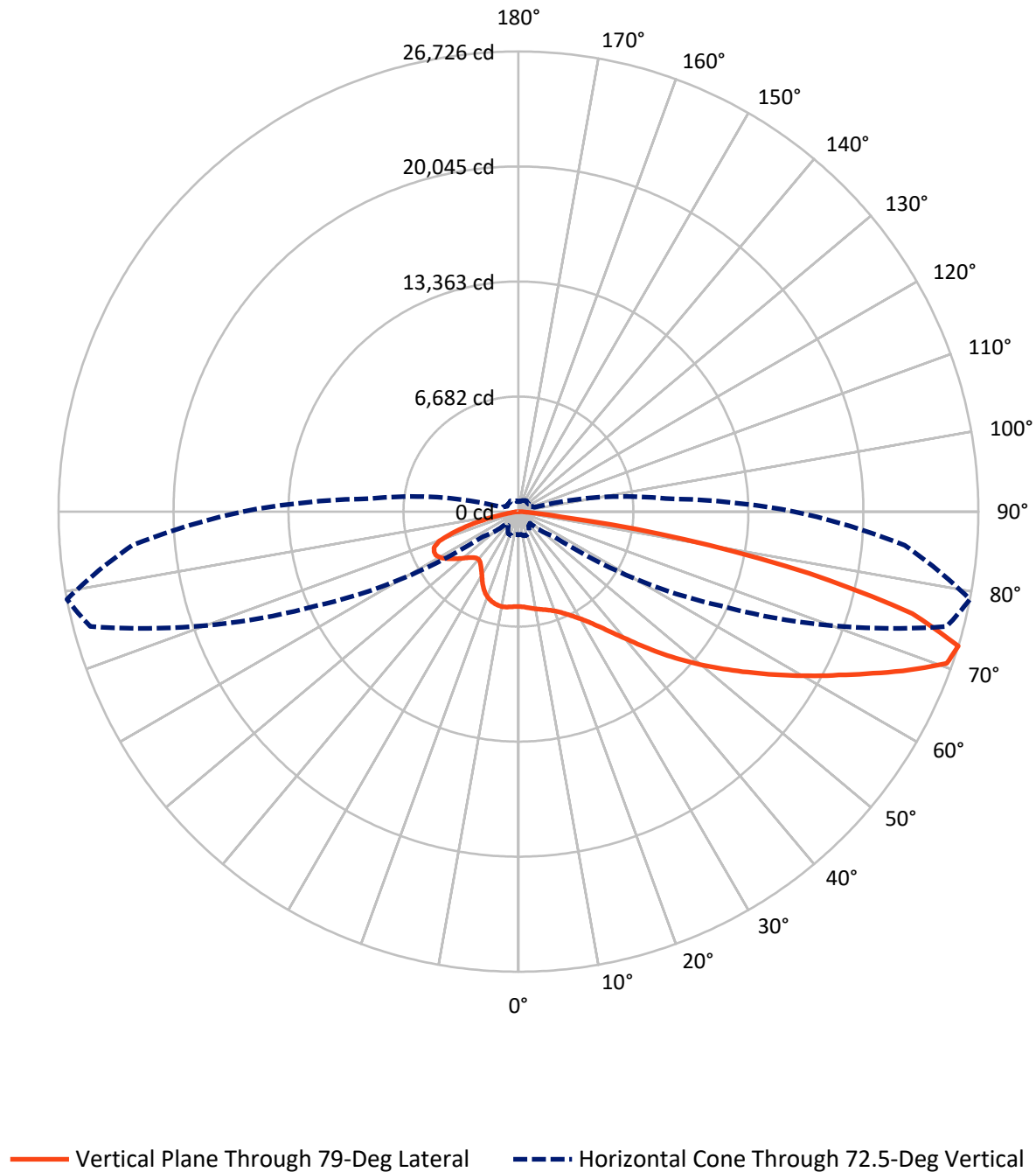
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6046.3	0.0	6046.3
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	21429.9	0.0	21429.9
	% Fixture	78.0	0.0	78.0
Total	Lumens	27476.2	0.0	27476.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	500.7	1.8
10°-20°	1309.0	4.8
20°-30°	2112.1	7.7
30°-40°	3170.0	11.5
40°-50°	4496.8	16.4
50°-60°	5678.9	20.7
60°-70°	5767.7	21.0
70°-80°	3930.9	14.3
80°-90°	510.0	1.9
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°	27476.2	100.0
0°-180°	27476.2	100.0

Coefficient of Utilization



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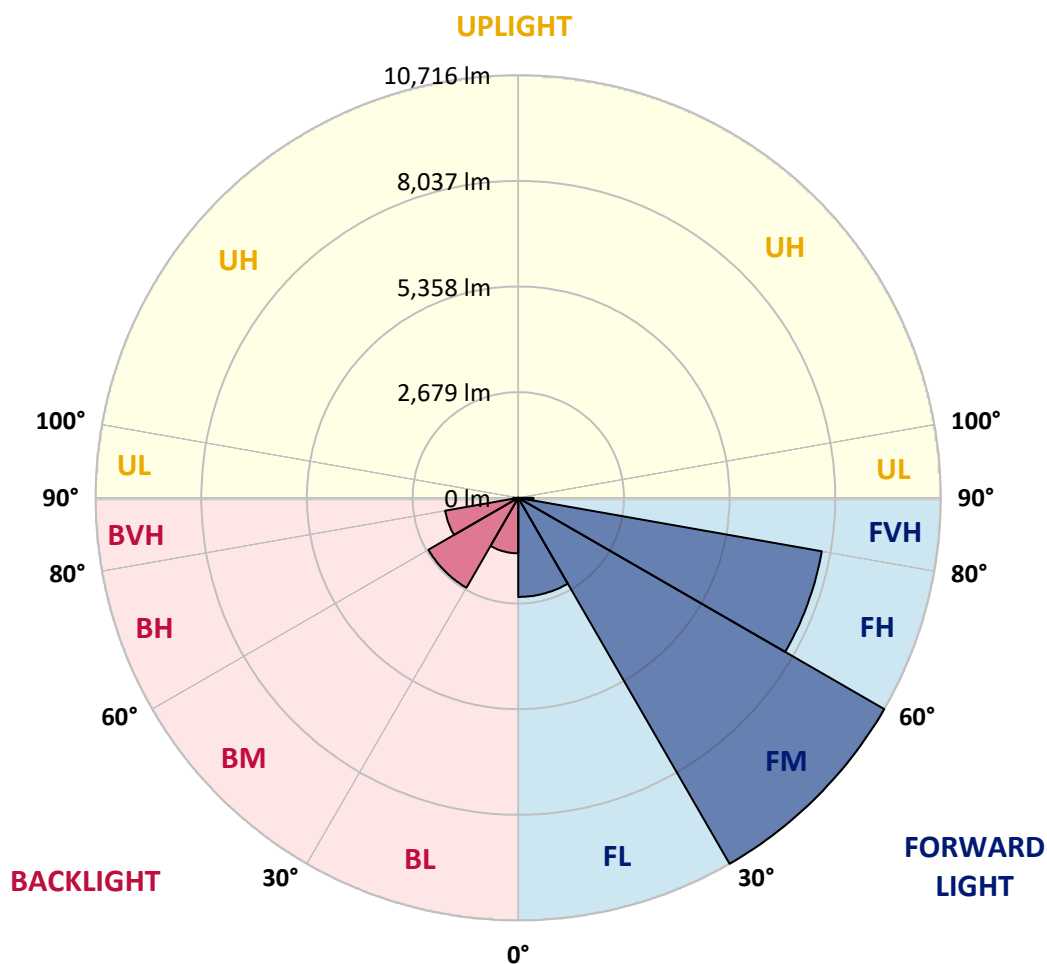
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2513.4	9.1			
FM	(30°-60°)	10716.3	39.0			
FH	(60°-80°)	7816.0	28.4			G4/12000
FVH	(80°-90°)	384.2	1.4			G3/500
BL	(0°-30°)	1408.4	5.1	B3/2500		
BM	(30°-60°)	2629.5	9.6	B3/5000		
BH	(60°-80°)	1882.6	6.9	B3/2500		G3/2500
BVH	(80°-90°)	125.8	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5
2.5°	5518.5	5492.4	5508.3	5502.5	5509.8	5518.5	5521.4	5525.8	5540.3	5538.8	5537.4
5°	5506.8	5480.7	5502.5	5495.2	5514.1	5534.5	5551.9	5567.9	5591.2	5601.3	5586.8
7.5°	5482.1	5464.7	5486.5	5508.3	5543.2	5573.7	5598.4	5634.7	5668.1	5674.0	5684.1
10°	5338.3	5325.2	5376.0	5432.7	5528.6	5611.5	5665.3	5707.4	5743.8	5749.5	5764.1
12.5°	5188.5	5172.6	5229.2	5306.3	5461.8	5611.5	5724.8	5780.1	5812.1	5830.9	5852.7
15°	5163.8	5150.7	5182.7	5249.6	5379.0	5572.2	5765.5	5867.3	5894.9	5916.7	5925.4
17.5°	5283.1	5258.4	5271.4	5294.6	5370.3	5535.9	5797.5	5966.1	6008.2	6031.5	6031.5
20°	5559.2	5524.3	5503.9	5457.4	5444.4	5541.8	5794.6	6085.3	6140.6	6169.6	6176.9
22.5°	5926.9	5903.6	5860.0	5742.3	5614.4	5613.0	5849.9	6237.9	6341.1	6368.7	6351.3
25°	6371.6	6336.8	6281.5	6121.6	5876.0	5753.9	5942.8	6432.7	6605.6	6612.9	6562.0
27.5°	6883.2	6830.9	6755.3	6544.5	6213.2	5974.8	6085.3	6656.5	6909.3	6906.4	6801.8
30°	7422.4	7370.1	7290.1	7034.4	6617.2	6272.8	6282.9	6897.7	7269.8	7253.8	7075.1
32.5°	7816.2	7777.1	7761.1	7563.4	7082.3	6624.5	6509.7	7165.2	7714.6	7700.0	7450.0
35°	8118.6	8067.7	8086.6	7986.3	7589.5	7018.4	6787.2	7483.4	8255.2	8253.7	7942.7
37.5°	8418.0	8372.9	8388.9	8322.1	8059.0	7518.4	7125.9	7872.9	8925.2	8957.2	8538.6
40°	8691.2	8643.2	8707.2	8644.7	8423.8	8050.2	7511.1	8313.4	9701.3	9762.3	9259.4
42.5°	8855.5	8817.7	8923.8	8925.2	8740.6	8499.4	7934.0	8798.8	10599.5	10736.2	10146.1
45°	8912.2	8899.0	9058.9	9092.4	9021.1	8759.5	8314.8	9327.8	11567.4	11811.6	11156.1
47.5°	8851.1	8826.4	9047.3	9170.8	9227.5	8881.6	8630.2	9900.4	12555.7	12913.3	12257.8
50°	8543.0	8495.0	8823.5	9083.7	9285.7	8961.6	8948.5	10561.7	13679.2	14070.2	13365.3
52.5°	7989.3	7952.9	8326.4	8778.4	9157.8	9000.7	9306.0	11284.0	14746.0	15251.8	14500.4
55°	7281.4	7233.4	7644.8	8234.8	8839.5	8987.7	9663.5	12092.1	16004.7	16517.7	15673.3
57.5°	6159.4	6063.5	6583.8	7281.4	8320.6	8971.7	10035.6	12895.8	17283.6	17898.3	16924.6
60°	4522.9	4380.4	5018.5	5845.5	7306.1	8816.2	10496.3	13796.9	18818.4	19372.1	18290.8
62.5°	2633.5	2550.7	2967.8	3739.5	5506.8	7900.6	10755.0	14844.9	20327.0	20908.4	19633.7
65°	2044.9	2021.6	2058.0	2117.5	3065.2	5915.3	9957.1	15866.6	22245.5	22652.4	21033.3
67.5°	1870.5	1853.1	1869.1	1757.2	1555.1	3294.9	7877.3	16125.2	24300.5	24547.6	22258.5
70°	1662.7	1642.4	1694.6	1598.7	1223.7	1498.4	5089.7	15186.4	25935.6	26399.2	23190.1
72.5°	1354.5	1331.3	1453.3	1409.8	1030.4	962.2	2556.5	12955.4	25764.1	26726.2	22523.0
75°	1040.6	1027.6	1172.9	1209.2	840.1	757.2	1226.6	9630.1	22672.7	23642.1	19411.3
77.5°	808.1	797.9	872.1	1004.3	677.3	587.1	754.3	6108.6	17085.9	17256.0	13376.9
80°	606.1	577.0	645.3	777.6	527.6	428.8	511.6	3562.2	10800.0	9790.0	5822.2
82.5°	379.4	364.8	421.5	518.9	372.1	295.0	332.8	1967.9	4328.2	2549.3	1123.5
85°	216.6	210.7	229.6	296.5	202.0	170.0	190.3	869.1	790.7	543.6	338.7
87.5°	87.2	84.3	104.7	132.2	74.1	62.5	66.8	209.3	174.5	161.3	111.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5	5515.5
2.5°	5531.5	5531.5	5511.2	5479.2	5443.0	5419.7	5381.9	5371.7	5332.5	5320.8	5339.7
5°	5598.4	5586.8	5524.3	5434.1	5310.6	5197.3	5072.3	4993.8	4883.3	4844.2	4873.2
7.5°	5682.7	5650.7	5543.2	5345.6	5086.9	4832.5	4568.0	4367.4	4175.5	4107.3	4116.0
10°	5759.8	5714.7	5531.5	5185.7	4738.1	4297.6	3876.1	3581.1	3357.3	3265.8	3286.0
12.5°	5836.8	5753.9	5454.5	4919.7	4242.4	3645.1	3196.0	2966.4	2828.3	2717.8	2754.2
15°	5909.4	5793.2	5335.3	4563.6	3698.8	3092.8	2761.5	2578.3	2467.8	2395.2	2408.2
17.5°	5993.7	5826.6	5156.6	4111.6	3181.5	2710.5	2440.2	2329.7	2308.0	2299.3	2305.0
20°	6111.5	5857.2	4921.1	3605.8	2800.7	2405.4	2265.9	2255.6	2254.2	2249.9	2264.3
22.5°	6237.9	5893.4	4610.1	3146.5	2476.6	2214.9	2190.2	2169.9	2156.8	2155.4	2171.4
25°	6387.6	5905.1	4220.6	2770.2	2200.4	2124.8	2095.8	2065.3	2056.6	2056.6	2065.3
27.5°	6532.9	5865.9	3767.2	2443.1	2044.9	2042.0	2004.2	1994.0	1992.6	1996.9	2008.6
30°	6678.3	5791.8	3316.6	2140.8	1954.8	1954.8	1941.8	1948.9	1954.8	1969.3	1979.5
32.5°	6874.5	5713.2	2940.2	1917.1	1876.3	1861.8	1874.8	1889.4	1895.2	1914.1	1930.1
35°	7162.3	5658.0	2640.8	1794.9	1794.9	1776.0	1783.3	1780.4	1767.3	1758.6	1778.9
37.5°	7543.1	5655.1	2393.7	1738.2	1726.6	1723.7	1725.2	1706.3	1655.4	1594.4	1595.8
40°	8000.8	5733.5	2203.3	1699.0	1690.3	1707.8	1699.0	1648.1	1508.6	1402.5	1399.6
42.5°	8615.6	5957.4	2081.3	1651.1	1677.2	1699.0	1664.1	1488.3	1393.8	1322.6	1319.7
45°	9339.4	6320.8	2018.7	1600.1	1652.5	1678.6	1510.0	1433.1	1357.4	1271.7	1265.9
47.5°	10159.1	6778.5	2004.2	1552.3	1597.3	1613.2	1444.6	1409.8	1324.0	1231.0	1223.7
50°	11051.6	7320.7	2043.4	1495.6	1517.3	1462.1	1422.9	1390.9	1302.3	1210.6	1200.5
52.5°	11974.4	7918.0	2122.0	1418.5	1437.4	1376.4	1414.1	1386.5	1289.1	1165.6	1156.9
55°	12881.3	8519.7	2197.5	1328.4	1356.0	1299.3	1389.4	1369.1	1229.6	1090.0	1082.8
57.5°	13802.8	9118.5	2271.6	1248.4	1277.6	1225.2	1350.2	1322.6	1162.7	1020.3	1017.4
60°	14760.5	9699.9	2306.6	1171.5	1191.8	1156.9	1290.6	1242.6	1087.1	949.0	944.7
62.5°	15657.3	10183.8	2249.9	1094.4	1107.5	1093.0	1212.2	1148.2	1011.6	869.1	867.7
65°	16556.9	10471.6	2075.4	1018.8	1021.7	1014.4	1101.7	1046.4	922.9	799.4	790.7
67.5°	17372.2	10632.9	1797.8	937.5	930.2	927.2	998.5	935.9	837.1	729.6	720.9
70°	17545.2	10223.0	1373.4	841.5	841.5	834.2	885.1	821.1	742.7	655.5	652.6
72.5°	16025.0	8599.6	975.2	732.5	744.2	729.6	771.7	718.0	646.8	588.7	571.1
75°	12922.0	6306.2	709.3	620.6	640.9	616.2	655.5	617.7	556.7	555.1	500.0
77.5°	8878.7	3899.4	514.4	511.6	526.1	494.2	539.3	518.9	463.6	438.9	411.3
80°	3788.9	1555.1	374.9	395.3	395.3	366.2	418.6	424.4	376.4	364.8	364.8
82.5°	754.3	441.9	263.0	271.8	255.8	247.0	296.5	328.5	453.5	504.3	505.7
85°	226.7	162.8	158.5	148.2	130.8	132.2	174.5	329.9	406.9	232.6	200.6
87.5°	62.5	40.7	42.1	33.4	27.6	36.3	59.6	250.0	136.6	58.1	49.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)