

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: P196537

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
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-SL2-7030-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3175.1 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 34
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

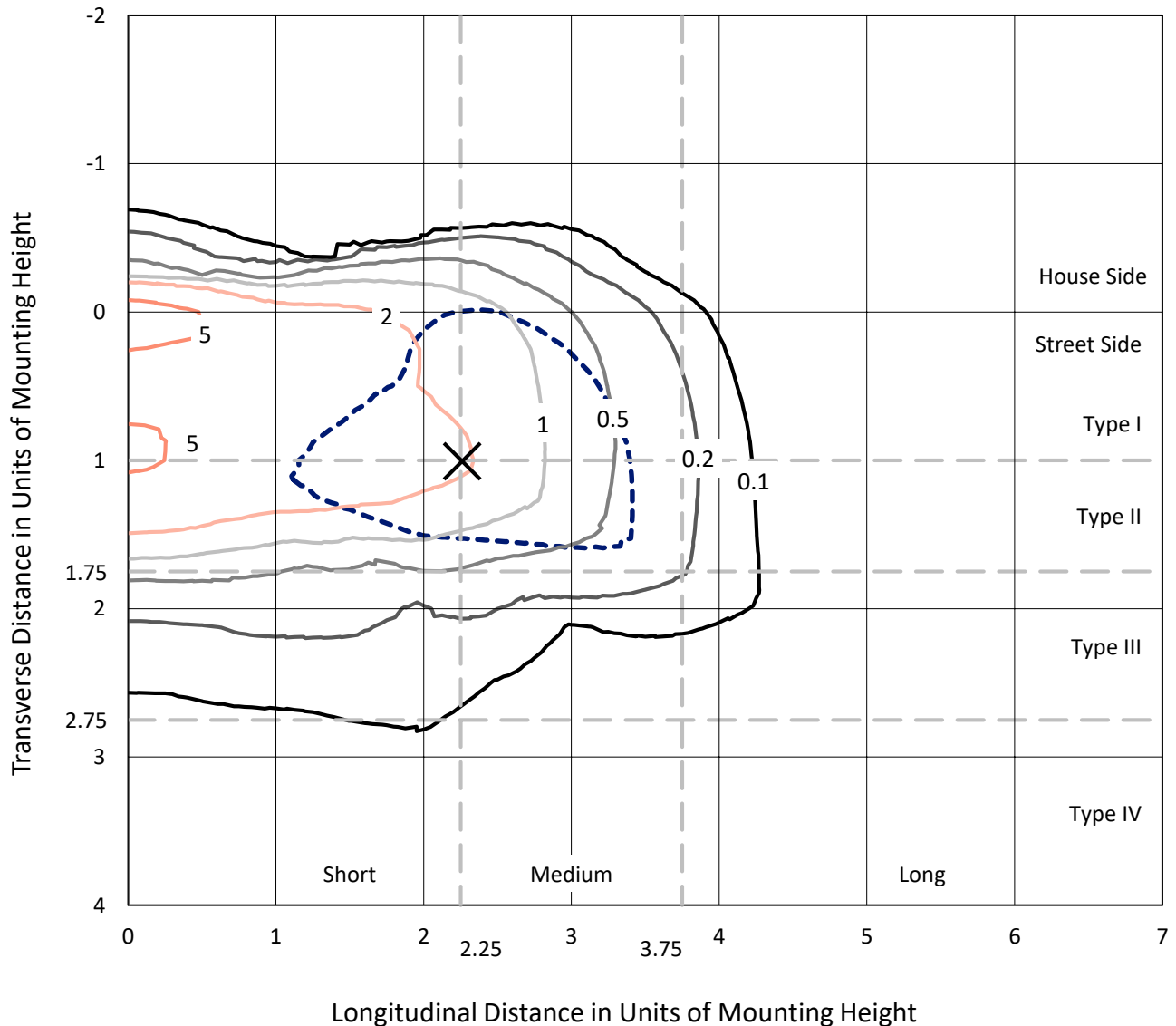


REPORT NUMBER: P196537

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-600-HSS

Iso-Footcandle Lines of Horizontal Illumination

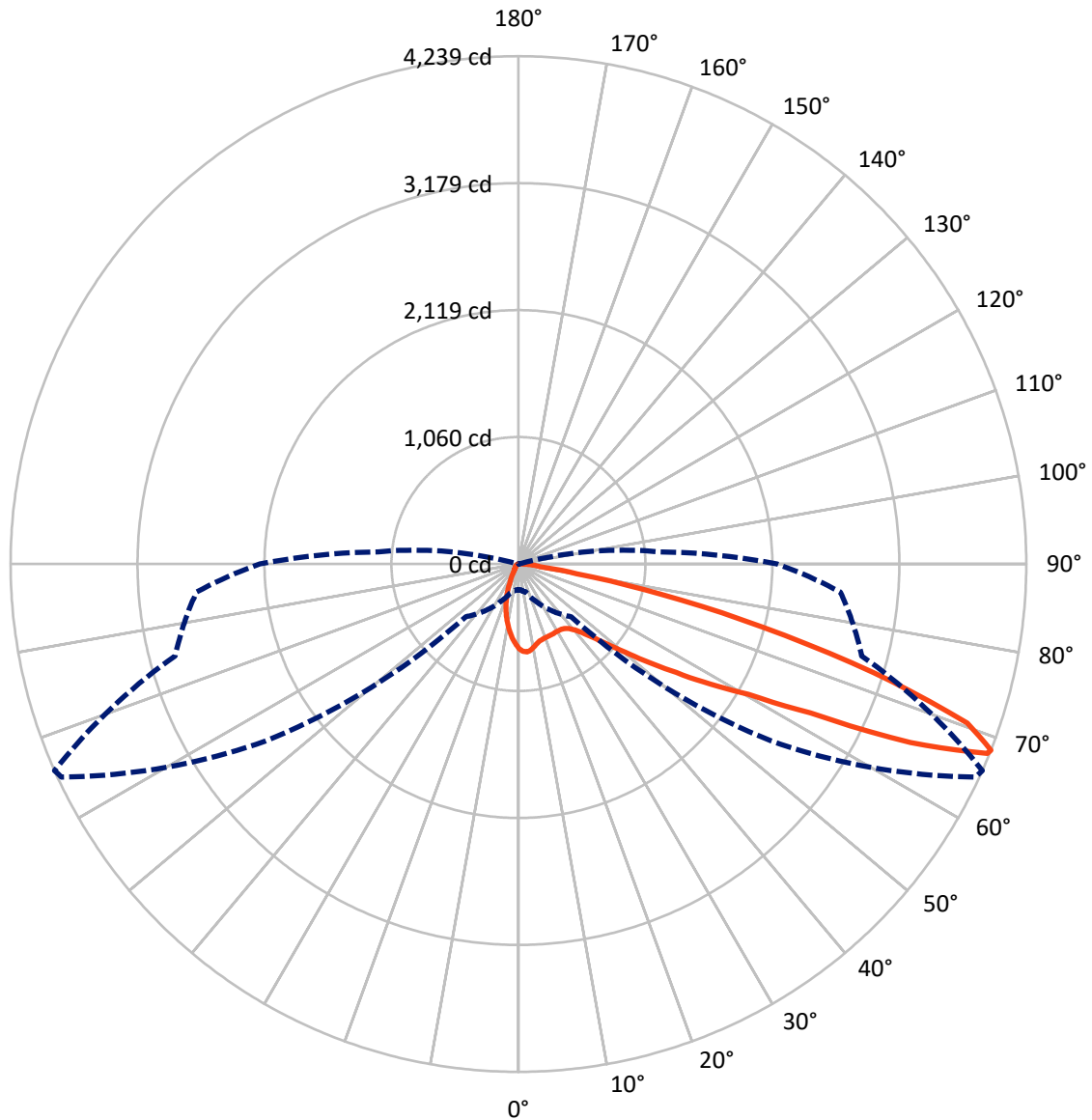
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P196537
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-600-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P196537

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-600-HSS

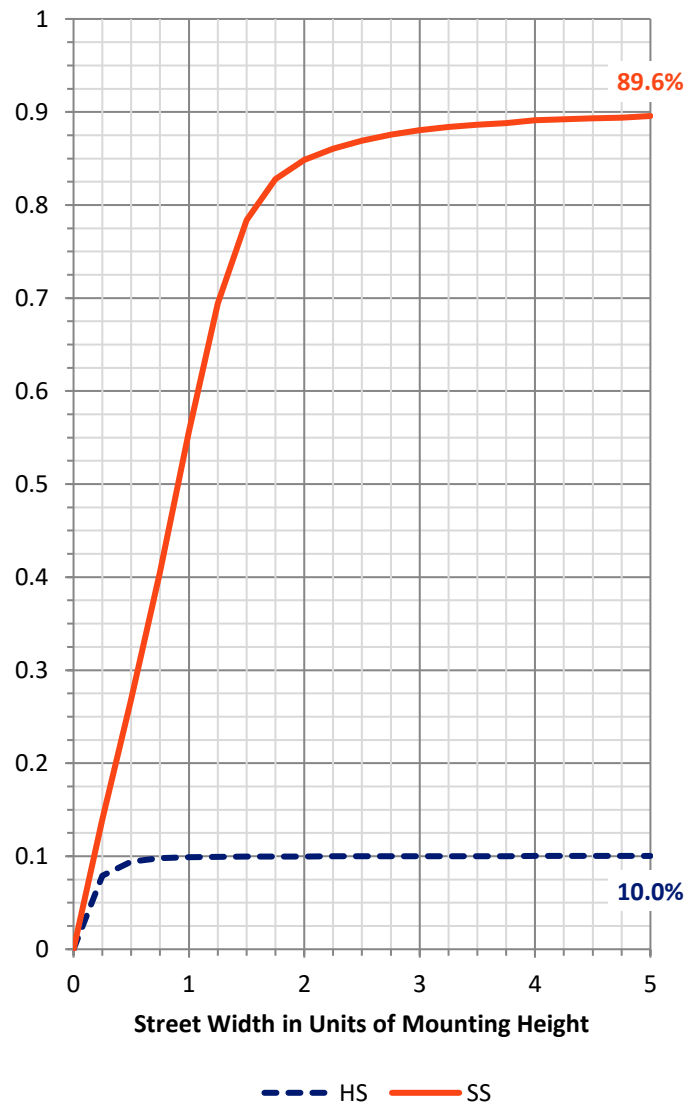
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	321.6	0.0	321.6
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	2853.5	0.0	2853.5
	% Fixture	89.9	0.0	89.9
Total	Lumens	3175.1	0.0	3175.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	1.8
10°-20°	124.8	3.9
20°-30°	180.8	5.7
30°-40°	276.8	8.7
40°-50°	473.4	14.9
50°-60°	740.6	23.3
60°-70°	852.7	26.9
70°-80°	426.7	13.4
80°-90°	41.3	1.3
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°	3175.1	100.0
0°-180°	3175.1	100.0



REPORT NUMBER: P196537

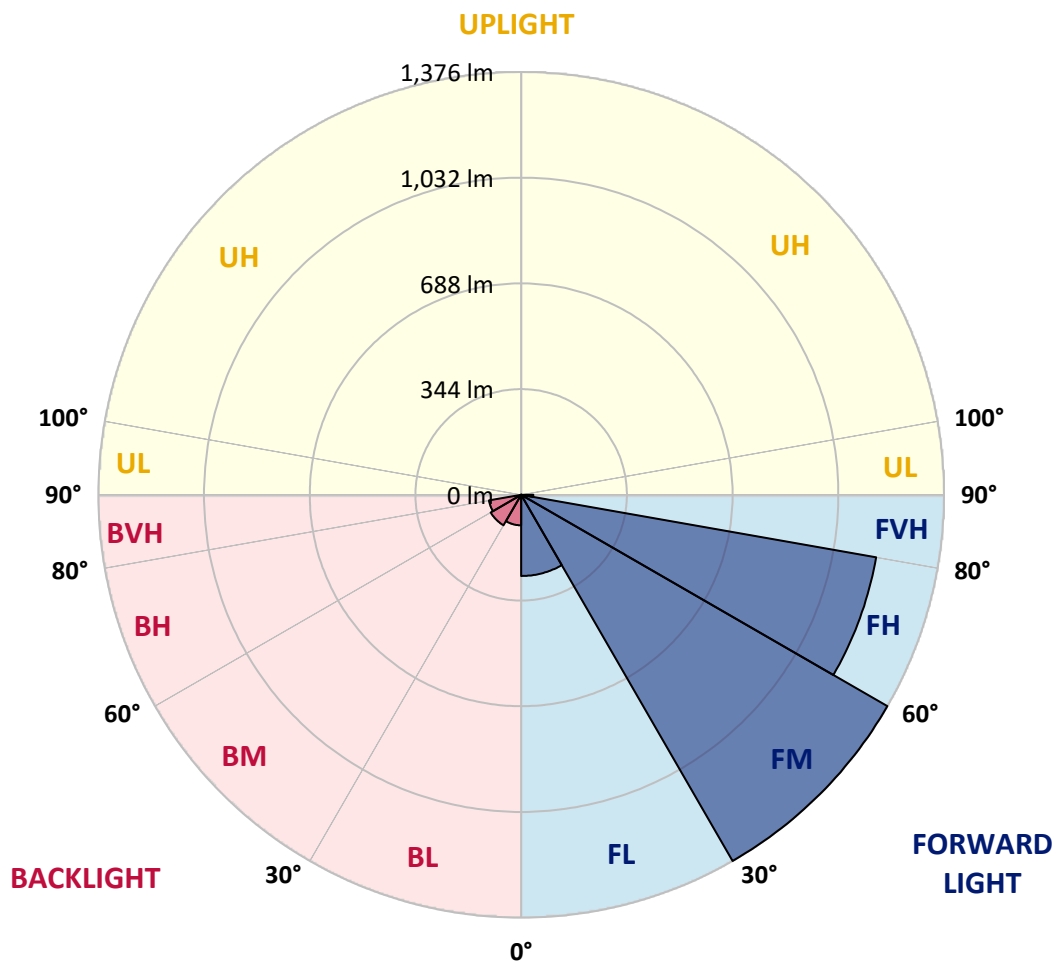
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-600-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	264.3	8.3			
FM (30°-60°)	1376.2	43.3			
FH (60°-80°)	1173.2	36.9			G1/1800
FVH (80°-90°)	39.8	1.3			G1/100
BL (0°-30°)	99.3	3.1	B0/110		
BM (30°-60°)	114.5	3.6	B0/220		
BH (60°-80°)	106.3	3.3	B0/110		G0/110
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





REPORT NUMBER: P196537

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-600-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
2.5°	744.0	744.5	744.3	745.0	744.5	740.8	736.7	728.3	729.1	718.1	706.0
5°	691.7	695.9	700.2	704.4	714.5	723.7	734.3	736.7	736.7	727.3	709.4
7.5°	638.3	638.6	643.3	649.0	662.7	679.3	704.1	726.6	727.1	729.6	709.8
10°	598.2	599.4	602.7	608.9	622.7	638.8	666.7	701.9	704.6	723.1	704.8
12.5°	567.0	568.5	572.1	579.3	591.7	608.5	637.8	678.0	681.7	716.8	703.4
15°	543.1	545.1	547.8	555.0	568.5	586.2	618.4	662.0	666.5	714.3	708.1
17.5°	533.1	533.1	532.8	537.9	551.3	569.2	602.9	653.6	659.3	716.3	716.0
20°	537.3	536.7	531.4	530.1	538.4	556.3	590.8	648.0	654.6	720.1	725.8
22.5°	559.9	558.4	546.7	536.9	534.4	546.4	582.5	644.3	652.1	727.7	738.8
25°	607.4	602.9	586.7	564.8	545.1	543.9	576.8	642.3	650.5	736.7	753.1
27.5°	669.2	668.0	642.1	612.6	574.8	552.1	575.0	640.8	649.0	743.3	764.5
30°	746.0	746.5	716.6	678.2	620.9	575.2	580.5	640.0	648.6	743.7	769.4
32.5°	825.2	825.8	800.9	759.7	684.0	615.1	596.0	643.5	651.3	741.8	769.1
35°	901.5	902.3	887.3	854.2	768.2	670.6	625.1	655.5	661.0	743.1	768.6
37.5°	998.0	1001.1	982.6	951.6	873.8	751.7	672.7	679.7	684.2	753.3	772.5
40°	1162.5	1158.4	1105.7	1053.4	988.6	850.7	741.6	721.3	722.9	779.7	786.6
42.5°	1354.2	1349.3	1258.7	1168.5	1106.5	970.1	829.5	785.1	784.9	824.1	817.6
45°	1519.1	1516.2	1421.0	1300.6	1237.1	1102.0	937.9	877.2	874.1	900.9	873.8
47.5°	1636.3	1633.9	1561.9	1441.1	1388.0	1246.9	1073.3	1002.5	996.2	1001.3	965.3
50°	1647.8	1645.0	1619.9	1542.4	1564.6	1459.8	1240.5	1166.8	1158.8	1151.0	1103.7
52.5°	1540.7	1540.3	1553.5	1548.6	1688.2	1733.8	1445.6	1369.9	1360.4	1340.7	1293.6
55°	1321.5	1320.3	1370.4	1443.2	1685.5	2016.5	1758.4	1611.7	1599.2	1559.7	1498.1
57.5°	965.7	959.1	1063.8	1218.1	1567.0	2140.1	2255.2	1912.0	1891.3	1766.4	1671.2
60°	533.1	535.6	670.2	853.0	1286.6	2115.7	2712.4	2262.2	2207.9	1944.7	1848.6
62.5°	298.9	305.1	405.3	554.4	820.3	1917.5	2957.6	2864.9	2734.0	2152.5	2072.9
65°	226.0	229.8	280.1	427.7	517.3	1339.9	2996.8	3707.6	3594.7	2467.6	2430.3
67.5°	212.8	215.9	240.5	354.6	471.1	694.9	2702.1	4206.2	4220.3	2897.3	2706.9
68°	214.3	218.1	242.8	341.2	470.4	621.6	2576.6	4208.6	4238.8	2966.6	2697.4
70°	196.8	197.9	256.8	334.8	455.8	489.8	1863.9	3920.2	3974.3	3049.1	2448.6
72.5°	75.3	75.5	115.2	289.9	477.6	492.5	939.0	3098.5	3101.3	2653.6	1909.0
75°	39.2	32.9	36.2	90.6	456.1	480.0	471.1	2115.7	2102.4	1794.6	1169.7
77.5°	26.9	23.0	24.1	31.3	189.7	479.7	340.3	1216.6	1213.9	763.5	333.8
80°	15.2	13.2	14.4	26.4	66.5	450.3	317.1	523.0	492.8	134.1	54.1
82.5°	7.7	6.4	7.7	22.2	41.4	283.4	308.3	205.1	182.7	31.9	35.2
85°	1.9	1.9	3.8	15.4	25.6	93.0	276.4	148.0	133.1	13.9	24.9
87.5°	0.5	0.2	1.5	5.7	9.2	20.2	153.3	82.5	71.0	7.2	14.4
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: P196537

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-600-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4	707.4
2.5°	700.9	693.9	680.2	664.8	653.8	641.8	634.8	626.4	619.9	614.1	618.4
5°	698.3	684.9	654.6	620.4	591.7	564.4	543.9	524.5	509.7	500.5	504.2
7.5°	691.9	672.0	622.7	569.2	522.5	478.3	442.4	410.3	385.3	371.9	376.1
10°	680.9	652.9	586.5	512.4	446.9	384.6	331.3	283.4	247.3	230.3	234.3
12.5°	672.9	635.9	549.1	457.6	371.4	282.9	212.1	157.3	129.2	112.2	113.6
15°	669.5	622.7	514.2	399.8	288.9	181.7	114.6	83.0	73.3	69.8	70.0
17.5°	670.0	612.2	481.1	339.7	205.6	104.5	70.3	63.3	61.8	61.0	61.0
20°	671.3	601.7	446.7	277.2	131.6	67.3	58.6	56.4	55.6	54.6	54.8
22.5°	675.0	593.8	412.0	214.3	81.0	54.8	51.9	49.8	48.6	47.1	47.3
25°	680.6	587.7	377.8	154.3	57.1	47.8	45.2	42.4	40.1	38.4	38.7
27.5°	684.2	579.3	341.4	105.2	47.3	41.8	38.1	34.4	31.9	30.4	30.1
30°	681.7	565.5	300.1	69.1	41.8	36.2	31.6	27.5	24.9	23.7	23.7
32.5°	675.0	547.8	254.5	50.4	37.1	31.1	25.6	22.0	20.2	19.4	19.6
35°	667.2	529.4	205.9	42.6	33.5	26.4	21.0	17.9	17.2	16.9	16.9
37.5°	662.9	513.4	159.3	38.7	29.9	22.0	17.2	15.4	14.7	14.7	14.7
40°	667.8	501.3	117.9	35.6	26.4	18.2	14.4	13.2	13.0	13.0	13.0
42.5°	687.9	497.0	86.2	33.1	23.0	15.2	12.4	11.5	11.3	11.5	11.5
45°	727.3	506.2	65.3	30.7	19.6	12.4	10.7	10.0	10.0	10.3	10.3
47.5°	794.1	529.9	53.5	28.2	16.5	10.5	9.2	8.7	8.7	9.0	9.0
50°	897.8	573.8	48.1	25.4	13.6	9.0	7.7	7.4	7.4	7.7	7.9
52.5°	1055.3	657.3	45.4	22.7	11.3	7.4	6.4	6.2	6.4	6.8	6.8
55°	1230.6	764.2	42.2	20.0	9.5	6.2	5.3	5.3	5.5	6.0	6.0
57.5°	1393.8	867.4	39.2	16.5	8.2	5.0	4.3	4.3	4.7	5.3	5.3
60°	1566.3	968.6	35.2	13.2	7.0	4.1	3.5	3.5	4.3	4.7	5.0
62.5°	1779.4	1086.2	29.9	10.5	5.5	2.9	2.5	3.3	4.1	4.7	4.7
65°	2087.5	1232.6	23.4	8.2	4.3	2.3	1.9	2.9	3.8	4.5	4.7
67.5°	2199.4	1213.9	17.7	6.8	3.3	1.7	1.7	2.7	3.8	4.5	4.5
68°	2158.5	1173.0	16.9	6.4	2.9	1.7	1.7	2.7	3.8	4.5	4.5
70°	1880.9	958.9	13.9	5.0	2.5	1.5	1.5	2.5	3.8	4.3	4.5
72.5°	1408.3	637.1	12.0	3.3	2.3	1.5	1.2	2.5	3.5	4.3	4.3
75°	807.9	264.4	10.3	2.5	1.9	1.2	1.2	2.3	3.5	4.3	4.3
77.5°	228.4	61.8	8.2	1.9	1.7	1.2	1.0	2.3	3.3	4.1	4.1
80°	41.8	18.5	6.4	1.7	1.5	1.2	1.0	2.3	3.3	4.1	4.1
82.5°	27.7	8.7	4.7	1.7	1.5	1.2	1.0	1.9	2.9	3.8	3.8
85°	20.6	6.2	2.9	1.7	1.5	1.2	1.0	1.9	2.9	3.8	3.8
87.5°	11.5	2.7	2.3	1.9	1.7	1.2	1.0	1.7	2.7	3.5	3.5
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)