

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: P270305

Luminaire Tested: **NAV-AF-01-D-UNV-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270305
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
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-T3-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5308.8 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

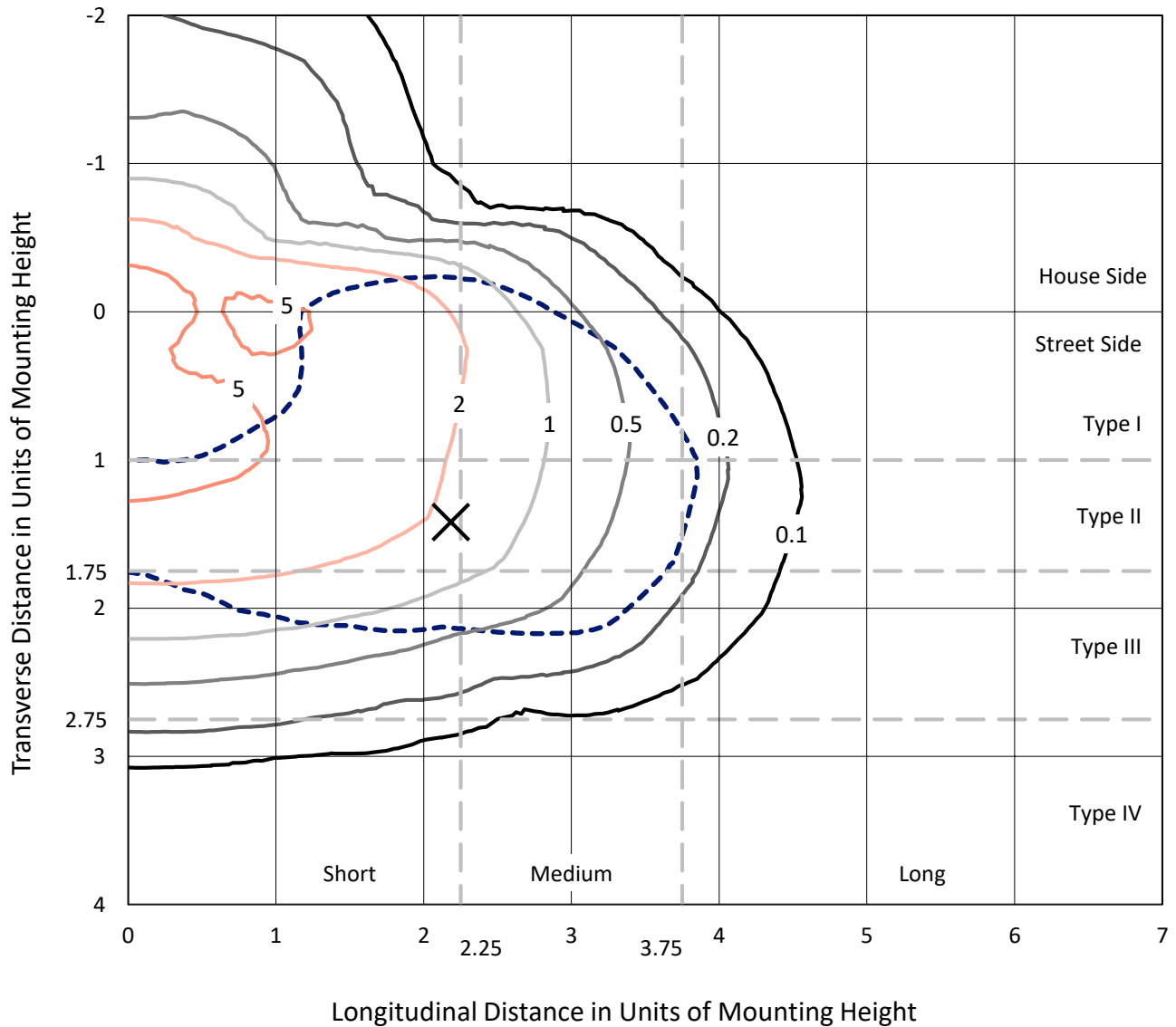
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270305
 CATALOG NUMBER: NAV-AF-01-D-UNV-T3-7027

Iso-Footcandle Lines of Horizontal Illumination

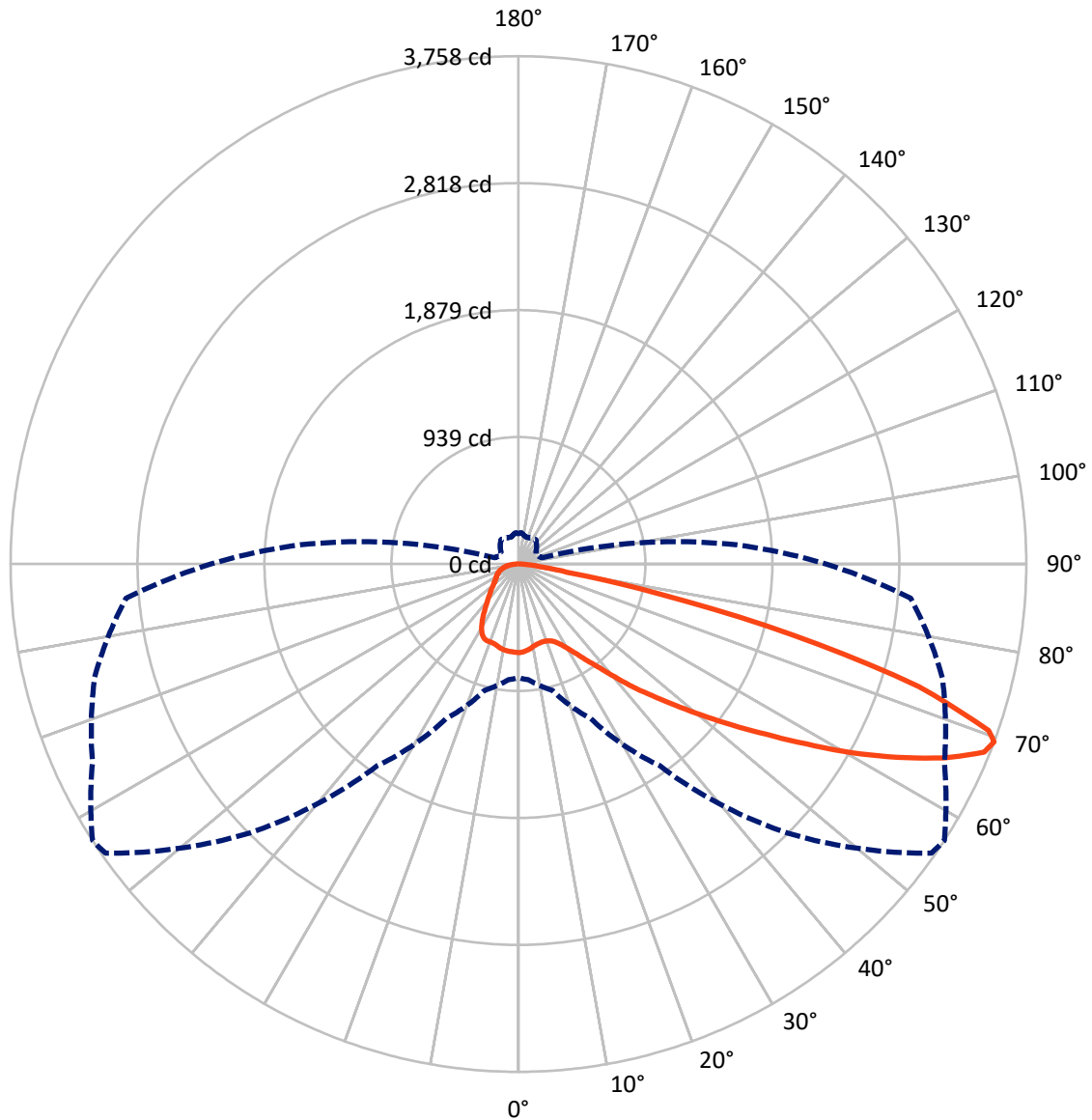
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.7 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P270305
CATALOG NUMBER: NAV-AF-01-D-UNV-T3-7027

Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P270305

CATALOG NUMBER: NAV-AF-01-D-UNV-T3-7027

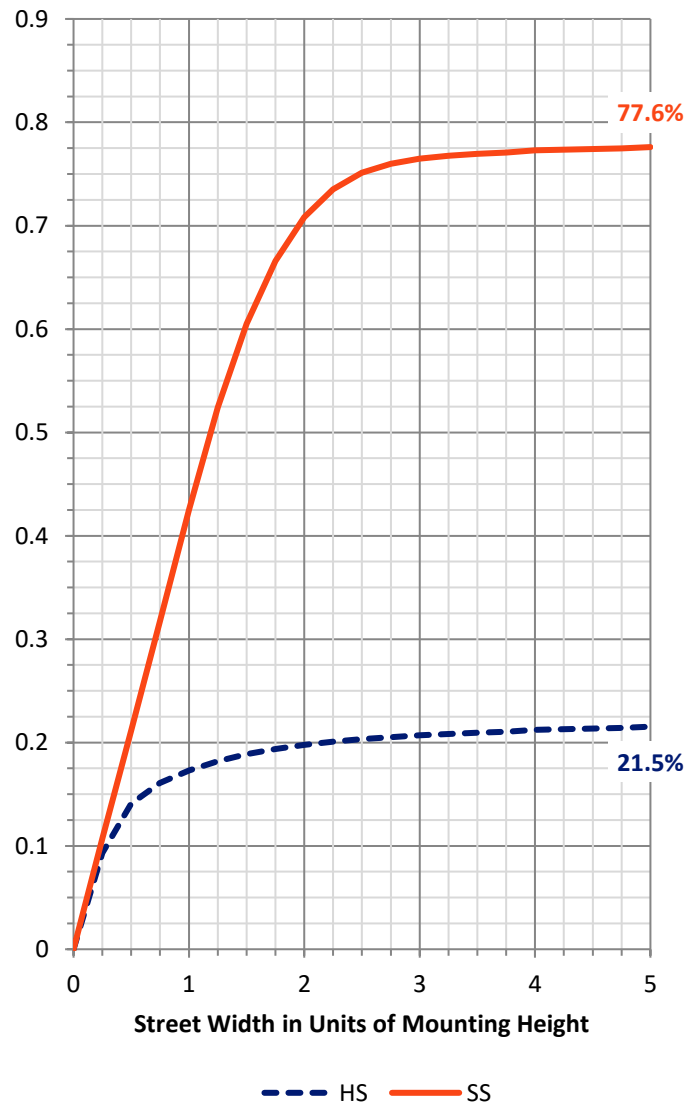
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1171.5	0.0	1171.5
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	4137.4	0.0	4137.4
	% Fixture	77.9	0.0	77.9
Total	Lumens	5308.8	0.0	5308.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.4	1.2
10°-20°	174.6	3.3
20°-30°	290.5	5.5
30°-40°	474.3	8.9
40°-50°	800.5	15.1
50°-60°	1245.2	23.5
60°-70°	1483.4	27.9
70°-80°	691.0	13.0
80°-90°	87.9	1.7
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°	5308.8	100.0
0°-180°	5308.8	100.0



REPORT NUMBER: P270305

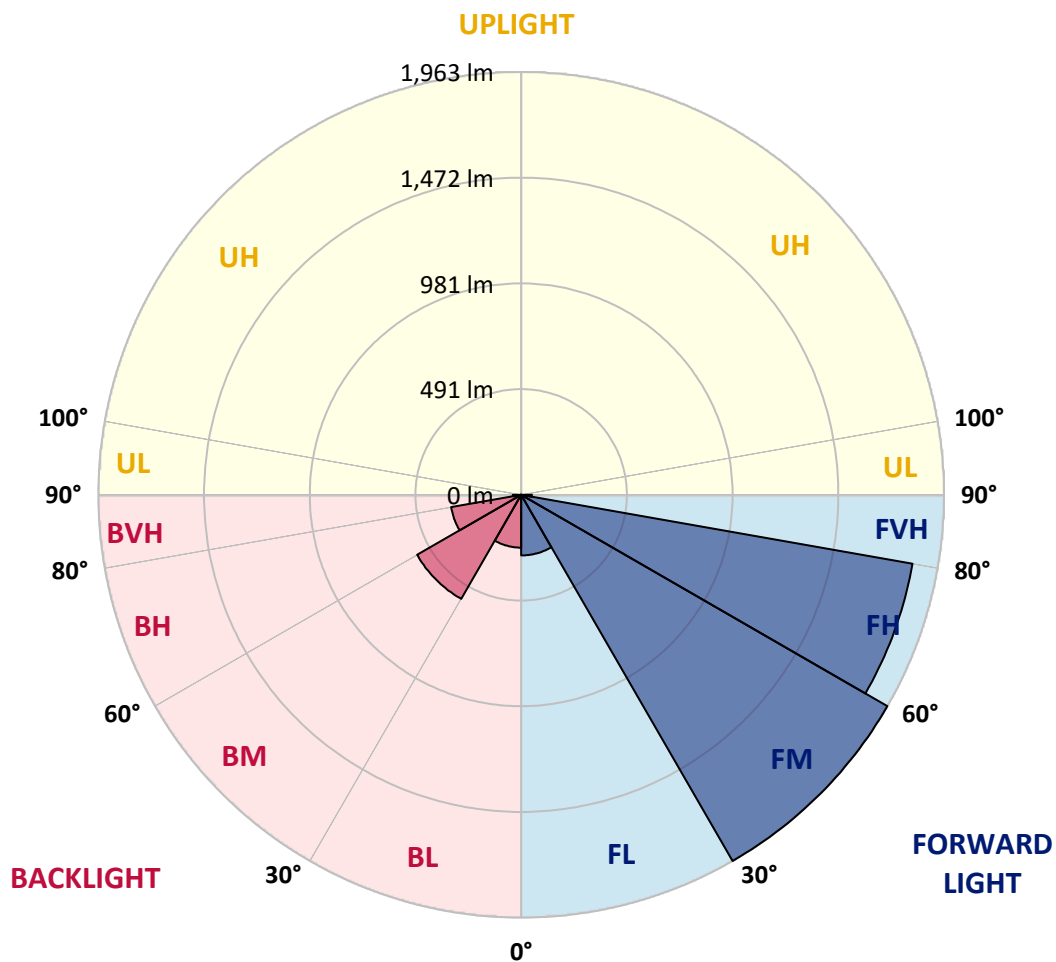
CATALOG NUMBER: NAV-AF-01-D-UNV-T3-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	281.1	5.3			
FM	(30°-60°)	1962.5	37.0			
FH	(60°-80°)	1844.3	34.7			G2/5000
FVH	(80°-90°)	49.4	0.9			G1/100
BL	(0°-30°)	245.3	4.6	B1/500		
BM	(30°-60°)	557.6	10.5	B1/1000		
BH	(60°-80°)	330.1	6.2	B1/500		G1/500
BVH	(80°-90°)	38.5	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 III Short





REPORT NUMBER: P270305

CATALOG NUMBER: NAV-AF-01-D-UNV-T3-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9
2.5°	652.2	652.2	654.0	654.0	654.0	653.2	651.2	651.9	650.6	649.6	647.8
5°	639.0	639.7	641.7	642.4	643.4	643.7	643.7	643.4	643.7	643.7	642.6
7.5°	620.5	621.3	623.7	625.0	628.0	630.8	632.1	632.1	633.8	635.2	635.6
10°	609.4	609.4	610.8	610.8	613.2	614.5	618.9	618.6	623.3	627.7	629.8
12.5°	608.1	608.1	607.3	605.0	603.7	603.3	607.8	608.4	615.5	623.3	627.0
15°	612.5	612.5	610.4	605.6	600.5	598.2	602.7	604.0	611.7	621.0	626.7
17.5°	626.7	626.4	621.9	612.5	603.7	599.9	601.2	602.7	609.7	620.3	627.3
20°	658.4	658.4	648.8	631.5	616.1	607.3	605.3	606.4	611.4	621.3	630.5
22.5°	713.8	714.7	697.8	669.1	643.0	624.3	616.1	617.2	619.7	629.2	639.4
25°	795.3	792.6	768.5	727.9	687.3	655.3	638.6	639.7	639.7	648.4	659.0
27.5°	881.6	882.3	847.6	804.2	750.4	702.8	676.3	676.1	675.6	684.1	695.4
30°	979.2	979.5	939.4	889.1	827.6	766.8	727.0	726.6	723.6	734.2	748.7
32.5°	1086.0	1085.5	1039.0	982.2	913.9	844.9	793.3	792.9	790.6	804.8	822.5
35°	1204.2	1204.2	1157.9	1087.9	1014.1	937.4	877.6	877.3	878.6	897.9	914.7
37.5°	1346.6	1349.7	1293.9	1208.8	1128.5	1046.4	976.7	974.8	964.6	997.2	1024.7
40°	1495.0	1503.7	1445.8	1346.6	1259.6	1175.0	1098.2	1096.8	1087.9	1122.6	1167.2
42.5°	1655.8	1675.2	1611.0	1509.7	1414.9	1323.5	1246.3	1242.5	1208.6	1262.7	1332.2
45°	1866.6	1879.2	1786.0	1694.3	1604.9	1500.6	1408.8	1388.7	1354.7	1424.1	1514.5
47.5°	2010.0	2003.8	1945.8	1884.3	1826.9	1726.9	1585.9	1560.4	1518.9	1610.8	1710.3
50°	2099.1	2103.6	2070.9	2067.8	2064.8	1995.0	1785.7	1755.1	1707.1	1816.0	1932.2
52.5°	2157.9	2137.7	2143.5	2213.0	2296.8	2263.5	2011.8	1977.7	1928.4	2037.1	2168.4
55°	2133.4	2106.9	2160.2	2296.8	2494.4	2501.8	2259.9	2224.8	2182.7	2272.4	2452.6
57.5°	2032.1	2045.4	2129.6	2319.7	2629.2	2715.2	2545.0	2509.2	2426.3	2517.5	2722.5
60°	1889.8	1916.5	2045.4	2283.6	2723.8	2881.5	2858.0	2834.2	2691.4	2756.0	3005.9
62.5°	1736.8	1763.3	1921.7	2222.0	2681.4	3028.6	3165.3	3150.6	2984.1	2985.7	3185.7
65°	1510.7	1521.5	1683.5	2054.2	2563.4	3161.6	3472.8	3459.9	3263.8	3181.8	3236.0
67.5°	1140.9	1154.5	1287.5	1621.5	2204.4	3089.5	3718.5	3716.6	3432.1	3254.6	3116.3
69°	842.5	859.1	967.7	1258.9	1822.8	2814.8	3730.1	3757.7	3477.6	3247.2	2914.1
70°	616.5	635.6	735.8	999.3	1518.2	2511.8	3631.2	3690.3	3460.4	3199.9	2756.4
72.5°	262.0	268.6	317.8	450.9	770.1	1514.5	2974.3	3098.7	3125.2	2867.2	2153.4
75°	164.2	166.1	185.6	231.5	342.7	626.4	1926.1	2095.7	2333.3	2224.6	1441.8
77.5°	123.6	125.5	136.6	159.4	212.8	233.7	893.5	1065.5	1336.4	1308.6	717.4
80°	94.9	95.8	103.3	115.9	149.8	146.5	290.0	364.4	557.8	492.1	254.0
82.5°	74.4	74.7	81.2	83.6	104.7	98.5	145.4	162.1	225.4	187.2	124.1
85°	65.9	67.0	73.4	61.2	67.0	59.5	79.9	86.6	119.7	112.8	46.9
87.5°	33.6	35.4	61.5	52.3	33.6	28.1	35.0	37.6	48.6	52.7	22.7
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: P270305

CATALOG NUMBER: NAV-AF-01-D-UNV-T3-7027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9	655.9
2.5°	648.1	648.4	649.6	651.2	654.0	657.3	661.4	665.5	667.9	669.5	668.9
5°	642.6	643.0	645.2	648.1	651.5	656.7	663.5	668.5	672.3	674.6	674.3
7.5°	635.9	636.9	641.0	644.4	649.1	653.2	658.6	663.5	667.3	669.5	669.1
10°	630.8	631.8	636.9	641.3	645.4	646.2	645.2	643.7	643.4	645.2	644.4
12.5°	628.5	630.5	635.2	638.2	636.5	630.2	622.6	619.7	618.6	621.9	622.3
15°	629.2	630.8	634.9	632.9	623.7	612.9	608.7	611.0	613.2	615.2	615.5
17.5°	630.8	631.8	632.9	625.4	612.5	605.3	604.0	601.5	595.4	592.1	591.8
20°	633.8	635.2	633.6	621.6	610.0	600.5	584.3	569.6	555.7	548.2	545.1
22.5°	644.4	645.4	640.3	628.8	611.0	580.1	547.2	522.0	500.6	489.0	484.6
25°	665.1	666.8	659.6	645.2	598.9	544.8	498.3	464.2	437.5	423.6	419.8
27.5°	701.4	703.3	695.4	657.3	570.3	497.7	441.2	407.6	384.5	372.4	370.8
30°	755.8	758.3	751.2	657.0	526.8	437.5	385.5	365.7	352.4	344.3	344.0
32.5°	831.3	840.2	810.9	645.4	473.0	376.6	343.3	336.4	329.9	324.6	324.6
35°	927.2	947.9	870.1	621.3	413.9	335.1	319.8	313.4	305.2	299.4	298.7
37.5°	1041.8	1074.1	912.1	578.5	362.9	315.0	305.6	295.1	282.1	270.8	268.1
40°	1199.1	1206.6	933.0	508.8	324.9	304.2	292.3	279.1	262.8	250.2	248.8
42.5°	1357.1	1332.6	928.8	434.1	303.2	294.4	278.7	264.1	249.5	238.9	238.9
45°	1536.9	1442.8	897.9	359.0	283.4	283.1	266.1	252.2	240.9	233.2	231.5
47.5°	1708.8	1541.8	844.5	303.4	263.1	271.8	258.0	246.8	236.6	229.1	227.7
50°	1917.6	1656.2	787.9	264.8	243.4	262.0	254.6	248.8	238.9	226.1	224.7
52.5°	2124.9	1790.1	743.9	235.5	226.1	254.2	256.6	257.3	248.1	223.0	221.3
55°	2347.5	1933.2	697.8	212.8	211.7	250.4	261.3	260.7	256.2	223.7	221.0
57.5°	2559.2	2077.1	628.8	196.8	200.5	246.8	262.3	251.5	243.7	227.0	222.6
60°	2734.6	2195.9	527.5	185.6	191.0	239.3	255.6	239.3	226.1	226.4	222.3
62.5°	2819.9	2229.2	403.3	172.7	183.2	227.0	245.7	230.1	217.8	227.7	225.4
65°	2755.0	2134.5	287.5	160.7	173.7	212.8	239.9	222.3	213.7	234.5	231.9
67.5°	2521.9	1876.1	208.6	150.2	164.5	198.2	229.1	215.1	209.8	239.6	233.5
69°	2274.1	1619.9	180.7	144.1	158.0	190.4	221.9	211.5	206.6	232.5	223.7
70°	2068.2	1422.3	166.8	140.3	152.6	185.9	216.5	209.0	203.6	223.9	213.4
72.5°	1482.9	919.3	140.3	129.1	138.2	176.1	204.6	200.2	192.1	202.2	195.4
75°	895.9	480.0	119.3	117.6	123.3	162.5	190.7	185.2	177.1	178.1	174.7
77.5°	411.7	221.6	99.9	104.1	107.7	145.4	173.7	167.5	160.1	157.4	157.7
80°	180.5	129.4	83.6	88.8	90.8	130.9	155.3	148.5	140.3	155.0	143.8
82.5°	97.6	75.1	65.2	68.7	74.4	113.8	134.9	126.1	118.2	137.6	111.1
85°	39.4	38.4	44.1	47.6	51.7	81.9	112.8	103.7	94.1	84.4	82.3
87.5°	17.0	18.3	21.7	23.0	27.5	50.9	75.7	66.3	66.7	57.1	56.1
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)