

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: P966042

Luminaire Tested: **NAV-SB4B-722-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966042
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-722-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19435 lumens
Efficiency: N/A
Efficacy: 132.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

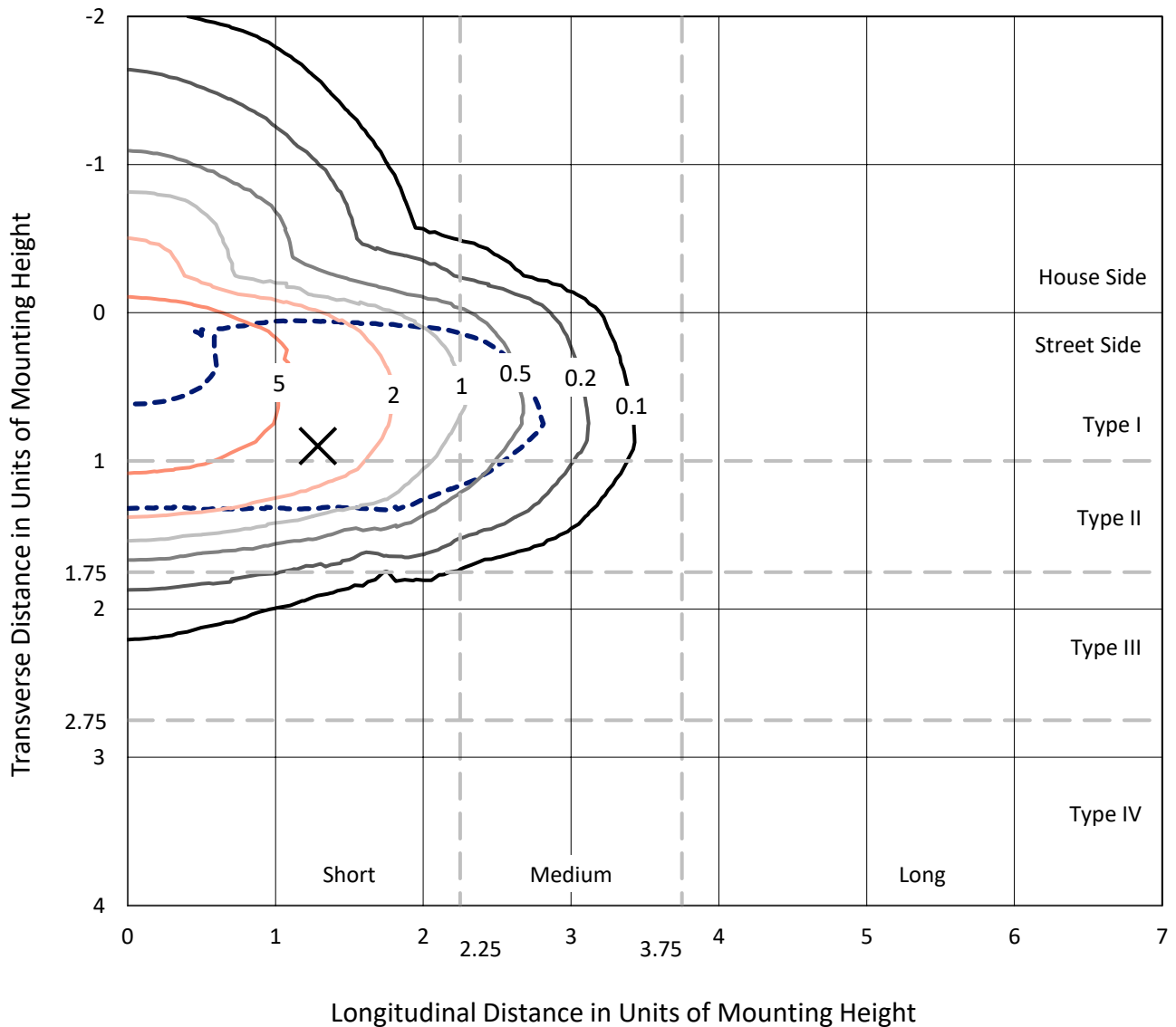
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P966042
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Iso-Footcandle Lines of Horizontal Illumination

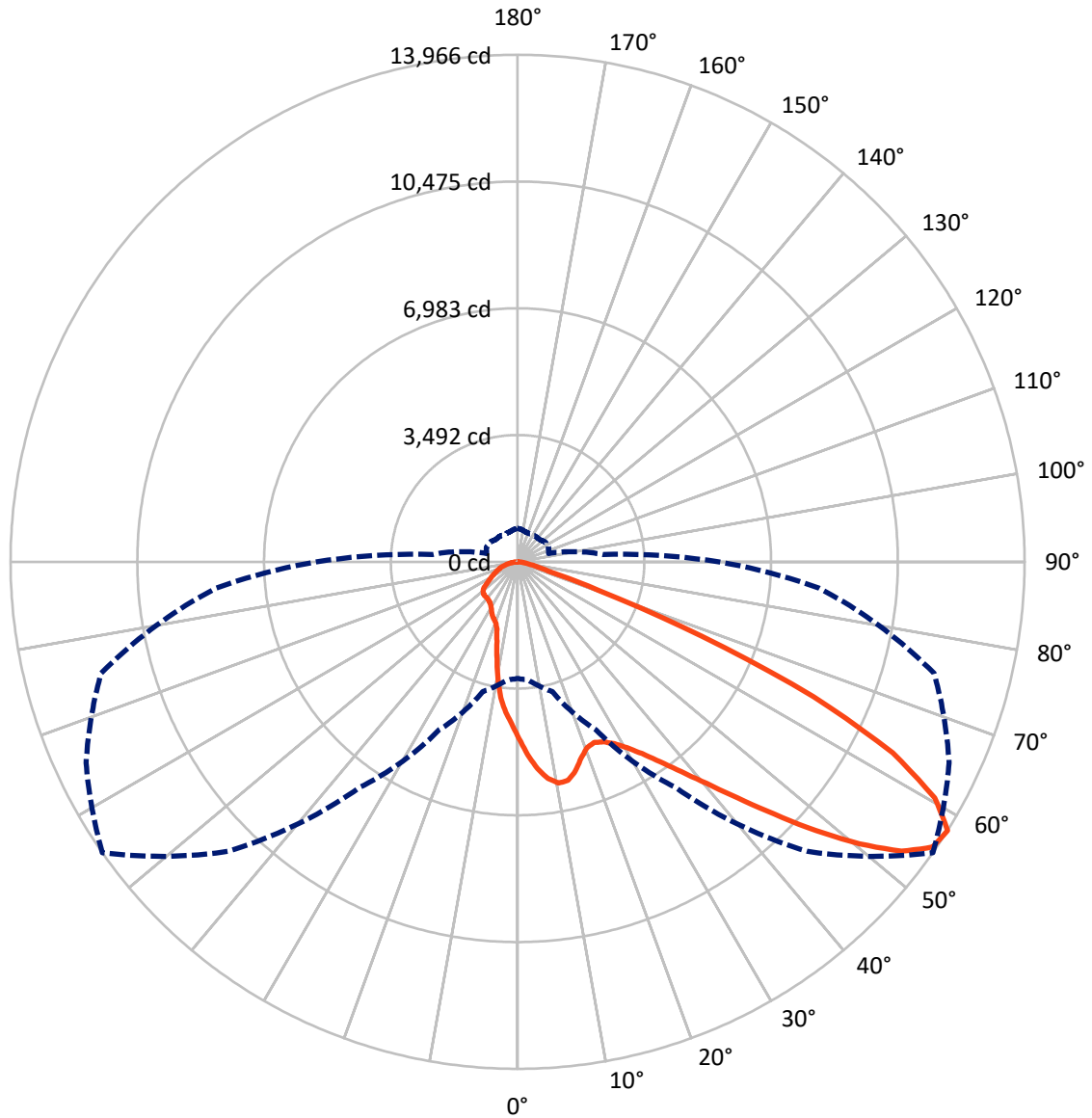
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 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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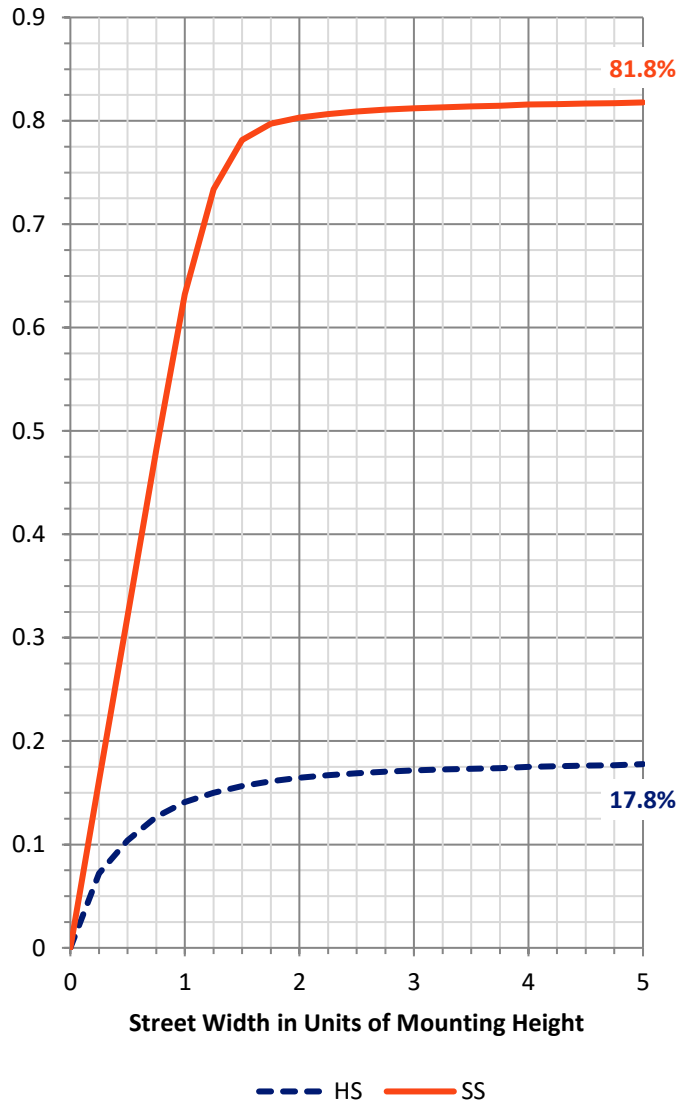
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3516.7	0.0	3516.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	15918.3	0.0	15918.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	19435.0	0.0	19435.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	451.9	2.3
10°-20°	1140.6	5.9
20°-30°	1820.1	9.4
30°-40°	2881.6	14.8
40°-50°	4410.6	22.7
50°-60°	4724.1	24.3
60°-70°	2972.0	15.3
70°-80°	878.9	4.5
80°-90°	155.4	0.8
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°	19435.0	100.0
0°-180°	19435.0	100.0

Coefficient of Utilization

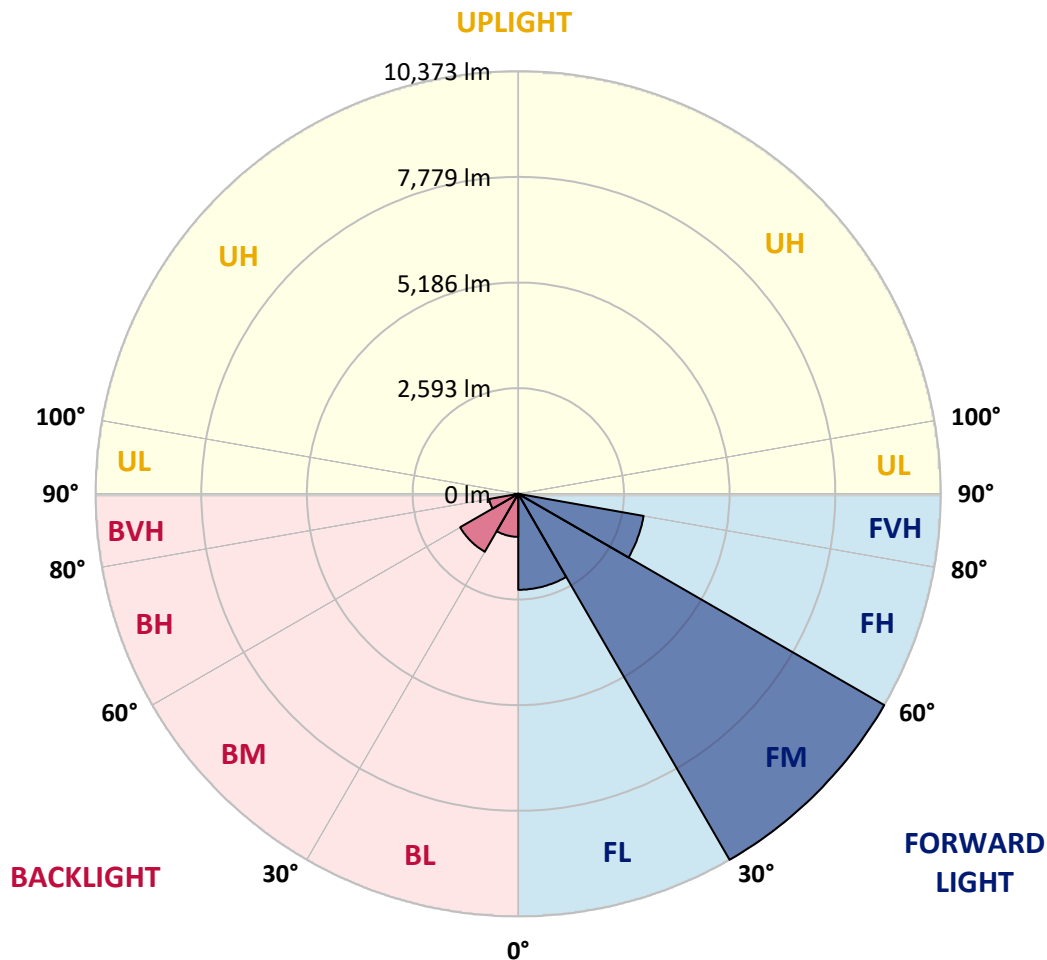


REPORT NUMBER: P966042
 CATALOG NUMBER: NAV-SB4B-722-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2355.5	12.1			
FM (30°-60°)	10372.6	53.4			
FH (60°-80°)	3124.6	16.1			G2/5000
FVH (80°-90°)	65.7	0.3			G1/100
BL (0°-30°)	1057.0	5.4	B3/2500		
BM (30°-60°)	1643.7	8.5	B2/2500		
BH (60°-80°)	726.3	3.7	B2/1000		G2/1000
BVH (80°-90°)	89.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
 Type II Short



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 CATALOG NUMBER: NAV-SB4B-722-U-AFL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8
2.5°	5587.2	5583.2	5605.2	5529.9	5478.6	5409.3	5317.9	5201.4	5075.8	4943.2	4885.9
5°	6090.4	6055.3	6078.5	6022.2	5965.9	5861.5	5725.8	5535.9	5303.9	5039.6	4898.9
7.5°	6011.1	5987.0	6046.3	6096.5	6138.7	6125.7	6026.2	5827.2	5527.8	5144.1	4940.1
10°	5371.1	5344.0	5427.4	5601.2	5856.4	6078.5	6199.0	6075.4	5756.9	5258.6	4980.3
12.5°	4806.5	4793.4	4848.7	4989.4	5272.7	5698.7	6176.9	6292.5	5995.0	5394.3	5034.6
15°	4565.3	4549.3	4584.4	4655.8	4836.7	5233.4	5976.0	6441.1	6229.1	5551.0	5121.0
17.5°	4512.2	4494.0	4509.1	4546.3	4662.8	4965.2	5672.6	6514.5	6473.3	5725.8	5193.3
20°	4610.6	4595.5	4597.5	4595.5	4676.9	4917.0	5461.5	6486.3	6686.3	5886.6	5263.6
22.5°	4848.7	4823.5	4824.6	4771.4	4815.6	5001.4	5406.3	6411.0	6876.2	6027.2	5316.9
25°	5236.5	5191.3	5200.3	5064.7	5052.6	5190.3	5492.7	6352.7	7065.0	6139.7	5326.9
27.5°	5767.0	5715.7	5688.6	5486.7	5390.3	5458.5	5668.6	6372.8	7243.9	6237.2	5301.8
30°	6430.1	6367.8	6312.6	6026.2	5851.4	5826.3	5941.8	6505.5	7454.9	6339.6	5258.6
32.5°	7242.9	7170.6	7070.0	6690.3	6444.2	6312.6	6295.4	6741.5	7702.1	6470.3	5236.5
35°	8210.5	8115.9	7973.3	7482.0	7170.6	6901.3	6761.6	7082.1	8040.6	6667.2	5261.6
37.5°	9207.1	9100.6	8970.0	8385.2	8002.5	7605.6	7330.3	7544.3	8491.7	6934.4	5328.0
40°	10126.4	10006.9	9885.3	9364.8	8953.9	8475.6	8026.6	8129.1	9043.3	7253.9	5440.5
42.5°	10668.9	10580.5	10534.3	10253.0	9935.5	9450.2	8892.6	8822.3	9663.2	7621.7	5569.0
45°	10644.8	10608.6	10751.3	10867.9	10792.5	10523.3	9907.3	9588.9	10285.2	7940.2	5687.6
47.5°	10076.2	10100.2	10418.7	11073.8	11362.1	11502.9	11062.7	10341.4	10825.6	8178.3	5740.8
50°	8528.9	8549.0	9286.5	10699.1	11508.8	12301.5	12209.1	11075.8	11244.7	8323.9	5728.8
52.5°	7304.2	7317.3	7633.7	9587.8	11024.6	12703.4	13242.0	11768.0	11551.0	8364.1	5661.5
55°	5501.8	5547.0	5901.6	7522.2	9764.7	12385.0	13870.9	12481.4	11745.0	8368.2	5591.2
57.5°	3214.0	3263.3	3701.3	5105.9	7589.5	11274.8	13966.3	13114.4	11876.6	8336.0	5548.9
60°	1574.4	1595.5	1786.4	2683.6	4679.9	9135.7	13198.7	13420.8	11950.0	8318.9	5547.0
62.5°	1061.0	1057.9	1066.0	1324.2	2305.8	5869.5	11599.3	12884.2	11910.7	8253.6	5526.9
65°	912.2	901.2	871.0	929.4	1194.6	2684.6	8962.0	11282.8	11612.3	8089.8	5389.2
67.5°	788.7	789.7	790.7	772.6	853.0	1238.8	5476.6	8887.6	10541.3	7314.2	4858.7
70°	653.0	662.0	666.1	666.1	695.3	812.8	2337.9	6091.5	8314.9	5734.9	3913.3
72.5°	594.8	575.7	577.7	567.6	567.6	618.9	941.4	3453.1	5238.5	3226.1	2388.1
75°	485.2	497.3	499.4	492.3	469.2	472.2	558.6	1448.7	2241.5	1338.2	1180.5
77.5°	418.9	418.9	423.0	418.0	399.9	353.6	372.8	561.6	762.6	548.6	589.8
80°	336.6	335.6	352.6	362.7	334.6	261.3	238.1	310.5	338.6	241.1	306.5
82.5°	163.8	173.8	242.1	276.3	254.2	188.9	145.7	192.9	180.8	106.5	137.7
85°	95.4	90.4	108.5	153.8	145.7	104.4	70.3	100.4	94.4	54.2	55.2
87.5°	30.1	28.1	22.1	52.3	42.2	29.1	19.1	29.1	26.1	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P966042
 CATALOG NUMBER: NAV-SB4B-722-U-AFL

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8	4869.8
2.5°	4814.5	4695.9	4578.5	4470.9	4405.7	4363.4	4321.2	4274.0	4255.9	4228.7
5°	4766.4	4537.3	4333.3	4157.5	3997.7	3872.1	3745.6	3643.1	3596.8	3628.0
7.5°	4738.2	4406.6	4092.1	3769.6	3459.2	3211.0	2995.0	2843.4	2775.0	2792.1
10°	4713.1	4259.0	3779.7	3270.3	2824.2	2516.8	2295.7	2180.2	2137.0	2146.0
12.5°	4690.0	4093.1	3402.9	2732.8	2258.6	2055.6	1992.3	1993.3	2001.4	2007.4
15°	4685.9	3893.3	2981.9	2262.6	1953.1	1940.1	2008.4	2051.6	2074.7	2081.8
17.5°	4679.9	3654.1	2553.0	1942.1	1878.8	1967.2	2030.5	2058.6	2076.8	2077.7
20°	4655.8	3350.7	2157.1	1789.3	1862.7	1939.1	1978.2	2000.4	2015.5	2020.5
22.5°	4581.4	3013.1	1848.7	1721.1	1798.5	1859.7	1905.9	1931.0	1940.1	1946.1
25°	4447.8	2635.4	1635.7	1655.8	1709.0	1786.4	1823.6	1828.6	1825.5	1834.5
27.5°	4273.0	2230.4	1503.1	1567.3	1635.7	1702.0	1722.1	1719.0	1713.0	1723.0
30°	4062.0	1866.7	1418.6	1467.9	1561.3	1621.6	1639.7	1632.6	1620.6	1631.6
32.5°	3838.9	1569.4	1349.3	1398.5	1500.0	1559.3	1577.4	1570.3	1561.3	1570.3
35°	3631.0	1361.4	1285.0	1352.3	1451.8	1510.0	1533.2	1534.2	1534.2	1545.2
37.5°	3440.1	1239.8	1231.7	1323.2	1418.6	1470.9	1504.1	1506.0	1462.9	1465.9
40°	3263.3	1188.6	1207.7	1304.1	1386.5	1436.7	1438.7	1326.2	1246.8	1244.9
42.5°	3118.6	1178.5	1214.7	1302.1	1363.4	1365.4	1223.7	1136.3	1114.2	1115.2
45°	2983.0	1175.5	1230.7	1302.1	1329.2	1179.6	1084.0	1061.0	1062.9	1071.0
47.5°	2831.3	1163.5	1233.8	1284.0	1230.7	1048.9	1020.8	1010.8	1006.8	1008.7
50°	2665.5	1120.2	1195.6	1247.8	1062.0	992.6	957.5	954.5	959.5	962.5
52.5°	2490.6	1049.9	1130.3	1182.5	984.6	943.4	904.3	911.2	933.4	940.4
55°	2376.2	967.5	1043.9	1052.0	930.4	897.2	864.1	880.2	921.3	934.4
57.5°	2346.0	880.2	945.5	936.3	861.0	857.0	836.9	851.0	903.2	922.3
60°	2336.9	801.8	849.0	841.9	793.8	812.8	807.8	814.8	832.9	839.0
62.5°	2266.6	739.4	762.6	752.6	733.4	766.6	778.7	763.5	777.7	784.6
65°	2087.7	689.2	678.1	671.2	679.2	709.3	733.4	703.3	716.4	736.5
67.5°	1792.4	620.9	590.8	598.8	623.9	640.0	671.2	636.9	648.0	682.2
70°	1449.8	534.5	507.4	530.4	554.6	587.7	592.8	569.7	595.8	634.0
72.5°	1025.8	447.1	428.0	475.2	483.3	526.4	515.4	504.4	540.5	553.6
75°	711.3	360.7	349.6	385.8	414.9	452.1	444.0	457.2	533.5	539.6
77.5°	450.1	280.3	273.3	296.4	336.6	377.8	390.8	539.6	911.2	947.4
80°	261.3	209.0	200.9	219.0	254.2	292.3	376.8	662.0	600.9	593.8
82.5°	145.7	143.7	133.7	138.7	169.8	210.9	532.5	466.2	378.7	390.8
85°	68.4	84.4	72.4	69.3	95.4	247.1	355.7	266.3	176.8	172.8
87.5°	18.0	16.1	16.1	18.0	40.2	213.0	141.7	113.6	67.3	65.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)