

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: P195059

Luminaire Tested: **NAV-AF-05-D-UNV-AFL-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195059  
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-7060-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24892 lumens  
Efficiency: N/A  
Efficacy: 118.5 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

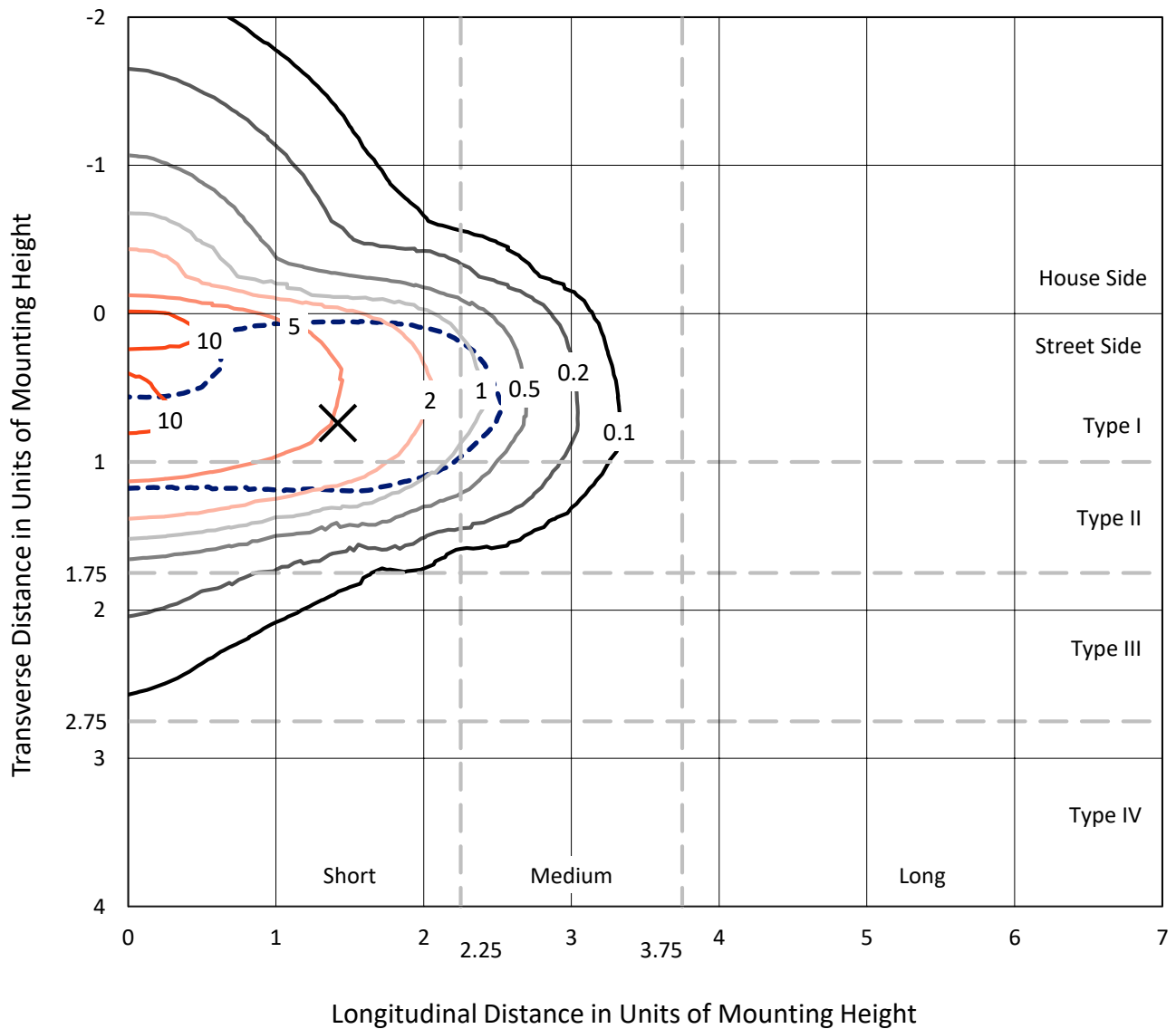


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### Iso-Footcandle Lines of Horizontal Illumination

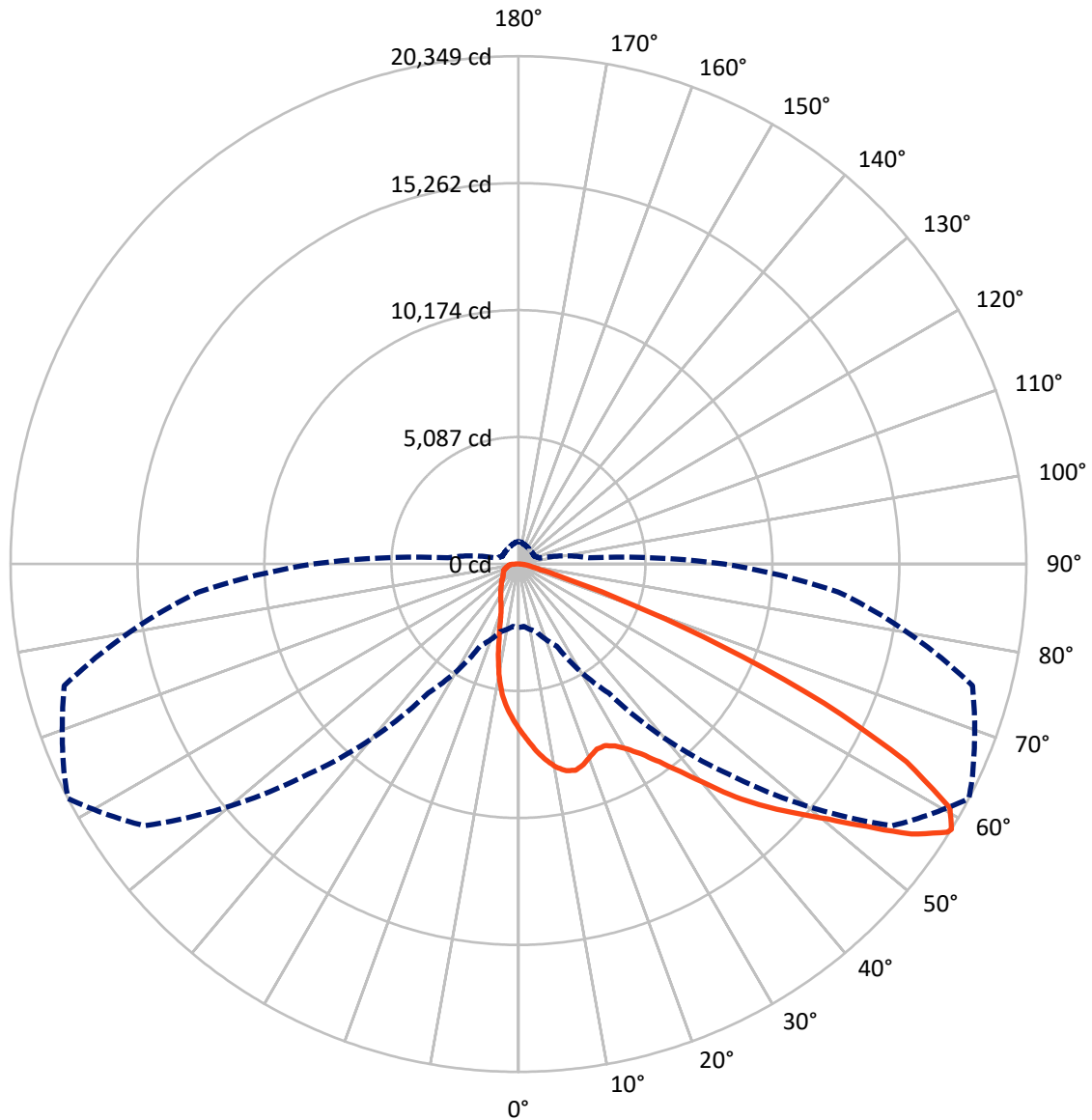
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3821.9	0.0	3821.9
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	21070.1	0.0	21070.1
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	24892.0	0.0	24892.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	594.0	2.4
10°-20°	1499.2	6.0
20°-30°	2429.7	9.8
30°-40°	3879.1	15.6
40°-50°	5642.3	22.7
50°-60°	5904.2	23.7
60°-70°	3599.4	14.5
70°-80°	1006.6	4.0
80°-90°	337.4	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°	24892.0	100.0
0°-180°	24892.0	100.0



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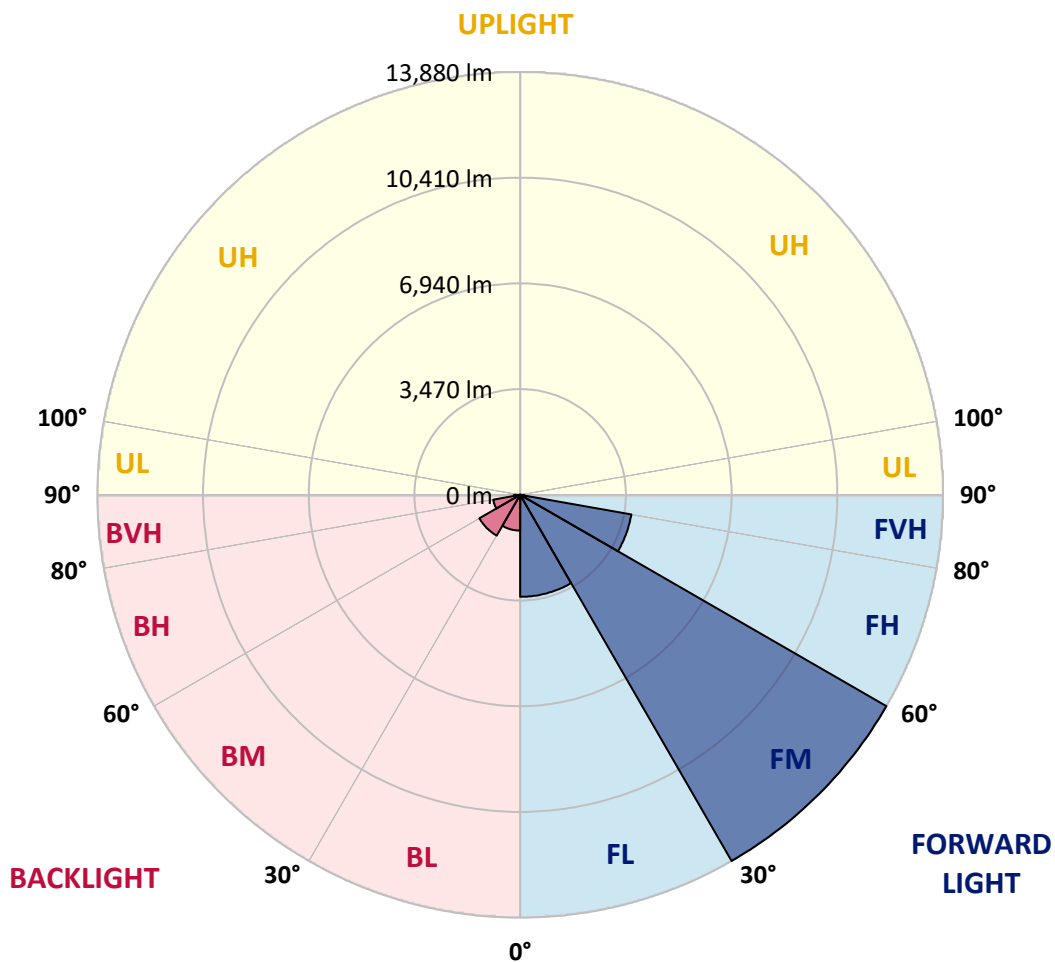
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3348.1	13.5			
FM	(30°-60°)	13880.1	55.8			
FH	(60°-80°)	3706.3	14.9			G2/5000
FVH	(80°-90°)	135.7	0.5			G2/225
BL	(0°-30°)	1174.9	4.7	B3/2500		
BM	(30°-60°)	1545.6	6.2	B2/2500		
BH	(60°-80°)	899.7	3.6	B2/1000		G2/1000
BVH	(80°-90°)	201.7	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0
2.5°	7543.6	7539.0	7475.2	7433.2	7383.4	7268.3	7153.2	7067.6	7024.0	6857.6	6695.8
5°	8167.5	8148.8	8113.0	8067.9	8002.6	7857.9	7675.9	7518.8	7456.5	7160.9	6863.8
7.5°	7837.7	7867.2	7977.7	8102.1	8232.8	8242.2	8113.0	7926.4	7857.9	7462.7	7027.2
10°	6924.5	6912.0	7050.5	7293.2	7724.1	8150.4	8363.5	8271.7	8200.2	7749.0	7190.5
12.5°	6647.6	6644.4	6667.8	6730.0	7000.7	7585.7	8299.7	8498.9	8474.0	8052.4	7364.7
15°	6731.6	6734.7	6733.1	6740.9	6815.6	7094.0	7943.5	8575.1	8652.9	8352.6	7542.1
17.5°	7000.7	6989.8	6955.6	6918.3	6929.1	7028.7	7559.2	8444.4	8677.8	8620.2	7691.4
20°	7416.1	7416.1	7324.3	7220.1	7151.6	7173.4	7399.0	8220.4	8562.6	8847.3	7803.5
22.5°	7937.2	7945.0	7809.7	7619.9	7464.3	7405.2	7490.8	8053.9	8422.6	9057.4	7903.0
25°	8584.4	8582.9	8385.3	8113.0	7867.2	7725.7	7724.1	8061.7	8379.1	9303.2	8007.2
27.5°	9385.6	9312.5	9082.2	8694.9	8347.9	8131.7	8033.7	8257.7	8470.9	9605.0	8147.3
30°	10289.5	10214.8	9913.0	9415.2	8945.3	8629.5	8467.7	8596.9	8750.9	9989.2	8358.8
32.5°	11184.0	11201.1	10846.4	10284.8	9681.2	9236.3	8996.7	9076.0	9183.4	10459.1	8645.1
35°	12493.9	12492.4	12028.8	11327.1	10610.0	9993.9	9690.5	9732.5	9830.5	11121.8	9046.5
37.5°	13470.9	13455.4	13156.7	12535.9	11728.5	10989.5	10550.8	10557.1	10641.1	11954.1	9575.4
40°	13570.5	13567.4	13565.8	13477.1	12924.9	12227.9	11678.7	11565.2	11599.4	12837.7	10137.0
42.5°	12809.7	12923.3	13250.0	13750.9	13905.0	13539.4	13019.8	12766.2	12691.5	13852.1	10731.3
45°	11725.4	11783.0	12355.5	13481.8	14398.1	14771.5	14381.0	13845.8	13718.3	14838.4	11215.1
47.5°	11221.3	11196.5	11527.8	12755.3	14349.9	15751.6	15779.6	14902.2	14685.9	15689.4	11627.4
50°	10140.1	10107.5	10525.9	11686.5	13824.1	16238.5	17215.5	16053.4	15653.6	16498.3	12000.8
52.5°	7985.5	7954.4	8516.0	10011.0	12647.9	16056.5	18425.9	17466.0	16784.6	17277.7	12349.2
55°	5196.1	5199.2	5734.4	7276.1	10235.0	14995.5	18993.7	19097.9	18334.1	18057.1	12630.8
57.5°	2861.0	2834.5	3215.7	4163.1	7041.2	12585.7	18520.7	20274.0	19875.8	18726.1	12834.6
58°	2543.6	2512.5	2806.5	3623.3	6313.1	11905.9	18282.7	20348.7	20073.3	18836.6	12864.2
60°	1812.4	1759.5	1714.4	2042.6	3637.3	8584.4	16695.9	19864.9	20130.9	19057.5	12836.2
62.5°	1527.7	1467.0	1305.2	1292.8	1712.8	4198.9	13203.3	17445.8	18190.9	18548.8	12385.0
65°	1418.8	1358.1	1145.0	1068.8	1162.1	1812.4	8164.4	13470.9	14466.6	16779.9	11249.4
67.5°	1341.0	1269.5	1040.8	941.2	959.9	1084.3	3464.6	8810.0	9964.3	13085.1	9024.7
70°	1271.0	1191.7	958.3	843.2	827.6	824.5	1353.5	4600.2	5712.6	8562.6	6045.5
72.5°	1191.7	1113.9	885.2	762.3	728.1	669.0	813.6	1901.1	2605.8	4197.3	2770.7
75°	1076.6	1012.8	804.3	695.4	636.3	542.9	600.5	911.6	1123.2	1607.1	1286.6
77.5°	947.4	896.1	721.9	639.4	560.1	443.4	458.9	617.6	693.8	905.4	745.2
80°	670.5	689.2	630.1	563.2	493.2	357.8	353.1	452.7	497.8	608.3	500.9
82.5°	462.0	476.0	513.4	444.9	398.3	278.5	259.8	314.3	337.6	367.1	242.7
85°	329.8	320.5	356.3	318.9	292.5	177.4	166.5	199.1	213.1	224.0	116.7
87.5°	200.7	199.1	205.4	164.9	152.5	90.2	82.5	94.9	101.1	98.0	56.0
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°	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0	6646.0
2.5°	6635.1	6558.9	6392.4	6258.6	6113.9	6003.5	5893.0	5830.8	5762.4	5723.5	5718.8
5°	6708.2	6552.7	6198.0	5868.1	5529.0	5224.1	4925.4	4704.5	4524.0	4421.3	4415.1
7.5°	6789.1	6544.9	5997.3	5426.3	4822.7	4222.2	3691.7	3316.8	3075.6	2963.6	2955.9
10°	6851.4	6512.2	5753.0	4864.7	3907.9	3114.5	2632.3	2411.4	2338.2	2319.6	2316.5
12.5°	6926.0	6488.9	5445.0	4144.4	2987.0	2370.9	2224.7	2210.7	2226.2	2235.6	2237.1
15°	6996.0	6443.8	5029.6	3346.3	2338.2	2118.9	2122.0	2151.5	2182.7	2196.7	2198.2
17.5°	7028.7	6333.3	4483.6	2636.9	2045.8	2005.3	2041.1	2080.0	2108.0	2118.9	2118.9
20°	7028.7	6156.0	3850.4	2136.0	1893.3	1901.1	1944.6	1974.2	1980.4	1971.1	1966.4
22.5°	6999.1	5936.6	3234.3	1863.7	1768.8	1798.4	1832.6	1812.4	1739.3	1683.3	1672.4
25°	6972.7	5676.8	2641.6	1697.3	1659.9	1698.8	1684.8	1546.4	1434.4	1376.8	1367.5
27.5°	6929.1	5362.5	2146.9	1560.4	1554.2	1585.3	1446.8	1313.0	1257.0	1225.9	1219.7
30°	6918.3	5021.8	1796.8	1439.0	1449.9	1406.4	1247.7	1204.1	1191.7	1174.6	1166.8
32.5°	6954.0	4681.1	1577.5	1339.5	1350.4	1207.2	1146.6	1152.8	1151.2	1129.4	1121.7
35°	7052.0	4349.8	1437.5	1249.2	1218.1	1081.2	1089.0	1107.7	1107.7	1081.2	1071.9
37.5°	7223.2	4041.7	1348.8	1173.0	1065.7	1015.9	1036.1	1061.0	1061.0	1042.3	1034.5
40°	7405.2	3741.5	1281.9	1112.3	969.2	970.8	991.0	1009.7	1017.4	1020.5	1014.3
42.5°	7570.1	3430.3	1210.3	1047.0	925.6	936.5	945.9	959.9	992.5	1014.3	1011.2
45°	7666.5	3117.6	1132.6	966.1	896.1	900.8	897.6	922.5	961.4	994.1	994.1
47.5°	7755.2	2861.0	1068.8	885.2	866.5	866.5	857.2	882.1	917.9	956.8	959.9
50°	7839.2	2694.5	1023.7	823.0	829.2	824.5	821.4	844.8	893.0	939.6	947.4
52.5°	7924.8	2638.5	983.2	777.9	790.3	784.1	787.2	819.9	874.3	922.5	930.3
55°	8044.6	2674.3	941.2	746.7	753.0	751.4	763.9	801.2	849.4	897.6	900.8
57.5°	8192.4	2804.9	905.4	723.4	717.2	726.5	746.7	782.5	829.2	886.8	891.4
58°	8221.9	2836.1	899.2	717.2	709.4	723.4	743.6	777.9	826.1	886.8	891.4
60°	8267.1	2946.5	883.6	704.7	683.0	707.8	732.7	767.0	819.9	894.5	903.9
62.5°	8049.3	2968.3	879.0	690.7	655.0	686.1	715.6	754.5	813.6	921.0	941.2
65°	7294.7	2744.3	846.3	667.4	631.6	669.0	700.1	745.2	832.3	1000.3	1009.7
67.5°	5855.7	2279.1	767.0	631.6	605.2	648.7	687.6	745.2	840.1	1012.8	1019.0
70°	4026.2	1712.8	667.4	592.7	574.1	623.8	683.0	762.3	813.6	958.3	939.6
72.5°	2103.3	1191.7	584.9	547.6	536.7	602.1	728.1	745.2	782.5	894.5	875.9
75°	1059.4	810.5	514.9	496.3	494.7	594.3	815.2	717.2	749.9	841.6	882.1
77.5°	625.4	634.7	458.9	448.0	455.8	580.3	816.7	689.2	712.5	774.7	818.3
80°	427.8	524.3	415.4	412.3	418.5	533.6	753.0	655.0	669.0	732.7	779.4
82.5°	241.1	289.4	364.0	384.3	381.1	437.2	650.3	595.8	613.0	866.5	916.3
85°	116.7	174.2	304.9	359.4	325.1	290.9	528.9	528.9	533.6	620.7	628.5
87.5°	43.6	77.8	205.4	284.7	227.1	174.2	359.4	374.9	416.9	429.4	438.7
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)