

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: P459853

Luminaire Tested: **NAV-SA3A-AMB-U-SL3**

Issue Date: 1/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SA3A-AMB-U-SL3  
Description: NAVION AREA AND ROADWAY LUMINAIRE  
(3) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3161 lumens  
Efficiency: N/A  
Efficacy: 51.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1

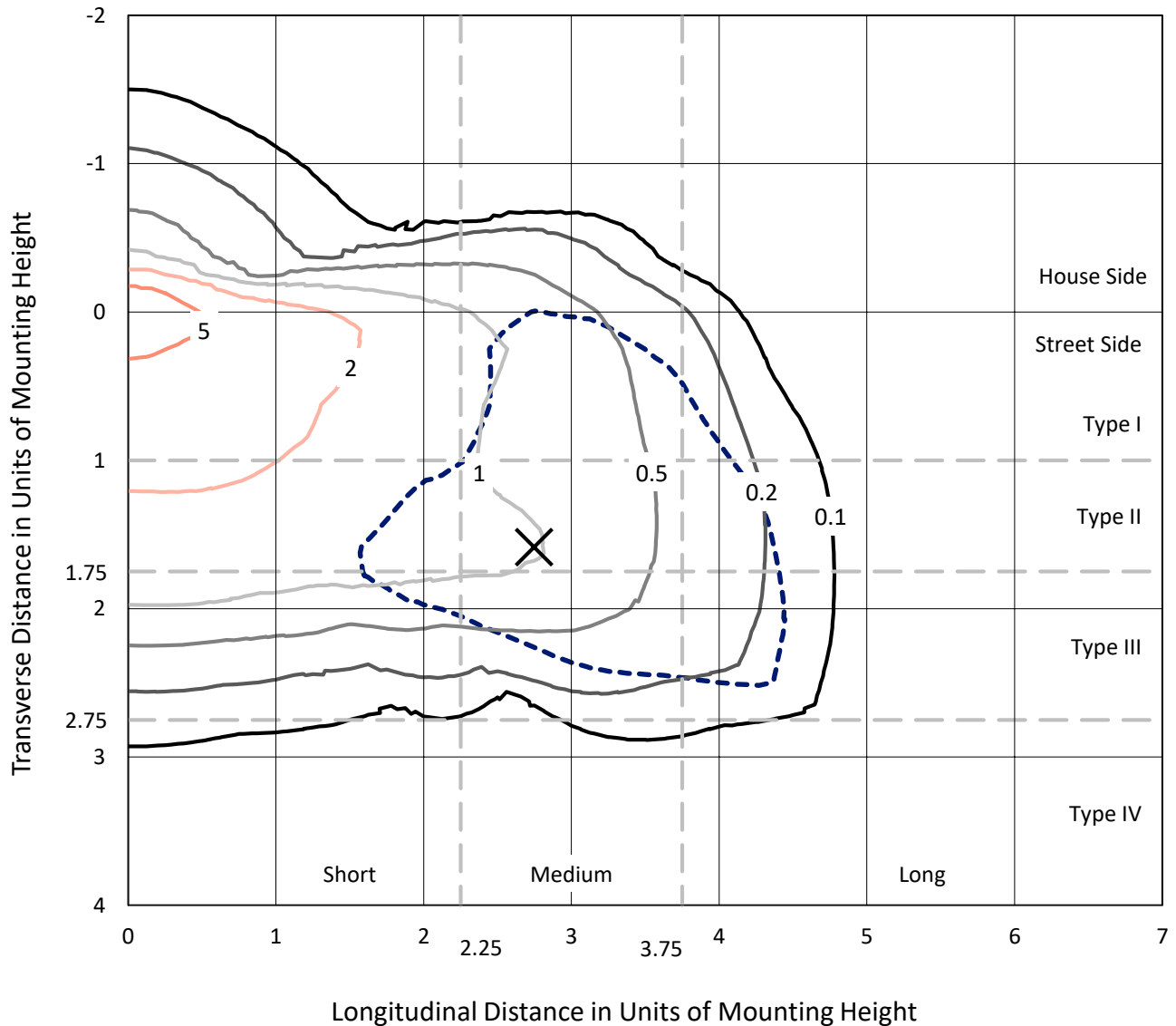
Input Watts (W): 61.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

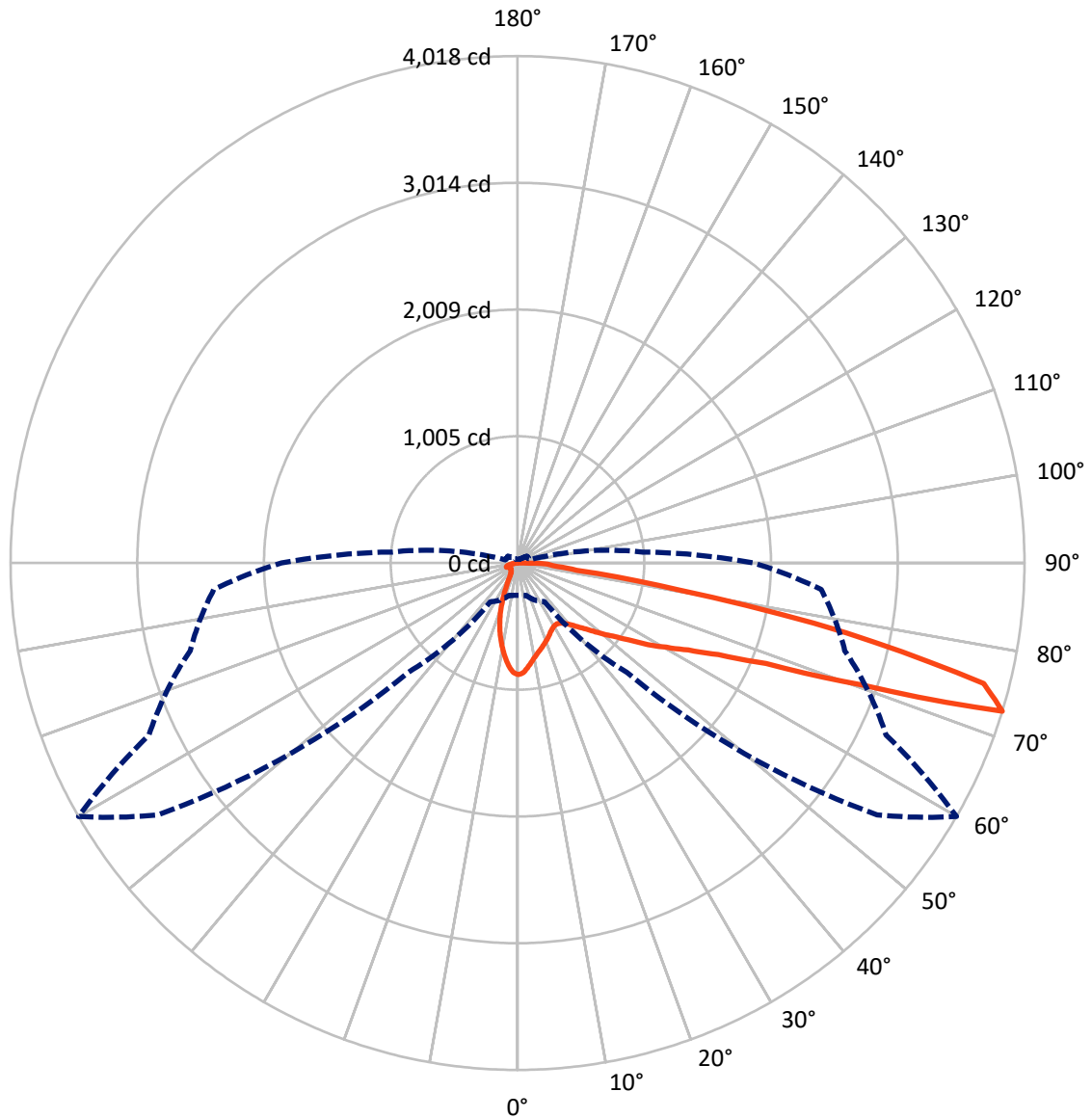


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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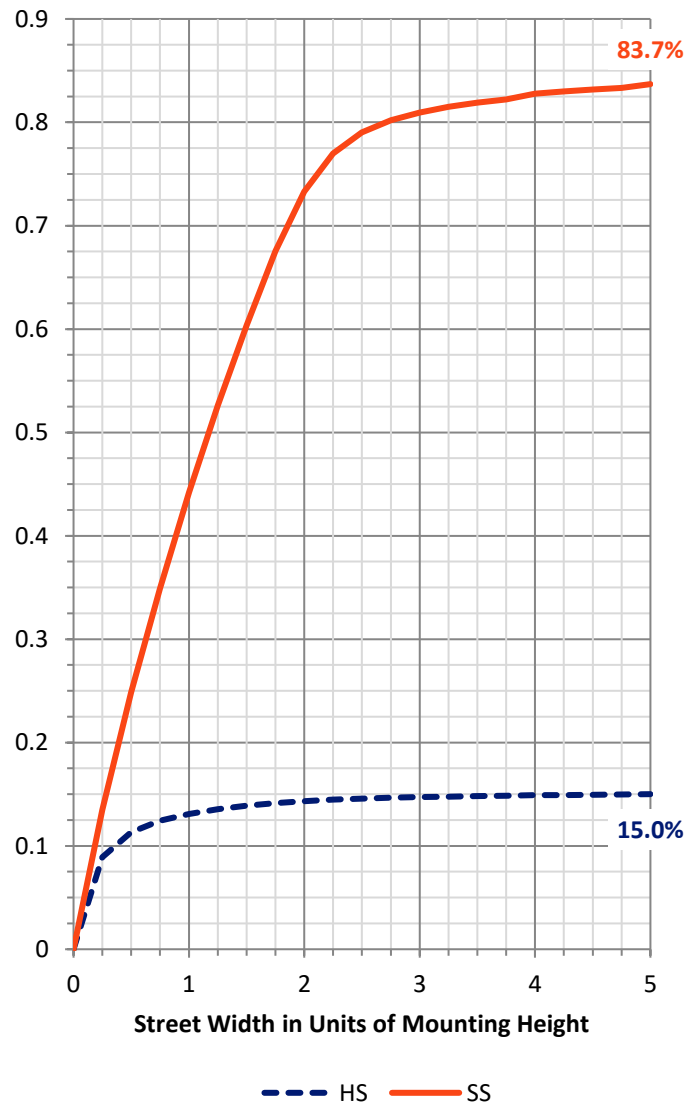
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	480.3	0.0	480.3
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	2680.7	0.0	2680.7
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	3161.0	0.0	3161.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.2	2.3
10°-20°	157.5	5.0
20°-30°	194.7	6.2
30°-40°	246.1	7.8
40°-50°	349.5	11.1
50°-60°	532.8	16.9
60°-70°	803.7	25.4
70°-80°	707.1	22.4
80°-90°	95.5	3.0
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°	3161.0	100.0
0°-180°	3161.0	100.0

**Coefficient of Utilization**



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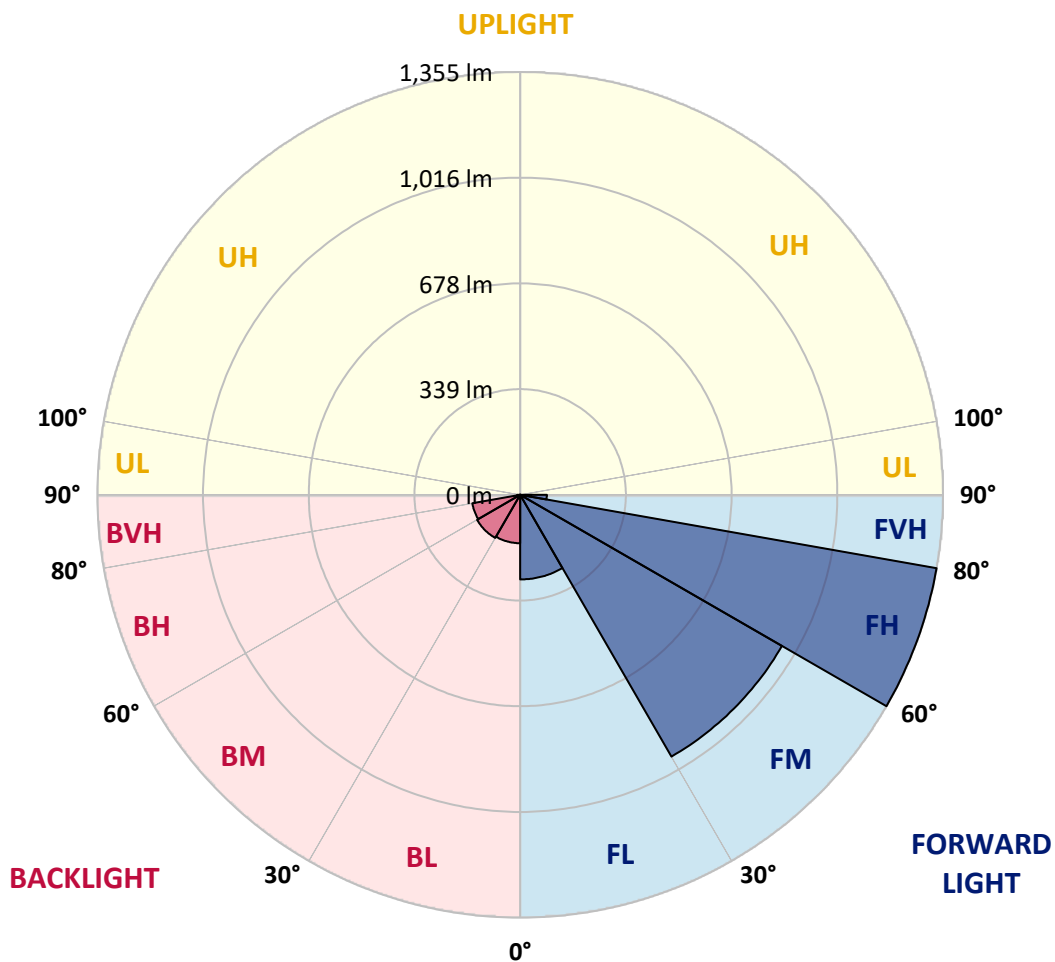
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	271.2	8.6			
FM (30°-60°)	968.8	30.6			
FH (60°-80°)	1355.2	42.9			G1/1800
FVH (80°-90°)	85.5	2.7			G1/100
BL (0°-30°)	155.1	4.9	B1/500		
BM (30°-60°)	159.6	5.0	B0/220		
BH (60°-80°)	155.6	4.9	B1/500		G1/500
BVH (80°-90°)	10.0	0.3			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6
2.5°	859.3	859.3	859.3	864.7	866.1	866.1	871.5	871.5	870.1	875.5	874.2
5°	806.6	809.3	809.3	812.0	820.1	824.2	832.3	833.6	837.7	845.8	851.2
7.5°	741.8	745.8	752.6	763.4	771.5	778.2	793.1	793.1	799.9	812.0	821.5
10°	681.0	682.3	687.7	699.9	716.1	733.6	751.2	756.6	764.7	779.6	794.4
12.5°	639.1	641.8	644.5	655.3	672.8	690.4	717.4	728.2	737.7	755.3	775.5
15°	594.5	595.8	602.6	616.1	637.7	656.6	687.7	702.6	717.4	740.4	762.0
17.5°	564.8	563.4	568.8	578.3	601.2	626.9	660.7	678.3	695.8	726.9	749.9
20°	548.5	549.9	549.9	552.6	567.5	593.1	632.3	655.3	678.3	718.8	743.1
22.5°	544.5	544.5	540.4	539.1	545.8	567.5	606.6	632.3	659.3	717.4	739.1
25°	544.5	544.5	540.4	535.0	535.0	547.2	582.3	606.6	639.1	718.8	733.6
27.5°	554.0	554.0	548.5	540.4	533.7	536.4	563.4	589.1	625.6	721.5	729.6
30°	568.8	567.5	563.4	556.7	543.1	533.7	554.0	576.9	612.0	728.2	726.9
32.5°	583.7	585.0	582.3	576.9	562.1	541.8	552.6	574.2	609.3	737.7	726.9
35°	606.6	608.0	608.0	602.6	590.4	562.1	566.1	585.0	617.5	752.6	732.3
37.5°	632.3	632.3	636.4	636.4	621.5	590.4	591.8	606.6	633.7	772.8	745.8
40°	658.0	658.0	664.7	674.2	662.0	629.6	631.0	641.8	666.1	801.2	772.8
42.5°	690.4	687.7	702.6	714.7	709.3	679.6	672.8	686.4	703.9	840.4	813.4
45°	713.4	713.4	736.3	751.2	763.4	733.6	729.6	740.4	758.0	883.6	870.1
47.5°	740.4	741.8	766.1	797.1	816.1	798.5	793.1	808.0	820.1	940.4	941.7
50°	763.4	767.4	799.9	844.4	875.5	876.9	867.4	886.3	886.3	1003.9	1025.5
52.5°	794.4	801.2	843.1	891.7	943.1	960.6	963.3	968.7	970.1	1082.2	1118.7
55°	872.8	880.9	916.0	956.6	1017.4	1057.9	1086.3	1076.8	1066.0	1167.4	1216.0
57.5°	1012.0	1005.2	1018.7	1028.2	1087.6	1153.8	1224.1	1220.0	1187.6	1266.0	1320.0
60°	1132.2	1134.9	1152.5	1129.5	1168.7	1272.7	1355.2	1356.5	1301.1	1371.4	1416.0
62.5°	1143.0	1160.6	1234.9	1286.2	1345.7	1410.5	1536.2	1518.6	1447.0	1474.1	1528.1
65°	930.9	953.9	1075.5	1243.0	1549.7	1825.3	1757.8	1749.7	1625.4	1617.3	1686.2
67.5°	479.6	497.2	562.1	871.5	1394.3	2253.6	2298.2	2123.9	1871.3	1836.1	1919.9
70°	328.3	329.7	329.7	397.2	681.0	2065.8	3269.7	2900.8	2360.4	2200.9	2306.3
72.5°	256.7	256.7	266.2	324.3	374.3	1225.4	3480.4	4018.2	3223.7	2686.0	2417.1
75°	191.9	193.2	210.8	270.2	364.8	366.1	2911.6	3816.9	3641.2	2649.5	1878.0
77.5°	145.9	143.2	166.2	222.9	355.3	333.7	1571.3	2667.1	2577.9	1801.0	681.0
80°	91.9	95.9	112.1	186.5	340.5	333.7	549.9	1301.1	1041.7	431.0	114.8
82.5°	52.7	55.4	70.3	116.2	305.3	332.4	343.2	471.5	258.1	106.7	54.0
85°	31.1	31.1	44.6	73.0	221.6	328.3	333.7	283.7	143.2	55.4	28.4
87.5°	13.5	16.2	25.7	35.1	100.0	277.0	302.6	240.5	104.0	31.1	14.9
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°	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6	883.6
2.5°	872.8	872.8	870.1	870.1	871.5	864.7	863.4	859.3	862.0	860.7	855.2
5°	849.8	848.5	845.8	830.9	822.8	802.6	802.6	790.4	786.3	786.3	778.2
7.5°	821.5	817.4	799.9	775.5	752.6	730.9	710.7	695.8	685.0	675.6	676.9
10°	794.4	786.3	758.0	716.1	679.6	639.1	608.0	572.9	554.0	526.9	537.7
12.5°	772.8	760.7	714.7	655.3	601.2	541.8	479.6	426.9	383.7	356.7	340.5
15°	755.3	735.0	667.4	593.1	520.2	433.7	349.9	278.3	224.3	208.1	209.4
17.5°	739.1	710.7	625.6	529.6	431.0	325.6	229.7	182.4	164.8	156.7	156.7
20°	724.2	682.3	571.5	459.4	332.4	218.9	164.8	148.6	141.9	137.8	136.5
22.5°	705.3	656.6	518.8	386.4	237.8	158.1	136.5	128.4	127.0	127.0	127.0
25°	690.4	625.6	463.4	295.9	164.8	128.4	117.5	116.2	117.5	118.9	118.9
27.5°	672.8	594.5	408.0	208.1	125.7	108.1	104.0	106.7	109.4	112.1	112.1
30°	656.6	564.8	348.6	145.9	104.0	94.6	94.6	97.3	101.3	104.0	104.0
32.5°	645.8	543.1	278.3	114.8	91.9	86.5	87.8	89.2	93.2	94.6	94.6
35°	637.7	521.5	209.4	97.3	83.8	81.1	82.4	83.8	85.1	86.5	86.5
37.5°	639.1	509.4	150.0	86.5	78.4	77.0	78.4	78.4	78.4	79.7	79.7
40°	655.3	504.0	118.9	79.7	75.7	74.3	74.3	73.0	73.0	74.3	74.3
42.5°	679.6	505.3	105.4	77.0	73.0	71.6	70.3	68.9	68.9	68.9	68.9
45°	718.8	518.8	97.3	74.3	71.6	68.9	66.2	64.9	64.9	67.6	67.6
47.5°	776.9	539.1	89.2	73.0	68.9	64.9	63.5	62.2	63.5	64.9	66.2
50°	844.4	556.7	85.1	71.6	68.9	62.2	60.8	59.4	60.8	64.9	64.9
52.5°	922.8	582.3	83.8	71.6	67.6	60.8	58.1	58.1	59.4	63.5	63.5
55°	1010.6	621.5	85.1	71.6	66.2	59.4	56.7	55.4	58.1	60.8	60.8
57.5°	1102.5	674.2	87.8	71.6	63.5	59.4	55.4	52.7	54.0	56.7	56.7
60°	1194.4	745.8	91.9	70.3	62.2	58.1	54.0	50.0	50.0	52.7	52.7
62.5°	1303.8	835.0	105.4	73.0	62.2	55.4	50.0	45.9	45.9	47.3	47.3
65°	1447.0	964.7	125.7	82.4	67.6	52.7	45.9	41.9	41.9	41.9	41.9
67.5°	1683.5	1171.4	133.8	91.9	77.0	52.7	43.2	39.2	37.8	37.8	36.5
70°	1991.5	1306.5	118.9	95.9	91.9	54.0	40.5	35.1	33.8	33.8	32.4
72.5°	1869.9	995.8	101.3	93.2	93.2	55.4	39.2	33.8	31.1	29.7	29.7
75°	1284.9	462.1	89.2	86.5	81.1	47.3	36.5	31.1	28.4	25.7	25.7
77.5°	378.3	124.3	74.3	75.7	62.2	39.2	33.8	28.4	25.7	23.0	23.0
80°	89.2	71.6	54.0	55.4	41.9	29.7	27.0	25.7	23.0	20.3	20.3
82.5°	51.3	45.9	37.8	35.1	25.7	20.3	21.6	21.6	20.3	17.6	16.2
85°	25.7	27.0	23.0	20.3	16.2	13.5	13.5	14.9	13.5	10.8	10.8
87.5°	14.9	13.5	14.9	10.8	8.1	6.8	8.1	8.1	8.1	5.4	5.4
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)