

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: P459859

Luminaire Tested: **NAV-SA4A-AMB-U-SL2**

Issue Date: 1/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SA4A-AMB-U-SL2  
Description: NAVION AREA AND ROADWAY LUMINAIRE  
(4) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4077 lumens  
Efficiency: N/A  
Efficacy: 51.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G2

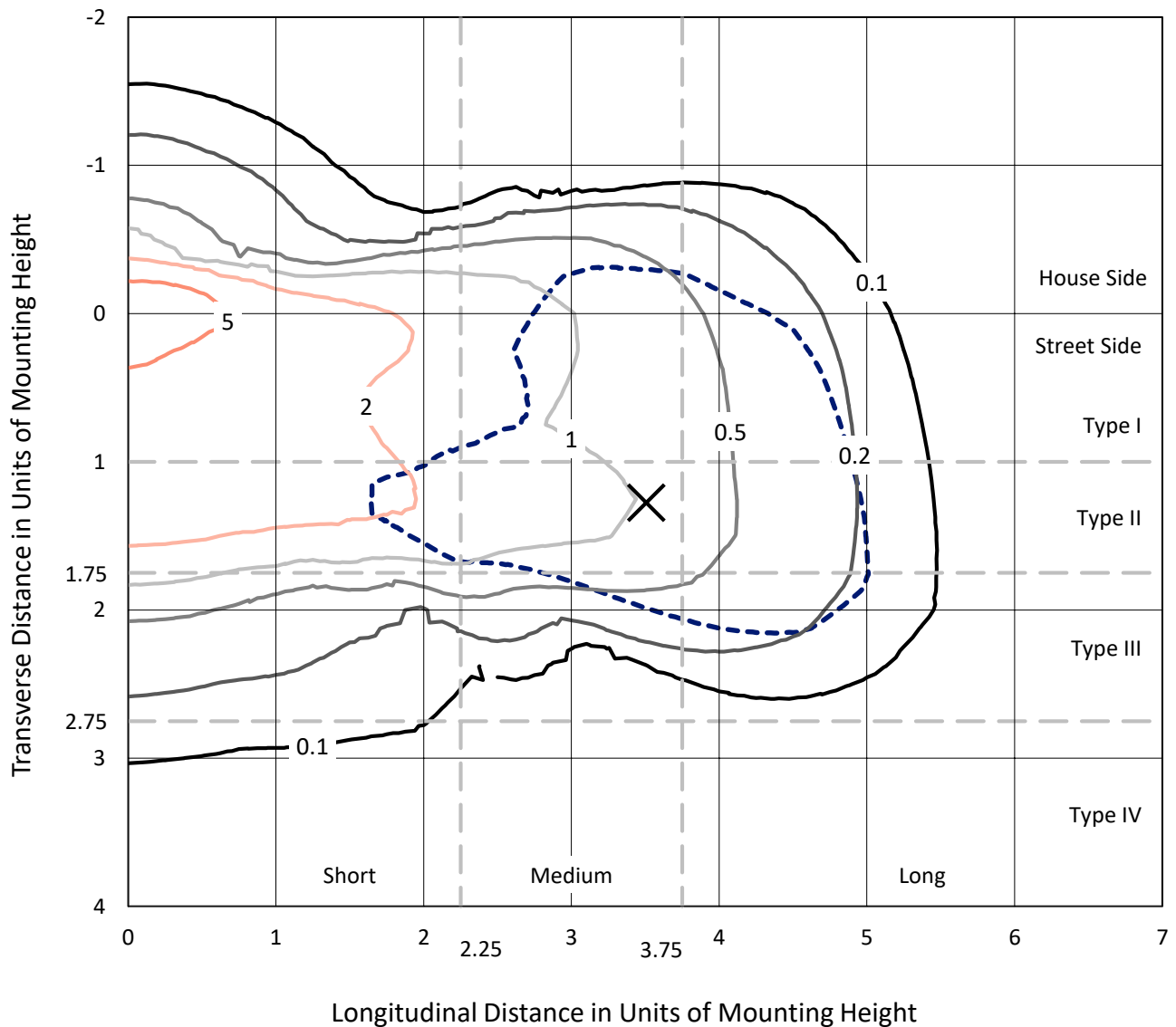
Input Watts (W): 79.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

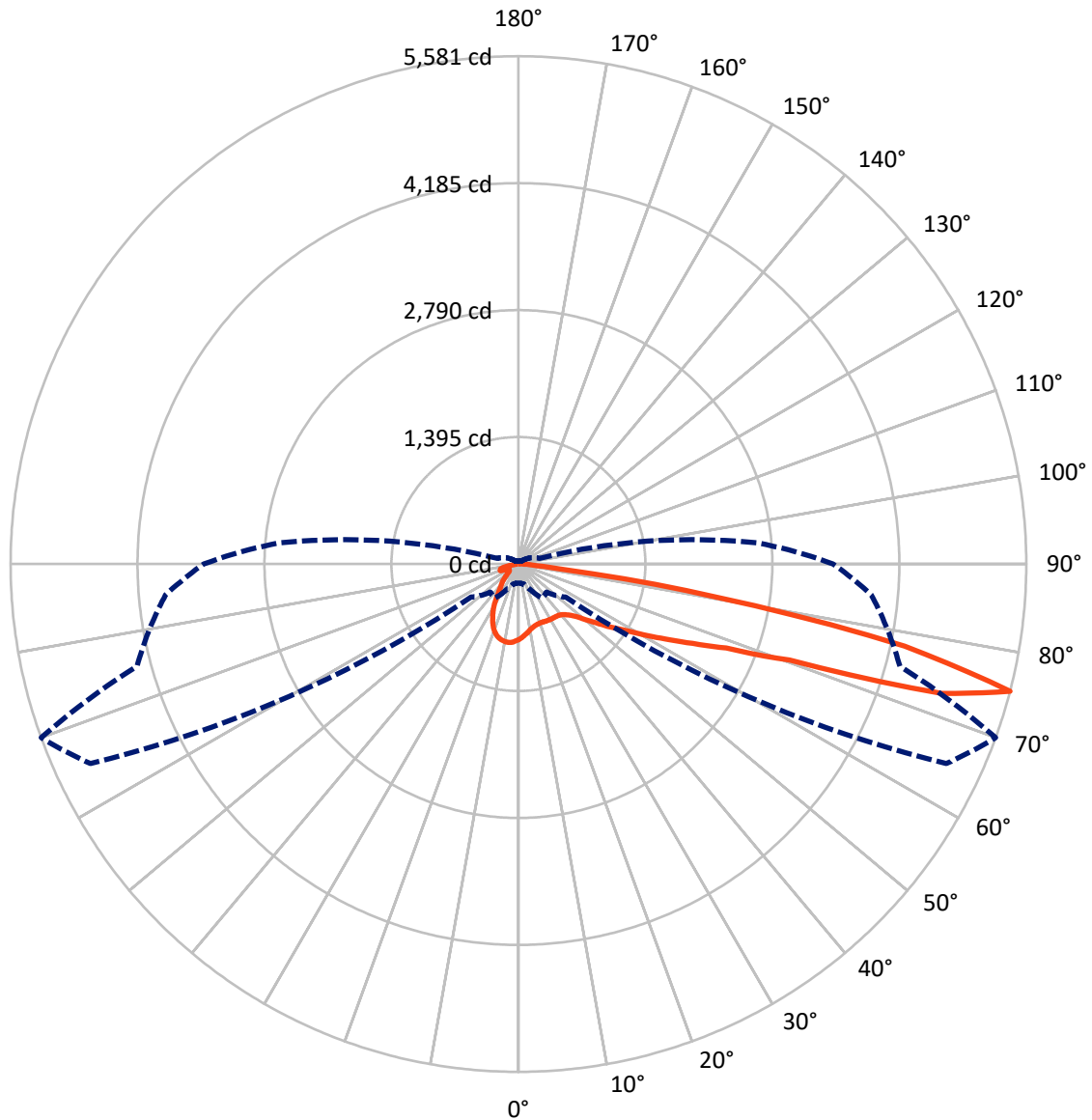


Based on 10 foot mounting height. Maximum calculated value = 8.3 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical



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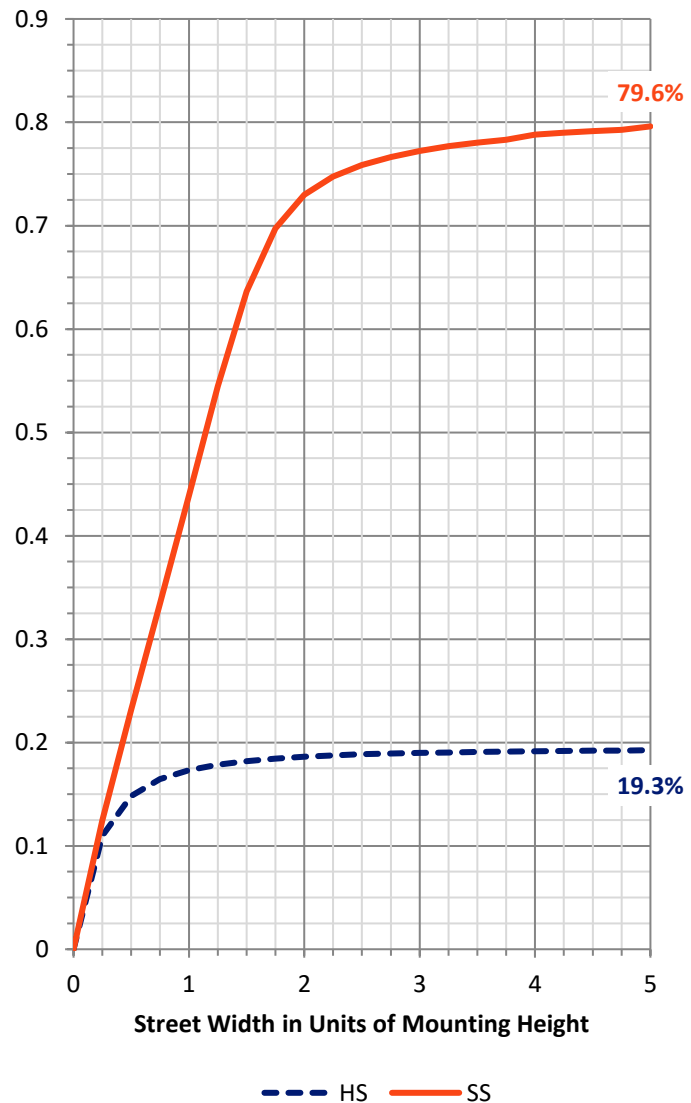
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	795.5	0.0	795.5
	% Fixture	19.5	0.0	19.5
<b>Street Side</b>	Lumens	3281.5	0.0	3281.5
	% Fixture	80.5	0.0	80.5
<b>Total</b>	Lumens	4077.0	0.0	4077.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.1	1.8
10°-20°	182.4	4.5
20°-30°	245.4	6.0
30°-40°	322.7	7.9
40°-50°	460.4	11.3
50°-60°	717.2	17.6
60°-70°	936.3	23.0
70°-80°	995.0	24.4
80°-90°	142.5	3.5
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°	4077.0	100.0
0°-180°	4077.0	100.0



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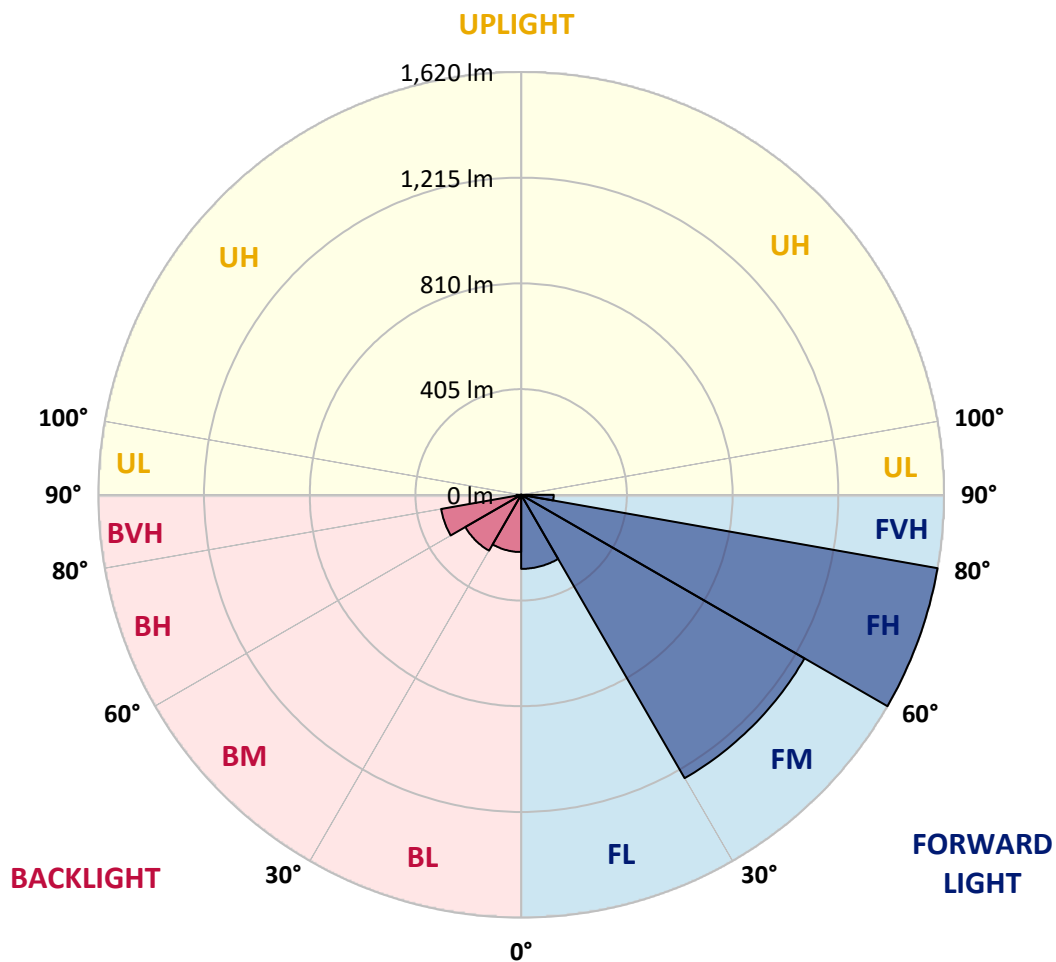
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	283.7	7.0			
FM	(30°-60°)	1253.4	30.7			
FH	(60°-80°)	1619.9	39.7			G1/1800
FVH	(80°-90°)	124.6	3.1			G2/225
BL	(0°-30°)	219.2	5.4	B1/500		
BM	(30°-60°)	247.0	6.1	B1/1000		
BH	(60°-80°)	311.4	7.6	B1/500		G1/500
BVH	(80°-90°)	17.9	0.4			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4
2.5°	777.0	777.0	782.3	782.3	789.2	791.0	798.0	801.5	805.0	810.2	820.7
5°	721.1	719.4	724.6	733.4	742.1	750.8	763.0	775.3	780.5	789.2	806.7
7.5°	679.2	679.2	682.7	688.0	700.2	710.7	729.9	743.8	756.1	768.3	792.7
10°	647.8	647.8	651.3	656.5	668.8	677.5	695.0	719.4	729.9	747.3	778.8
12.5°	618.1	621.6	623.4	630.3	639.1	651.3	668.8	695.0	712.4	733.4	775.3
15°	604.2	604.2	605.9	611.1	619.9	632.1	653.0	681.0	700.2	724.6	777.0
17.5°	600.7	598.9	597.2	598.9	607.6	619.9	640.8	672.3	693.2	721.1	785.7
20°	602.4	600.7	598.9	595.4	598.9	611.1	637.3	668.8	689.7	719.4	799.7
22.5°	611.1	611.1	607.6	600.7	598.9	607.6	635.6	668.8	691.5	721.1	813.7
25°	635.6	633.8	630.3	616.4	605.9	609.4	635.6	672.3	695.0	724.6	825.9
27.5°	661.8	661.8	658.3	646.1	625.1	616.4	639.1	677.5	700.2	728.1	839.9
30°	703.7	701.9	698.4	684.5	658.3	630.3	646.1	682.7	703.7	729.9	852.1
32.5°	754.3	754.3	756.1	738.6	700.2	654.8	653.0	686.2	705.4	731.6	866.1
35°	813.7	815.4	820.7	806.7	759.6	691.5	670.5	695.0	708.9	733.4	880.0
37.5°	857.3	859.1	878.3	881.8	825.9	740.4	698.4	712.4	715.9	736.9	894.0
40°	908.0	908.0	935.9	956.9	920.2	808.4	736.9	733.4	731.6	750.8	911.5
42.5°	963.9	970.8	995.3	1030.2	1014.5	887.0	791.0	770.0	761.3	775.3	939.4
45°	1016.2	1019.7	1065.1	1105.3	1107.0	993.5	867.8	827.7	803.2	818.9	990.0
47.5°	1073.9	1079.1	1135.0	1199.6	1211.8	1107.0	955.1	899.2	867.8	883.5	1063.4
50°	1157.7	1166.4	1213.5	1292.1	1325.3	1241.5	1066.9	998.8	963.9	970.8	1166.4
52.5°	1292.1	1290.4	1313.1	1389.9	1470.2	1389.9	1217.0	1121.0	1073.9	1084.3	1299.1
55°	1372.4	1370.7	1402.1	1485.9	1632.6	1576.7	1382.9	1265.9	1222.3	1217.0	1452.8
57.5°	1300.9	1304.3	1358.5	1489.4	1742.6	1868.3	1564.5	1442.3	1367.2	1375.9	1639.6
60°	1087.8	1066.9	1128.0	1306.1	1709.4	2194.9	1822.9	1655.3	1576.7	1561.0	1875.3
62.5°	733.4	740.4	780.5	895.8	1463.2	2283.9	2483.0	1920.7	1812.5	1784.5	2097.1
65°	551.8	550.0	551.8	571.0	792.7	2200.1	3165.7	2273.4	2104.1	2011.5	2331.1
67.5°	461.0	455.7	454.0	497.6	494.1	1384.7	3392.7	3074.9	2462.0	2266.5	2558.1
70°	391.1	380.7	377.2	447.0	459.2	490.7	3366.5	4566.1	3162.2	2622.7	2858.4
72.5°	296.8	295.1	302.1	380.7	452.2	429.5	2027.2	5219.1	4862.9	3310.6	3478.3
75°	211.3	209.5	228.7	309.1	459.2	436.5	633.8	5187.7	5580.6	4339.1	3892.1
77.5°	139.7	137.9	155.4	221.8	431.3	438.3	413.8	3755.9	4339.1	4064.9	3190.1
80°	92.5	89.1	101.3	153.7	345.7	469.7	405.1	1859.6	2212.3	1882.3	1059.9
82.5°	54.1	52.4	64.6	106.5	227.0	464.5	408.6	584.9	478.4	244.5	132.7
85°	27.9	29.7	41.9	64.6	146.7	410.3	436.5	300.3	139.7	99.5	66.4
87.5°	8.7	12.2	22.7	34.9	82.1	282.9	387.6	232.2	101.3	64.6	36.7
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°	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4	829.4
2.5°	824.2	829.4	839.9	852.1	864.3	869.6	876.5	878.3	881.8	883.5	881.8
5°	818.9	831.1	853.8	869.6	880.0	878.3	876.5	871.3	869.6	867.8	864.3
7.5°	808.4	829.4	862.6	876.5	869.6	848.6	831.1	810.2	803.2	794.5	792.7
10°	803.2	832.9	866.1	864.3	836.4	796.2	761.3	728.1	705.4	691.5	684.5
12.5°	808.4	845.1	873.1	841.6	792.7	731.6	670.5	619.9	569.2	551.8	543.0
15°	824.2	864.3	873.1	811.9	736.9	649.6	557.0	476.7	417.3	387.6	382.4
17.5°	843.4	880.0	860.8	775.3	672.3	546.5	436.5	333.5	288.1	275.9	274.1
20°	866.1	899.2	841.6	729.9	588.4	440.0	296.8	244.5	239.2	241.0	242.7
22.5°	885.3	908.0	810.2	668.8	488.9	295.1	207.8	197.3	207.8	221.8	225.2
25°	899.2	902.7	775.3	591.9	375.4	188.6	164.1	162.4	178.1	202.5	209.5
27.5°	908.0	885.3	728.1	509.9	230.5	146.7	134.5	139.7	151.9	169.4	172.9
30°	913.2	867.8	682.7	424.3	146.7	124.0	122.2	125.7	131.0	139.7	141.4
32.5°	915.0	850.4	633.8	316.0	124.0	113.5	113.5	117.0	118.7	124.0	124.0
35°	911.5	829.4	584.9	199.1	113.5	110.0	108.3	108.3	108.3	110.0	110.0
37.5°	902.7	808.4	527.3	132.7	108.3	104.8	103.0	103.0	101.3	101.3	101.3
40°	897.5	791.0	473.2	115.2	103.0	101.3	99.5	96.0	94.3	94.3	94.3
42.5°	902.7	782.3	406.8	110.0	99.5	97.8	94.3	90.8	90.8	90.8	90.8
45°	925.4	784.0	323.0	106.5	97.8	94.3	89.1	85.6	85.6	87.3	87.3
47.5°	969.1	799.7	249.7	103.0	94.3	90.8	83.8	82.1	82.1	82.1	82.1
50°	1035.4	831.1	197.3	99.5	92.5	87.3	82.1	78.6	78.6	78.6	76.8
52.5°	1129.7	888.8	155.4	97.8	90.8	85.6	78.6	75.1	73.3	73.3	71.6
55°	1260.7	979.6	143.2	97.8	87.3	82.1	75.1	69.8	68.1	66.4	66.4
57.5°	1435.3	1108.8	141.4	96.0	82.1	76.8	69.8	64.6	62.9	62.9	61.1
60°	1648.3	1281.6	143.2	92.5	78.6	71.6	64.6	61.1	57.6	57.6	57.6
62.5°	1887.5	1470.2	143.2	90.8	76.8	68.1	61.1	55.9	54.1	52.4	52.4
65°	2130.3	1700.7	153.7	89.1	73.3	61.1	55.9	52.4	48.9	48.9	48.9
67.5°	2397.4	1981.8	209.5	89.1	69.8	55.9	50.6	47.1	45.4	45.4	45.4
70°	2743.1	2446.3	317.8	111.8	71.6	52.4	45.4	43.7	41.9	41.9	41.9
72.5°	3453.8	2982.4	253.2	155.4	83.8	47.1	40.2	38.4	38.4	36.7	36.7
75°	3457.3	2645.4	241.0	165.9	90.8	43.7	36.7	34.9	33.2	33.2	33.2
77.5°	2556.3	1726.9	206.0	129.2	78.6	38.4	33.2	31.4	29.7	29.7	29.7
80°	754.3	445.3	129.2	94.3	50.6	31.4	27.9	26.2	24.4	24.4	24.4
82.5°	129.2	117.0	59.4	50.6	31.4	24.4	22.7	21.0	19.2	19.2	19.2
85°	62.9	61.1	33.2	27.9	21.0	17.5	17.5	15.7	14.0	14.0	14.0
87.5°	38.4	34.9	24.4	15.7	12.2	8.7	10.5	8.7	8.7	7.0	7.0
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)