

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: P196494

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196494
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-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23519.1 lumens
Efficiency: N/A
Efficacy: 121.9 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

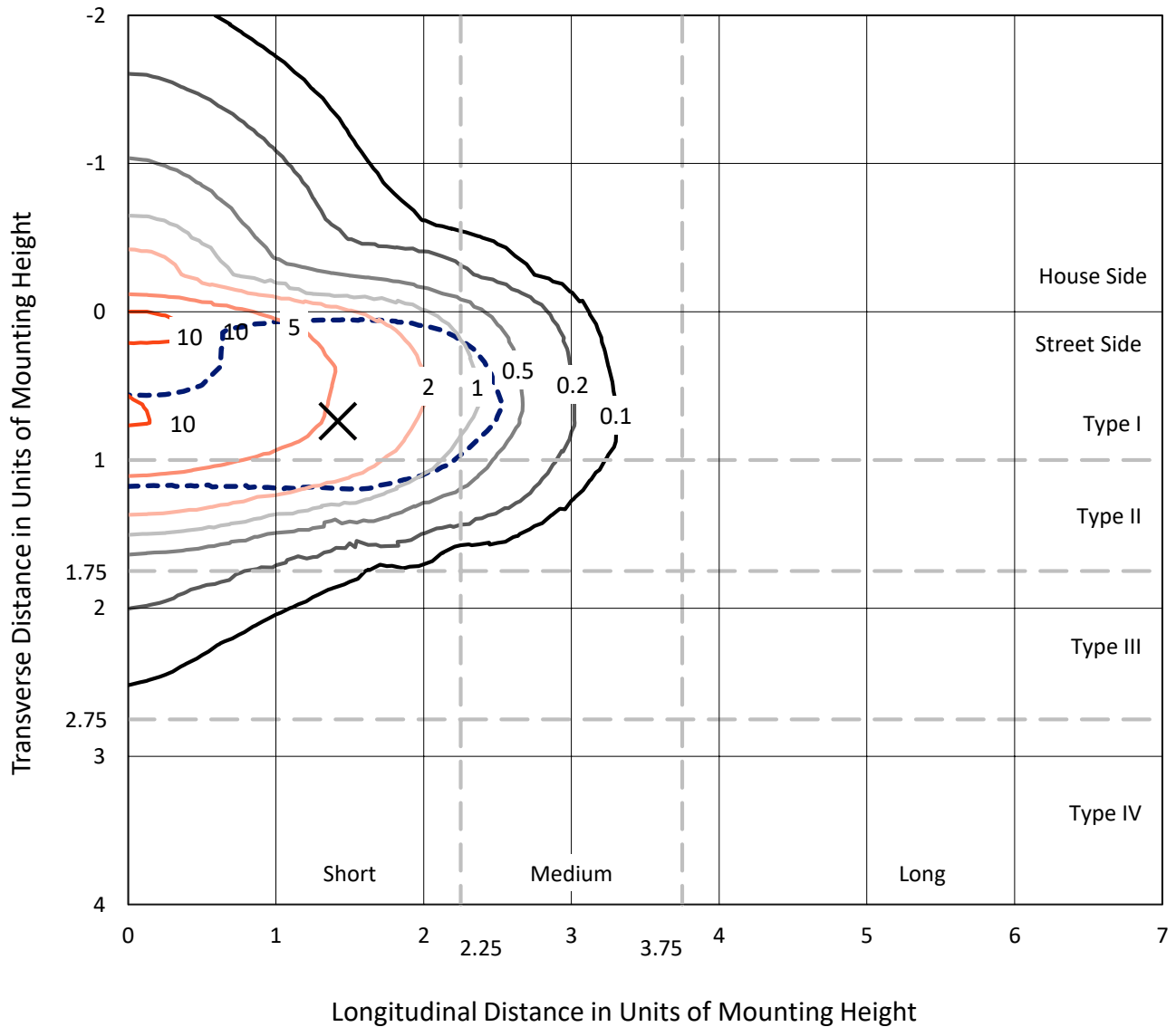
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196494
 CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7030-600

Iso-Footcandle Lines of Horizontal Illumination

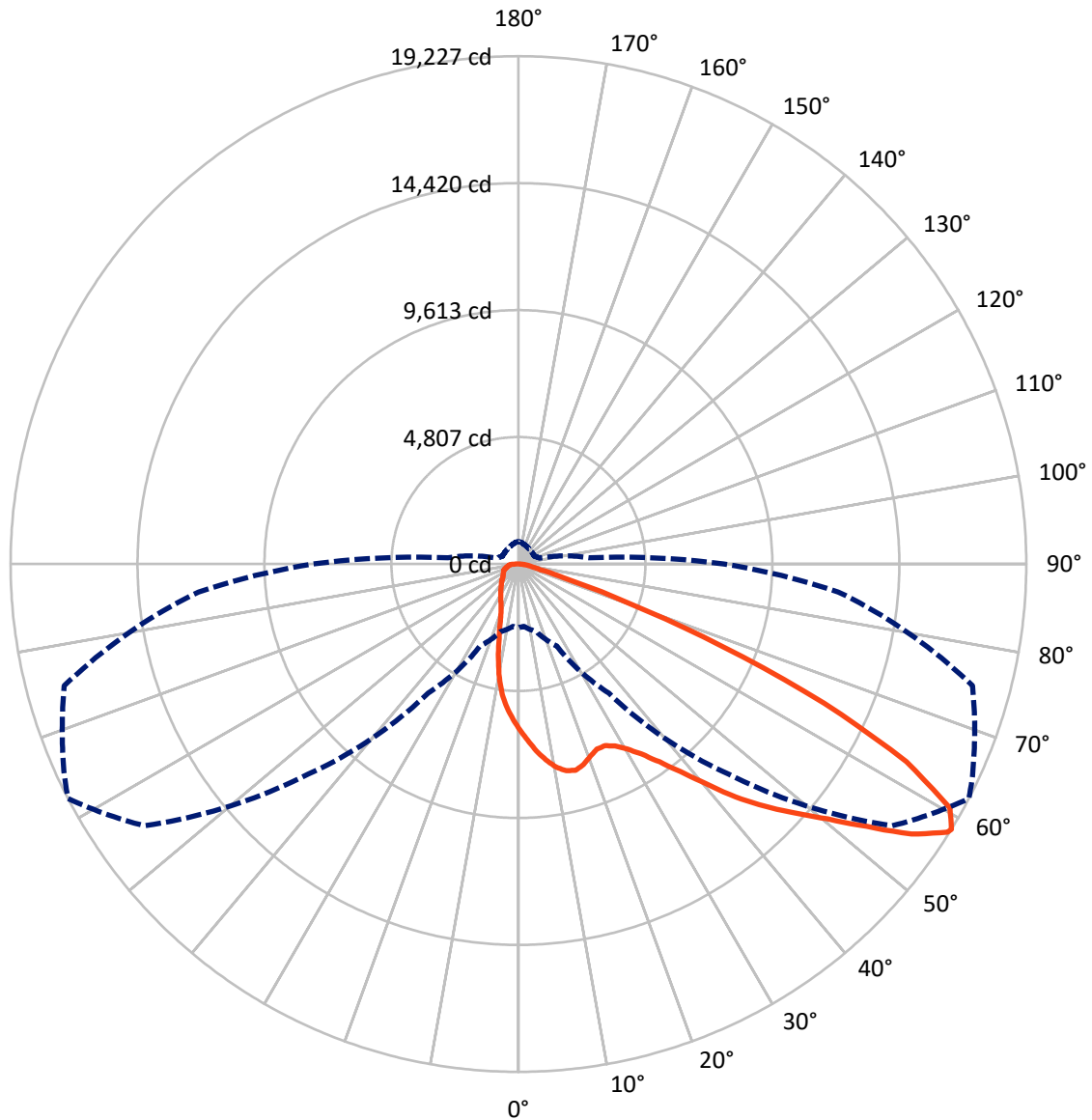
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.8 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P196494
CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7030-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196494

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3611.1	0.0	3611.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	19908.1	0.0	19908.1
	% Fixture	84.6	0.0	84.6
Total	Lumens	23519.1	0.0	23519.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	561.3	2.4
10°-20°	1416.5	6.0
20°-30°	2295.7	9.8
30°-40°	3665.2	15.6
40°-50°	5331.2	22.7
50°-60°	5578.6	23.7
60°-70°	3400.9	14.5
70°-80°	951.1	4.0
80°-90°	318.8	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°	23519.1	100.0
0°-180°	23519.1	100.0



REPORT NUMBER: P196494

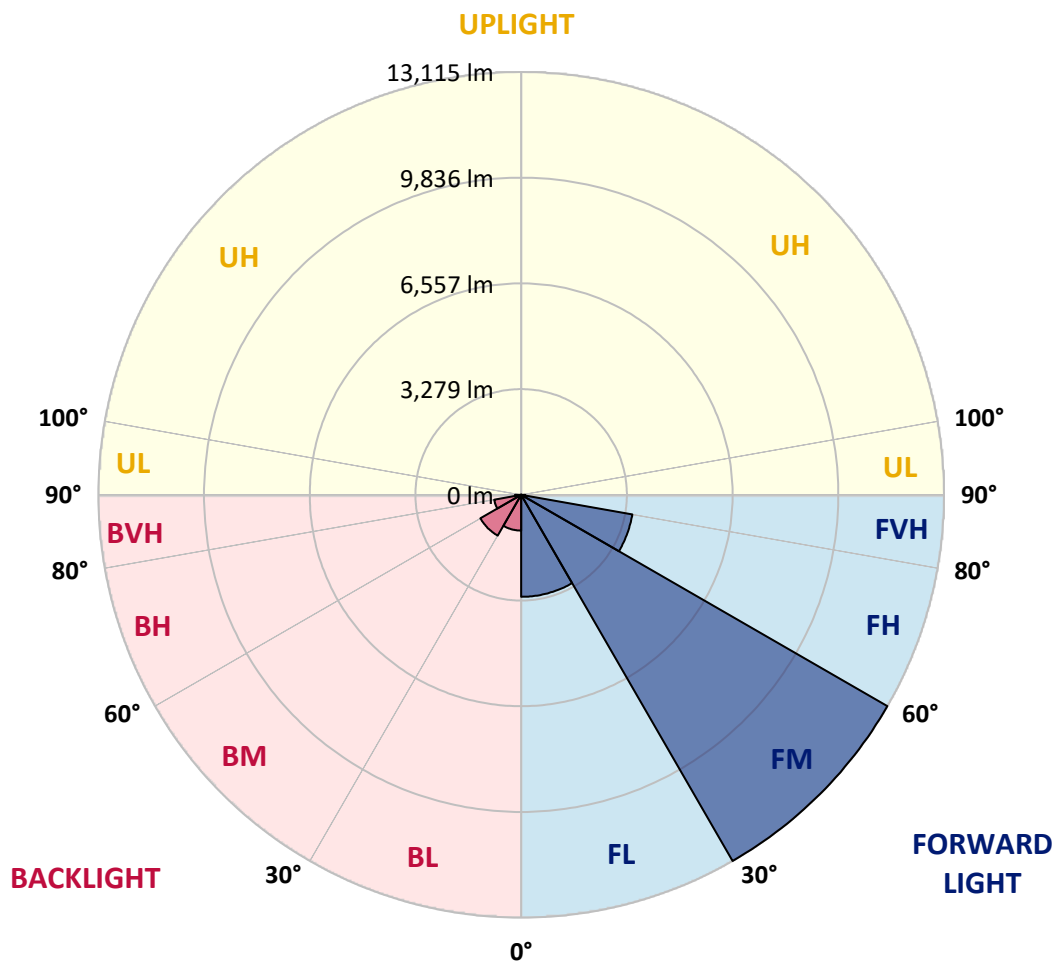
CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3163.4	13.5			
FM	(30°-60°)	13114.6	55.8			
FH	(60°-80°)	3501.8	14.9			G2/5000
FVH	(80°-90°)	128.2	0.5			G2/225
BL	(0°-30°)	1110.1	4.7	B3/2500		
BM	(30°-60°)	1460.4	6.2	B2/2500		
BH	(60°-80°)	850.1	3.6	B2/1000		G2/1000
BVH	(80°-90°)	190.6	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: P196494

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4
2.5°	7127.6	7123.1	7062.9	7023.1	6976.2	6867.4	6758.7	6677.8	6636.6	6479.4	6326.5
5°	7717.0	7699.4	7665.6	7622.9	7561.2	7424.5	7252.5	7104.0	7045.2	6766.0	6485.2
7.5°	7405.4	7433.4	7537.7	7655.2	7778.7	7787.6	7665.6	7489.1	7424.5	7051.1	6639.5
10°	6542.6	6530.9	6661.6	6891.0	7298.1	7700.8	7902.2	7815.6	7747.9	7321.6	6794.0
12.5°	6280.9	6278.0	6300.0	6358.8	6614.5	7167.3	7842.0	8030.1	8006.6	7608.3	6958.5
15°	6360.3	6363.3	6361.7	6369.2	6439.6	6702.8	7505.3	8102.1	8175.7	7891.9	7126.1
17.5°	6614.5	6604.2	6572.0	6536.7	6547.1	6641.1	7142.3	7978.6	8199.2	8144.7	7267.3
20°	7007.1	7007.1	6920.4	6821.8	6757.1	6777.8	6990.9	7767.0	8090.4	8359.4	7373.1
22.5°	7499.4	7506.8	7379.0	7199.6	7052.6	6996.8	7077.6	7609.7	7958.1	8557.8	7467.1
25°	8111.0	8109.6	7922.8	7665.6	7433.4	7299.6	7298.1	7617.1	7916.9	8790.0	7565.6
27.5°	8867.9	8798.8	8581.3	8215.3	7887.5	7683.2	7590.6	7802.3	8003.7	9075.2	7698.0
30°	9722.0	9651.4	9366.2	8895.9	8452.0	8153.6	8000.7	8122.8	8268.2	9438.3	7897.8
32.5°	10567.2	10583.4	10248.2	9717.6	9147.3	8726.9	8500.5	8575.4	8677.0	9882.2	8168.3
35°	11804.8	11803.4	11365.3	10702.4	10024.7	9442.7	9156.0	9195.8	9288.3	10508.3	8547.6
37.5°	12727.9	12713.3	12431.1	11844.6	11081.6	10383.5	9969.0	9974.9	10054.1	11294.7	9047.3
40°	12822.0	12819.1	12817.6	12733.8	12212.0	11553.5	11034.6	10927.3	10959.7	12129.8	9577.8
42.5°	12103.2	12210.6	12519.3	12992.6	13138.1	12792.6	12301.7	12062.1	11991.5	13088.0	10139.5
45°	11078.7	11133.1	11674.1	12738.2	13604.0	13956.8	13587.8	13082.1	12961.7	14020.0	10596.6
47.5°	10602.5	10578.9	10892.0	12051.9	13558.4	14882.9	14909.3	14080.2	13875.9	14824.1	10986.1
50°	9580.8	9550.1	9945.5	11042.0	13061.6	15343.0	16266.1	15168.0	14790.2	15588.4	11338.9
52.5°	7545.0	7515.6	8046.3	9458.9	11950.3	15170.9	17409.6	16502.7	15858.9	16324.9	11668.2
55°	4909.4	4912.4	5418.0	6874.8	9670.5	14168.5	17946.2	18044.6	17322.9	17061.3	11934.2
57.5°	2703.2	2678.2	3038.3	3933.5	6652.8	11891.6	17499.3	19155.9	18779.6	17693.3	12126.8
58°	2403.2	2373.8	2651.7	3423.4	5964.9	11249.3	17274.4	19226.5	18966.2	17797.7	12154.6
60°	1712.4	1662.5	1619.9	1929.9	3436.6	8111.0	15775.1	18769.3	19020.6	18006.4	12128.3
62.5°	1443.5	1386.2	1233.2	1221.5	1618.3	3967.3	12475.1	16483.6	17187.7	17525.7	11702.0
65°	1340.6	1283.2	1081.8	1009.8	1098.0	1712.4	7714.1	12727.9	13668.7	15854.5	10629.0
67.5°	1267.1	1199.4	983.4	889.3	907.0	1024.6	3273.5	8324.1	9414.8	12363.4	8526.9
70°	1200.9	1125.9	905.4	796.7	782.0	779.0	1278.8	4346.6	5397.5	8090.4	5712.1
72.5°	1125.9	1052.5	836.4	720.2	687.9	632.1	768.7	1796.2	2462.0	3965.8	2618.0
75°	1017.2	956.9	759.9	657.0	601.2	513.0	567.4	861.4	1061.2	1518.3	1215.6
77.5°	895.2	846.6	682.0	604.1	529.2	418.9	433.6	583.6	655.5	855.5	704.0
80°	633.4	651.1	595.4	532.1	466.0	338.0	333.7	427.7	470.4	574.7	473.3
82.5°	436.6	449.8	485.1	420.4	376.3	263.1	245.5	296.9	318.9	346.9	229.3
85°	311.6	302.7	336.6	301.3	276.3	167.6	157.4	188.2	201.4	211.6	110.3
87.5°	189.6	188.2	194.1	155.8	144.0	85.2	77.9	89.7	95.5	92.7	52.9
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: P196494

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4	6279.4
2.5°	6269.2	6197.1	6039.9	5913.4	5776.7	5672.4	5568.1	5509.2	5444.5	5407.8	5403.4
5°	6338.2	6191.2	5856.1	5544.5	5224.0	4936.0	4653.8	4445.0	4274.6	4177.5	4171.6
7.5°	6414.7	6184.0	5666.5	5127.1	4556.7	3989.4	3488.1	3133.9	2906.0	2800.2	2792.7
10°	6473.5	6153.1	5435.7	4596.4	3692.4	2942.8	2487.1	2278.4	2209.2	2191.6	2188.7
12.5°	6544.1	6131.0	5144.7	3915.9	2822.2	2240.2	2101.9	2088.7	2103.5	2112.3	2113.7
15°	6610.1	6088.4	4752.2	3161.8	2209.2	2002.0	2004.9	2032.9	2062.3	2075.5	2077.0
17.5°	6641.1	5984.0	4236.3	2491.5	1932.9	1894.7	1928.5	1965.2	1991.7	2002.0	2002.0
20°	6641.1	5816.4	3638.0	2018.2	1788.9	1796.2	1837.4	1865.3	1871.2	1862.4	1858.0
22.5°	6613.1	5609.2	3056.0	1760.9	1671.3	1699.2	1731.5	1712.4	1643.4	1590.5	1580.1
25°	6588.2	5363.7	2495.9	1603.7	1568.4	1605.1	1591.9	1461.2	1355.3	1300.8	1292.1
27.5°	6547.1	5066.8	2028.5	1474.4	1468.5	1497.8	1367.1	1240.6	1187.6	1158.2	1152.3
30°	6536.7	4744.9	1697.8	1359.6	1370.0	1328.8	1178.9	1137.7	1125.9	1109.7	1102.4
32.5°	6570.6	4423.0	1490.6	1265.5	1275.9	1140.6	1083.3	1089.2	1087.7	1067.1	1059.9
35°	6663.0	4109.9	1358.2	1180.3	1150.9	1021.6	1028.9	1046.6	1046.6	1021.6	1012.8
37.5°	6824.8	3818.8	1274.4	1108.3	1007.0	959.9	979.0	1002.5	1002.5	984.9	977.6
40°	6996.8	3535.1	1211.2	1051.0	915.7	917.2	936.4	954.0	961.4	964.2	958.4
42.5°	7152.5	3241.1	1143.6	989.3	874.6	884.9	893.7	907.0	937.8	958.4	955.5
45°	7243.7	2945.7	1070.0	912.9	846.6	851.1	848.2	871.7	908.4	939.3	939.3
47.5°	7327.5	2703.2	1009.8	836.4	818.8	818.8	809.9	833.4	867.3	904.0	907.0
50°	7406.9	2545.8	967.2	777.6	783.5	779.0	776.1	798.1	843.7	887.8	895.2
52.5°	7487.7	2493.0	929.0	735.0	746.7	740.9	743.7	774.6	826.1	871.7	879.0
55°	7600.9	2526.7	889.3	705.6	711.4	709.9	721.7	757.0	802.6	848.2	851.1
57.5°	7740.6	2650.3	855.5	683.5	677.6	686.4	705.6	739.3	783.5	837.8	842.3
58°	7768.5	2679.7	849.6	677.6	670.3	683.5	702.6	735.0	780.5	837.8	842.3
60°	7811.1	2784.0	835.0	665.8	645.2	668.7	692.3	724.7	774.6	845.2	854.0
62.5°	7605.3	2804.5	830.5	652.6	618.9	648.2	676.2	712.9	768.7	870.1	889.3
65°	6892.4	2592.9	799.7	630.7	596.8	632.1	661.4	704.0	786.4	945.2	954.0
67.5°	5532.8	2153.4	724.7	596.8	571.8	613.0	649.6	704.0	793.8	956.9	962.8
70°	3804.1	1618.3	630.7	560.1	542.4	589.5	645.2	720.2	768.7	905.4	887.8
72.5°	1987.3	1125.9	552.7	517.5	507.1	568.8	687.9	704.0	739.3	845.2	827.5
75°	1001.1	765.8	486.5	468.9	467.4	561.5	770.3	677.6	708.5	795.2	833.4
77.5°	590.9	599.8	433.6	423.4	430.7	548.3	771.7	651.1	673.2	732.0	773.1
80°	404.3	495.4	392.5	389.5	395.4	504.2	711.4	618.9	632.1	692.3	736.4
82.5°	227.8	273.3	343.9	363.1	360.1	413.0	614.5	563.0	579.2	818.8	865.8
85°	110.3	164.7	288.1	339.6	307.2	274.9	499.8	499.8	504.2	586.5	593.9
87.5°	41.2	73.5	194.1	269.0	214.5	164.7	339.6	354.2	394.0	405.7	414.5
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)