

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: P965018

Luminaire Tested: **NAV-SB3D-727-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965018  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-727-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24749.6 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

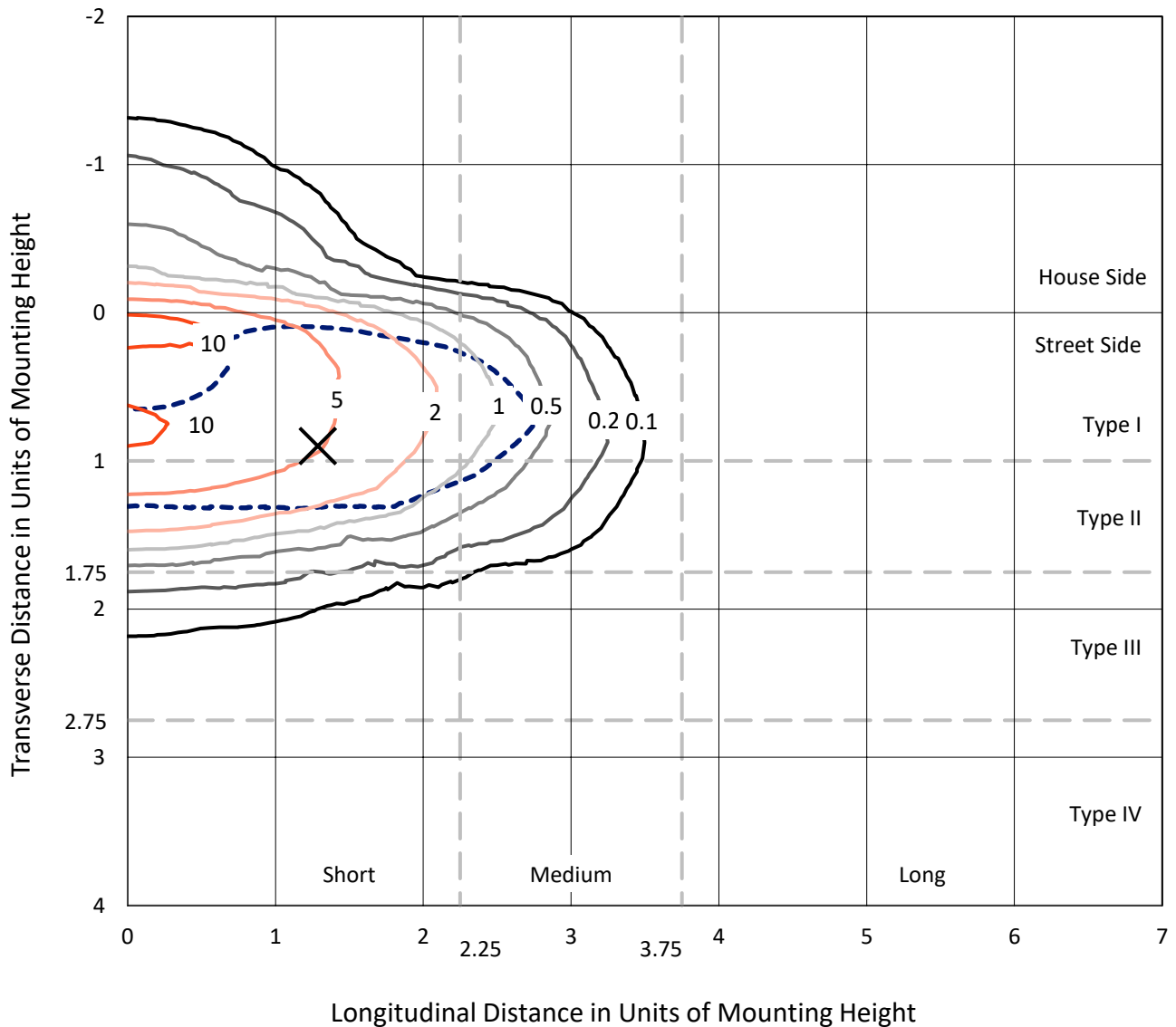
Input Watts (W): 218.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

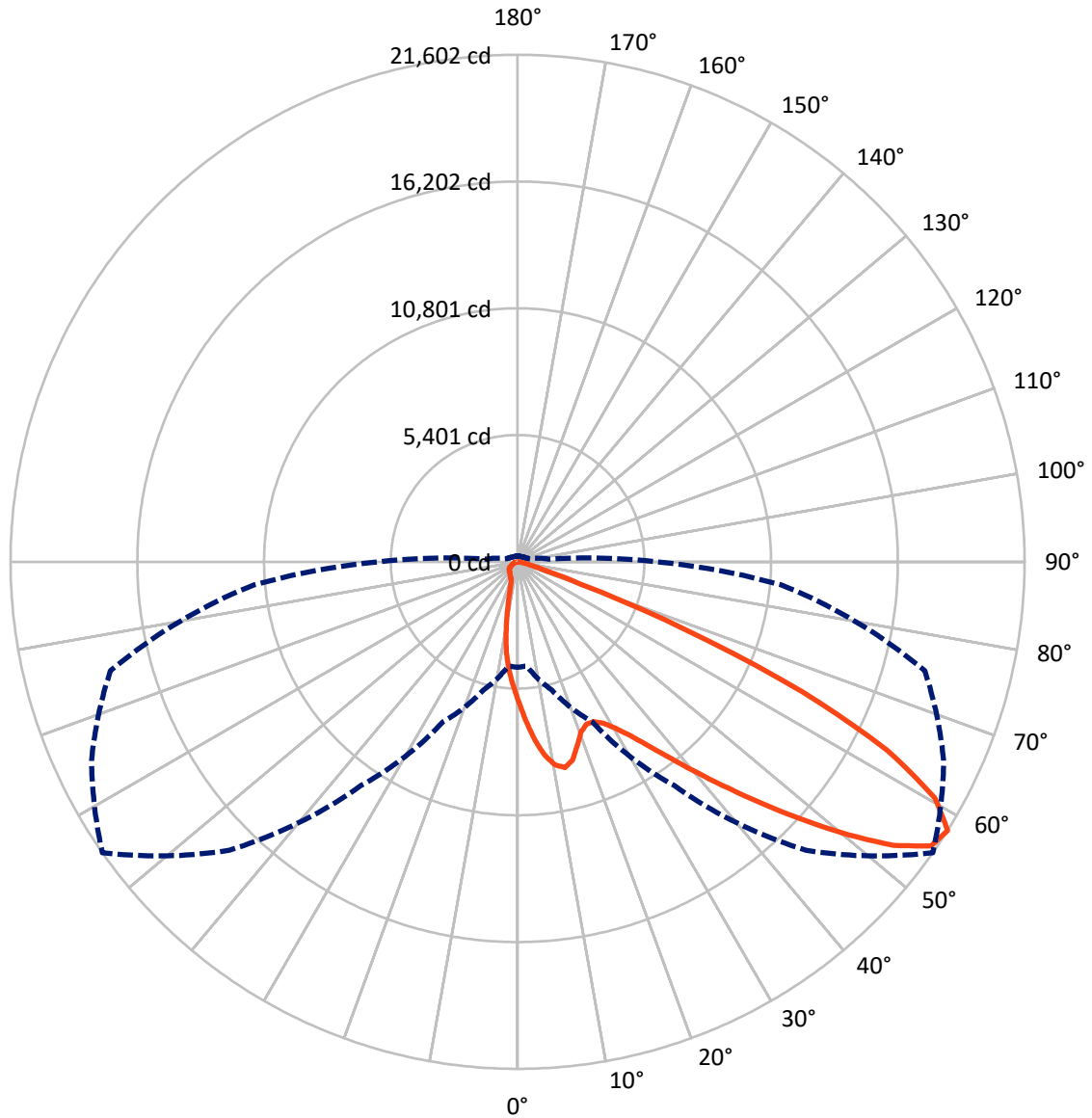
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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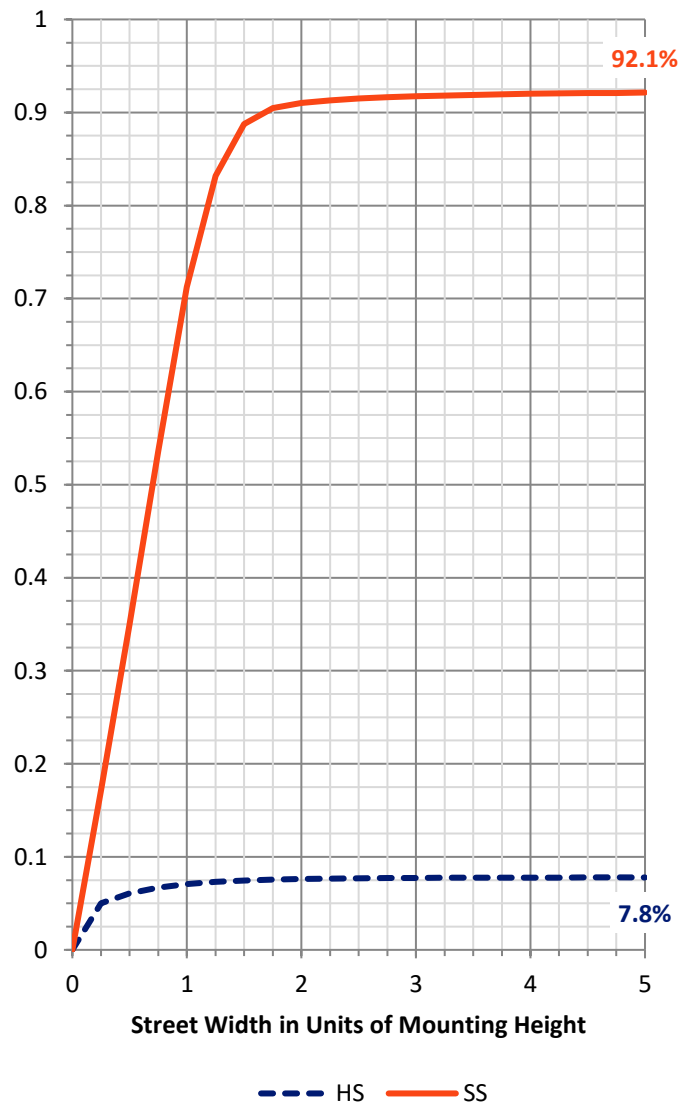
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1932.8	0.0	1932.8
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	22816.8	0.0	22816.8
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	24749.6	0.0	24749.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	554.9	2.2
10°-20°	1340.4	5.4
20°-30°	2144.7	8.7
30°-40°	3630.0	14.7
40°-50°	5959.6	24.1
50°-60°	6550.0	26.5
60°-70°	3757.1	15.2
70°-80°	767.7	3.1
80°-90°	45.3	0.2
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°	24749.6	100.0
0°-180°	24749.6	100.0

**Coefficient of Utilization**

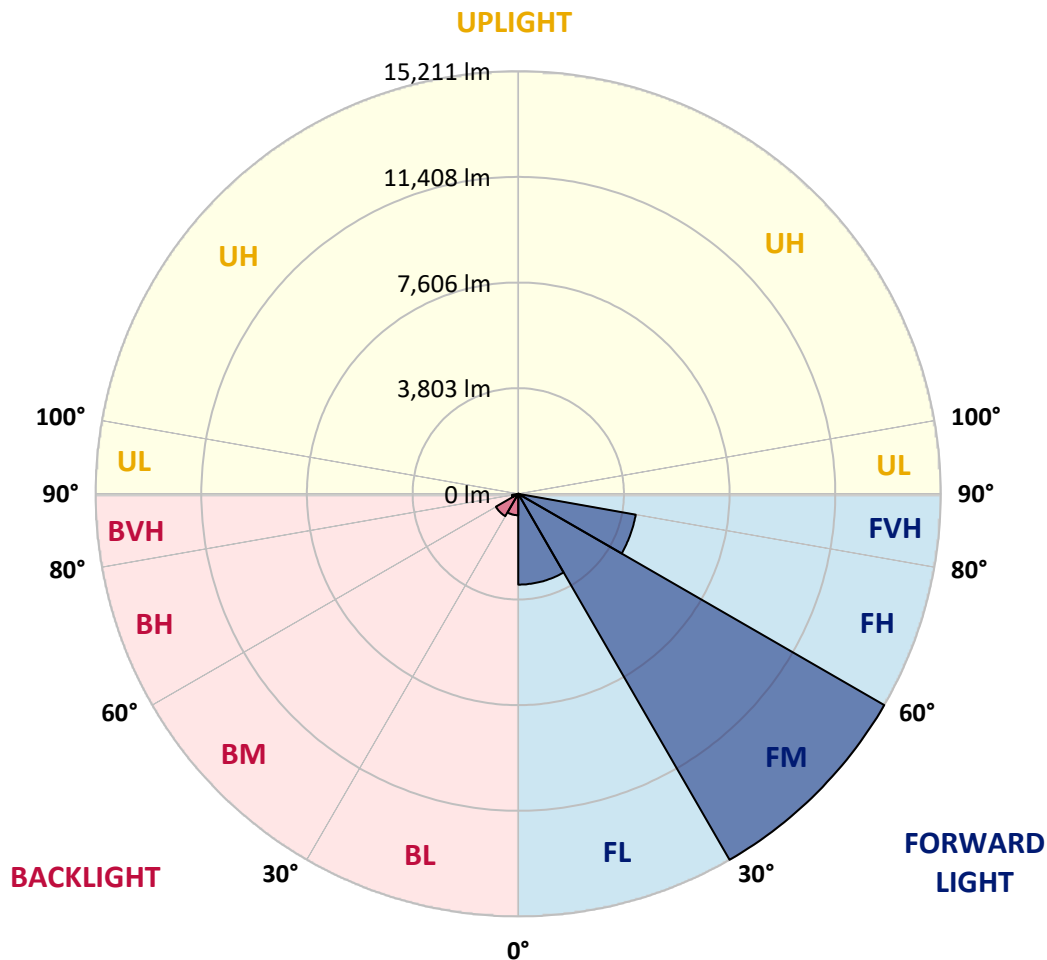


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3268.3	13.2			
FM (30°-60°)	15211.3	61.5			
FH (60°-80°)	4294.9	17.4			G2/5000
FVH (80°-90°)	42.2	0.2			G1/100
BL (0°-30°)	771.6	3.1	B2/1000		
BM (30°-60°)	928.3	3.8	B1/1000		
BH (60°-80°)	229.9	0.9	B1/500		G1/500
BVH (80°-90°)	3.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1
2.5°	7400.1	7307.0	7293.3	7274.9	7097.9	6965.2	6772.9	6562.3	6325.8	6084.6	5977.8
5°	8549.3	8476.0	8462.3	8376.8	8175.4	7949.5	7607.7	7175.8	6734.8	6215.9	5993.1
7.5°	8772.2	8758.4	8820.9	8817.9	8790.4	8611.8	8323.4	7809.2	7146.8	6377.7	6032.7
10°	7778.6	7813.7	7999.9	8163.2	8604.3	8860.6	8798.1	8373.8	7571.1	6562.3	6077.0
12.5°	6873.6	6832.4	6965.2	7149.9	7662.6	8425.7	8994.9	8845.3	8056.4	6771.4	6142.6
15°	6305.9	6289.1	6363.9	6449.4	6840.0	7609.2	8766.0	9228.4	8523.4	7018.6	6241.8
17.5°	6124.3	6110.5	6133.5	6154.8	6408.2	7003.3	8221.2	9463.4	8970.5	7301.0	6351.7
20°	6272.3	6254.0	6251.0	6234.2	6339.5	6745.4	7728.3	9480.2	9371.9	7557.3	6446.3
22.5°	6704.2	6682.9	6608.1	6540.9	6550.1	6780.5	7508.4	9312.3	9674.1	7797.0	6505.8
25°	7487.1	7452.1	7296.4	7070.4	6927.1	7024.7	7542.1	9091.0	9962.5	7984.6	6476.9
27.5°	8466.9	8421.1	8221.2	7885.4	7557.3	7438.3	7784.7	8938.4	10202.0	8128.0	6414.2
30°	9426.8	9367.3	9170.5	8909.5	8430.2	8054.9	8222.8	9005.6	10487.5	8277.7	6331.8
32.5°	10463.0	10406.6	10145.7	9822.1	9425.3	8920.2	8822.5	9333.8	10836.9	8486.7	6273.8
35°	11774.0	11685.4	11314.6	10873.6	10452.3	9941.1	9634.4	9899.9	11302.4	8805.7	6305.9
37.5°	13266.5	13147.5	12747.6	12138.7	11589.3	11017.0	10623.3	10678.2	11984.6	9233.0	6405.1
40°	14673.6	14565.2	14195.9	13622.1	12932.3	12237.9	11818.2	11696.2	12926.2	9753.4	6579.1
42.5°	15517.6	15419.9	15264.2	15021.6	14440.1	13732.0	13202.4	12938.4	14040.2	10376.1	6791.2
45°	15564.8	15479.3	15688.4	15970.8	15856.3	15384.7	14739.2	14255.4	15158.9	10960.5	7011.0
47.5°	14807.9	14749.9	15384.7	16370.6	16862.1	17060.4	16465.3	15462.6	16082.1	11380.3	7101.0
50°	12744.5	12723.2	14029.6	15839.5	17245.1	18528.5	18285.9	16585.8	16797.9	11597.0	7015.5
52.5°	11050.6	10972.7	11734.3	14139.5	16688.0	19300.8	20065.4	17687.7	17298.5	11638.2	6815.6
55°	8381.4	8312.8	9268.0	11294.8	14891.8	19026.0	21367.1	18824.6	17657.2	11532.9	6457.0
57.5°	4496.0	4453.2	5660.4	7517.7	11641.2	17377.8	21602.2	20027.2	17959.3	11253.6	5954.9
60°	1750.5	1742.8	2194.5	3647.5	7075.1	14137.9	20416.4	20749.1	18148.5	10910.2	5535.2
62.5°	1059.1	1082.0	1155.3	1637.5	3125.5	8782.8	17683.1	19928.0	18275.2	10595.8	5188.8
65°	876.0	877.5	886.6	1124.7	1497.1	3674.9	13312.3	17226.8	17962.4	10035.8	4697.4
67.5°	750.8	764.5	799.7	892.8	1056.1	1611.6	7664.1	13344.4	16059.3	8732.4	3931.3
70°	592.1	610.5	654.7	734.1	815.0	1008.8	2832.5	8879.0	12268.4	6582.1	2972.9
72.5°	499.1	497.5	520.4	596.8	647.1	709.6	1089.7	4975.1	7130.0	3142.2	1471.2
75°	386.1	401.4	430.4	499.1	529.5	514.3	590.6	1817.6	2554.7	952.3	500.6
77.5°	302.2	314.4	340.3	407.4	438.0	364.7	340.3	650.2	821.0	341.8	225.9
80°	135.8	146.5	232.0	300.6	357.1	251.8	184.7	332.7	364.7	155.7	114.5
82.5°	24.4	41.2	135.8	158.7	183.2	163.3	96.1	172.4	178.6	62.5	39.7
85°	1.5	3.1	47.4	58.0	73.3	53.4	29.0	68.7	59.6	21.3	15.3
87.5°	0.0	0.0	0.0	1.5	1.5	7.6	9.1	12.2	9.1	7.6	6.1
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1	5964.1
2.5°	5867.9	5651.2	5440.6	5268.2	5167.4	4996.5	4883.6	4865.3	4817.9	4859.1
5°	5755.0	5367.3	4975.1	4624.1	4335.6	3963.4	3685.6	3568.0	3465.8	3500.9
7.5°	5701.6	5089.6	4479.1	3879.4	3262.9	2667.7	2225.1	2040.4	1900.0	1919.8
10°	5629.8	4801.2	3844.3	2928.6	2103.0	1515.5	1210.2	1097.3	1034.7	1036.3
12.5°	5574.9	4456.3	3107.2	1985.4	1280.4	967.6	872.9	845.4	827.2	828.7
15°	5547.4	4050.3	2379.2	1323.2	915.6	819.5	796.6	784.4	772.2	770.7
17.5°	5501.7	3598.6	1741.3	966.1	801.2	767.6	747.8	734.1	718.8	715.8
20°	5433.0	3085.8	1272.7	816.5	750.8	724.9	697.4	679.2	660.8	657.7
22.5°	5306.3	2544.0	978.3	755.4	714.2	685.2	651.7	630.3	611.9	609.0
25°	5071.3	2035.9	824.1	717.3	682.1	647.1	610.5	581.5	564.7	561.6
27.5°	4773.7	1599.4	747.8	682.1	640.9	609.0	567.7	540.3	525.0	521.9
30°	4422.7	1231.5	703.6	642.5	592.1	564.7	528.1	505.1	496.0	496.0
32.5°	4044.2	984.3	685.2	602.8	549.4	518.9	489.8	480.7	477.6	476.1
35°	3688.7	854.6	676.1	570.7	511.3	482.3	470.1	471.6	477.6	477.6
37.5°	3372.8	813.4	671.5	547.9	477.6	451.7	459.4	473.1	467.0	467.0
40°	3087.3	817.9	668.4	531.1	450.2	434.9	450.2	439.5	424.2	422.7
42.5°	2869.1	856.2	662.4	517.3	433.4	422.7	416.7	399.9	398.3	401.4
45°	2710.4	889.7	660.8	511.3	415.1	395.2	387.7	370.8	401.4	409.0
47.5°	2522.6	889.7	660.8	489.8	384.6	377.0	364.7	346.4	377.0	384.6
50°	2280.0	833.2	634.9	465.5	360.2	355.6	334.3	311.3	305.2	309.8
52.5°	1973.2	731.0	569.3	431.9	335.8	326.6	300.6	283.8	279.3	279.3
55°	1623.8	611.9	480.7	383.0	309.8	293.0	274.7	267.1	262.5	259.4
57.5°	1320.1	502.0	386.1	340.3	285.4	264.0	257.9	248.8	241.1	236.6
60°	1083.5	395.2	319.0	302.2	261.0	241.1	239.6	227.3	207.6	204.5
62.5°	836.3	290.0	268.5	262.5	236.6	219.8	216.7	192.3	161.7	155.7
65°	590.6	225.9	216.7	230.4	210.6	195.4	187.7	151.1	119.0	114.5
67.5°	415.1	189.2	171.0	201.4	183.2	163.3	158.7	128.2	99.2	96.1
70°	296.0	154.2	140.4	172.4	146.5	143.5	134.3	106.8	80.9	77.8
72.5°	209.1	117.5	108.3	149.5	100.8	123.6	109.9	82.4	61.1	58.0
75°	154.2	83.9	76.3	87.0	73.3	93.1	77.8	54.9	38.1	36.6
77.5°	113.0	53.4	45.8	42.7	42.7	58.0	42.7	22.9	16.8	15.3
80°	79.3	24.4	21.3	18.3	16.8	13.7	6.1	3.1	1.5	1.5
82.5°	47.4	10.7	10.7	7.6	4.6	0.0	0.0	0.0	0.0	0.0
85°	10.7	4.6	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)