

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: P270656

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270656
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-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25908.2 lumens
Efficiency: N/A
Efficacy: 104.0 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): 249
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

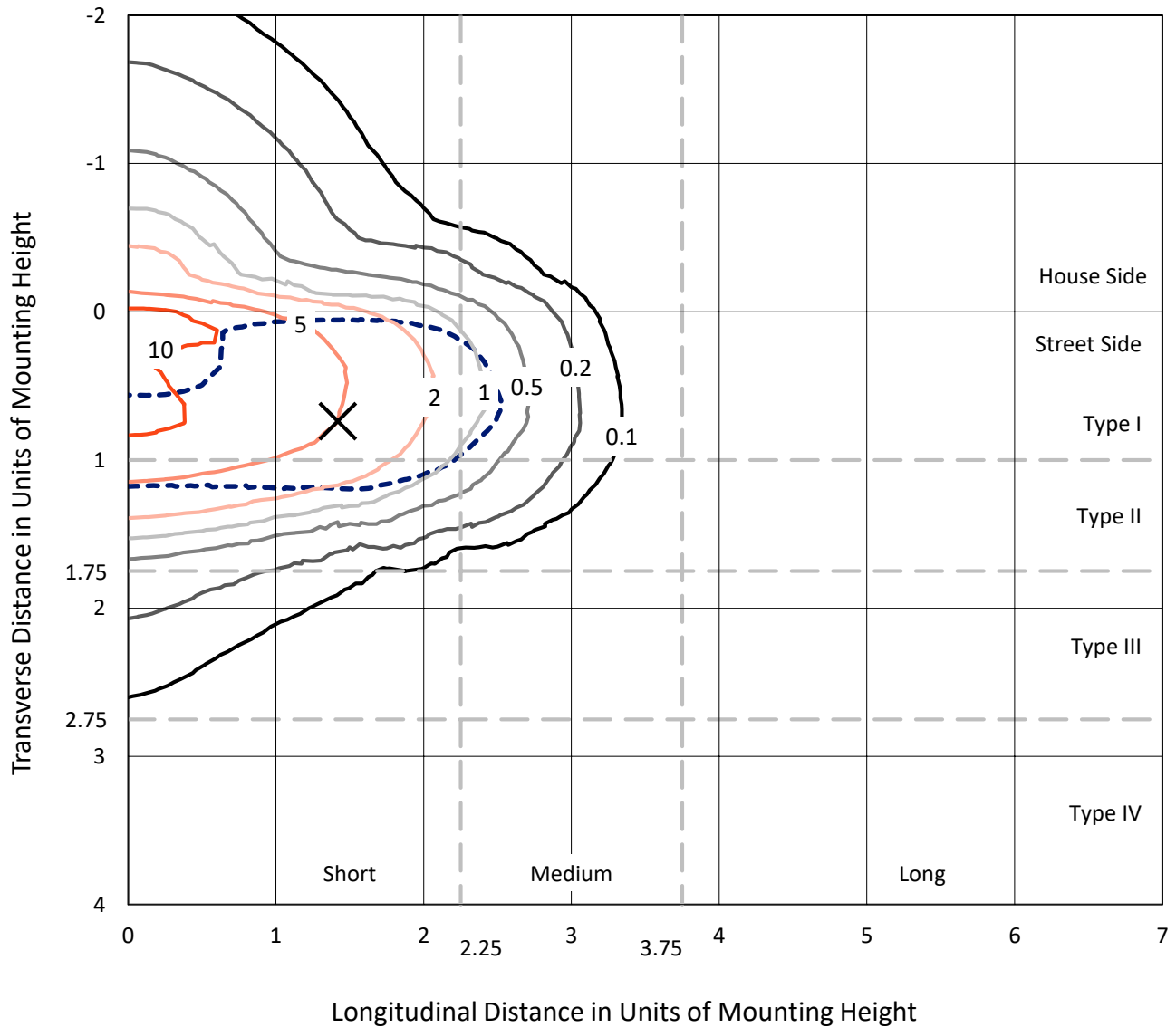


REPORT NUMBER: P270656

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-800

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

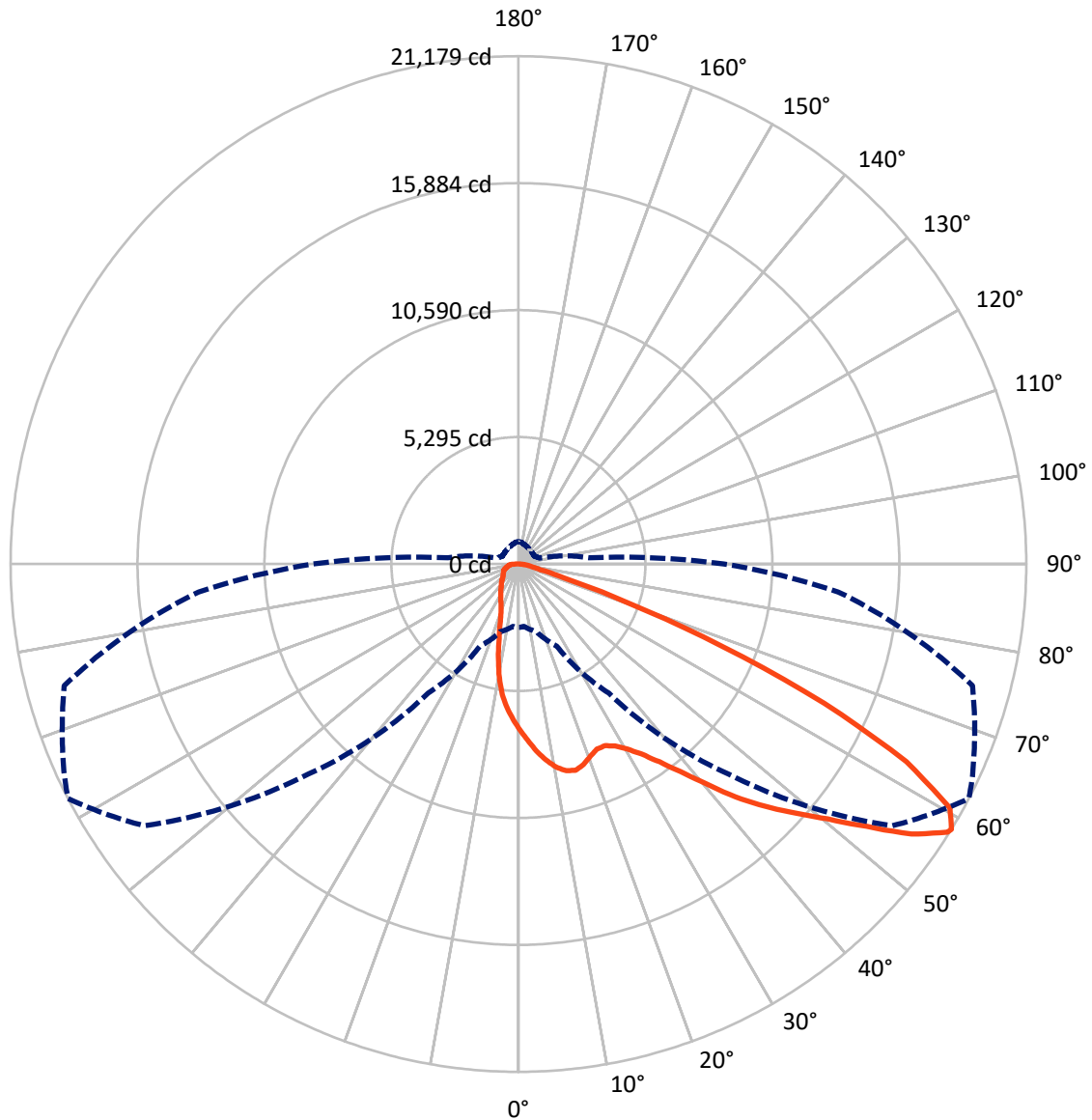


Based on 25 foot mounting height. Maximum calculated value = 13 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P270656

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270656

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3977.9	0.0	3977.9
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	21930.3	0.0	21930.3
	% Fixture	84.6	0.0	84.6
Total	Lumens	25908.2	0.0	25908.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	618.3	2.4
10°-20°	1560.4	6.0
20°-30°	2528.8	9.8
30°-40°	4037.5	15.6
40°-50°	5872.7	22.7
50°-60°	6145.2	23.7
60°-70°	3746.3	14.5
70°-80°	1047.7	4.0
80°-90°	351.2	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°	25908.2	100.0
0°-180°	25908.2	100.0

Coefficient of Utilization



REPORT NUMBER: P270656

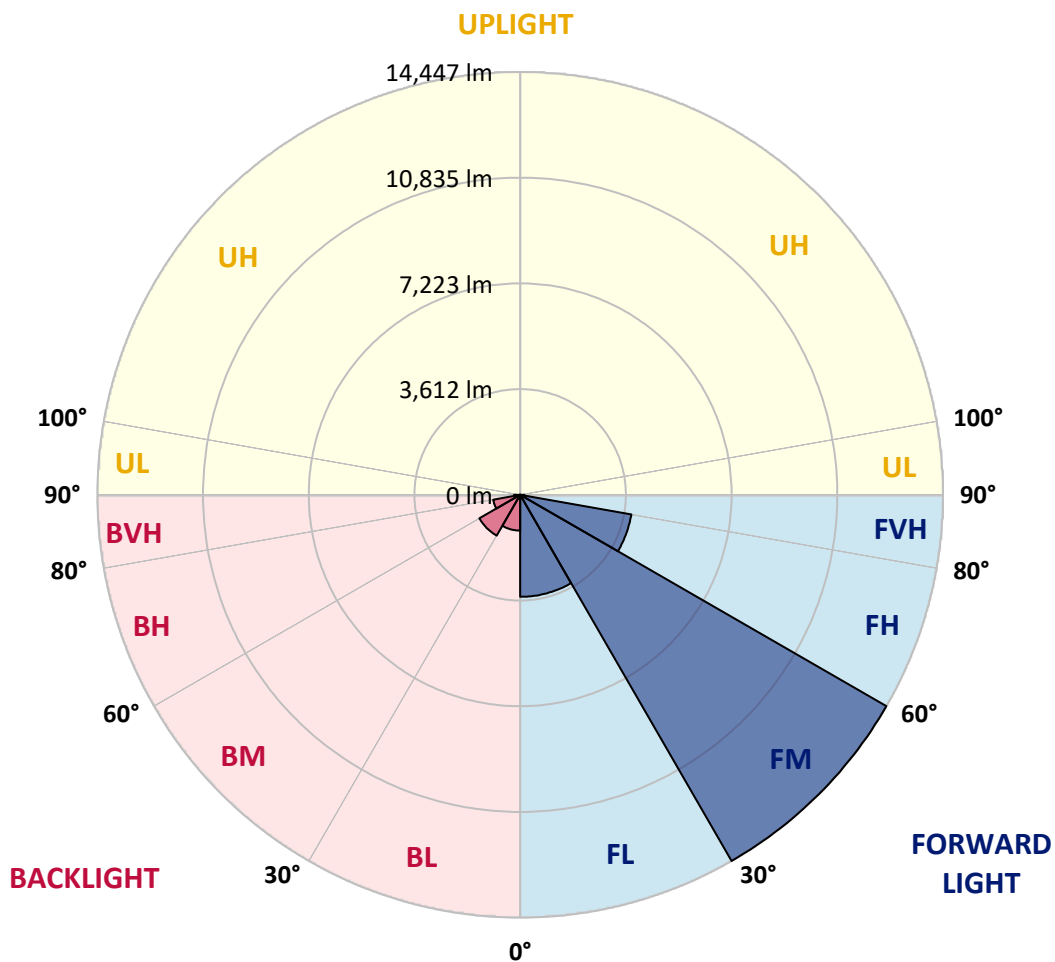
CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3484.7	13.5			
FM	(30°-60°)	14446.7	55.8			
FH	(60°-80°)	3857.6	14.9			G2/5000
FVH	(80°-90°)	141.3	0.5			G2/225
BL	(0°-30°)	1222.8	4.7	B3/2500		
BM	(30°-60°)	1608.7	6.2	B2/2500		
BH	(60°-80°)	936.5	3.6	B2/1000		G2/1000
BVH	(80°-90°)	209.9	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: P270656

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3
2.5°	7851.5	7846.8	7780.4	7736.7	7684.8	7564.9	7445.2	7356.1	7310.8	7137.6	6969.1
5°	8500.9	8481.4	8444.2	8397.3	8329.3	8178.7	7989.3	7825.7	7760.9	7453.2	7144.0
7.5°	8157.7	8188.4	8303.4	8432.8	8568.9	8578.6	8444.2	8249.9	8178.7	7767.5	7314.0
10°	7207.1	7194.2	7338.3	7590.9	8039.4	8483.1	8704.9	8609.4	8534.8	8065.3	7484.0
12.5°	6918.9	6915.7	6939.9	7004.8	7286.5	7895.4	8638.6	8845.8	8819.9	8381.0	7665.3
15°	7006.4	7009.7	7007.9	7016.1	7093.8	7383.7	8267.7	8925.1	9006.0	8693.5	7850.0
17.5°	7286.5	7275.2	7239.5	7200.6	7212.0	7315.6	7867.7	8789.1	9032.0	8972.1	8005.4
20°	7718.9	7718.9	7623.2	7514.9	7443.5	7466.3	7701.0	8555.9	8912.2	9208.5	8122.0
22.5°	8261.3	8269.3	8128.6	7931.0	7769.0	7707.5	7796.6	8382.8	8766.5	9427.2	8225.6
25°	8934.8	8933.3	8727.7	8444.2	8188.4	8041.1	8039.4	8390.8	8721.1	9682.9	8334.1
27.5°	9768.8	9692.6	9453.0	9049.9	8688.8	8463.7	8361.7	8594.9	8816.7	9997.1	8479.9
30°	10709.6	10631.8	10317.7	9799.5	9310.6	8981.9	8813.5	8947.7	9108.2	10397.1	8700.1
32.5°	11640.5	11658.5	11289.2	10704.7	10076.4	9613.3	9363.9	9446.5	9558.2	10886.0	8998.1
35°	13004.0	13002.3	12519.8	11789.5	11043.0	10401.8	10086.1	10129.8	10231.9	11575.7	9415.8
37.5°	14020.8	14004.7	13693.8	13047.7	12207.2	11438.2	10981.6	10988.1	11075.5	12442.1	9966.2
40°	14124.5	14121.3	14119.6	14027.4	13452.5	12727.0	12155.4	12037.3	12073.0	13361.7	10550.9
42.5°	13332.6	13451.0	13790.9	14312.2	14472.7	14092.2	13551.2	13287.3	13209.5	14417.5	11169.3
45°	12204.1	12264.0	12859.9	14032.2	14985.9	15374.5	14968.1	14411.1	14278.3	15444.1	11672.9
47.5°	11679.5	11653.5	11998.4	13276.1	14935.7	16394.5	16423.7	15510.6	15285.4	16329.8	12102.1
50°	10554.0	10520.1	10955.6	12163.6	14388.4	16901.4	17918.3	16708.7	16292.6	17171.8	12490.7
52.5°	8311.5	8279.0	8863.7	10419.7	13164.2	16712.0	19178.0	18179.0	17469.8	17983.1	12853.4
55°	5408.2	5411.4	5968.5	7573.2	10652.8	15607.7	19769.1	19877.5	19082.5	18794.2	13146.4
57.5°	2977.7	2950.3	3346.9	4333.1	7328.6	13099.5	19276.8	21101.6	20687.2	19490.5	13358.5
58°	2647.5	2615.1	2921.1	3771.2	6570.8	12391.8	19029.1	21179.3	20892.8	19605.5	13389.3
60°	1886.4	1831.4	1784.4	2126.1	3785.7	8934.8	17377.5	20675.7	20952.6	19835.5	13360.2
62.5°	1590.1	1526.8	1358.5	1345.7	1782.7	4370.3	13742.4	18157.9	18933.5	19306.0	12890.6
65°	1476.8	1413.7	1191.7	1112.5	1209.6	1886.4	8497.6	14020.8	15057.1	17464.8	11708.6
67.5°	1395.7	1321.2	1083.3	979.6	999.0	1128.6	3605.9	9169.7	10371.1	13619.3	9393.0
70°	1322.9	1240.3	997.5	877.6	861.5	858.2	1408.7	4788.1	5945.8	8912.2	6292.3
72.5°	1240.3	1159.4	921.3	793.5	757.8	696.2	846.8	1978.6	2712.3	4368.6	2883.7
75°	1120.5	1054.2	837.1	723.8	662.3	565.2	625.0	948.9	1169.1	1672.6	1339.2
77.5°	986.1	932.7	751.3	665.6	582.9	461.5	477.7	642.8	722.1	942.4	775.5
80°	698.0	717.2	655.9	586.1	513.3	372.3	367.5	471.3	518.1	633.1	521.3
82.5°	481.0	495.4	534.3	463.0	414.5	289.9	270.4	327.2	351.3	382.0	252.7
85°	343.3	333.6	370.8	332.0	304.4	184.6	173.3	207.2	221.8	233.2	121.5
87.5°	208.9	207.2	213.7	171.7	158.7	94.0	85.8	98.8	105.2	102.0	58.3
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: P270656

CATALOG NUMBER: NAV-AF-06-D-UNV-AFL-7027-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3	6917.3
2.5°	6906.0	6826.6	6653.3	6514.1	6363.6	6248.6	6133.5	6068.8	5997.7	5957.1	5952.3
5°	6982.0	6820.1	6451.0	6107.7	5754.7	5437.4	5126.4	4896.5	4708.6	4601.8	4595.4
7.5°	7066.2	6812.0	6242.1	5647.9	5019.5	4394.6	3842.4	3452.1	3201.2	3084.6	3076.5
10°	7131.0	6778.0	5987.9	5063.2	4067.4	3241.7	2739.7	2509.8	2433.7	2414.3	2411.1
12.5°	7208.8	6753.7	5667.2	4313.7	3108.9	2467.7	2315.6	2300.9	2317.1	2326.8	2328.4
15°	7281.7	6706.8	5235.0	3483.0	2433.7	2205.3	2208.7	2239.4	2271.8	2286.4	2288.0
17.5°	7315.6	6591.9	4666.5	2744.6	2129.3	2087.2	2124.4	2164.8	2194.0	2205.3	2205.3
20°	7315.6	6407.3	4007.6	2223.1	1970.6	1978.6	2024.1	2054.9	2061.3	2051.5	2046.7
22.5°	7284.9	6178.9	3366.4	1939.8	1841.0	1871.8	1907.5	1886.4	1810.3	1752.1	1740.6
25°	7257.3	5908.5	2749.4	1766.5	1727.7	1768.3	1753.6	1609.6	1493.0	1432.9	1423.3
27.5°	7212.0	5581.4	2234.5	1624.0	1617.6	1649.9	1505.9	1366.6	1308.3	1276.0	1269.5
30°	7200.6	5226.9	1870.2	1497.7	1509.2	1463.8	1298.6	1253.2	1240.3	1222.6	1214.4
32.5°	7238.0	4872.2	1641.9	1394.2	1405.5	1256.5	1193.4	1199.9	1198.2	1175.5	1167.4
35°	7340.0	4527.4	1496.1	1300.2	1267.9	1125.3	1133.4	1152.9	1152.9	1125.3	1115.7
37.5°	7518.0	4206.8	1404.0	1220.8	1109.1	1057.3	1078.3	1104.2	1104.2	1084.9	1076.8
40°	7707.5	3894.2	1334.3	1157.7	1008.7	1010.5	1031.4	1050.8	1059.0	1062.2	1055.8
42.5°	7879.2	3570.4	1259.8	1089.7	963.4	974.8	984.5	999.0	1033.1	1055.8	1052.5
45°	7979.6	3244.9	1178.8	1005.6	932.7	937.6	934.2	960.2	1000.7	1034.7	1034.7
47.5°	8071.8	2977.7	1112.5	921.3	901.9	901.9	892.1	918.1	955.3	995.9	999.0
50°	8159.2	2804.5	1065.4	856.5	863.0	858.2	854.9	879.3	929.4	978.1	986.1
52.5°	8248.2	2746.2	1023.3	809.6	822.6	816.1	819.3	853.3	910.1	960.2	968.4
55°	8373.0	2783.5	979.6	777.3	783.7	782.1	795.0	833.8	884.1	934.2	937.6
57.5°	8526.8	2919.4	942.4	752.9	746.4	756.2	777.3	814.5	863.0	923.0	927.8
58°	8557.6	2951.8	935.9	746.4	738.3	752.9	774.0	809.6	859.8	923.0	927.8
60°	8604.5	3066.9	919.8	733.5	710.7	736.7	762.7	798.2	853.3	931.1	940.7
62.5°	8377.9	3089.5	914.8	719.0	681.8	714.1	744.9	785.3	846.8	958.6	979.6
65°	7592.6	2856.3	880.9	694.7	657.4	696.2	728.6	775.5	866.2	1041.1	1050.8
67.5°	6094.7	2372.2	798.2	657.4	629.9	675.3	715.7	775.5	874.4	1054.2	1060.5
70°	4190.6	1782.7	694.7	617.0	597.6	649.4	710.7	793.5	846.8	997.5	978.1
72.5°	2189.2	1240.3	608.8	570.0	558.7	626.7	757.8	775.5	814.5	931.1	911.6
75°	1102.7	843.6	536.0	516.5	514.9	618.6	848.4	746.4	780.4	875.9	918.1
77.5°	650.9	660.7	477.7	466.3	474.5	604.0	850.1	717.2	741.6	806.4	851.8
80°	445.3	545.7	432.4	429.1	435.6	555.4	783.7	681.8	696.2	762.7	811.2
82.5°	250.9	301.2	378.8	399.9	396.7	455.0	676.9	620.2	637.9	901.9	953.7
85°	121.5	181.4	317.5	374.1	338.4	302.8	550.5	550.5	555.4	646.2	654.1
87.5°	45.4	80.9	213.7	296.4	236.4	181.4	374.1	390.3	433.9	446.8	456.6
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)