

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: P969234

Luminaire Tested: **NAV-SB5D-727-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969234
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-SB5D-727-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 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: 41668.3 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

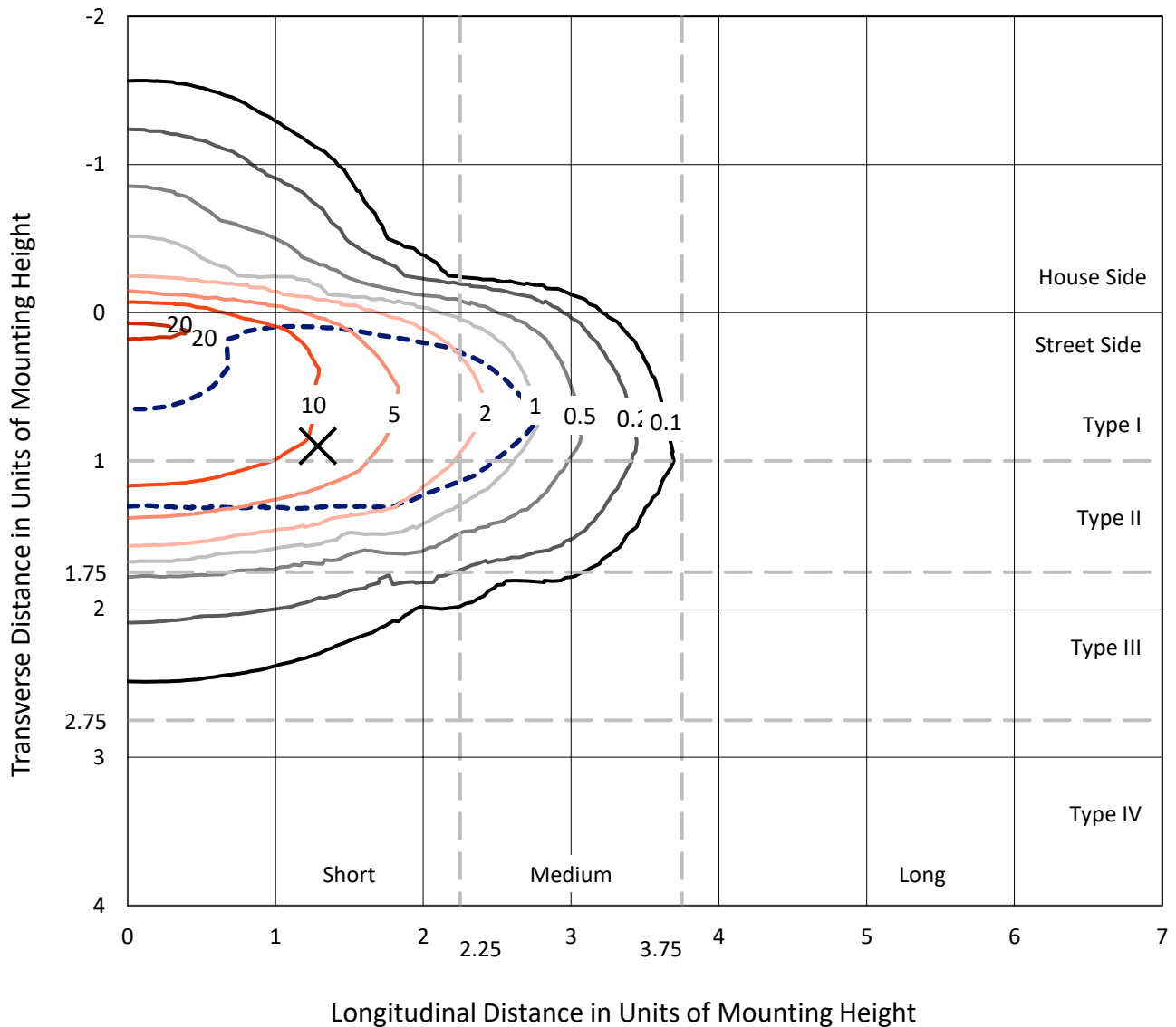
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

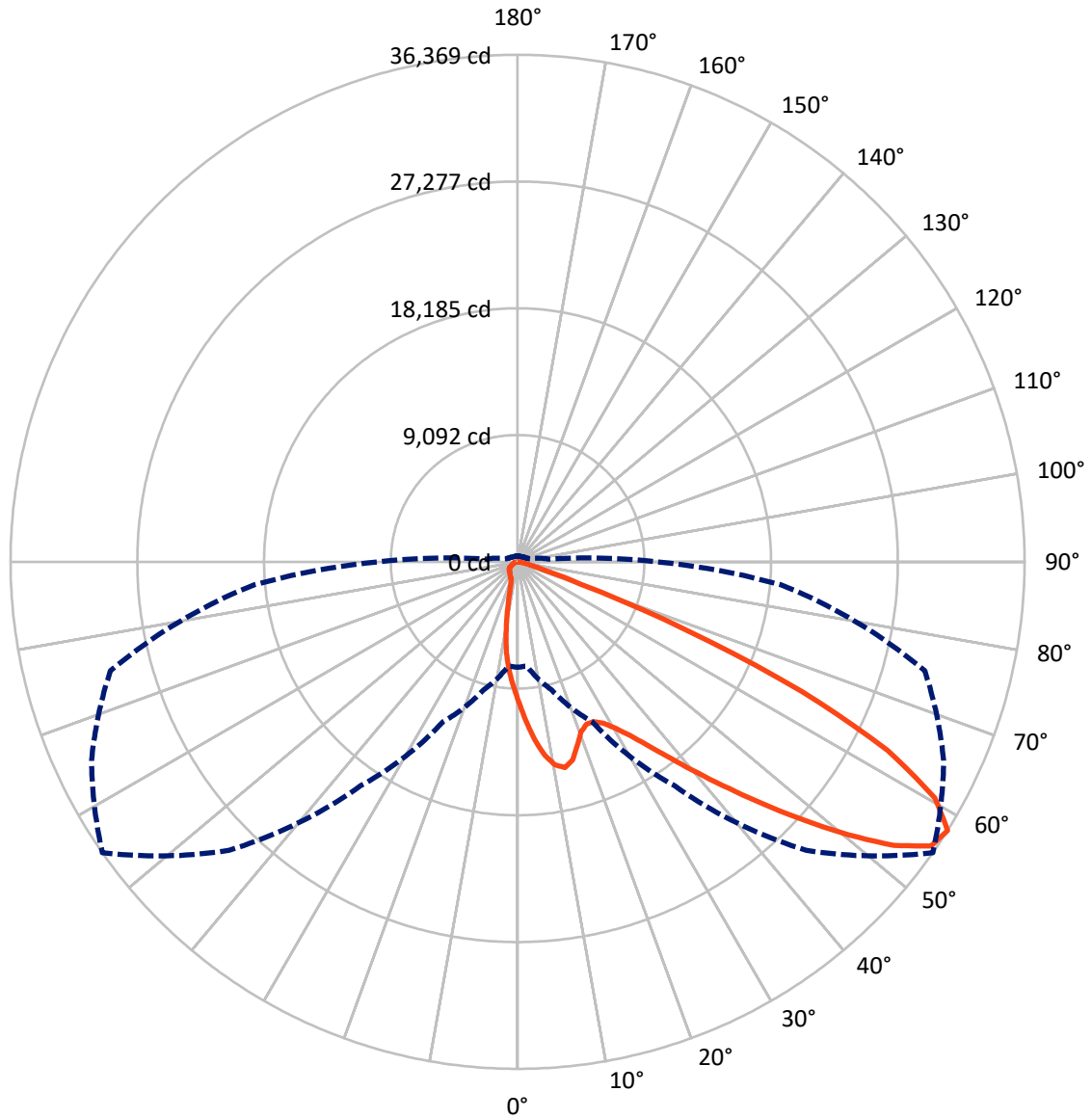
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 23 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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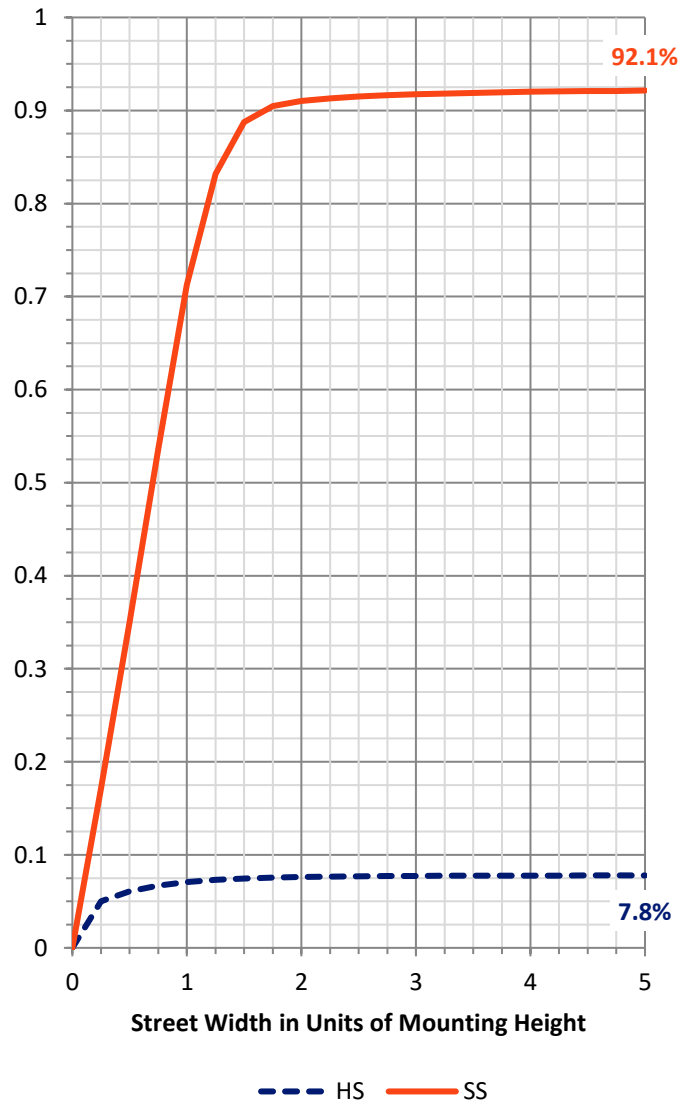
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3254.1	0.0	3254.1
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	38414.2	0.0	38414.2
	% Fixture	92.2	0.0	92.2
Total	Lumens	41668.3	0.0	41668.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	934.3	2.2
10°-20°	2256.7	5.4
20°-30°	3610.7	8.7
30°-40°	6111.4	14.7
40°-50°	10033.5	24.1
50°-60°	11027.6	26.5
60°-70°	6325.4	15.2
70°-80°	1292.5	3.1
80°-90°	76.2	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°	41668.3	100.0
0°-180°	41668.3	100.0

Coefficient of Utilization



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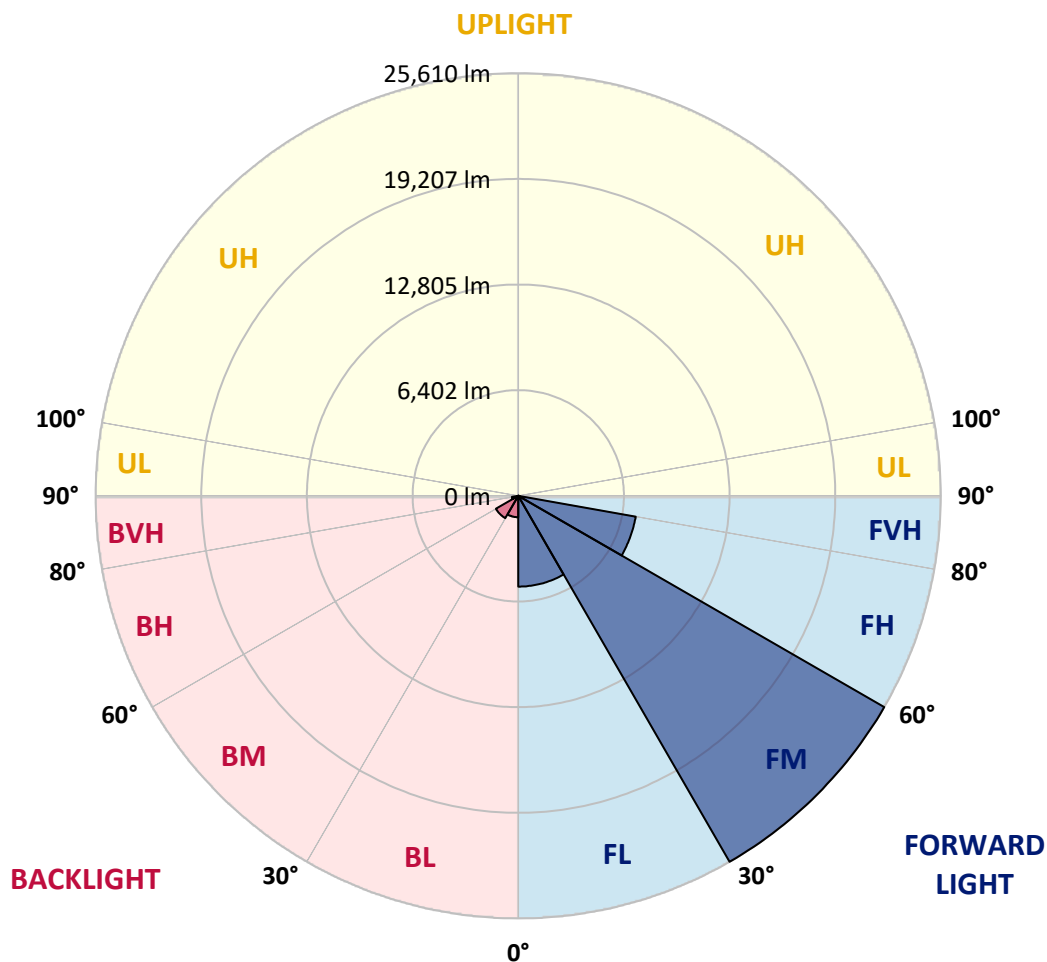
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5502.6	13.2			
FM (30°-60°)	25609.6	61.5			
FH (60°-80°)	7230.9	17.4			G3/7500
FVH (80°-90°)	71.1	0.2			G1/100
BL (0°-30°)	1299.1	3.1	B3/2500		
BM (30°-60°)	1562.8	3.8	B2/2500		
BH (60°-80°)	387.0	0.9	B1/500		G1/500
BVH (80°-90°)	5.1	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0
2.5°	12458.8	12302.0	12279.0	12248.1	11950.1	11726.5	11402.8	11048.3	10650.0	10244.1	10064.2
5°	14393.6	14270.2	14247.1	14103.2	13764.0	13383.7	12808.2	12081.1	11338.6	10464.9	10089.9
7.5°	14768.6	14745.5	14850.8	14845.7	14799.5	14498.8	14013.3	13147.4	12032.3	10737.3	10156.6
10°	13096.0	13155.1	13468.5	13743.5	14486.0	14917.6	14812.3	14098.1	12746.6	11048.3	10231.1
12.5°	11572.4	11503.0	11726.5	12037.4	12900.8	14185.4	15143.8	14892.0	13563.6	11400.3	10341.6
15°	10616.5	10588.4	10714.2	10858.1	11515.9	12810.8	14758.4	15536.8	14349.8	11816.5	10508.6
17.5°	10310.8	10287.7	10326.3	10362.2	10788.7	11790.8	13841.1	15932.6	15102.7	12291.8	10693.6
20°	10560.1	10529.2	10524.1	10495.8	10673.1	11356.6	13011.2	15960.8	15778.4	12723.4	10852.9
22.5°	11287.2	11251.2	11125.3	11012.3	11027.7	11415.6	12641.2	15678.2	16287.1	13126.9	10953.2
25°	12605.2	12546.1	12284.1	11903.8	11662.2	11826.8	12697.7	15305.6	16772.7	13442.9	10904.4
27.5°	14254.8	14177.7	13841.1	13275.8	12723.4	12523.0	13106.3	15048.7	17176.1	13684.4	10799.0
30°	15870.9	15770.6	15439.3	14999.8	14193.1	13561.1	13843.6	15161.8	17656.5	13936.2	10660.2
32.5°	17615.4	17520.4	17081.1	16536.3	15868.3	15017.9	14853.5	15714.2	18245.0	14288.2	10562.6
35°	19822.6	19673.5	19049.2	18306.6	17597.5	16736.8	16220.3	16667.4	19028.6	14825.2	10616.5
37.5°	22335.4	22135.0	21461.9	20436.7	19511.7	18548.2	17885.2	17977.8	20177.1	15544.6	10783.6
40°	24704.3	24521.9	23900.1	22934.1	21772.7	20603.6	19897.1	19691.5	21762.4	16420.7	11076.5
42.5°	26125.2	25960.8	25698.7	25290.1	24311.3	23119.1	22227.4	21783.0	23638.0	17469.1	11433.7
45°	26204.8	26060.9	26412.9	26888.3	26695.6	25901.6	24814.8	24000.4	25521.4	18453.1	11803.6
47.5°	24930.5	24832.8	25901.6	27561.4	28388.8	28722.8	27720.7	26032.6	27075.9	19159.7	11955.2
50°	21456.6	21420.7	23620.1	26667.3	29033.7	31194.5	30786.0	27923.8	28280.9	19524.5	11811.3
52.5°	18604.7	18473.7	19755.7	23805.0	28095.9	32494.7	33781.8	29778.8	29123.6	19593.9	11474.8
55°	14110.9	13995.2	15603.7	19015.8	25071.7	32032.2	35973.5	31693.0	29727.5	19416.6	10870.9
57.5°	7569.3	7497.4	9529.7	12656.6	19599.0	29257.2	36369.2	33717.6	30236.2	18946.4	10025.6
60°	2947.1	2934.2	3694.7	6140.8	11911.5	23802.4	34372.8	34932.9	30554.7	18368.3	9319.1
62.5°	1783.1	1821.6	1945.0	2756.9	5262.0	14786.6	29771.1	33550.6	30768.0	17839.0	8735.8
65°	1474.8	1477.3	1492.8	1893.6	2520.6	6187.0	22412.4	29002.9	30241.3	16896.1	7908.5
67.5°	1264.1	1287.2	1346.3	1503.1	1778.0	2713.3	12903.3	22466.5	27037.3	14701.9	6618.6
70°	996.9	1027.8	1102.3	1235.8	1372.1	1698.3	4768.7	14948.5	20655.1	11081.6	5005.1
72.5°	840.2	837.6	876.2	1004.6	1089.4	1194.7	1834.5	8376.1	12004.0	5290.3	2476.8
75°	650.1	675.8	724.6	840.2	891.5	865.9	994.4	3060.1	4301.1	1603.3	842.8
77.5°	508.7	529.3	573.0	686.0	737.4	614.1	573.0	1094.5	1382.3	575.5	380.3
80°	228.7	246.6	390.5	506.1	601.3	423.9	310.9	560.2	614.1	262.1	192.7
82.5°	41.1	69.4	228.7	267.2	308.3	274.9	161.8	290.4	300.6	105.4	66.8
85°	2.6	5.1	79.6	97.7	123.3	89.9	48.8	115.6	100.2	36.0	25.7
87.5°	0.0	0.0	0.0	2.6	2.6	12.8	15.4	20.6	15.4	12.8	10.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0	10041.0
2.5°	9879.2	9514.4	9159.7	8869.4	8699.8	8412.1	8221.9	8191.1	8111.4	8180.8
5°	9689.0	9036.4	8376.1	7785.2	7299.5	6672.6	6204.9	6007.1	5835.0	5894.1
7.5°	9599.1	8568.8	7541.0	6531.3	5493.3	4491.2	3746.1	3435.2	3198.8	3232.2
10°	9478.4	8083.2	6472.2	4930.6	3540.6	2551.3	2037.5	1847.4	1742.0	1744.6
12.5°	9385.8	7502.5	5231.2	3342.7	2155.7	1628.9	1469.6	1423.4	1392.6	1395.1
15°	9339.6	6819.0	4005.6	2227.6	1541.6	1379.8	1341.2	1320.6	1300.1	1297.5
17.5°	9262.5	6058.6	2931.6	1626.4	1348.9	1292.4	1259.0	1235.8	1210.1	1205.0
20°	9146.9	5195.2	2142.9	1374.6	1264.1	1220.5	1174.2	1143.4	1112.5	1107.4
22.5°	8933.6	4283.1	1647.0	1271.8	1202.4	1153.6	1097.2	1061.2	1030.3	1025.2
25°	8537.9	3427.5	1387.4	1207.6	1148.5	1089.4	1027.8	978.9	950.7	945.6
27.5°	8036.9	2692.7	1259.0	1148.5	1079.1	1025.2	955.8	909.6	883.9	878.7
30°	7446.0	2073.5	1184.5	1081.7	996.9	950.7	889.0	850.4	835.1	835.1
32.5°	6808.8	1657.2	1153.6	1014.9	925.0	873.6	824.7	809.3	804.2	801.7
35°	6210.2	1438.8	1138.3	960.9	860.7	811.9	791.4	794.0	804.2	804.2
37.5°	5678.3	1369.5	1130.5	922.4	804.2	760.6	773.4	796.5	786.2	786.2
40°	5197.8	1377.2	1125.3	894.1	758.0	732.3	758.0	739.9	714.3	711.8
42.5°	4830.4	1441.5	1115.1	871.0	729.7	711.8	701.4	673.2	670.6	675.8
45°	4563.2	1497.9	1112.5	860.7	698.8	665.4	652.6	624.3	675.8	688.6
47.5°	4247.2	1497.9	1112.5	824.7	647.5	634.7	614.1	583.2	634.7	647.5
50°	3838.6	1402.9	1068.9	783.6	606.4	598.7	562.7	524.2	513.8	521.6
52.5°	3322.1	1230.7	958.4	727.1	565.3	549.8	506.1	477.9	470.2	470.2
55°	2733.8	1030.3	809.3	644.9	521.6	493.3	462.5	449.7	442.0	436.8
57.5°	2222.5	845.3	650.1	573.0	480.5	444.5	434.2	418.8	406.0	398.2
60°	1824.2	665.4	537.0	508.7	439.3	406.0	403.3	382.8	349.4	344.3
62.5°	1408.0	488.2	452.2	442.0	398.2	370.0	364.8	323.7	272.3	262.1
65°	994.4	380.3	364.8	388.0	354.5	328.9	316.0	254.4	200.4	192.7
67.5°	698.8	318.6	287.7	339.2	308.3	274.9	267.2	215.9	167.0	161.8
70°	498.5	259.5	236.4	290.4	246.6	241.5	226.1	179.9	136.2	131.0
72.5°	352.0	197.8	182.4	251.8	169.5	208.1	185.0	138.8	102.8	97.7
75°	259.5	141.3	128.4	146.5	123.3	156.7	131.0	92.5	64.3	61.7
77.5°	190.1	89.9	77.1	72.0	72.0	97.7	72.0	38.5	28.3	25.7
80°	133.6	41.1	36.0	30.9	28.3	23.2	10.2	5.1	2.6	2.6
82.5°	79.6	17.9	17.9	12.8	7.7	0.0	0.0	0.0	0.0	0.0
85°	17.9	7.7	7.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	2.6	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)