

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: P270267

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270267  
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-SL2-7027-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 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: 2852.2 lumens  
Efficiency: N/A  
Efficacy: 83.9 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

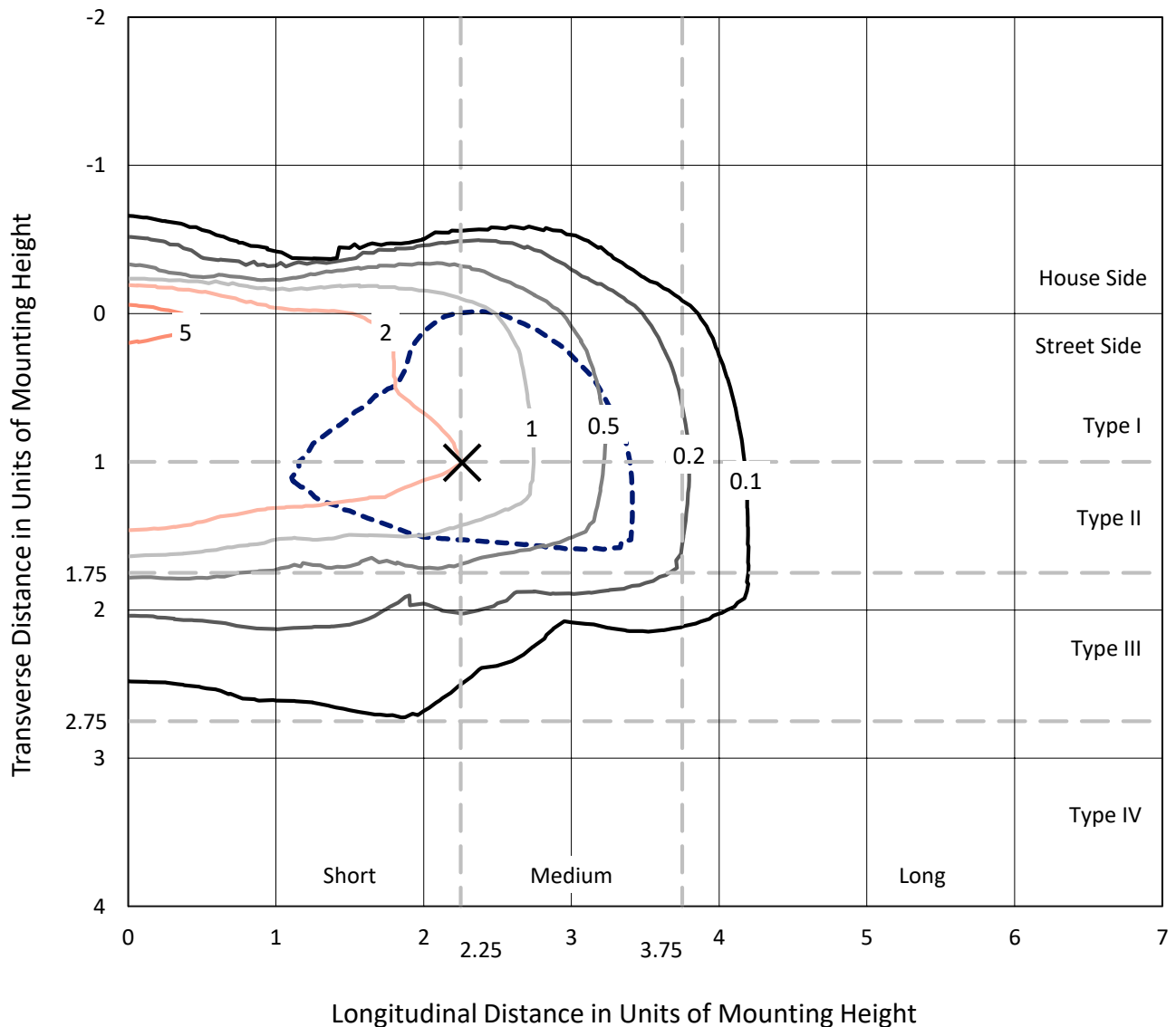


REPORT NUMBER: P270267

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

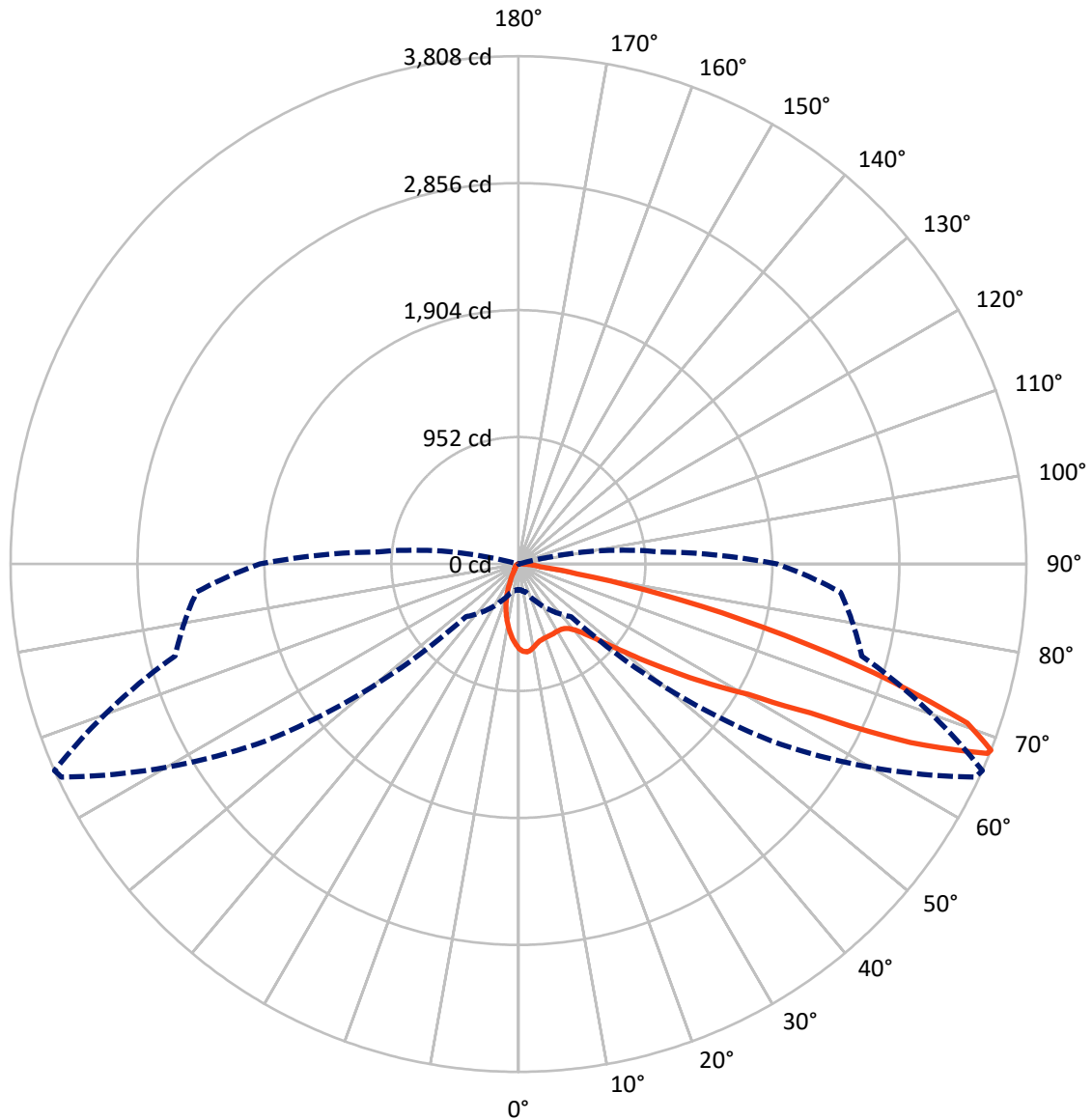


Based on 10 foot mounting height. Maximum calculated value = 6.4 fc  
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P270267

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P270267

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600-HSS

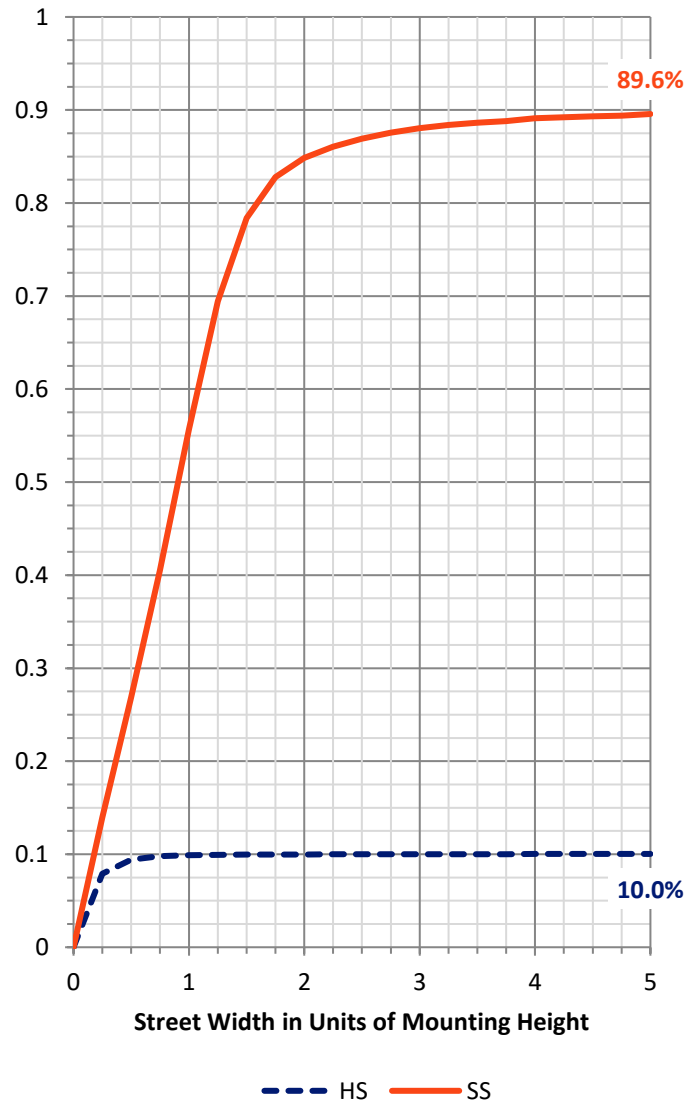
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	288.9	0.0	288.9
	% Fixture	10.1	0.0	10.1
<b>Street Side</b>	Lumens	2563.3	0.0	2563.3
	% Fixture	89.9	0.0	89.9
<b>Total</b>	Lumens	2852.2	0.0	2852.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	1.8
10°-20°	112.1	3.9
20°-30°	162.4	5.7
30°-40°	248.6	8.7
40°-50°	425.3	14.9
50°-60°	665.2	23.3
60°-70°	766.0	26.9
70°-80°	383.3	13.4
80°-90°	37.1	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°	2852.2	100.0
0°-180°	2852.2	100.0



REPORT NUMBER: P270267

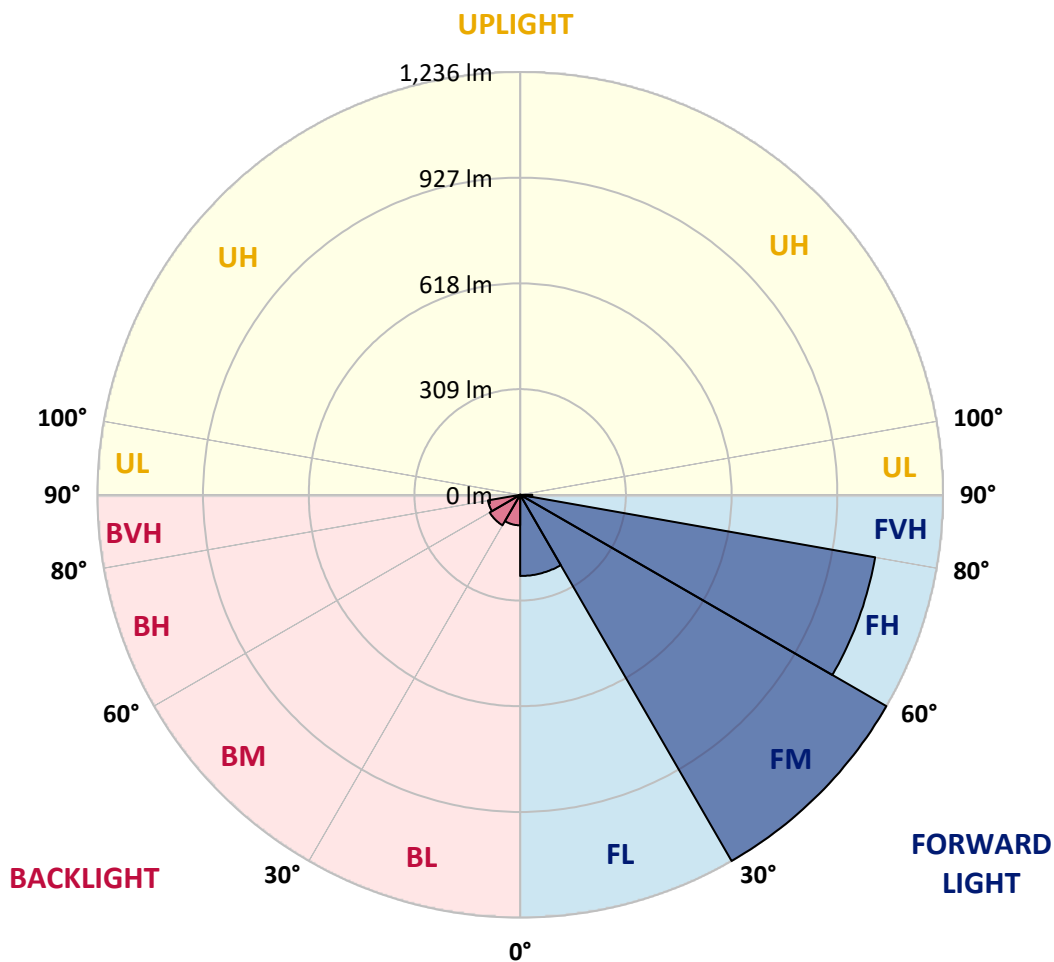
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	237.4	8.3			
FM	(30°-60°)	1236.3	43.3			
FH	(60°-80°)	1053.9	36.9			G1/1800
FVH	(80°-90°)	35.7	1.3			G1/100
BL	(0°-30°)	89.2	3.1	B0/110		
BM	(30°-60°)	102.9	3.6	B0/220		
BH	(60°-80°)	95.5	3.3	B0/110		G0/110
BVH	(80°-90°)	1.4	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: P270267

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
2.5°	668.3	668.8	668.6	669.2	668.8	665.5	661.8	654.2	655.0	645.1	634.2
5°	621.4	625.1	629.0	632.8	641.8	650.1	659.6	661.8	661.8	653.3	637.3
7.5°	573.4	573.7	577.9	583.0	595.3	610.2	632.5	652.7	653.2	655.4	637.6
10°	537.4	538.4	541.4	547.0	559.4	573.8	598.9	630.5	632.9	649.6	633.1
12.5°	509.3	510.7	513.9	520.4	531.5	546.6	572.9	609.1	612.4	643.9	631.9
15°	487.9	489.7	492.1	498.6	510.7	526.6	555.5	594.7	598.7	641.7	636.1
17.5°	478.9	478.9	478.6	483.2	495.2	511.3	541.6	587.1	592.3	643.5	643.2
20°	482.7	482.1	477.4	476.2	483.6	499.7	530.7	582.1	588.0	646.9	652.0
22.5°	503.0	501.6	491.1	482.3	480.1	490.8	523.3	578.8	585.8	653.7	663.7
25°	545.6	541.6	527.0	507.4	489.7	488.6	518.1	577.0	584.3	661.8	676.5
27.5°	601.1	600.1	576.8	550.3	516.3	496.0	516.5	575.6	583.0	667.7	686.8
30°	670.1	670.6	643.7	609.2	557.8	516.7	521.5	574.9	582.6	668.1	691.2
32.5°	741.3	741.8	719.5	682.4	614.4	552.5	535.4	578.1	585.1	666.4	690.9
35°	809.8	810.5	797.1	767.3	690.1	602.4	561.5	588.8	593.8	667.5	690.4
37.5°	896.5	899.3	882.7	854.8	784.9	675.3	604.3	610.6	614.6	676.7	693.9
40°	1044.3	1040.6	993.3	946.3	888.1	764.2	666.2	647.9	649.4	700.4	706.6
42.5°	1216.5	1212.1	1130.7	1049.7	994.0	871.4	745.1	705.3	705.1	740.3	734.5
45°	1364.6	1362.0	1276.5	1168.3	1111.3	989.9	842.5	788.0	785.2	809.3	784.9
47.5°	1469.9	1467.7	1403.1	1294.5	1246.8	1120.1	964.2	900.6	894.9	899.5	867.1
50°	1480.2	1477.7	1455.2	1385.5	1405.5	1311.3	1114.3	1048.1	1041.0	1033.9	991.5
52.5°	1384.0	1383.7	1395.5	1391.1	1516.5	1557.5	1298.6	1230.6	1222.1	1204.4	1162.0
55°	1187.1	1186.0	1231.0	1296.4	1514.1	1811.4	1579.6	1447.8	1436.6	1401.1	1345.8
57.5°	867.5	861.6	955.6	1094.2	1407.6	1922.5	2025.9	1717.6	1699.0	1586.8	1501.2
60°	478.9	481.1	602.0	766.3	1155.8	1900.5	2436.6	2032.1	1983.4	1746.9	1660.6
62.5°	268.5	274.1	364.1	498.0	736.9	1722.5	2656.8	2573.6	2456.0	1933.6	1862.1
65°	203.0	206.4	251.6	384.2	464.7	1203.6	2692.0	3330.6	3229.1	2216.7	2183.2
67.5°	191.2	193.9	216.0	318.5	423.2	624.2	2427.3	3778.5	3791.1	2602.7	2431.6
68°	192.5	195.9	218.1	306.5	422.6	558.4	2314.6	3780.6	3807.7	2664.9	2423.1
70°	176.8	177.8	230.7	300.8	409.4	440.0	1674.4	3521.5	3570.1	2739.0	2199.6
72.5°	67.6	67.8	103.5	260.4	429.0	442.4	843.5	2783.4	2785.9	2383.7	1714.9
75°	35.2	29.6	32.5	81.4	409.7	431.2	423.2	1900.5	1888.6	1612.1	1050.7
77.5°	24.2	20.7	21.6	28.1	170.4	430.9	305.7	1092.9	1090.5	685.9	299.9
80°	13.7	11.9	12.9	23.7	59.7	404.5	284.9	469.8	442.7	120.5	48.6
82.5°	6.9	5.7	6.9	19.9	37.2	254.6	276.9	184.2	164.1	28.7	31.6
85°	1.7	1.7	3.4	13.8	23.0	83.5	248.3	132.9	119.6	12.5	22.4
87.5°	0.4	0.2	1.3	5.1	8.3	18.1	137.7	74.1	63.8	6.5	12.9
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: P270267

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7027-600-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
2.5°	629.6	623.3	611.0	597.2	587.3	576.5	570.2	562.7	556.9	551.6	555.5
5°	627.3	615.2	588.0	557.3	531.5	507.0	488.6	471.2	457.9	449.6	452.9
7.5°	621.5	603.7	559.4	511.3	469.4	429.7	397.4	368.6	346.1	334.1	337.9
10°	611.7	586.5	526.9	460.3	401.5	345.5	297.6	254.6	222.2	206.9	210.5
12.5°	604.5	571.2	493.3	411.1	333.6	254.1	190.5	141.3	116.1	100.8	102.0
15°	601.4	559.4	461.9	359.1	259.5	163.2	102.9	74.6	65.8	62.7	62.9
17.5°	601.9	549.9	432.2	305.2	184.7	93.9	63.2	56.9	55.5	54.8	54.8
20°	603.0	540.5	401.3	249.0	118.2	60.5	52.6	50.7	49.9	49.0	49.2
22.5°	606.4	533.4	370.1	192.5	72.8	49.2	46.6	44.7	43.7	42.3	42.5
25°	611.4	527.9	339.4	138.6	51.3	42.9	40.6	38.1	36.0	34.5	34.8
27.5°	614.6	520.4	306.7	94.5	42.5	37.5	34.2	30.9	28.7	27.3	27.0
30°	612.4	508.0	269.6	62.1	37.5	32.5	28.4	24.7	22.4	21.3	21.3
32.5°	606.4	492.1	228.6	45.3	33.3	27.9	23.0	19.8	18.1	17.4	17.6
35°	599.3	475.6	185.0	38.3	30.1	23.7	18.9	16.1	15.5	15.2	15.2
37.5°	595.5	461.2	143.1	34.8	26.9	19.8	15.5	13.8	13.2	13.2	13.2
40°	599.9	450.3	105.9	32.0	23.7	16.3	12.9	11.9	11.7	11.7	11.7
42.5°	617.9	446.5	77.4	29.7	20.7	13.7	11.1	10.3	10.2	10.3	10.3
45°	653.3	454.7	58.7	27.6	17.6	11.1	9.6	9.0	9.0	9.3	9.3
47.5°	713.3	476.0	48.1	25.3	14.8	9.4	8.3	7.8	7.8	8.1	8.1
50°	806.5	515.4	43.2	22.8	12.2	8.1	6.9	6.6	6.6	6.9	7.1
52.5°	948.0	590.5	40.8	20.4	10.2	6.6	5.7	5.6	5.7	6.1	6.1
55°	1105.5	686.5	37.9	18.0	8.5	5.6	4.8	4.8	4.9	5.4	5.4
57.5°	1252.1	779.2	35.2	14.8	7.4	4.5	3.9	3.9	4.2	4.8	4.8
60°	1407.0	870.1	31.6	11.9	6.3	3.7	3.1	3.1	3.9	4.2	4.5
62.5°	1598.4	975.7	26.9	9.4	4.9	2.6	2.2	3.0	3.7	4.2	4.2
65°	1875.2	1107.3	21.0	7.4	3.9	2.1	1.7	2.6	3.4	4.0	4.2
67.5°	1975.7	1090.5	15.9	6.1	3.0	1.5	1.5	2.4	3.4	4.0	4.0
68°	1939.0	1053.7	15.2	5.7	2.6	1.5	1.5	2.4	3.4	4.0	4.0
70°	1689.6	861.4	12.5	4.5	2.2	1.3	1.3	2.2	3.4	3.9	4.0
72.5°	1265.1	572.3	10.8	3.0	2.1	1.3	1.1	2.2	3.1	3.9	3.9
75°	725.7	237.5	9.3	2.2	1.7	1.1	1.1	2.1	3.1	3.9	3.9
77.5°	205.2	55.5	7.4	1.7	1.5	1.1	0.9	2.1	3.0	3.7	3.7
80°	37.5	16.6	5.7	1.5	1.3	1.1	0.9	2.1	3.0	3.7	3.7
82.5°	24.9	7.8	4.2	1.5	1.3	1.1	0.9	1.7	2.6	3.4	3.4
85°	18.5	5.6	2.6	1.5	1.3	1.1	0.9	1.7	2.6	3.4	3.4
87.5°	10.3	2.4	2.1	1.7	1.5	1.1	0.9	1.5	2.4	3.1	3.1
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)