

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: P196843

Luminaire Tested: **NAV-AF-01-D-UNV-T4FT-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-T4FT-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6532.6 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

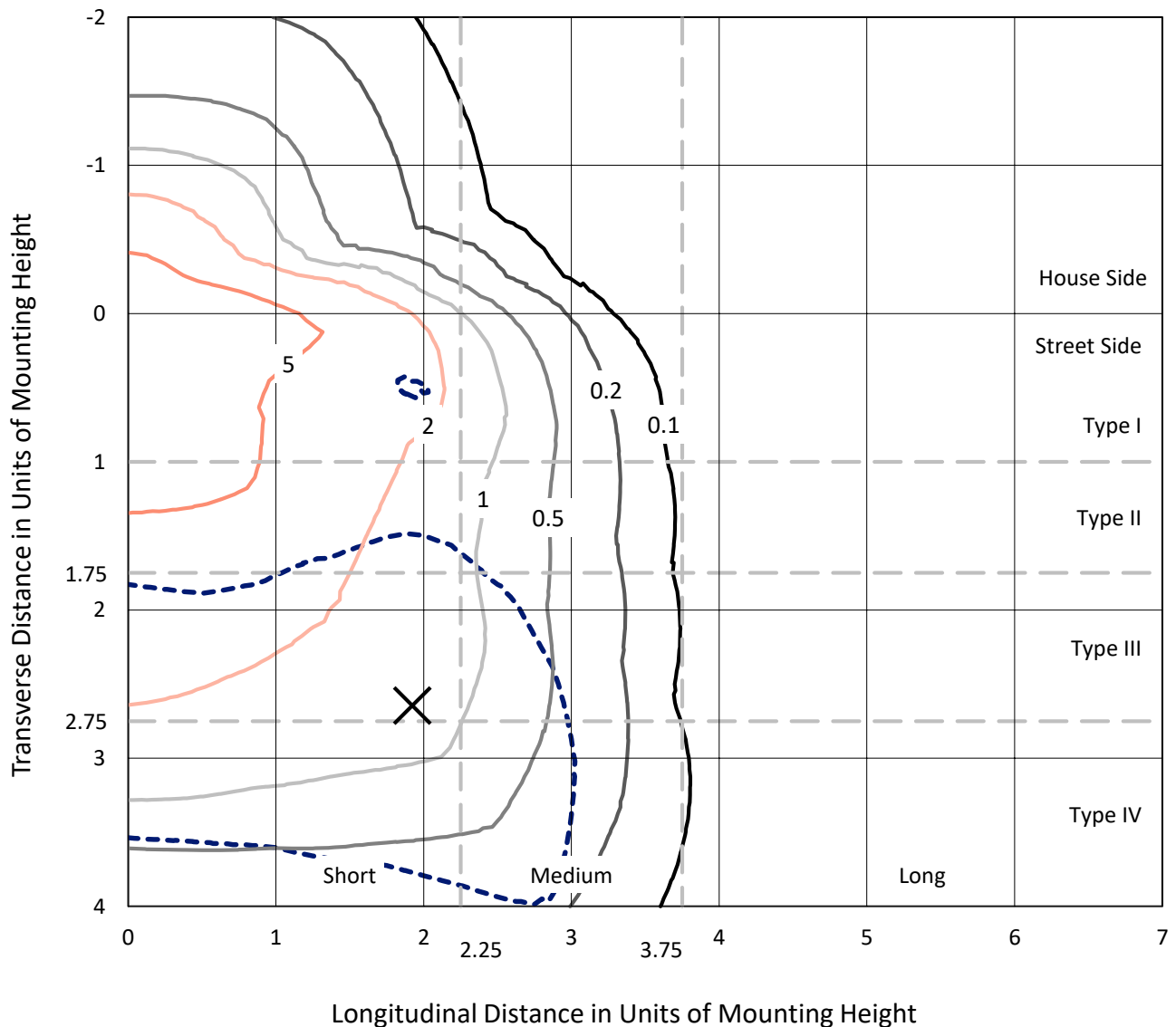
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

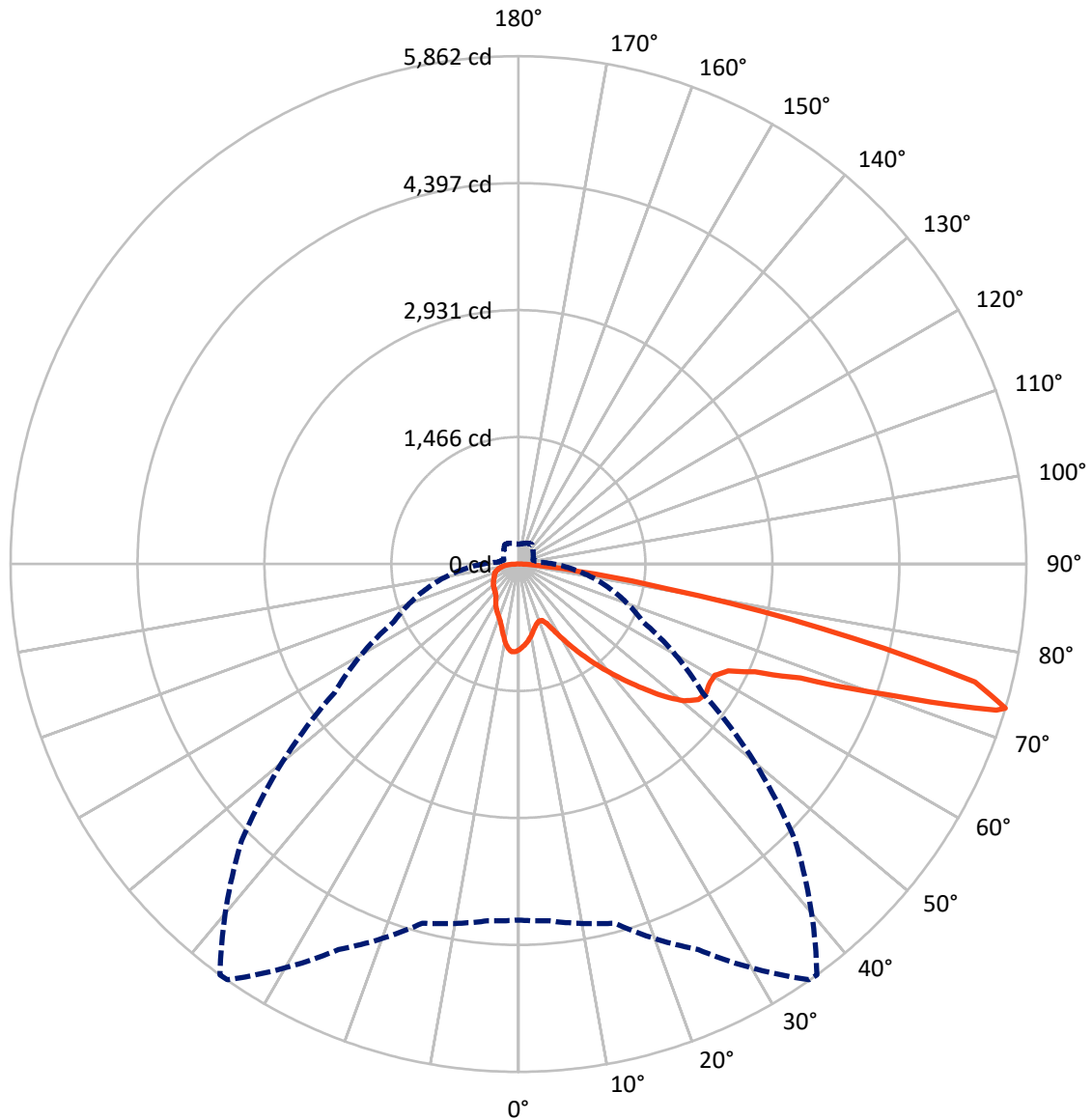
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1259.7	0.0	1259.7
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	5272.9	0.0	5272.9
	% Fixture	80.7	0.0	80.7
Total	Lumens	6532.6	0.0	6532.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	1.4
10°-20°	225.7	3.5
20°-30°	361.9	5.5
30°-40°	598.6	9.2
40°-50°	926.3	14.2
50°-60°	1240.0	19.0
60°-70°	1619.8	24.8
70°-80°	1323.1	20.3
80°-90°	147.3	2.3
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°	6532.6	100.0
0°-180°	6532.6	100.0



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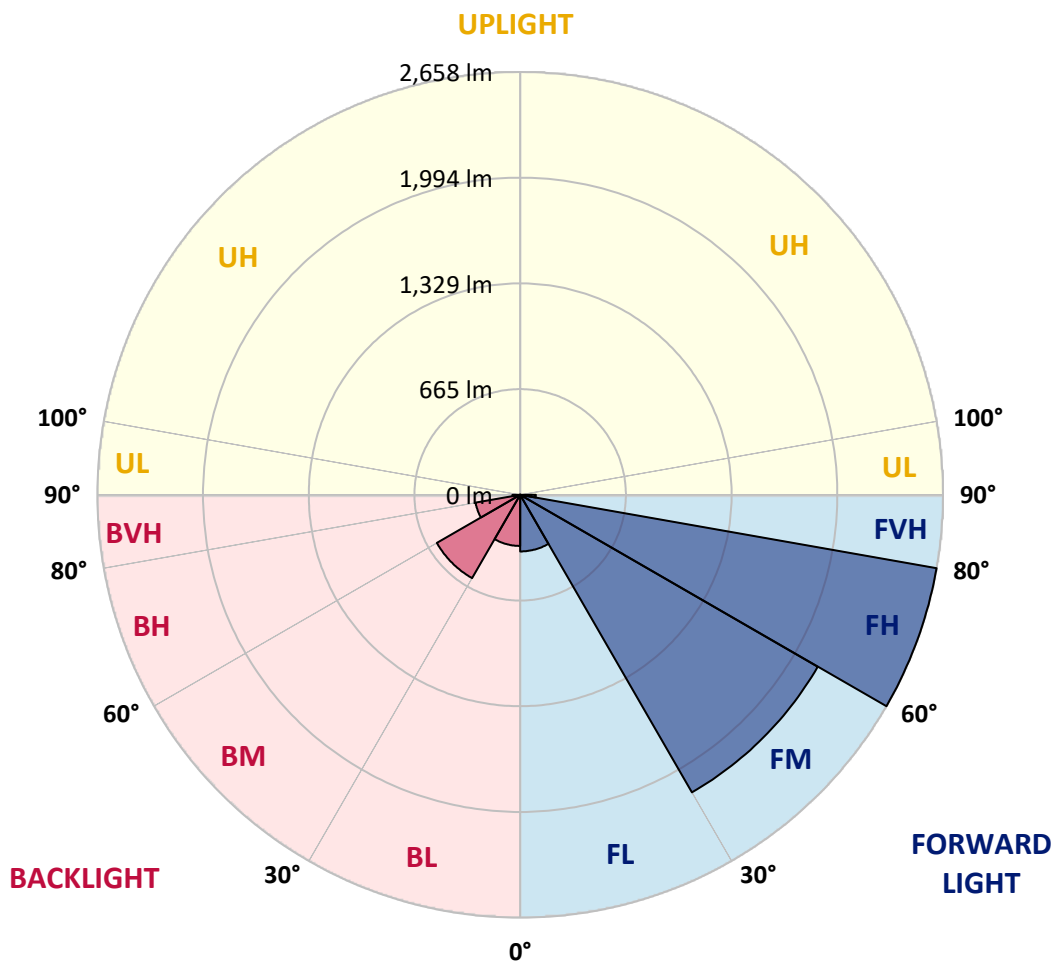
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	356.0	5.4			
FM (30°-60°)	2159.9	33.1			
FH (60°-80°)	2658.3	40.7			G2/5000
FVH (80°-90°)	98.8	1.5			G1/100
BL (0°-30°)	321.5	4.9	B1/500		
BM (30°-60°)	605.0	9.3	B1/1000		
BH (60°-80°)	284.7	4.4	B1/500		G1/500
BVH (80°-90°)	48.5	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5
2.5°	951.7	954.3	954.6	957.5	957.5	957.1	958.4	963.3	965.9	971.7	976.7
5°	904.7	907.7	908.9	914.0	920.2	920.6	925.2	934.7	943.9	956.7	967.5
7.5°	852.1	855.4	858.8	869.1	878.2	879.1	887.8	903.1	915.1	931.0	950.4
10°	801.1	801.9	805.2	818.5	830.5	831.8	844.2	861.6	877.9	899.9	921.8
12.5°	759.2	761.6	760.8	770.8	781.1	782.0	798.5	820.5	844.2	869.1	895.3
15°	744.6	744.2	735.6	735.1	739.6	740.4	756.6	782.4	808.9	839.6	873.3
17.5°	754.6	751.2	728.4	714.3	711.4	712.3	724.3	752.5	780.7	816.0	856.3
20°	809.4	796.5	743.0	708.9	699.4	699.4	706.5	729.3	760.3	801.5	852.1
22.5°	939.3	919.3	805.2	744.6	710.9	707.7	702.3	719.7	754.2	803.6	869.1
25°	1102.9	1093.2	919.3	839.6	770.4	759.6	723.9	730.1	767.0	826.0	915.6
27.5°	1254.3	1237.7	1069.2	977.9	880.0	863.3	787.8	762.4	797.7	867.5	982.9
30°	1342.7	1331.6	1223.1	1136.0	1019.4	998.2	889.9	826.4	852.6	936.0	1078.3
32.5°	1439.1	1432.4	1377.5	1298.3	1170.5	1146.0	1021.9	930.6	936.4	1026.8	1193.3
35°	1532.4	1541.1	1510.0	1451.8	1333.2	1310.3	1199.1	1066.7	1039.7	1128.9	1316.1
37.5°	1644.5	1646.5	1627.0	1589.2	1504.2	1485.5	1393.8	1212.0	1152.2	1237.7	1434.9
40°	1868.3	1835.3	1759.1	1729.1	1678.5	1666.9	1562.3	1345.2	1256.8	1349.4	1546.9
42.5°	2110.2	2059.1	1939.6	1890.6	1870.3	1859.5	1702.6	1434.0	1354.7	1461.1	1656.9
45°	2305.3	2263.8	2146.7	2086.1	2088.6	2071.1	1825.0	1513.4	1461.1	1573.2	1779.8
47.5°	2497.4	2428.1	2296.9	2288.2	2317.3	2291.5	1942.1	1592.6	1571.8	1695.0	1902.6
50°	2509.9	2446.8	2393.7	2463.4	2513.2	2481.2	2048.3	1696.4	1686.9	1842.8	2061.1
52.5°	2358.4	2349.2	2430.2	2547.6	2630.2	2601.6	2135.0	1803.0	1804.3	2027.6	2254.2
55°	2303.1	2291.5	2388.6	2533.0	2644.7	2627.6	2199.8	1923.4	1934.6	2251.8	2461.3
57.5°	2396.2	2367.1	2386.2	2505.8	2610.8	2600.8	2267.0	2057.1	2077.3	2509.9	2652.6
60°	2684.6	2625.3	2524.0	2546.4	2612.0	2606.2	2363.4	2206.1	2240.1	2778.8	2773.9
62.5°	3116.7	3049.4	2843.2	2743.5	2729.0	2717.9	2522.4	2389.1	2406.1	2973.1	2703.3
65°	3590.7	3518.4	3273.2	3110.1	3024.6	3000.5	2778.8	2609.8	2503.2	2972.6	2428.5
67.5°	4122.8	4046.4	3801.9	3646.3	3553.7	3512.6	3195.2	2788.4	2471.7	2721.1	1943.2
70°	4667.8	4595.1	4483.0	4537.4	4578.1	4515.4	3851.0	2847.8	2245.1	2133.4	1305.0
72.5°	4378.4	4372.7	4457.8	4973.3	5757.3	5769.8	4505.9	2680.0	1734.5	1268.0	695.7
73°	4109.9	4134.4	4292.1	4908.9	5858.2	5862.3	4518.8	2593.3	1592.6	1092.5	611.0
75°	2129.3	2295.3	2880.5	3980.5	5424.4	5444.0	3983.4	1963.3	949.3	606.8	411.7
77.5°	570.4	562.8	928.0	1939.2	3616.4	3590.7	2516.9	950.4	454.9	380.7	288.9
80°	195.5	198.0	315.9	709.3	1688.0	1748.2	1092.5	414.6	299.3	265.2	204.7
82.5°	99.7	102.9	165.2	301.8	706.1	691.1	351.6	244.0	200.5	161.0	114.5
85°	53.1	54.7	90.9	156.5	259.0	261.9	123.7	130.3	127.4	91.3	56.5
87.5°	26.1	27.0	43.6	69.0	95.9	92.6	43.1	56.5	62.8	51.5	31.1
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°	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5	989.5
2.5°	982.9	982.9	988.2	997.4	1004.0	1010.2	1014.4	1021.0	1024.8	1024.5	1024.0
5°	976.2	980.4	991.2	1002.4	1009.9	1014.8	1014.8	1017.7	1017.7	1016.4	1014.8
7.5°	960.8	967.9	983.7	993.6	995.7	990.3	979.5	971.2	960.8	955.5	953.4
10°	936.4	945.5	965.5	970.0	959.2	940.0	914.0	891.5	871.7	862.5	859.6
12.5°	912.4	924.4	943.0	936.0	910.2	872.9	832.5	801.9	779.4	770.8	767.9
15°	892.4	906.9	921.4	899.4	854.6	802.7	758.3	729.7	712.7	706.1	704.4
17.5°	879.1	896.2	901.1	860.0	797.7	739.6	700.3	681.6	674.0	671.2	670.3
20°	880.0	898.9	886.9	821.8	743.0	684.4	658.3	653.0	653.0	653.0	652.5
22.5°	902.7	919.3	881.1	786.1	690.2	638.0	626.7	631.3	634.6	634.6	634.2
25°	950.1	959.2	885.3	751.7	640.8	597.6	598.0	606.8	609.7	609.7	608.9
27.5°	1022.3	1014.8	892.7	713.5	592.3	561.1	566.9	574.8	576.9	575.7	575.2
30°	1112.8	1082.9	898.9	668.6	546.7	527.1	532.1	536.7	535.1	532.1	531.6
32.5°	1214.1	1152.2	895.3	618.4	506.4	491.8	494.7	497.2	494.7	487.8	487.8
35°	1314.5	1214.9	874.9	563.7	474.4	457.8	457.4	465.3	464.9	456.6	457.0
37.5°	1402.5	1264.2	835.5	513.4	447.0	432.8	434.6	439.6	442.1	430.8	429.6
40°	1479.3	1298.3	779.9	470.7	425.0	425.9	421.3	413.4	410.5	405.5	404.7
42.5°	1551.5	1321.9	721.0	435.0	413.8	423.4	408.0	389.3	381.5	386.0	389.0
45°	1622.5	1348.5	664.1	405.5	399.7	415.8	394.8	374.0	364.8	366.9	369.9
47.5°	1709.3	1385.5	595.6	374.0	378.1	402.2	386.4	364.1	350.2	342.0	339.5
50°	1823.3	1439.1	506.8	339.9	355.3	387.3	379.3	349.5	334.6	318.0	313.8
52.5°	1966.1	1489.6	417.2	312.6	336.6	374.4	367.7	337.1	318.8	298.9	295.5
55°	2108.4	1496.8	339.9	288.9	315.4	356.9	353.7	327.0	301.3	285.1	281.8
57.5°	2208.1	1429.8	288.0	269.0	295.1	335.3	340.8	315.0	286.8	274.3	272.3
60°	2209.8	1270.0	256.5	255.6	279.7	316.8	327.4	300.9	277.6	269.4	267.6
62.5°	2034.2	1023.5	236.2	245.8	268.6	301.3	317.5	293.1	275.6	272.3	270.6
65°	1705.1	756.2	219.9	236.5	258.2	288.5	309.2	290.5	274.8	273.4	272.3
67.5°	1258.8	518.4	206.3	225.0	246.6	275.3	301.3	286.8	269.8	274.8	273.1
70°	791.9	346.2	193.4	211.6	231.2	259.8	290.9	280.1	263.6	260.7	255.2
72.5°	447.0	250.3	178.1	194.7	211.3	239.5	276.9	269.0	249.4	237.8	232.4
73°	403.8	237.0	174.4	190.5	206.7	235.4	273.4	265.6	245.3	232.4	227.5
75°	295.5	193.8	157.4	173.5	187.6	216.3	257.8	249.0	227.0	211.6	208.3
77.5°	214.1	149.4	135.3	149.8	162.2	189.7	234.2	224.1	202.5	194.3	190.8
80°	154.4	113.3	112.1	126.2	137.0	164.8	208.8	198.5	177.6	202.1	196.7
82.5°	92.1	72.6	82.2	98.0	109.2	138.2	181.4	169.4	149.4	151.1	128.7
85°	44.0	41.1	51.1	64.4	72.2	94.6	151.1	141.5	119.5	98.0	95.9
87.5°	19.5	18.7	24.5	28.6	38.6	56.9	103.4	91.8	86.8	51.9	40.7
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)