

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: P196499

Luminaire Tested: **NAV-AF-05-D-UNV-AFL-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196499
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24160)
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-AFL-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24074.2 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

Input Watts (W): 210
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

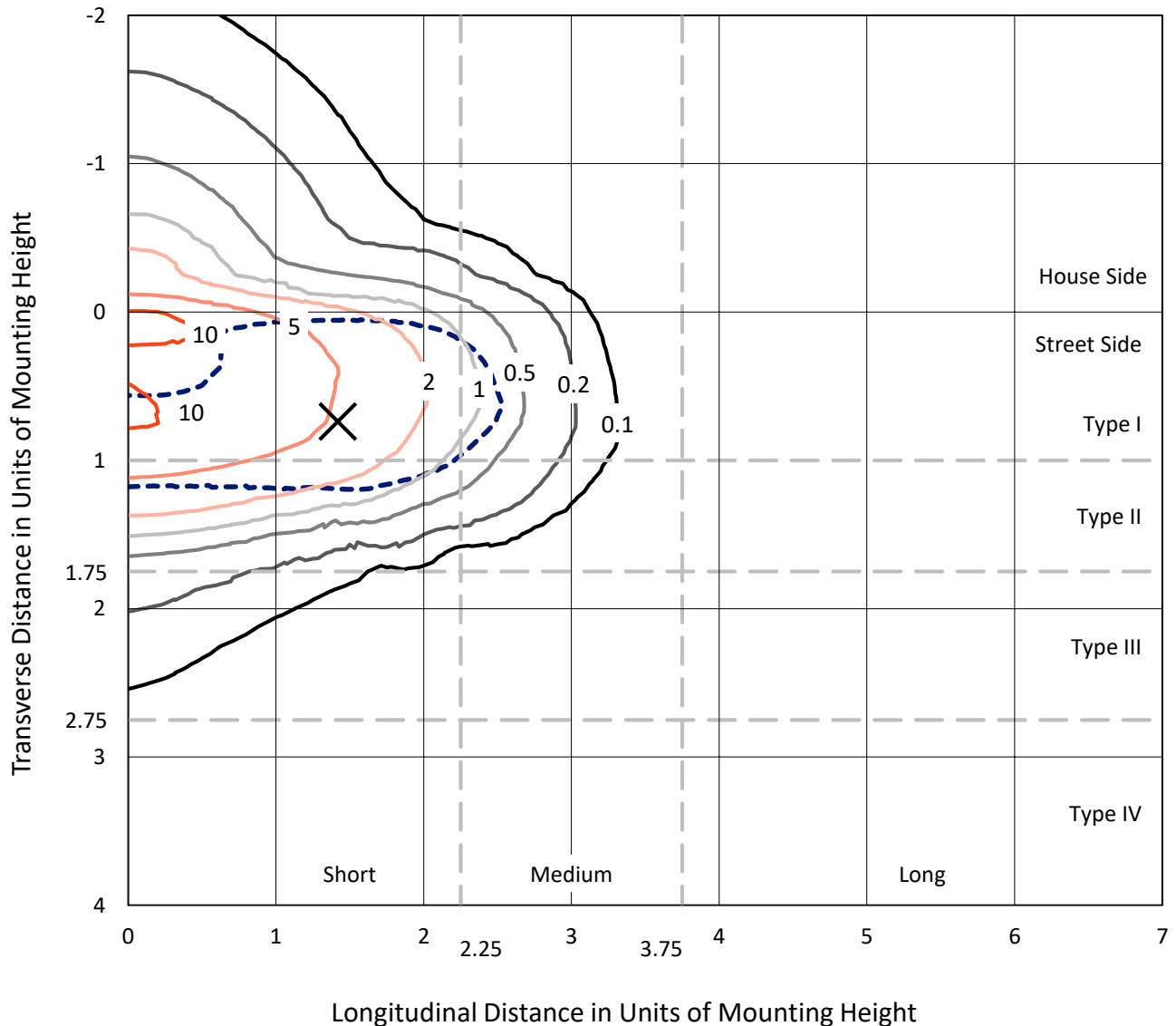


REPORT NUMBER: P196499

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7030-800

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

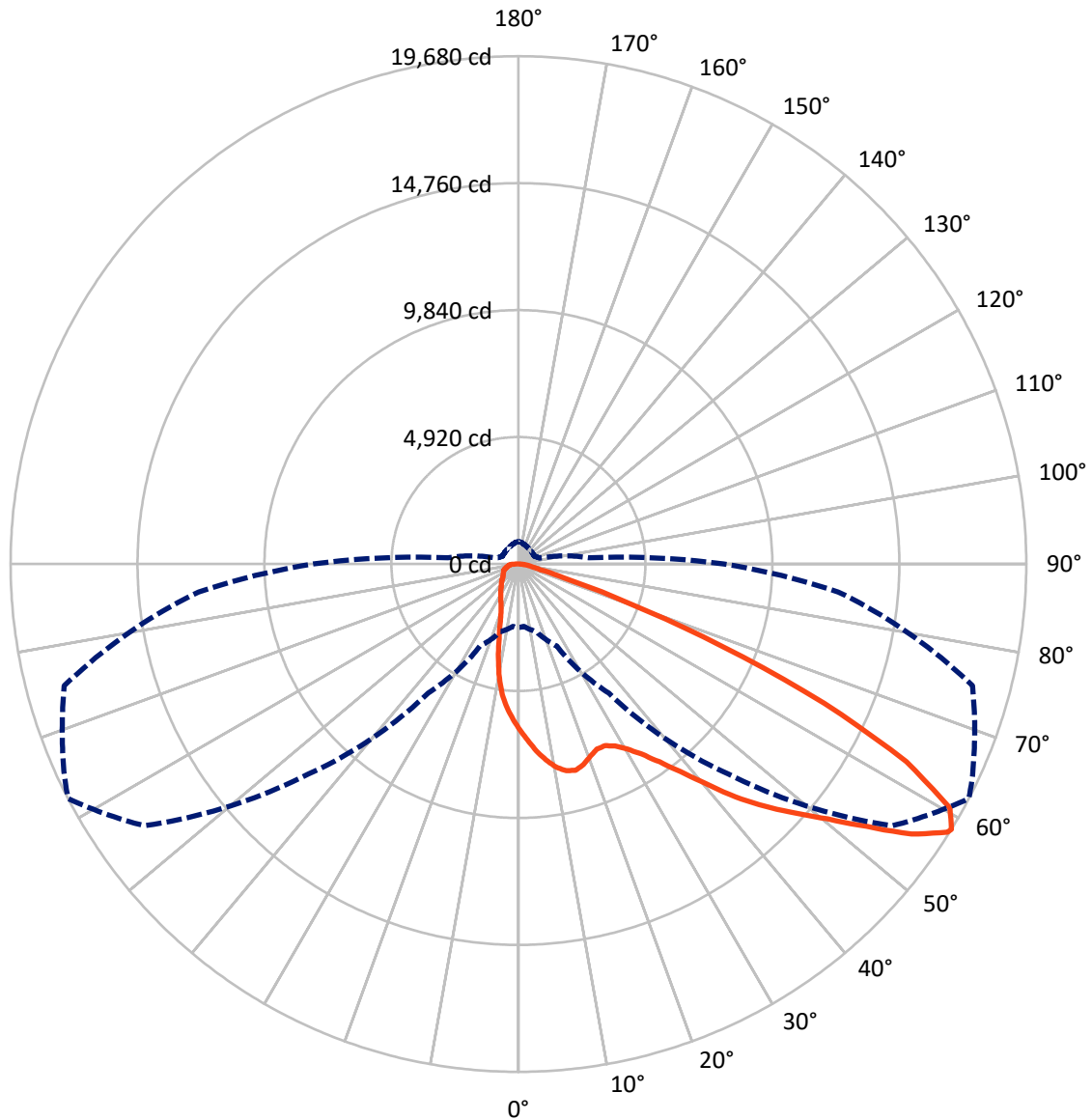


Based on 25 foot mounting height. Maximum calculated value = 12 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196499

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

REPORT NUMBER: P196499

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3696.3	0.0	3696.3
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	20377.9	0.0	20377.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	24074.2	0.0	24074.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	574.5	2.4
10°-20°	1450.0	6.0
20°-30°	2349.8	9.8
30°-40°	3751.7	15.6
40°-50°	5457.0	22.7
50°-60°	5710.2	23.7
60°-70°	3481.2	14.5
70°-80°	973.5	4.0
80°-90°	326.3	1.4
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°	24074.2	100.0
0°-180°	24074.2	100.0



REPORT NUMBER: P196499

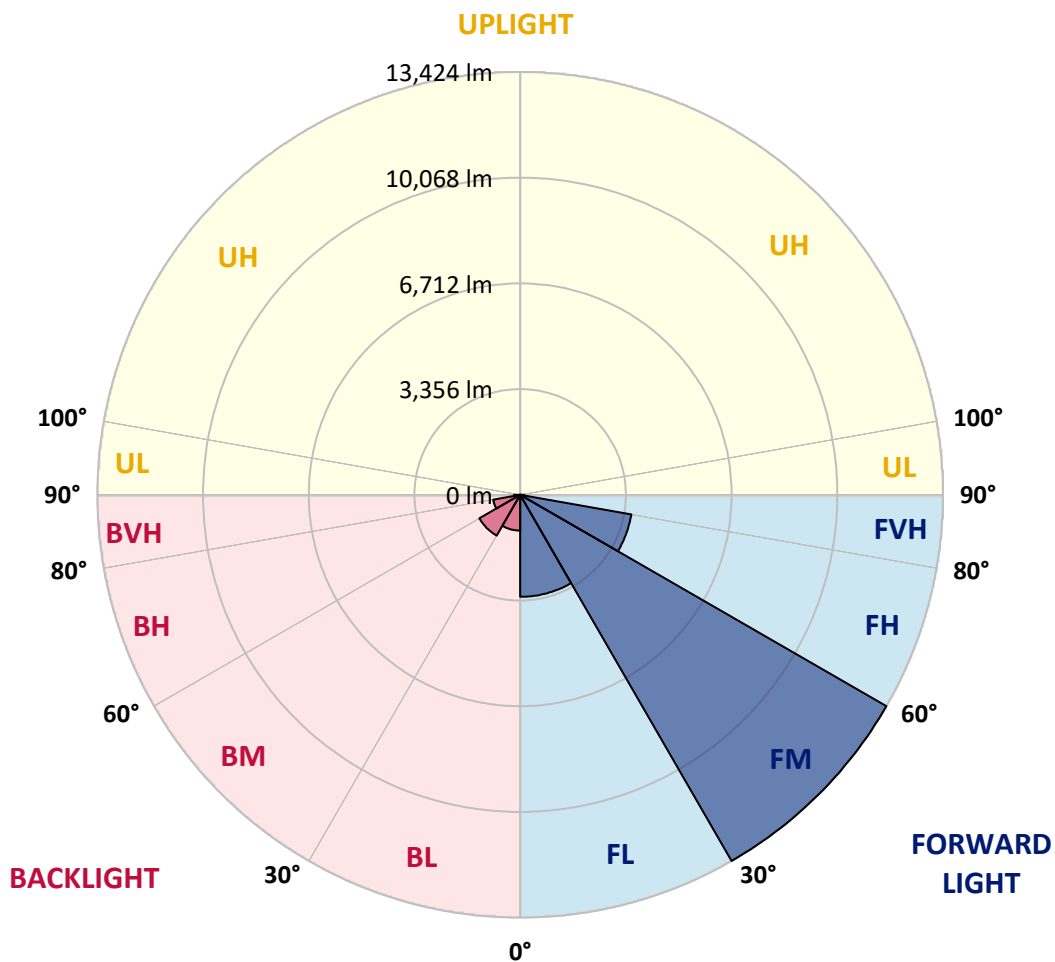
CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3238.1	13.5			
FM (30°-60°)	13424.1	55.8			
FH (60°-80°)	3584.5	14.9			G2/5000
FVH (80°-90°)	131.3	0.5			G2/225
BL (0°-30°)	1136.3	4.7	B3/2500		
BM (30°-60°)	1494.8	6.2	B2/2500		
BH (60°-80°)	870.2	3.6	B2/1000		G2/1000
BVH (80°-90°)	195.1	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short





REPORT NUMBER: P196499

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6
2.5°	7295.8	7291.3	7229.5	7188.9	7140.8	7029.5	6918.2	6835.4	6793.3	6632.2	6475.8
5°	7899.1	7881.1	7846.5	7802.9	7739.7	7599.7	7423.7	7271.7	7211.5	6925.7	6638.3
7.5°	7580.2	7608.7	7715.6	7836.0	7962.4	7971.3	7846.5	7665.9	7599.7	7217.5	6796.3
10°	6696.9	6684.9	6818.9	7053.6	7470.4	7882.6	8088.7	8000.0	7930.7	7494.4	6954.3
12.5°	6429.2	6426.2	6448.7	6508.9	6770.7	7336.4	8027.1	8219.6	8195.5	7787.8	7122.7
15°	6510.4	6513.4	6512.0	6519.4	6591.6	6860.9	7682.4	8293.4	8368.6	8078.2	7294.2
17.5°	6770.7	6760.2	6727.1	6690.9	6701.5	6797.8	7310.9	8167.0	8392.6	8337.0	7438.7
20°	7172.5	7172.5	7083.6	6982.9	6916.6	6937.8	7155.8	7950.2	8281.3	8556.6	7547.1
22.5°	7676.4	7683.9	7553.1	7369.5	7219.1	7162.0	7244.7	7789.3	8146.0	8759.8	7643.3
25°	8302.4	8300.9	8109.8	7846.5	7608.7	7471.8	7470.4	7796.8	8103.8	8997.5	7744.2
27.5°	9077.3	9006.6	8783.9	8409.2	8073.7	7864.6	7769.8	7986.5	8192.6	9289.4	7879.6
30°	9951.5	9879.2	9587.3	9105.8	8651.4	8346.0	8189.5	8314.4	8463.3	9661.0	8084.2
32.5°	10816.5	10833.2	10490.1	9946.9	9363.1	8932.8	8701.1	8777.8	8881.6	10115.4	8361.1
35°	12083.4	12081.9	11633.6	10955.0	10261.4	9665.5	9372.1	9412.8	9507.5	10756.3	8749.3
37.5°	13028.3	13013.4	12724.5	12124.1	11343.2	10628.5	10204.2	10210.2	10291.4	11561.4	9260.9
40°	13124.7	13121.6	13120.1	13034.3	12500.3	11826.1	11295.0	11185.2	11218.3	12416.0	9804.0
42.5°	12388.9	12498.7	12814.7	13299.1	13448.0	13094.5	12592.0	12346.8	12274.5	13397.0	10378.7
45°	11340.1	11395.8	11949.5	13038.9	13925.1	14286.2	13908.4	13391.0	13267.6	14350.8	10846.7
47.5°	10852.7	10828.5	11149.1	12336.3	13878.4	15234.0	15261.2	14412.6	14203.3	15173.9	11245.4
50°	9807.0	9775.4	10180.1	11302.6	13369.8	15705.0	16649.9	15526.0	15139.3	15956.3	11606.5
52.5°	7723.1	7693.1	8236.2	9682.1	12232.4	15529.0	17820.5	16892.1	16233.0	16710.1	11943.4
55°	5025.4	5028.3	5546.0	7037.1	9898.8	14502.8	18369.6	18470.5	17731.6	17463.9	12215.8
57.5°	2767.0	2741.5	3109.9	4026.3	6809.8	12172.2	17912.3	19608.0	19222.7	18110.9	12413.0
58°	2460.0	2429.9	2714.3	3504.2	6105.6	11514.8	17682.1	19680.3	19413.8	18217.7	12441.6
60°	1752.8	1701.7	1658.1	1975.5	3517.7	8302.4	16147.3	19212.2	19469.6	18431.4	12414.5
62.5°	1477.5	1418.8	1262.4	1250.4	1656.6	4060.9	12769.5	16872.6	17593.3	17939.4	11978.1
65°	1372.2	1313.6	1107.4	1033.7	1124.0	1752.8	7896.1	13028.3	13991.3	16228.6	10879.7
67.5°	1297.0	1227.7	1006.6	910.2	928.3	1048.7	3350.8	8520.6	9637.0	12655.2	8728.1
70°	1229.2	1152.5	926.8	815.5	800.5	797.5	1309.0	4449.1	5524.9	8281.3	5846.9
72.5°	1152.5	1077.3	856.1	737.3	704.1	647.0	786.8	1838.7	2520.2	4059.4	2679.7
75°	1041.1	979.5	777.9	672.6	615.3	525.1	580.8	881.7	1086.4	1554.2	1244.4
77.5°	916.2	866.7	698.1	618.4	541.7	428.9	443.8	597.3	671.1	875.7	720.7
80°	648.5	666.6	609.3	544.6	476.9	346.1	341.6	437.8	481.5	588.3	484.4
82.5°	446.9	460.4	496.5	430.3	385.1	269.4	251.3	304.0	326.4	355.1	234.7
85°	318.9	310.0	344.6	308.4	282.9	171.5	160.9	192.7	206.2	216.7	112.9
87.5°	194.1	192.7	198.7	159.5	147.5	87.3	79.8	91.8	97.8	94.8	54.2
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: P196499

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7030-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6	6427.6
2.5°	6417.2	6343.4	6182.4	6053.0	5913.1	5806.2	5699.4	5639.2	5573.0	5535.4	5530.9
5°	6487.9	6337.4	5994.3	5675.4	5347.3	5052.4	4763.6	4549.9	4375.4	4276.1	4270.1
7.5°	6566.1	6329.8	5800.2	5248.0	4664.3	4083.4	3570.4	3207.9	2974.6	2866.3	2858.8
10°	6626.2	6298.2	5564.0	4704.9	3779.6	3012.2	2545.7	2332.1	2261.4	2243.3	2240.4
12.5°	6698.4	6275.7	5266.1	4008.2	2888.9	2293.1	2151.6	2137.9	2153.1	2162.1	2163.7
15°	6766.2	6232.0	4864.3	3236.4	2261.4	2049.2	2052.3	2080.9	2111.0	2124.5	2125.9
17.5°	6797.8	6125.2	4336.3	2550.3	1978.5	1939.5	1974.0	2011.7	2038.8	2049.2	2049.2
20°	6797.8	5953.6	3723.9	2065.8	1831.0	1838.7	1880.8	1909.3	1915.4	1906.3	1901.7
22.5°	6769.1	5741.6	3128.1	1802.6	1710.8	1739.3	1772.4	1752.8	1682.1	1628.0	1617.5
25°	6743.6	5490.3	2554.8	1641.5	1605.4	1643.0	1629.5	1495.5	1387.3	1331.6	1322.6
27.5°	6701.5	5186.3	2076.4	1509.1	1503.1	1533.2	1399.3	1269.9	1215.7	1185.6	1179.6
30°	6690.9	4856.9	1737.8	1391.8	1402.3	1360.2	1206.7	1164.6	1152.5	1136.0	1128.4
32.5°	6725.6	4527.3	1525.7	1295.5	1305.9	1167.6	1108.9	1114.9	1113.4	1092.4	1084.8
35°	6820.4	4206.8	1390.3	1208.2	1178.2	1045.7	1053.3	1071.3	1071.3	1045.7	1036.7
37.5°	6985.8	3909.0	1304.4	1134.4	1030.7	982.5	1002.0	1026.2	1026.2	1008.1	1000.6
40°	7162.0	3618.5	1239.8	1075.7	937.3	938.9	958.4	976.4	984.0	987.0	981.0
42.5°	7321.4	3317.6	1170.6	1012.7	895.3	905.8	914.8	928.3	960.0	981.0	978.0
45°	7414.7	3015.2	1095.4	934.3	866.7	871.2	868.2	892.2	929.8	961.5	961.5
47.5°	7500.4	2767.0	1033.7	856.1	838.0	838.0	829.1	853.1	887.7	925.3	928.3
50°	7581.7	2606.0	990.0	796.0	802.0	797.5	794.5	817.0	863.7	908.8	916.2
52.5°	7664.4	2551.8	950.9	752.2	764.4	758.4	761.3	792.9	845.5	892.2	899.7
55°	7780.3	2586.3	910.2	722.2	728.2	726.7	738.8	774.8	821.5	868.2	871.2
57.5°	7923.3	2712.8	875.7	699.6	693.6	702.6	722.2	756.8	802.0	857.5	862.2
58°	7951.8	2742.9	869.7	693.6	686.1	699.6	719.2	752.2	798.9	857.5	862.2
60°	7995.5	2849.7	854.6	681.6	660.5	684.6	708.6	741.8	792.9	865.2	874.2
62.5°	7784.8	2870.8	850.1	668.0	633.4	663.5	692.1	729.8	786.8	890.7	910.2
65°	7055.1	2654.1	818.5	645.5	610.9	647.0	677.1	720.7	804.9	967.5	976.4
67.5°	5663.4	2204.2	741.8	610.9	585.3	627.3	665.1	720.7	812.5	979.5	985.5
70°	3893.9	1656.6	645.5	573.3	555.1	603.3	660.5	737.3	786.8	926.8	908.8
72.5°	2034.2	1152.5	565.8	529.6	519.1	582.3	704.1	720.7	756.8	865.2	847.1
75°	1024.7	783.9	498.0	479.9	478.4	574.7	788.5	693.6	725.3	814.0	853.1
77.5°	604.9	613.9	443.8	433.3	440.9	561.3	790.0	666.6	689.1	749.3	791.4
80°	413.8	507.1	401.7	398.7	404.7	516.0	728.2	633.4	647.0	708.6	753.8
82.5°	233.2	279.8	352.1	371.6	368.6	422.9	628.9	576.3	592.8	838.0	886.2
85°	112.9	168.5	294.9	347.6	314.4	281.4	511.6	511.6	516.0	600.4	607.8
87.5°	42.2	75.3	198.7	275.4	219.7	168.5	347.6	362.6	403.2	415.3	424.3
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)