

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: P270658

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270658
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-06-D-UNV-AFL-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35177.2 lumens
Efficiency: N/A
Efficacy: 92.1 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 - G3

Input Watts (W): 382
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

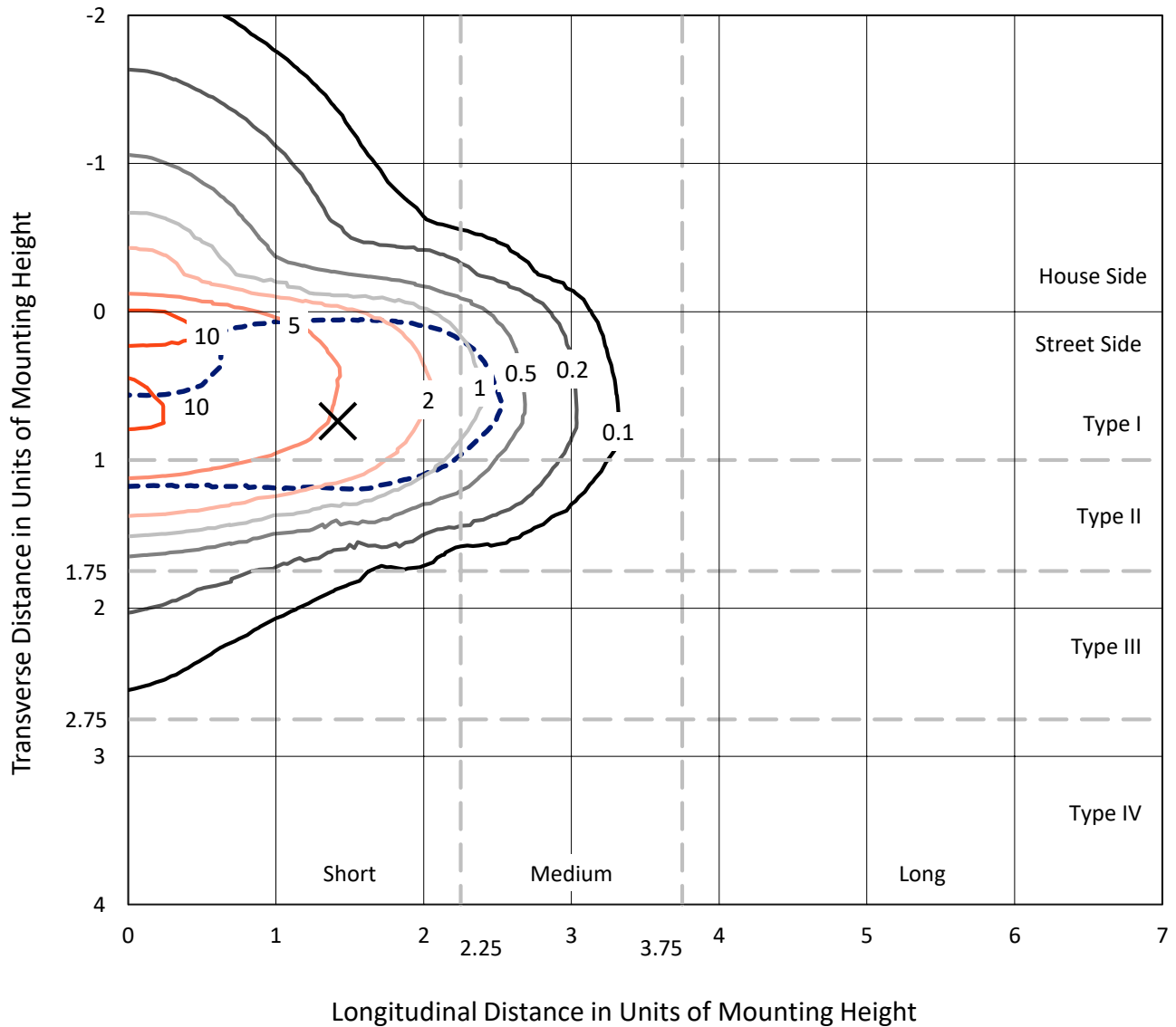


REPORT NUMBER: P270658

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

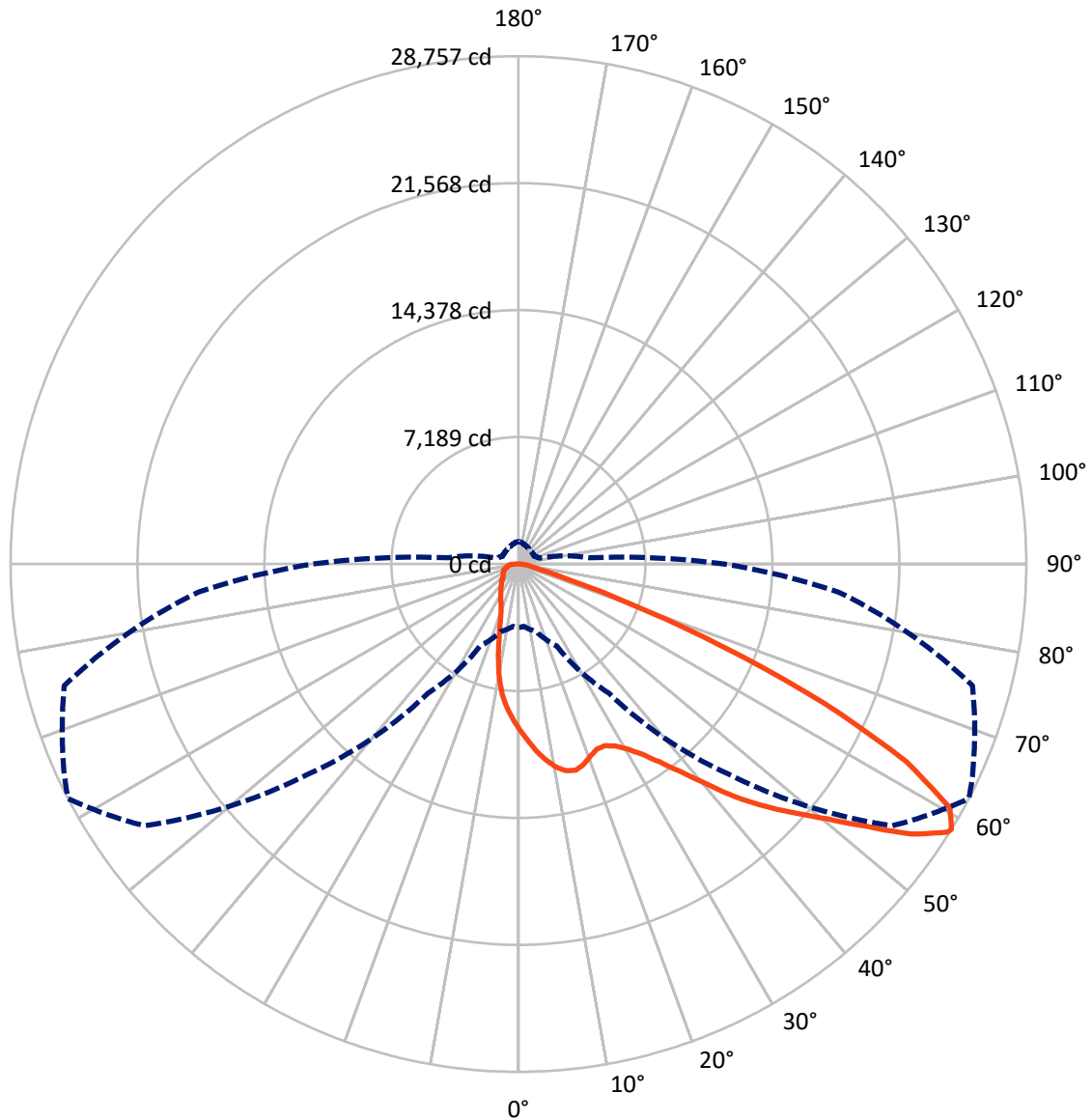
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.2 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P270658
CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270658

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5401.0	0.0	5401.0
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	29776.2	0.0	29776.2
	% Fixture	84.6	0.0	84.6
Total	Lumens	35177.2	0.0	35177.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	839.5	2.4
10°-20°	2118.7	6.0
20°-30°	3433.6	9.8
30°-40°	5482.0	15.6
40°-50°	7973.7	22.7
50°-60°	8343.8	23.7
60°-70°	5086.7	14.5
70°-80°	1422.5	4.0
80°-90°	476.8	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°	35177.2	100.0
0°-180°	35177.2	100.0

Coefficient of Utilization



REPORT NUMBER: P270658

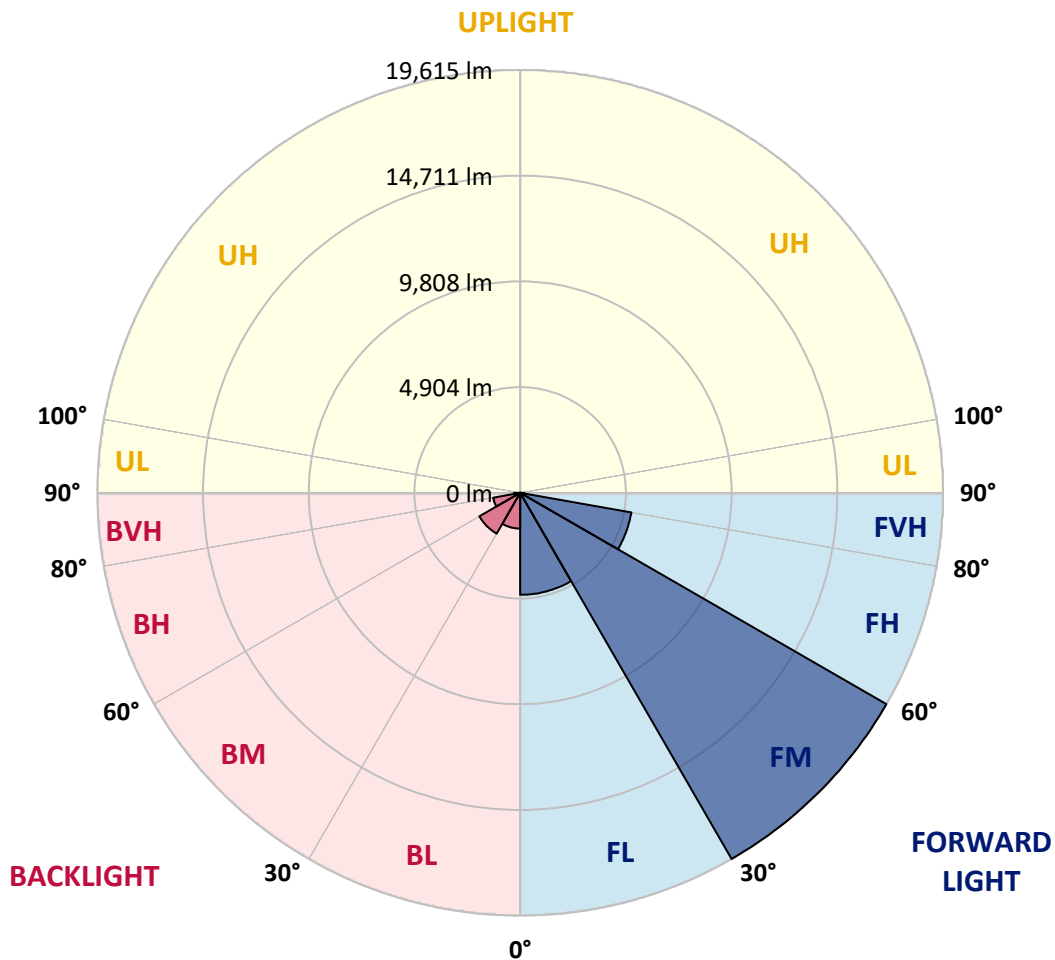
CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4731.5	13.5			
FM	(30°-60°)	19615.3	55.8			
FH	(60°-80°)	5237.7	14.9			G3/7500
FVH	(80°-90°)	191.8	0.5			G2/225
BL	(0°-30°)	1660.3	4.7	B3/2500		
BM	(30°-60°)	2184.2	6.2	B2/2500		
BH	(60°-80°)	1271.5	3.6	B3/2500		G3/2500
BVH	(80°-90°)	285.0	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





REPORT NUMBER: P270658

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0
2.5°	10660.6	10654.1	10563.9	10504.6	10434.3	10271.5	10108.8	9988.0	9926.4	9691.2	9462.4
5°	11542.2	11515.9	11465.2	11401.6	11309.2	11104.8	10847.6	10625.5	10537.6	10119.9	9699.9
7.5°	11076.2	11118.0	11274.1	11449.9	11634.6	11647.9	11465.2	11201.4	11104.8	10546.3	9930.8
10°	9785.6	9768.1	9963.7	10306.8	10915.7	11518.1	11819.3	11689.6	11588.5	10950.9	10161.5
12.5°	9394.4	9390.0	9423.0	9510.9	9893.4	10720.1	11729.1	12010.6	11975.3	11379.5	10407.9
15°	9513.1	9517.5	9515.2	9526.3	9631.7	10025.3	11225.7	12118.2	12228.2	11803.9	10658.5
17.5°	9893.4	9878.0	9829.7	9776.9	9792.2	9933.0	10682.6	11933.7	12263.4	12182.0	10869.5
20°	10480.3	10480.3	10350.7	10203.4	10106.7	10137.5	10456.2	11617.1	12100.7	12503.0	11027.9
22.5°	11216.9	11227.8	11036.5	10768.4	10548.5	10465.0	10585.8	11381.7	11902.8	12799.8	11168.4
25°	12131.5	12129.3	11850.0	11465.2	11118.0	10917.9	10915.7	11392.8	11841.3	13147.1	11315.8
27.5°	13263.7	13160.3	12835.1	12287.6	11797.4	11491.7	11353.1	11669.8	11971.0	13573.7	11513.7
30°	14541.0	14435.6	14009.0	13305.4	12641.5	12195.2	11966.6	12149.0	12366.6	14116.8	11812.7
32.5°	15805.1	15829.5	15328.0	14534.4	13681.5	13052.6	12714.2	12826.2	12978.0	14780.7	12217.2
35°	17656.4	17654.2	16998.9	16007.4	14994.0	14123.3	13694.7	13753.9	13892.5	15717.3	12784.4
37.5°	19037.1	19015.1	18592.8	17715.7	16574.6	15530.3	14910.3	14919.2	15037.9	16893.4	13531.9
40°	19177.7	19173.3	19171.2	19045.9	18265.3	17280.4	16504.3	16343.9	16392.2	18142.2	14325.6
42.5°	18102.6	18263.1	18724.8	19432.8	19650.5	19133.8	18399.4	18041.1	17935.6	19575.7	15165.5
45°	16570.2	16651.6	17460.6	19052.4	20347.4	20875.1	20323.2	19566.9	19386.6	20969.6	15849.2
47.5°	15858.0	15822.7	16291.1	18025.7	20279.1	22260.1	22299.6	21059.7	20754.1	22172.1	16431.7
50°	14330.0	14283.8	14875.3	16515.2	19536.1	22948.2	24328.8	22686.5	22121.7	23315.4	16959.5
52.5°	11285.0	11241.1	12034.8	14147.4	17874.0	22690.9	26039.3	24682.9	23719.8	24416.8	17451.9
55°	7343.0	7347.4	8103.8	10282.4	14464.1	21191.6	26841.8	26989.0	25909.6	25518.3	17849.9
57.5°	4043.1	4005.7	4544.3	5883.3	9950.5	17786.1	26173.5	28651.3	28088.4	26463.7	18137.9
58°	3594.6	3550.6	3966.1	5120.3	8921.6	16825.3	25837.1	28756.7	28367.5	26619.7	18179.5
60°	2561.2	2486.5	2422.8	2886.7	5140.1	12131.5	23594.6	28073.0	28449.0	26931.9	18140.1
62.5°	2158.9	2073.2	1844.6	1827.0	2420.6	5933.8	18658.9	24654.3	25707.3	26213.0	17502.4
65°	2005.0	1919.3	1618.0	1510.4	1642.3	2561.2	11537.9	19037.1	20444.0	23713.3	15897.6
67.5°	1895.2	1793.9	1470.9	1330.1	1356.5	1532.4	4896.1	12450.2	14081.6	18491.8	12753.6
70°	1796.3	1684.1	1354.3	1191.6	1169.7	1165.2	1912.8	6501.0	8073.0	12100.7	8543.5
72.5°	1684.1	1574.1	1251.0	1077.2	1028.9	945.3	1149.8	2686.7	3682.5	5931.6	3915.6
75°	1521.4	1431.2	1136.6	982.7	899.3	767.3	848.5	1288.3	1587.3	2271.1	1818.2
77.5°	1339.0	1266.3	1020.1	903.5	791.4	626.6	648.5	872.9	980.5	1279.5	1053.2
80°	947.5	973.9	890.4	795.9	696.9	505.7	499.1	639.8	703.6	859.6	708.0
82.5°	653.0	672.7	725.6	628.8	562.8	393.5	367.1	444.1	477.1	518.9	343.0
85°	466.1	452.8	503.5	450.7	413.3	250.6	235.3	281.3	301.2	316.7	164.8
87.5°	283.7	281.3	290.2	233.0	215.5	127.5	116.5	134.0	142.9	138.5	79.1
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: P270658

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0	9392.0
2.5°	9376.7	9269.0	9033.7	8844.6	8640.2	8484.1	8327.9	8240.1	8143.3	8088.3	8081.8
5°	9480.1	9260.2	8759.0	8292.9	7813.5	7382.6	6960.5	6648.4	6393.2	6248.3	6239.4
7.5°	9594.3	9249.2	8475.2	7668.4	6815.4	5966.8	5217.0	4687.3	4346.4	4188.2	4177.2
10°	9682.3	9203.0	8130.1	6874.8	5522.7	4401.4	3719.9	3407.7	3304.3	3278.1	3273.7
12.5°	9787.8	9170.1	7694.8	5856.9	4221.1	3350.6	3143.9	3124.1	3146.1	3159.2	3161.4
15°	9886.7	9106.3	7107.7	4729.0	3304.3	2994.4	2998.8	3040.6	3084.5	3104.4	3106.5
17.5°	9933.0	8950.3	6336.1	3726.4	2891.0	2834.0	2884.5	2939.4	2979.0	2994.4	2994.4
20°	9933.0	8699.5	5441.4	3018.6	2675.6	2686.7	2748.2	2790.0	2798.7	2785.6	2778.9
22.5°	9891.1	8389.6	4570.8	2633.8	2499.8	2541.5	2589.9	2561.2	2457.9	2378.8	2363.4
25°	9853.8	8022.5	3733.0	2398.6	2345.8	2400.8	2381.0	2185.3	2027.0	1945.6	1932.6
27.5°	9792.2	7578.3	3033.9	2205.1	2196.4	2240.4	2044.6	1855.5	1776.4	1732.4	1723.7
30°	9776.9	7096.8	2539.2	2033.7	2049.0	1987.5	1763.3	1701.7	1684.1	1659.9	1648.8
32.5°	9827.4	6615.4	2229.4	1892.9	1908.3	1706.1	1620.4	1629.0	1626.9	1596.1	1585.1
35°	9965.9	6147.1	2031.4	1765.3	1721.4	1527.9	1538.9	1565.3	1565.3	1527.9	1514.8
37.5°	10207.8	5711.8	1906.2	1657.7	1506.0	1435.6	1464.1	1499.5	1499.5	1473.0	1462.0
40°	10465.0	5287.5	1811.6	1571.9	1369.6	1371.9	1400.5	1426.9	1437.8	1442.1	1433.4
42.5°	10698.0	4847.8	1710.5	1479.6	1308.1	1323.6	1336.7	1356.5	1402.7	1433.4	1429.1
45°	10834.4	4405.8	1600.5	1365.2	1266.3	1273.0	1268.5	1303.7	1358.6	1404.9	1404.9
47.5°	10959.6	4043.1	1510.4	1251.0	1224.6	1224.6	1211.4	1246.6	1297.2	1352.0	1356.5
50°	11078.3	3807.8	1446.6	1163.0	1171.7	1165.2	1160.8	1193.8	1261.9	1328.0	1339.0
52.5°	11199.3	3728.8	1389.5	1099.3	1116.9	1108.1	1112.5	1158.6	1235.6	1303.7	1314.7
55°	11368.6	3779.3	1330.1	1055.2	1064.1	1061.8	1079.5	1132.3	1200.3	1268.5	1273.0
57.5°	11577.4	3964.0	1279.5	1022.4	1013.5	1026.8	1055.2	1105.9	1171.7	1253.1	1259.8
58°	11619.1	4007.9	1270.7	1013.5	1002.5	1022.4	1050.8	1099.3	1167.3	1253.1	1259.8
60°	11682.9	4164.1	1248.7	996.0	965.1	1000.4	1035.4	1083.8	1158.6	1264.2	1277.3
62.5°	11375.1	4194.7	1242.1	976.2	925.6	969.5	1011.3	1066.3	1149.8	1301.6	1330.1
65°	10308.9	3878.3	1196.1	943.2	892.6	945.3	989.4	1053.2	1176.2	1413.7	1426.9
67.5°	8275.2	3220.9	1083.8	892.6	855.2	916.8	971.7	1053.2	1187.2	1431.2	1440.1
70°	5689.8	2420.6	943.2	837.6	811.3	881.5	965.1	1077.2	1149.8	1354.3	1328.0
72.5°	2972.4	1684.1	826.6	773.9	758.4	850.9	1028.9	1053.2	1105.9	1264.2	1237.8
75°	1497.1	1145.3	727.6	701.3	699.2	839.8	1152.0	1013.5	1059.7	1189.4	1246.6
77.5°	883.8	897.0	648.5	633.1	644.2	820.1	1154.2	973.9	1006.9	1094.9	1156.4
80°	604.6	740.9	587.0	582.6	591.4	754.0	1064.1	925.6	945.3	1035.4	1101.4
82.5°	340.7	408.9	514.5	543.0	538.7	617.8	919.0	842.0	866.2	1224.6	1294.9
85°	164.8	246.2	430.8	507.8	459.6	411.2	747.5	747.5	754.0	877.3	888.2
87.5°	61.5	110.0	290.2	402.4	321.0	246.2	507.8	529.8	589.2	606.7	620.0
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)