

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: P967109

Luminaire Tested: **NAV-SB4D-722-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967109
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-722-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25217 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

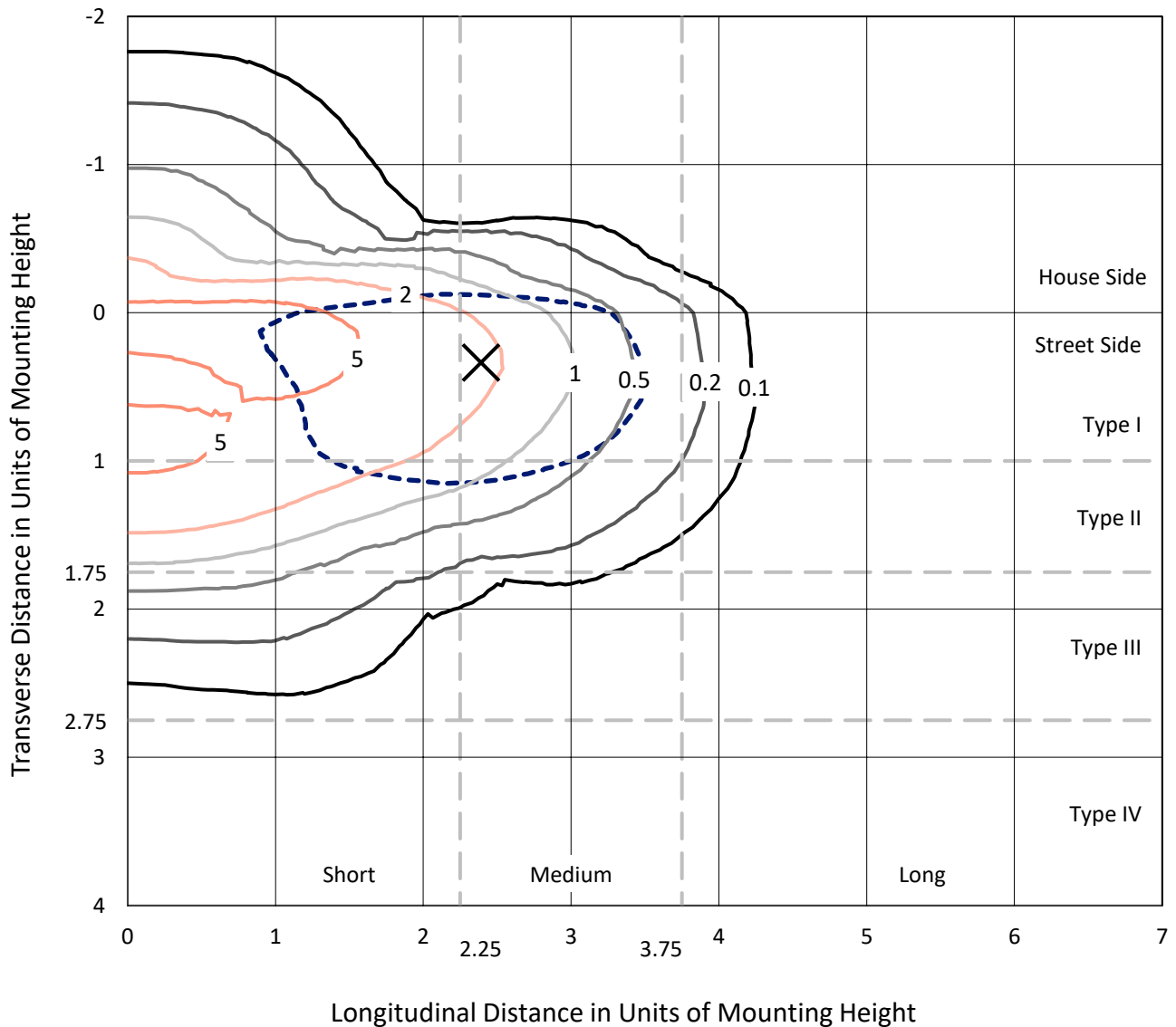
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

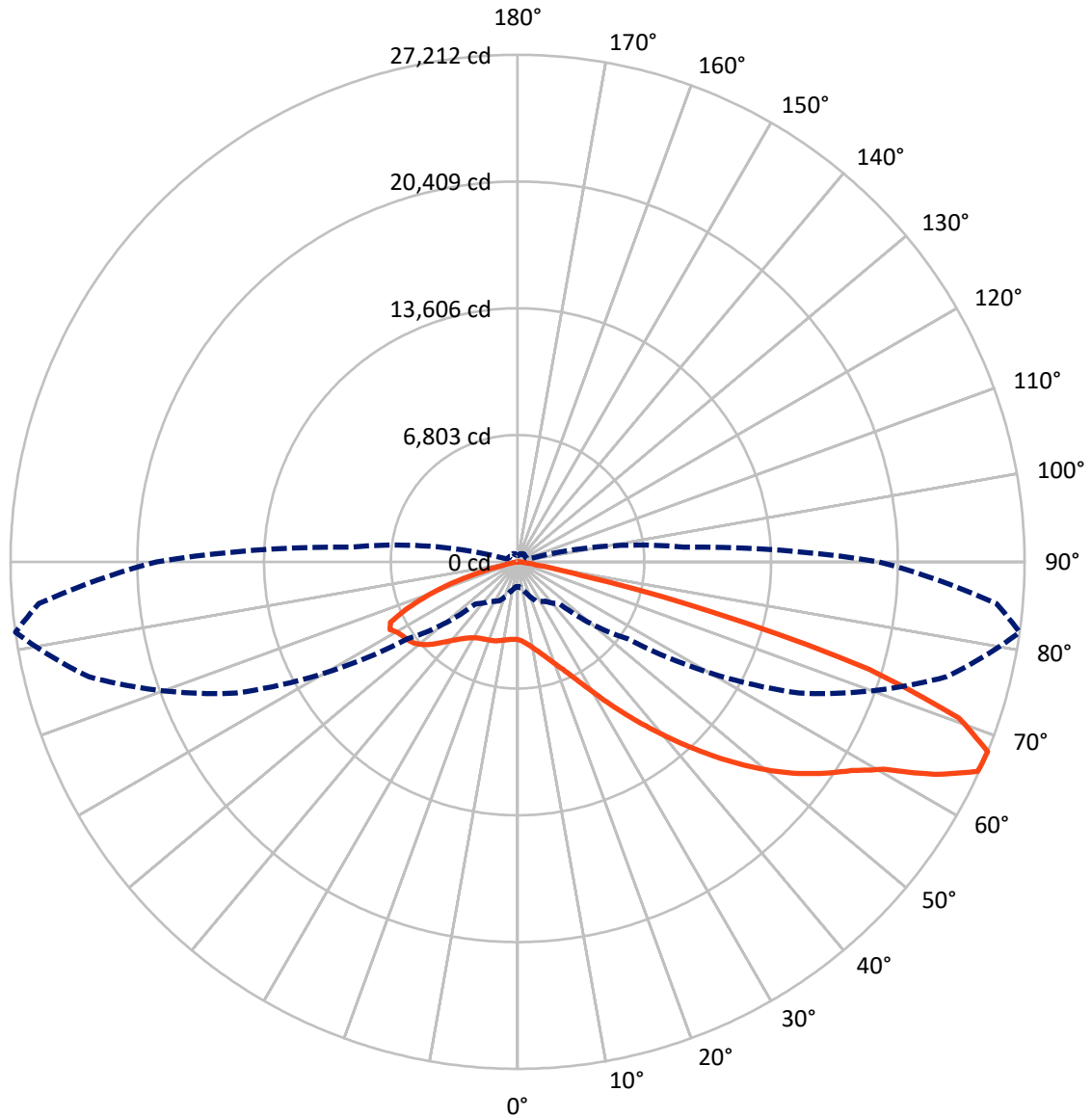
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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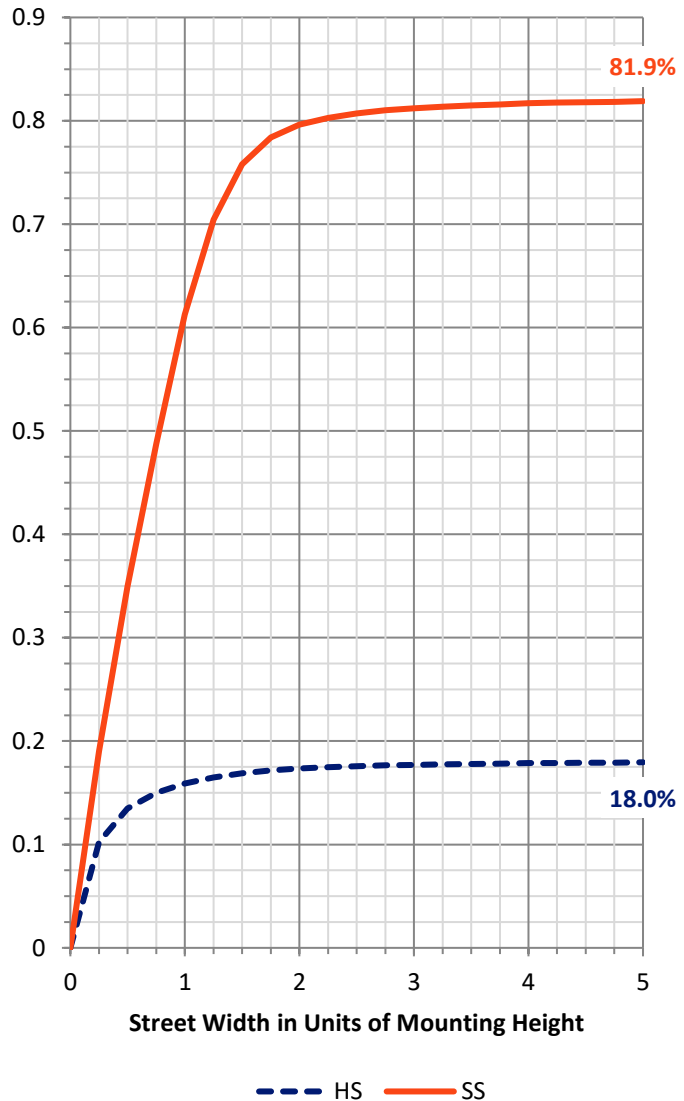
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4567.8	0.0	4567.8
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	20649.2	0.0	20649.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	25217.0	0.0	25217.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	372.2	1.5
10°-20°	967.2	3.8
20°-30°	1549.1	6.1
30°-40°	2739.3	10.9
40°-50°	4799.5	19.0
50°-60°	6401.3	25.4
60°-70°	5959.2	23.6
70°-80°	2287.1	9.1
80°-90°	142.1	0.6
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°	25217.0	100.0
0°-180°	25217.0	100.0

Coefficient of Utilization



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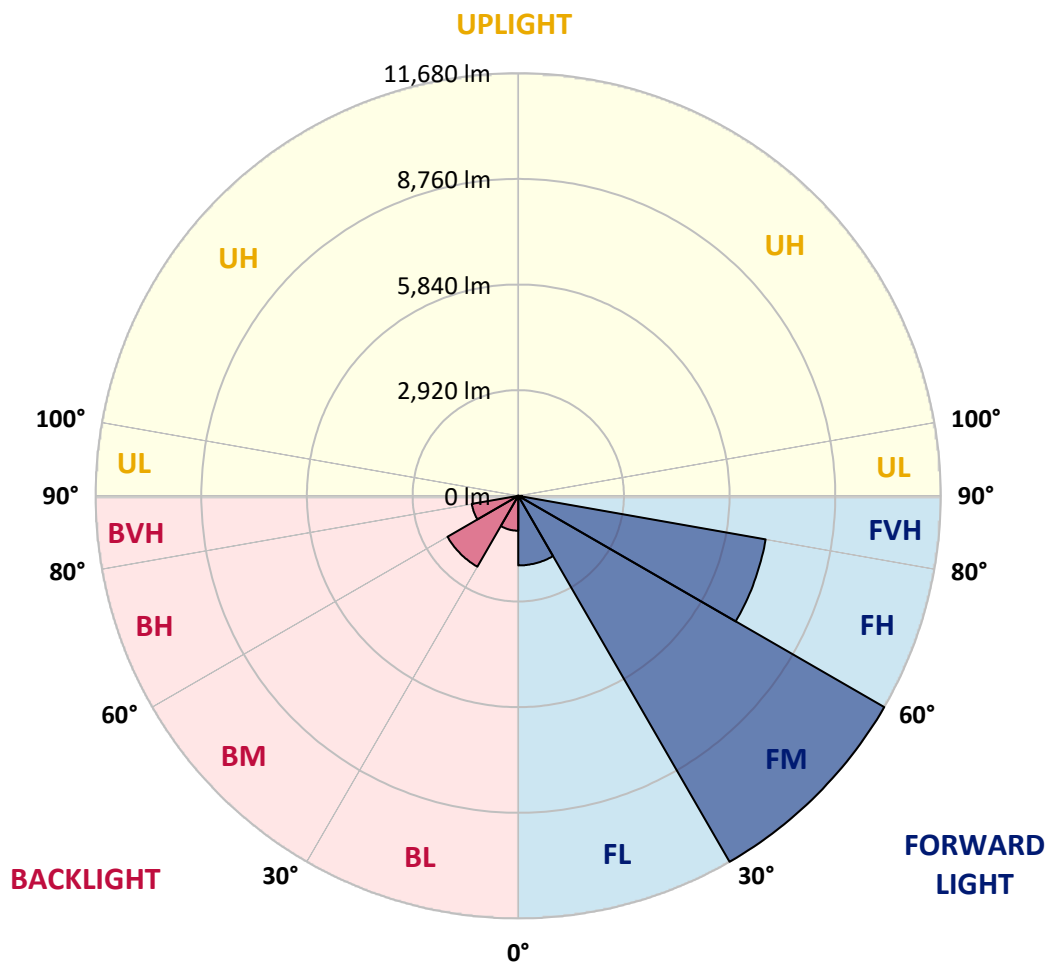
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1923.8	7.6			
FM (30°-60°)	11679.5	46.3			
FH (60°-80°)	6942.6	27.5			G3/7500
FVH (80°-90°)	103.3	0.4			G2/225
BL (0°-30°)	964.7	3.8	B2/1000		
BM (30°-60°)	2260.6	9.0	B2/2500		
BH (60°-80°)	1303.8	5.2	B3/2500		G3/2500
BVH (80°-90°)	38.8	0.2			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6
2.5°	4415.5	4440.9	4426.4	4419.1	4406.4	4388.2	4373.7	4328.3	4281.1	4250.3	4239.3
5°	4504.4	4529.8	4528.0	4535.3	4544.3	4549.8	4546.2	4495.3	4428.2	4375.5	4344.7
7.5°	4428.2	4457.2	4480.8	4517.1	4580.6	4647.9	4680.6	4669.6	4600.6	4528.0	4489.9
10°	4212.1	4243.0	4299.3	4384.5	4518.9	4664.2	4785.8	4842.1	4798.5	4718.7	4666.0
12.5°	3816.3	3847.1	3957.9	4143.2	4368.2	4620.6	4853.0	5003.7	5014.6	4934.7	4873.0
15°	3371.5	3402.4	3520.4	3752.7	4095.9	4500.8	4889.4	5174.4	5270.5	5201.6	5127.2
17.5°	3095.5	3122.8	3211.7	3398.7	3756.4	4261.1	4876.6	5355.9	5575.6	5521.2	5432.2
20°	3012.1	3035.6	3077.4	3208.1	3505.8	4012.4	4793.1	5526.6	5904.2	5873.4	5773.5
22.5°	3100.9	3122.8	3135.5	3193.6	3380.6	3849.0	4687.7	5700.8	6285.5	6289.1	6167.4
25°	3306.1	3328.0	3313.4	3349.7	3431.4	3798.1	4647.9	5906.0	6764.8	6804.8	6666.7
27.5°	3643.9	3645.6	3611.2	3609.3	3622.0	3874.4	4689.6	6125.7	7369.3	7443.9	7273.2
30°	4321.1	4293.8	4161.3	4017.8	3952.5	4103.2	4805.8	6385.3	8082.8	8215.4	8001.2
32.5°	5365.0	5325.1	5081.7	4738.6	4393.7	4471.8	5014.6	6681.3	8860.0	9099.6	8838.2
35°	6497.9	6487.0	6232.8	5722.7	5119.9	4996.5	5354.1	7069.8	9707.8	10089.1	9778.6
37.5°	7551.0	7545.4	7400.2	6799.2	6065.8	5728.1	5898.8	7578.1	10615.6	11167.6	10800.8
40°	8513.1	8529.5	8384.3	7846.9	7108.0	6666.7	6639.5	8206.4	11625.0	12342.2	11906.5
42.5°	9344.7	9362.9	9215.8	8818.2	8137.4	7705.2	7549.1	8976.1	12610.9	13604.0	13088.4
45°	9909.4	10021.9	10000.1	9682.4	9194.0	8745.6	8642.1	9942.0	13734.7	14942.0	14337.5
47.5°	10069.1	10172.6	10336.0	10379.6	10081.8	9640.6	9764.2	11105.8	14871.3	16282.0	15593.8
50°	9675.2	9771.3	10110.9	10562.9	10769.9	10633.8	10855.3	12353.1	16035.1	17618.2	16826.6
52.5°	8898.1	8996.1	9424.6	10139.9	10984.2	11412.7	11950.1	13582.3	17162.5	18883.7	17994.1
55°	7774.2	7877.7	8427.9	9237.6	10575.6	11734.0	12863.2	14809.5	18195.6	20022.0	19047.1
57.5°	6245.5	6321.8	6893.7	8026.6	9548.1	11414.4	13536.9	16149.4	19168.7	21140.4	20091.0
60°	4070.5	4137.7	4802.1	6065.8	7845.0	10346.9	13671.2	17643.6	20461.4	22594.7	21498.0
62.5°	2707.0	2752.4	3146.3	4074.2	5524.7	8297.2	12885.1	18836.4	22356.9	25125.6	23911.0
65°	1857.3	1902.7	2296.7	2943.0	3569.4	5488.5	10624.6	18678.5	24074.4	27135.4	25699.3
67.5°	1325.3	1363.5	1697.5	2307.6	2583.5	3188.2	7202.4	16659.6	23827.5	27211.7	25795.6
70°	949.6	971.3	1247.3	1797.4	2053.4	1915.4	4005.1	12741.7	20862.6	25127.4	23831.0
72.5°	664.5	671.8	866.0	1368.9	1653.9	1398.0	1906.3	8495.0	15779.1	19722.4	18475.2
75°	450.3	459.3	582.8	1004.0	1327.2	1067.5	1009.4	4555.2	9263.0	10917.0	9785.9
77.5°	275.9	279.6	375.9	686.2	993.1	813.3	650.0	1930.0	3583.9	3518.5	2999.4
80°	156.1	156.1	239.6	426.7	677.2	524.7	455.7	820.6	1134.8	996.7	878.7
82.5°	87.1	89.0	174.2	265.1	448.4	310.5	250.5	379.5	490.2	433.9	377.6
85°	36.3	40.0	107.1	125.3	214.2	154.4	101.7	159.8	181.5	161.5	118.0
87.5°	3.6	5.4	32.7	23.6	25.4	30.9	14.6	30.9	25.4	25.4	18.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6	4177.6
2.5°	4204.9	4177.6	4108.6	4028.8	3923.4	3872.6	3803.6	3756.4	3716.4	3720.1	3683.7
5°	4286.5	4217.6	4063.2	3870.8	3631.2	3460.5	3278.9	3153.6	3051.9	3030.2	2981.1
7.5°	4399.1	4290.1	4019.6	3672.9	3268.0	2961.2	2687.0	2510.9	2385.7	2345.7	2305.7
10°	4544.3	4386.4	3963.4	3424.1	2841.4	2451.0	2156.9	2018.9	1933.6	1904.6	1882.7
12.5°	4713.2	4497.2	3889.0	3120.9	2402.0	2026.2	1839.2	1770.2	1742.9	1733.9	1728.5
15°	4925.6	4635.2	3776.4	2761.5	2029.8	1766.6	1686.6	1677.6	1681.2	1677.6	1675.8
17.5°	5178.0	4785.8	3593.0	2391.1	1779.3	1634.1	1604.9	1612.2	1621.3	1619.5	1615.8
20°	5453.9	4934.7	3358.8	2062.5	1608.6	1539.6	1523.3	1530.5	1537.8	1534.1	1532.4
22.5°	5768.1	5094.5	3099.2	1806.5	1494.2	1452.4	1434.3	1436.1	1436.1	1428.8	1425.3
25°	6143.8	5270.5	2826.8	1624.9	1407.0	1374.4	1352.6	1345.3	1334.4	1312.6	1309.0
27.5°	6592.3	5457.6	2565.4	1497.8	1338.0	1307.2	1281.8	1263.6	1236.4	1200.1	1196.5
30°	7097.0	5684.5	2343.9	1418.0	1283.6	1252.8	1223.6	1196.5	1156.5	1111.1	1107.5
32.5°	7690.7	5927.8	2182.3	1365.3	1234.6	1201.9	1167.4	1134.8	1091.1	1045.8	1047.6
35°	8398.7	6222.0	2087.9	1329.0	1196.5	1152.9	1114.8	1078.4	1045.8	1005.8	1002.1
37.5°	9166.8	6534.2	2058.8	1310.9	1171.1	1103.8	1060.3	1034.8	1031.3	1007.7	1005.8
40°	10007.4	6904.6	2080.6	1299.9	1143.8	1056.7	1009.4	1004.0	1013.1	971.3	973.1
42.5°	10897.0	7343.9	2116.9	1287.2	1105.7	1009.4	964.1	964.1	956.8	898.7	898.7
45°	11859.2	7850.5	2153.2	1256.3	1060.3	962.3	927.7	915.0	884.2	827.9	826.0
47.5°	12828.8	8366.2	2180.5	1200.1	1005.8	922.3	891.4	862.4	817.0	766.2	764.3
50°	13749.2	8829.0	2151.5	1116.5	944.1	884.2	851.5	811.6	762.5	728.1	722.6
52.5°	14571.7	9230.3	2028.0	1018.5	878.7	844.2	815.2	773.5	733.5	697.2	693.5
55°	15287.1	9555.4	1810.2	926.0	820.6	809.7	780.7	728.1	673.5	642.7	639.1
57.5°	15973.3	9802.2	1537.8	849.7	768.0	771.6	728.1	680.8	630.0	597.4	593.7
60°	16886.6	10132.6	1261.8	778.9	711.7	722.6	675.4	640.9	577.4	535.6	530.1
62.5°	18346.3	10646.5	1002.1	691.8	646.4	650.0	630.0	588.2	512.0	463.0	459.3
65°	19504.6	10457.7	789.8	597.4	571.9	577.4	577.4	532.0	450.3	394.0	388.6
67.5°	19373.8	8954.4	630.0	504.7	501.1	504.7	517.4	479.3	399.4	354.0	346.8
70°	17847.0	7122.4	504.7	419.4	435.7	426.7	463.0	437.6	359.5	314.1	308.6
72.5°	14562.6	5130.7	384.9	346.8	334.0	348.6	417.6	394.0	299.6	248.8	243.3
75°	8509.6	2737.9	286.9	274.2	241.5	290.5	370.3	335.9	228.8	183.4	177.9
77.5°	2770.6	955.0	210.6	201.5	179.8	234.2	315.9	283.2	187.0	145.2	139.8
80°	742.6	288.6	143.4	132.5	116.2	174.2	250.5	225.1	134.4	94.4	92.6
82.5°	297.8	121.7	83.5	74.4	63.6	119.8	197.9	181.5	99.8	60.0	60.0
85°	96.2	40.0	30.9	23.6	29.0	74.4	118.0	123.4	70.8	30.9	23.6
87.5°	12.7	5.4	5.4	7.3	5.4	12.7	36.3	34.5	20.0	3.6	0.0
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)