

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: P270268

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270268  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)  
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-SL2-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE 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: 4203.7 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 44  
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

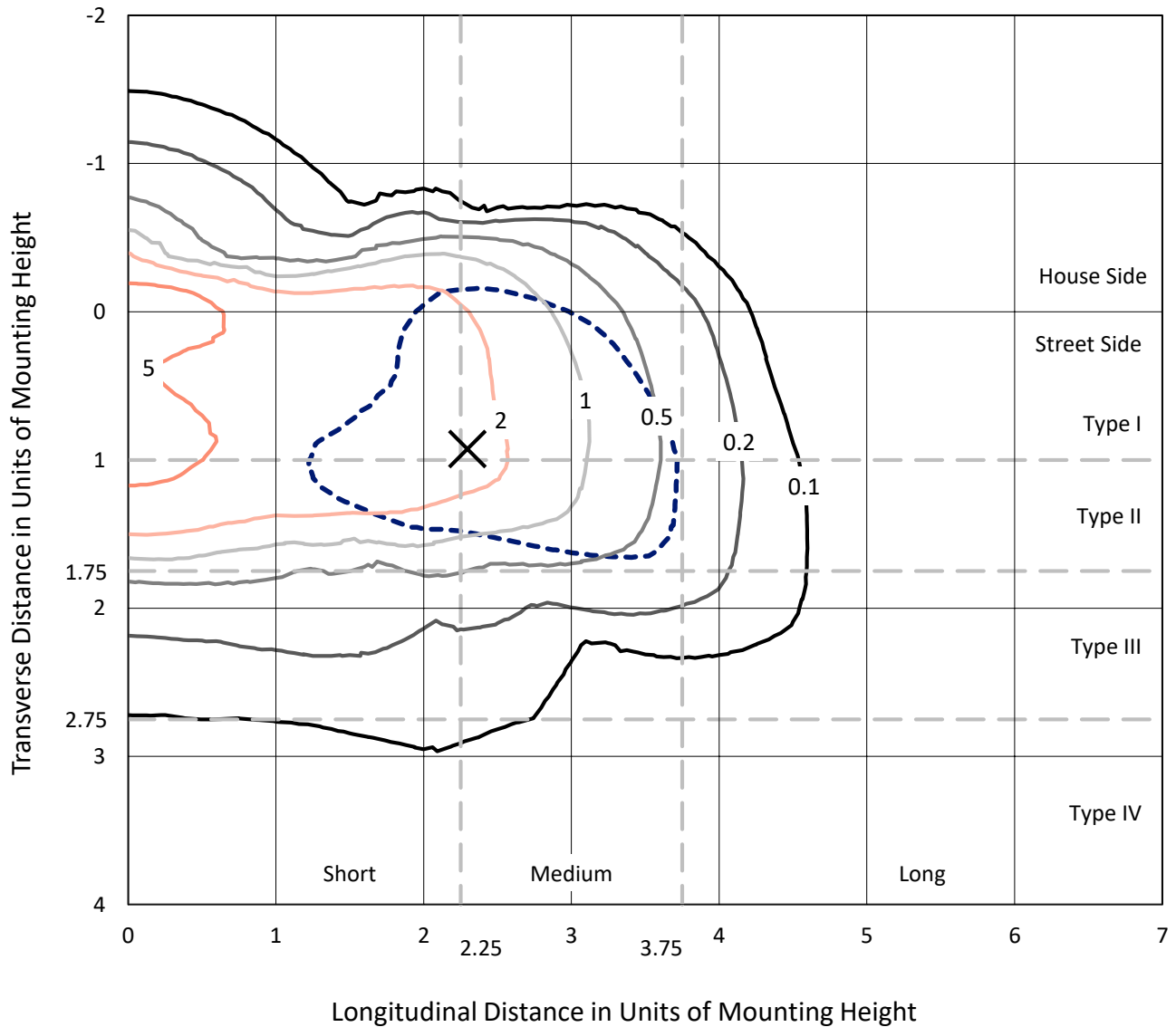


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### Iso-Footcandle Lines of Horizontal Illumination

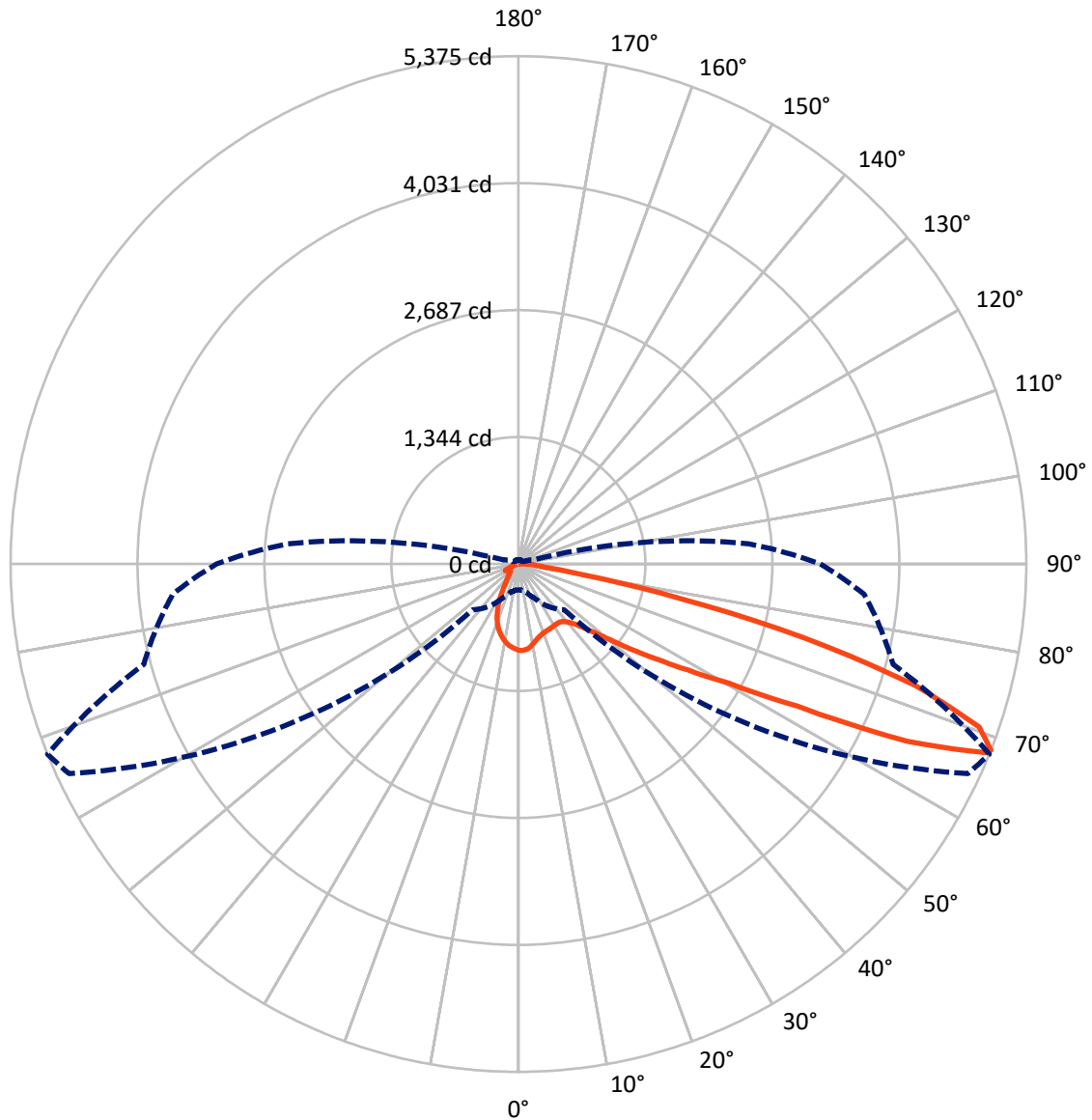
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.1 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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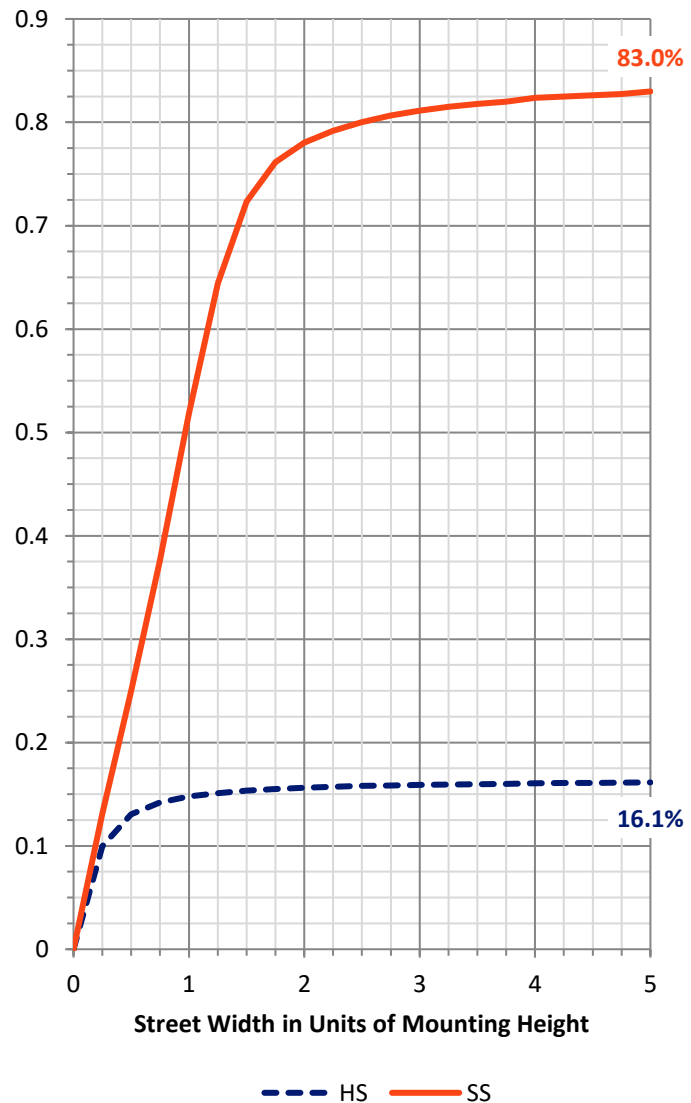
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	687.7	0.0	687.7
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	3515.9	0.0	3515.9
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	4203.7	0.0	4203.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.4	1.9
10°-20°	181.8	4.3
20°-30°	245.8	5.8
30°-40°	346.6	8.2
40°-50°	570.0	13.6
50°-60°	883.5	21.0
60°-70°	1145.6	27.3
70°-80°	657.4	15.6
80°-90°	94.6	2.2
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°	4203.7	100.0
0°-180°	4203.7	100.0

**Coefficient of Utilization**



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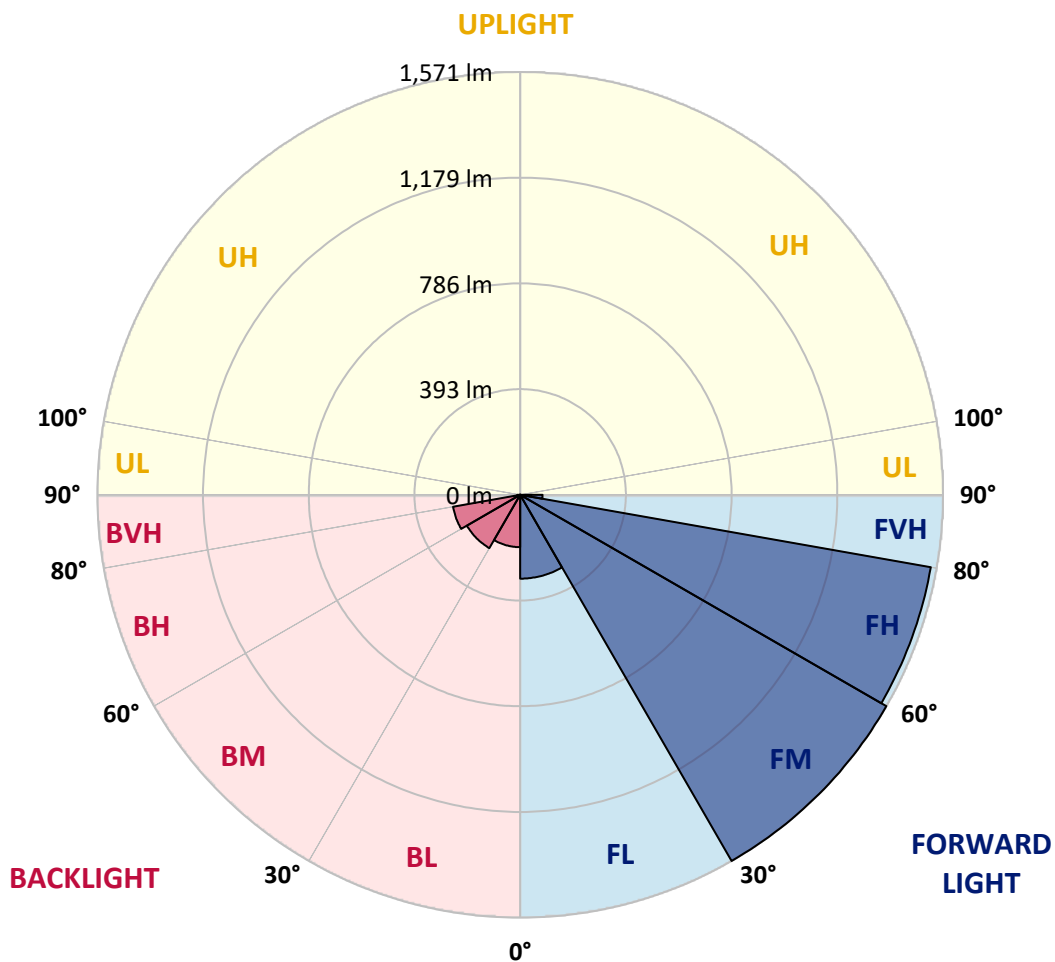
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	311.6	7.4			
FM (30°-60°)	1571.4	37.4			
FH (60°-80°)	1549.7	36.9			G1/1800
FVH (80°-90°)	83.3	2.0			G1/100
BL (0°-30°)	194.4	4.6	B1/500		
BM (30°-60°)	228.7	5.4	B1/1000		
BH (60°-80°)	253.3	6.0	B1/500		G1/500
BVH (80°-90°)	11.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7
2.5°	890.2	897.3	897.3	902.5	907.3	911.2	914.5	914.5	914.5	912.1	910.3
5°	796.5	806.1	807.5	820.8	838.1	859.1	882.9	903.8	907.7	915.6	918.5
7.5°	731.5	734.5	739.8	748.8	766.4	792.5	829.6	876.2	887.4	911.7	924.3
10°	685.3	687.8	692.2	701.3	717.2	740.8	777.5	838.1	856.8	899.7	924.5
12.5°	651.6	653.5	657.6	666.0	682.2	703.3	740.7	803.8	826.8	887.4	928.4
15°	625.3	628.5	631.9	639.9	656.3	676.7	714.5	778.8	803.8	878.0	935.6
17.5°	614.8	616.4	617.0	621.2	636.0	656.7	694.5	761.1	786.9	870.2	941.1
20°	621.4	621.6	616.1	613.5	621.9	640.9	677.7	748.0	774.3	863.4	943.2
22.5°	650.3	650.3	636.0	624.0	618.2	629.9	666.5	738.9	767.5	858.2	943.2
25°	705.2	702.7	680.5	656.7	631.0	626.1	659.3	733.1	762.3	855.4	939.6
27.5°	777.5	775.1	746.9	711.5	665.4	634.4	656.8	728.5	757.0	851.2	932.0
30°	865.2	863.4	831.2	784.8	716.7	660.4	662.6	725.2	753.0	844.3	919.1
32.5°	952.8	951.8	926.2	878.7	787.5	704.6	677.7	724.7	750.8	836.1	903.4
35°	1041.0	1041.0	1025.3	985.3	882.9	771.0	709.3	734.9	754.8	831.7	890.0
37.5°	1171.2	1165.9	1136.8	1095.4	1002.9	857.3	760.3	756.3	770.7	839.1	885.5
40°	1372.7	1357.6	1284.8	1215.0	1133.8	967.7	835.1	797.8	806.5	864.3	896.0
42.5°	1583.6	1559.6	1463.2	1351.9	1269.1	1103.8	933.1	865.0	864.7	913.2	929.2
45°	1764.6	1752.2	1647.9	1506.5	1423.9	1257.1	1056.9	964.9	955.1	989.2	993.3
47.5°	1869.7	1861.5	1798.5	1670.0	1607.2	1438.0	1214.0	1103.6	1085.0	1105.3	1098.9
50°	1840.6	1848.6	1830.4	1764.8	1804.3	1692.3	1414.2	1293.6	1258.2	1278.5	1263.1
52.5°	1687.3	1708.8	1725.0	1737.6	1917.8	2032.5	1665.6	1530.9	1501.4	1498.0	1483.1
55°	1411.4	1445.6	1496.5	1589.5	1887.2	2305.8	2105.1	1817.8	1775.1	1752.5	1758.3
57.5°	960.6	1012.2	1122.3	1298.9	1728.9	2422.2	2754.7	2188.5	2116.0	2035.9	2054.6
60°	529.1	572.3	703.3	881.1	1367.2	2404.9	3330.6	2791.0	2562.9	2350.2	2388.8
62.5°	342.4	351.7	449.2	602.0	839.1	2123.1	3650.5	3797.9	3314.3	2765.0	2819.1
65°	275.2	281.8	329.5	485.4	584.5	1365.9	3664.7	4842.6	4523.8	3328.4	3330.0
67.5°	268.9	271.8	299.6	408.3	548.3	743.5	3167.8	5254.5	5328.2	3993.4	3671.9
68°	272.6	276.3	304.3	395.8	548.1	685.3	2927.8	5248.1	5374.6	4104.6	3671.9
70°	240.6	245.0	310.3	409.4	524.8	589.3	2004.8	4969.5	5173.1	4360.4	3484.0
72.5°	125.8	122.2	153.5	323.2	590.6	614.0	1059.1	4151.6	4389.5	4038.2	3010.1
75°	98.1	89.2	86.0	127.6	519.5	636.8	615.1	2950.8	3130.5	2911.0	2011.9
77.5°	92.3	81.6	75.3	75.5	228.8	662.6	497.7	1736.6	1736.6	1388.6	642.0
80°	74.1	64.3	60.1	68.6	110.4	610.7	519.3	791.3	674.9	359.0	176.8
82.5°	48.9	43.7	43.9	55.8	83.7	407.8	601.3	390.8	293.6	159.0	104.1
85°	31.0	26.6	29.6	38.9	62.6	181.7	595.3	271.6	194.5	89.2	51.9
87.5°	15.6	12.0	14.8	20.3	38.2	52.2	490.1	242.5	144.2	37.1	28.2
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°	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7	914.7
2.5°	910.3	904.2	901.2	896.2	890.2	884.2	880.1	878.2	877.0	877.6	877.4
5°	916.9	908.9	896.0	877.6	858.7	838.6	823.2	811.3	804.1	801.8	801.3
7.5°	921.8	910.3	886.1	852.6	820.2	785.1	755.1	731.3	715.1	707.7	707.3
10°	921.0	906.2	868.0	818.5	771.0	719.5	672.6	632.3	603.3	589.3	588.7
12.5°	921.8	901.4	845.8	778.8	710.6	636.8	567.0	504.7	461.3	440.7	439.9
15°	925.2	896.6	822.9	734.3	640.1	535.7	436.0	357.9	318.3	304.9	304.9
17.5°	924.9	888.3	796.5	682.6	556.3	416.5	297.7	249.3	245.4	257.9	259.8
20°	919.3	875.2	762.5	621.4	458.0	288.4	201.8	194.9	225.7	259.8	263.7
22.5°	910.8	858.2	723.2	550.3	343.5	187.8	155.6	166.1	207.9	250.2	256.1
25°	899.1	837.5	678.3	467.7	228.4	135.1	129.8	142.8	172.1	200.4	204.9
27.5°	881.7	811.3	629.2	378.1	145.9	111.2	113.1	122.2	134.8	147.0	149.4
30°	860.0	780.9	575.5	279.1	110.8	99.4	102.6	108.2	113.6	121.5	123.0
32.5°	838.1	749.9	519.8	191.7	96.7	93.1	96.4	99.4	104.1	109.4	110.4
35°	818.3	721.1	462.4	133.8	90.5	88.9	90.5	92.5	97.1	102.4	102.9
37.5°	804.1	697.4	402.6	105.7	87.0	85.3	86.2	87.0	92.5	100.3	101.1
40°	802.0	681.9	341.9	95.0	84.4	82.1	81.6	82.1	89.2	98.1	98.9
42.5°	820.8	682.6	282.5	90.5	82.1	79.6	77.4	78.5	84.9	91.6	92.3
45°	865.0	701.8	231.3	88.8	80.2	78.2	75.0	75.5	78.5	82.1	82.6
47.5°	943.0	743.8	192.0	87.6	78.5	76.8	72.8	71.1	71.3	73.3	73.3
50°	1067.6	814.1	168.1	86.4	77.2	74.1	69.4	66.1	65.3	66.5	66.7
52.5°	1253.6	934.7	156.6	84.4	74.6	70.5	65.3	62.1	60.6	61.9	61.9
55°	1504.8	1127.3	151.1	81.2	71.7	66.1	61.5	58.7	57.8	58.5	58.5
57.5°	1791.2	1377.5	160.3	77.2	67.8	61.5	58.2	56.4	55.4	56.4	56.6
60°	2131.4	1704.8	224.7	72.0	63.7	57.4	55.4	54.3	53.8	54.6	54.6
62.5°	2583.6	2140.2	347.6	67.8	59.3	53.5	53.0	52.5	51.9	52.7	52.7
65°	3071.9	2536.5	357.9	65.3	55.4	50.2	50.6	50.6	49.9	50.8	50.8
67.5°	3227.3	2502.0	200.0	62.3	50.8	46.9	48.1	48.1	47.8	48.6	48.2
68°	3194.5	2447.7	174.1	61.5	49.9	46.2	47.3	47.5	47.3	48.1	47.8
70°	2948.9	2148.9	114.5	56.9	46.4	43.4	45.0	45.4	45.0	46.2	45.9
72.5°	2434.2	1611.9	84.6	49.6	42.0	39.9	41.4	41.7	42.0	43.1	42.8
75°	1546.1	890.2	66.7	42.3	37.5	35.8	37.3	38.2	38.6	40.3	39.5
77.5°	423.5	270.2	54.1	36.0	32.3	31.6	32.7	33.7	34.3	36.2	34.9
80°	148.3	119.5	45.0	30.5	26.9	26.6	27.8	28.8	29.4	31.0	29.4
82.5°	90.1	78.1	36.0	23.9	21.1	20.9	22.3	23.4	23.9	23.9	22.7
85°	46.9	41.2	26.4	16.8	14.6	13.7	16.2	17.5	17.8	17.5	16.8
87.5°	26.4	23.4	14.1	7.9	6.6	6.8	8.5	10.4	11.3	11.0	10.4
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)