

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: P197227

Luminaire Tested: **NAV-AF-01-D-UNV-T2-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197227
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)
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-T2-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5353 lumens
Efficiency: N/A
Efficacy: 79.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G1

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

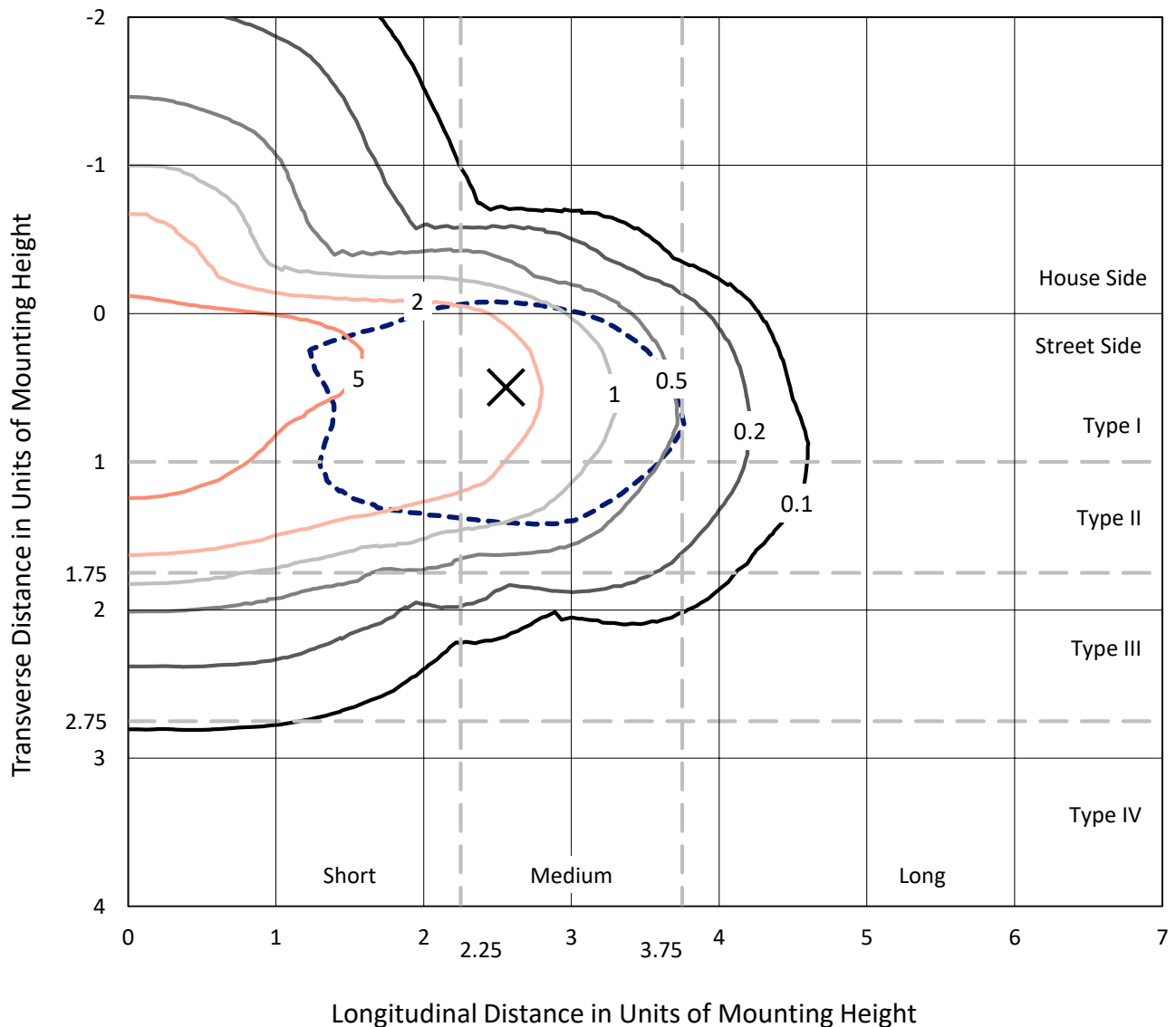


REPORT NUMBER: P197227

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-8030-1200

Iso-Footcandle Lines of Horizontal Illumination

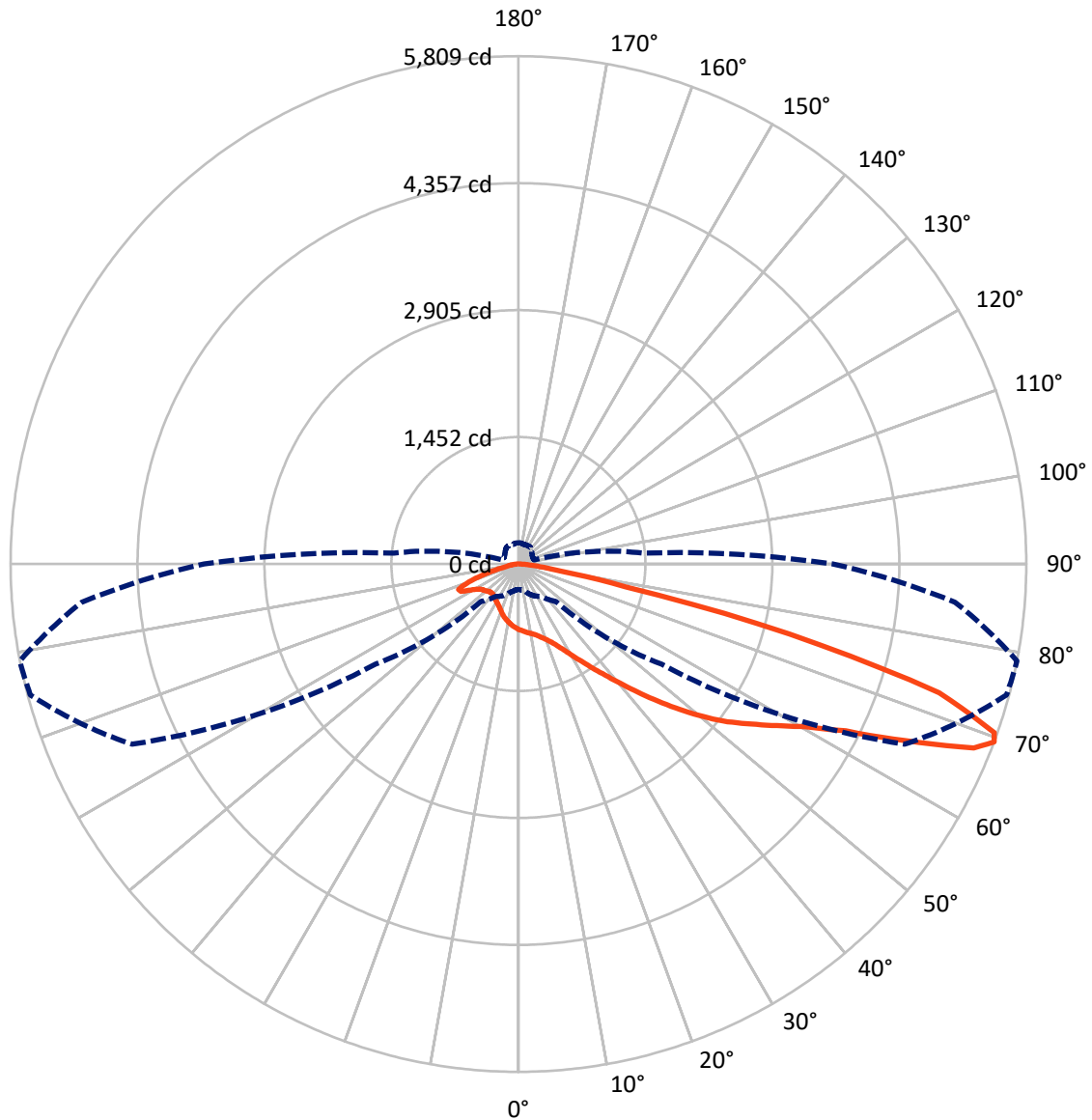
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P197227
CATALOG NUMBER: NAV-AF-01-D-UNV-T2-8030-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P197227

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-8030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1007.0	0.0	1007.0
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	4346.0	0.0	4346.0
	% Fixture	81.2	0.0	81.2
Total	Lumens	5353.0	0.0	5353.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	1.3
10°-20°	199.7	3.7
20°-30°	329.9	6.2
30°-40°	534.2	10.0
40°-50°	853.4	15.9
50°-60°	1222.2	22.8
60°-70°	1361.7	25.4
70°-80°	681.2	12.7
80°-90°	101.1	1.9
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°	5353.0	100.0
0°-180°	5353.0	100.0



REPORT NUMBER: P197227

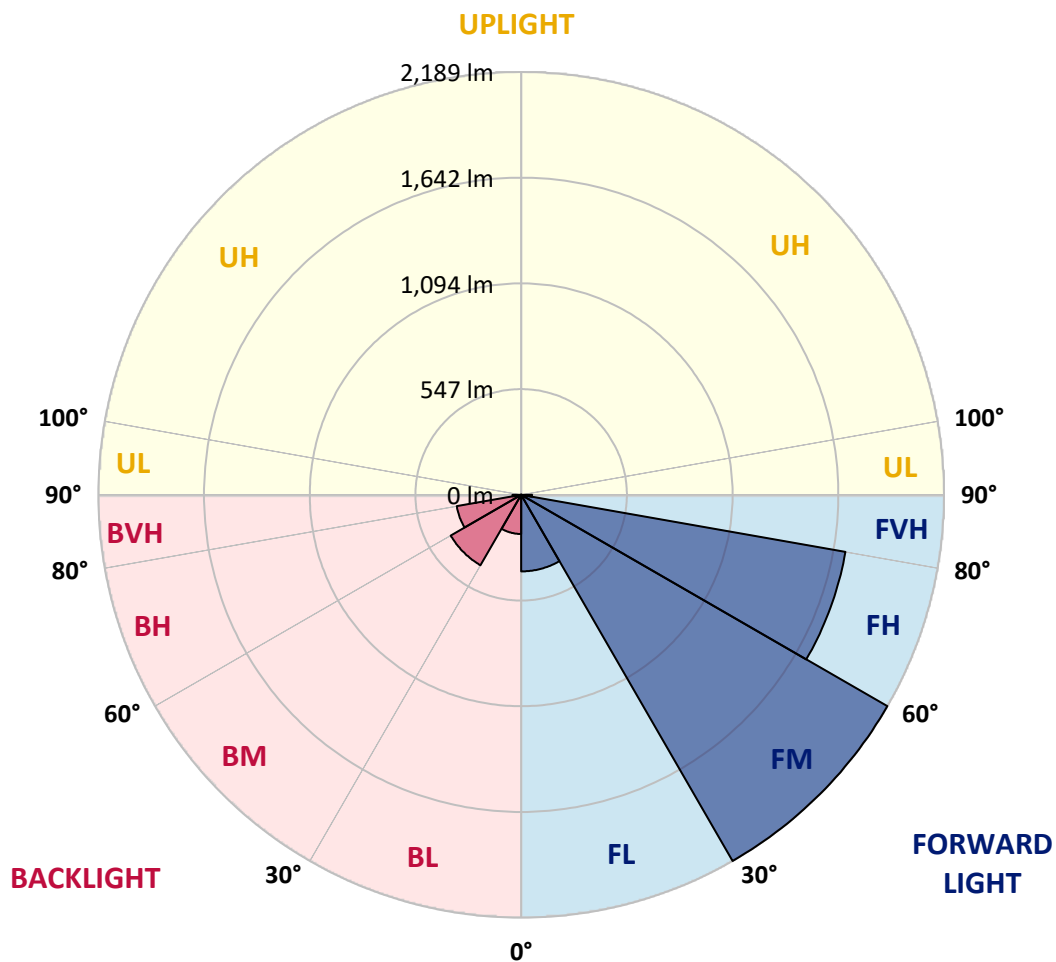
CATALOG NUMBER: NAV-AF-01-D-UNV-T2-8030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	396.3	7.4			
FM (30°-60°)	2188.9	40.9			
FH (60°-80°)	1704.3	31.8			G1/1800
FVH (80°-90°)	56.5	1.1			G1/100
BL (0°-30°)	202.9	3.8	B1/500		
BM (30°-60°)	420.9	7.9	B1/1000		
BH (60°-80°)	338.6	6.3	B1/500		G1/500
BVH (80°-90°)	44.6	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





REPORT NUMBER: P197227

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-8030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2
2.5°	824.7	823.0	822.6	817.4	814.6	808.6	794.6	780.3	767.0	760.0	752.6
5°	893.7	890.2	888.5	879.7	872.0	858.7	836.6	813.9	790.1	777.8	763.1
7.5°	935.4	935.8	935.8	928.8	921.0	904.9	876.9	845.8	810.4	794.3	771.2
10°	938.9	939.3	944.5	946.3	948.0	939.6	913.7	874.5	828.9	807.9	777.8
12.5°	904.2	906.7	915.4	928.0	945.9	955.0	943.8	905.3	852.8	827.2	790.4
15°	857.7	860.1	871.3	890.6	919.3	949.8	965.5	940.7	883.9	853.8	809.0
17.5°	834.9	837.7	845.4	860.8	888.8	929.8	977.1	978.5	920.7	886.0	831.0
20°	824.0	826.1	835.9	848.6	869.9	909.1	978.1	1018.4	964.5	924.2	858.0
22.5°	848.9	849.6	854.5	861.5	875.9	906.0	977.4	1059.7	1019.1	972.2	892.7
25°	921.7	917.2	913.7	904.9	908.4	929.8	988.6	1103.9	1089.1	1035.2	938.9
27.5°	1007.9	1007.2	998.1	977.8	964.8	978.5	1020.5	1153.2	1174.9	1115.4	999.5
30°	1103.9	1104.2	1094.7	1069.9	1043.6	1045.0	1071.3	1210.3	1277.6	1212.1	1074.1
32.5°	1204.4	1210.7	1193.2	1168.3	1136.4	1126.3	1144.1	1279.3	1396.3	1326.2	1160.6
35°	1324.5	1325.5	1306.3	1269.9	1238.0	1221.9	1238.3	1365.5	1533.2	1460.4	1266.0
37.5°	1449.2	1449.9	1429.9	1383.3	1343.0	1332.5	1350.8	1470.2	1678.2	1613.1	1390.0
40°	1551.1	1558.4	1542.7	1498.9	1458.3	1452.0	1478.2	1595.5	1863.5	1793.8	1537.4
42.5°	1666.6	1675.0	1656.1	1610.6	1578.4	1576.3	1617.3	1738.4	2047.7	2002.8	1704.5
45°	1796.9	1808.8	1782.6	1731.4	1704.1	1750.3	1752.8	1896.7	2259.9	2236.8	1892.5
47.5°	1939.1	1948.9	1927.5	1872.6	1842.8	1909.7	1885.5	2068.0	2489.3	2487.5	2096.0
50°	2048.7	2059.6	2061.7	2037.5	2006.3	2014.7	2031.2	2248.0	2718.0	2745.3	2306.5
52.5°	2028.8	2039.3	2086.5	2149.9	2200.0	2178.3	2198.3	2439.2	2938.9	2996.7	2506.4
55°	1867.7	1873.3	1961.9	2112.5	2325.7	2429.4	2430.8	2647.2	3149.1	3230.0	2696.2
57.5°	1577.3	1578.0	1693.3	1915.3	2252.5	2592.2	2797.8	2908.5	3368.3	3487.7	2931.6
60°	1116.1	1118.9	1253.0	1543.4	1990.2	2572.6	3192.5	3376.0	3622.2	3777.3	3234.9
62.5°	662.6	668.9	770.1	1003.0	1478.2	2320.5	3425.7	4207.7	3996.2	4202.1	3720.3
65°	431.1	436.4	496.9	613.9	873.4	1688.4	3349.0	5013.2	4704.0	4870.3	4417.9
67.5°	332.0	336.2	383.8	454.6	535.8	912.6	2677.7	5182.0	5565.5	5617.3	5006.6
69°	291.7	295.2	330.2	398.2	451.1	604.1	1995.5	4875.6	5780.9	5809.2	5013.9
70°	270.4	273.2	306.1	364.9	414.3	482.2	1527.3	4519.8	5702.1	5774.6	4869.3
72.5°	222.7	225.2	248.6	293.8	338.7	343.6	676.6	3300.4	4801.3	5033.2	4120.5
75°	186.0	187.4	202.8	235.7	274.2	273.5	345.7	1869.4	2929.8	3206.1	2544.3
77.5°	155.1	156.2	166.3	186.7	216.4	215.4	243.4	806.9	1293.7	1248.1	875.9
80°	136.9	137.6	142.9	148.1	167.0	166.0	180.4	370.5	526.4	486.4	331.3
82.5°	104.0	105.4	132.0	134.5	129.6	125.0	125.7	215.7	269.7	245.5	177.9
85°	58.8	59.2	84.8	99.1	112.8	84.8	81.6	111.4	133.1	116.6	77.7
87.5°	26.3	27.3	40.6	46.9	60.9	49.7	46.6	47.3	57.4	47.6	30.8
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: P197227

CATALOG NUMBER: NAV-AF-01-D-UNV-T2-8030-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2	751.2
2.5°	745.6	739.6	725.6	711.3	696.9	687.8	678.4	669.6	666.1	665.7	659.1
5°	748.7	734.7	702.9	667.8	634.6	608.7	586.9	572.9	559.3	556.8	550.9
7.5°	749.8	727.0	675.2	619.2	568.4	532.7	511.0	501.5	494.8	493.1	491.0
10°	749.4	717.2	644.4	567.7	509.9	482.9	474.9	477.0	479.8	481.2	481.2
12.5°	755.0	712.7	613.6	519.4	472.1	459.1	465.4	476.3	484.7	488.2	488.9
15°	765.2	709.9	579.6	477.3	445.5	448.6	464.0	479.8	491.7	496.9	498.3
17.5°	777.8	706.0	540.4	442.7	430.1	440.9	460.9	480.8	495.2	501.8	502.9
20°	791.8	700.4	499.7	416.7	416.4	430.1	450.0	472.4	487.8	495.2	494.8
22.5°	810.7	695.2	461.9	397.8	401.3	413.9	430.4	450.7	465.1	471.7	470.3
25°	835.9	690.3	428.0	381.0	384.2	392.6	404.1	419.5	429.7	433.2	430.8
27.5°	869.9	686.4	401.3	365.6	365.3	369.1	376.1	384.5	389.4	388.4	384.5
30°	911.6	682.6	381.7	352.0	347.1	346.7	349.9	354.8	357.9	351.6	348.5
32.5°	958.2	675.9	364.2	340.1	331.3	328.1	329.5	336.2	349.2	342.9	340.4
35°	1013.2	668.2	346.7	327.1	320.4	314.5	315.5	329.9	369.1	364.6	362.1
37.5°	1079.3	661.2	330.6	313.1	312.7	305.4	304.7	321.8	374.4	364.6	362.5
40°	1158.8	659.8	316.2	297.7	303.3	300.5	298.0	308.5	345.3	325.3	321.5
42.5°	1254.8	666.1	305.7	283.0	292.4	299.1	294.5	297.0	312.0	294.2	291.0
45°	1366.9	683.3	298.0	270.0	280.9	298.0	292.8	290.7	293.1	283.3	281.2
47.5°	1497.5	713.7	292.8	259.2	270.0	295.2	292.1	287.9	286.8	281.2	279.8
50°	1637.2	754.7	289.3	249.3	260.2	290.3	291.7	285.8	284.0	281.6	280.9
52.5°	1775.9	799.2	285.1	240.9	252.1	284.4	292.1	283.7	281.2	279.8	279.1
55°	1913.9	845.4	277.4	233.6	246.2	277.4	291.7	280.9	278.1	278.1	278.1
57.5°	2092.8	915.8	267.2	227.6	238.5	268.3	287.2	277.7	273.9	274.2	274.6
60°	2351.3	1033.8	256.0	221.0	228.3	257.8	280.2	272.1	267.6	269.0	269.3
62.5°	2783.1	1240.1	240.6	211.5	217.8	246.5	271.1	264.4	260.2	262.7	263.0
65°	3358.8	1489.8	220.3	199.6	207.0	233.9	259.5	255.3	250.7	256.7	256.4
67.5°	3710.1	1563.0	198.9	187.0	196.5	220.6	245.1	243.4	240.2	250.7	250.0
69°	3594.9	1430.6	186.7	179.0	189.1	211.5	236.0	235.3	232.9	243.0	242.3
70°	3415.9	1307.0	179.0	173.7	185.3	205.9	230.1	230.1	227.6	236.4	234.6
72.5°	2743.9	969.4	161.1	160.4	172.0	190.5	214.0	215.7	214.3	217.5	215.7
75°	1611.0	584.1	143.6	145.7	155.8	174.1	196.1	197.5	196.1	195.8	196.1
77.5°	558.6	262.0	126.8	129.9	138.7	157.2	176.5	179.3	177.2	174.8	175.5
80°	218.5	152.3	108.6	113.1	120.5	138.3	156.9	158.6	155.5	155.1	152.3
82.5°	131.3	92.8	84.4	91.8	100.9	120.1	135.5	134.8	132.4	146.7	128.5
85°	57.1	51.5	61.6	69.0	73.5	90.0	114.5	111.4	105.4	92.8	90.7
87.5°	23.1	26.6	34.0	41.0	44.1	58.1	78.4	75.6	76.7	63.0	62.7
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)