

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: P963546

Luminaire Tested: **NAV-SB3A-740-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963546
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-740-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14865.6 lumens
Efficiency: N/A
Efficacy: 175.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 84.7
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

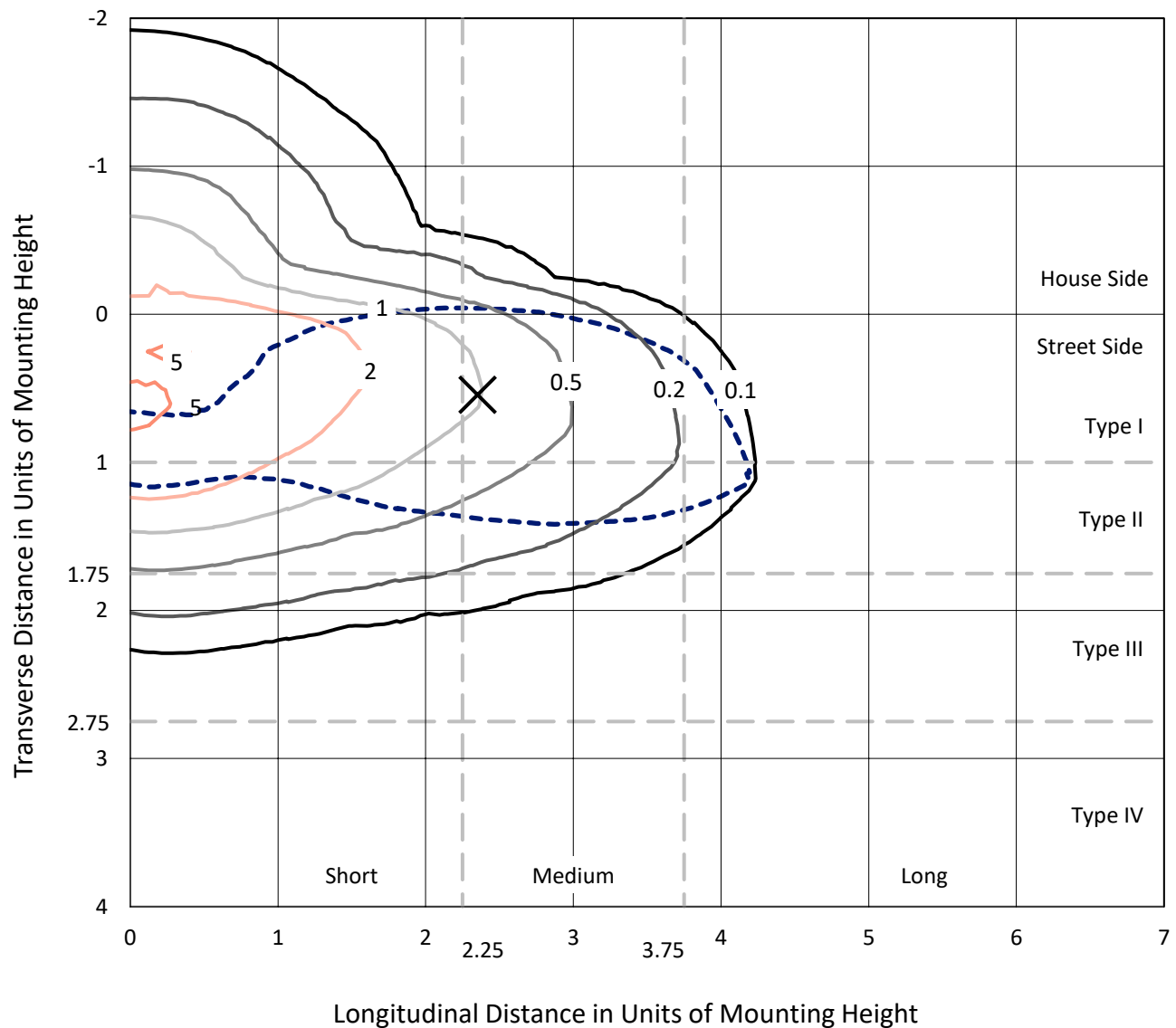


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Iso-Footcandle Lines of Horizontal Illumination

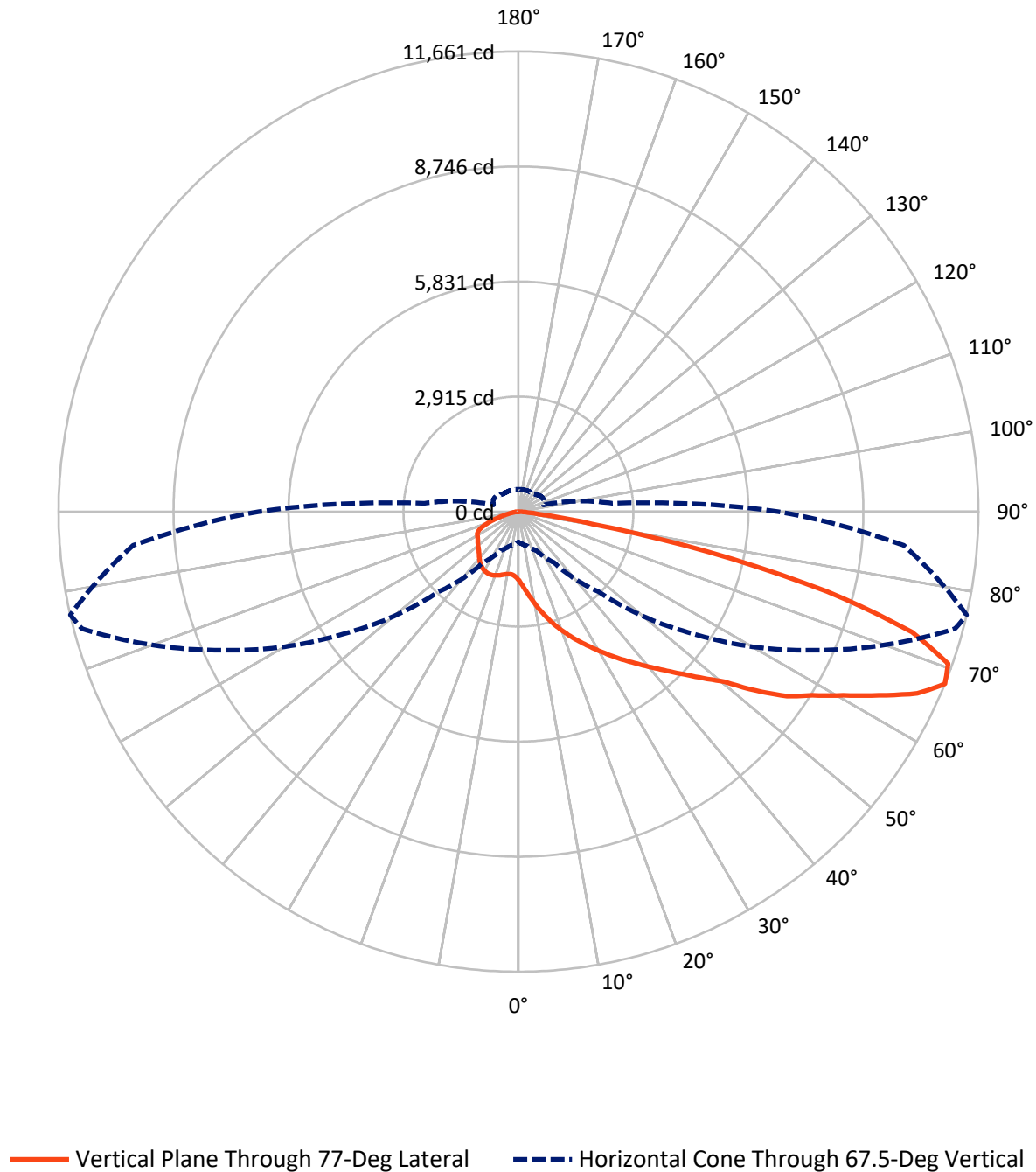
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2812.0	0.0	2812.0
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	12053.6	0.0	12053.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	14865.6	0.0	14865.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.0	1.3
10°-20°	671.7	4.5
20°-30°	1268.1	8.5
30°-40°	2043.0	13.7
40°-50°	2794.4	18.8
50°-60°	3152.1	21.2
60°-70°	2942.1	19.8
70°-80°	1612.8	10.8
80°-90°	194.5	1.3
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°	14865.6	100.0
0°-180°	14865.6	100.0

Coefficient of Utilization



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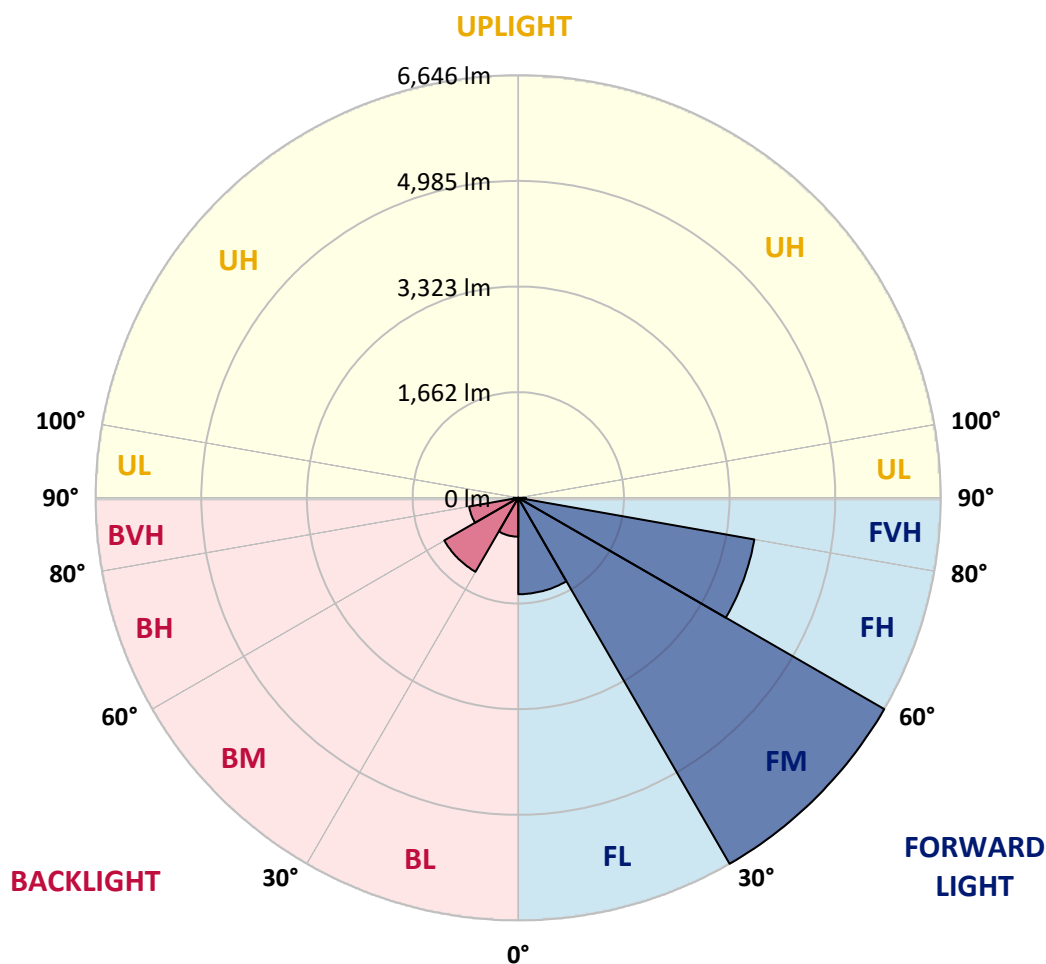
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1515.4	10.2			
FM	(30°-60°)	6646.2	44.7			
FH	(60°-80°)	3770.4	25.4			G2/5000
FVH	(80°-90°)	121.6	0.8			G2/225
BL	(0°-30°)	611.4	4.1	B2/1000		
BM	(30°-60°)	1343.2	9.0	B2/2500		
BH	(60°-80°)	784.5	5.3	B2/1000		G2/1000
BVH	(80°-90°)	72.9	0.5			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2
2.5°	2183.9	2199.2	2180.1	2180.1	2115.6	2081.9	2017.4	1968.3	1880.1	1864.7	1806.4
5°	2581.4	2600.5	2573.7	2562.2	2486.2	2416.4	2308.2	2201.5	2044.3	2028.1	1890.7
7.5°	2889.1	2913.7	2889.9	2877.6	2810.0	2731.7	2605.1	2456.3	2234.5	2203.0	2004.3
10°	3140.0	3143.9	3136.2	3140.8	3087.8	3023.3	2893.7	2720.2	2443.3	2400.2	2141.6
12.5°	3281.9	3299.6	3315.0	3342.6	3333.4	3293.5	3176.9	2969.6	2664.3	2609.0	2291.3
15°	3348.8	3379.4	3414.0	3477.6	3529.1	3539.0	3450.0	3237.5	2889.1	2822.3	2442.5
17.5°	3372.6	3401.7	3456.2	3548.2	3658.7	3733.2	3693.3	3497.6	3111.6	3034.9	2601.3
20°	3493.0	3501.4	3534.4	3621.9	3741.7	3865.2	3895.1	3747.7	3331.9	3245.1	2765.6
22.5°	3750.8	3734.0	3743.2	3783.1	3869.0	3988.7	4057.0	3968.8	3558.2	3458.5	2931.3
25°	4176.7	4127.6	4078.5	4032.5	4076.2	4143.7	4221.3	4189.8	3795.4	3668.7	3098.6
27.5°	4714.6	4654.7	4546.6	4395.4	4342.4	4366.2	4400.7	4394.6	4014.8	3886.6	3271.2
30°	5244.1	5174.3	5045.4	4826.6	4687.0	4624.1	4597.9	4580.3	4253.4	4116.8	3445.4
32.5°	5666.9	5611.7	5485.1	5240.2	5037.7	4930.2	4843.5	4780.6	4502.8	4366.2	3629.6
35°	6036.7	5985.4	5840.3	5573.3	5353.1	5238.7	5125.1	4990.8	4762.2	4624.1	3827.6
37.5°	6374.4	6323.0	6124.3	5846.5	5624.7	5545.7	5444.4	5216.4	5022.3	4891.9	4037.1
40°	6587.8	6576.2	6390.6	6075.9	5845.7	5806.5	5772.8	5478.1	5310.8	5189.6	4267.3
42.5°	6642.2	6667.5	6520.2	6261.6	6042.2	6010.7	6089.7	5774.3	5634.6	5518.8	4528.1
45°	6511.0	6583.9	6487.2	6311.4	6181.8	6165.0	6370.6	6098.1	5993.1	5887.1	4842.7
47.5°	6178.7	6302.3	6262.3	6237.8	6219.4	6292.3	6617.6	6441.9	6399.0	6306.8	5201.9
50°	5508.0	5742.2	5812.0	5966.9	6145.0	6391.3	6842.5	6817.2	6873.1	6780.4	5639.2
52.5°	4348.6	4670.9	5076.0	5464.3	5916.3	6358.3	7089.6	7355.8	7592.2	7541.5	6334.5
55°	3589.7	3734.7	4046.3	4758.4	5472.8	6219.4	7200.8	7790.9	8305.8	8260.6	6861.7
57.5°	3006.5	3136.2	3328.0	3922.7	4802.1	5904.0	7269.9	8056.4	8794.6	8790.0	7381.9
60°	2381.1	2518.4	2714.9	3136.2	4018.6	5359.2	7254.5	8358.8	9418.5	9456.9	8016.5
62.5°	1675.2	1826.3	2044.3	2437.1	3218.3	4653.2	6941.5	8577.5	10152.8	10257.2	8780.0
65°	1101.2	1200.9	1365.1	1704.3	2398.0	3745.5	6343.7	8605.9	10938.6	11115.1	9496.7
67.5°	771.9	810.4	907.0	1091.2	1580.8	2872.2	5391.4	8311.9	11462.7	11661.4	9807.5
70°	602.4	621.6	670.7	744.4	992.9	1931.4	4131.5	7547.7	11350.6	11557.9	9483.0
72.5°	520.3	538.6	557.1	566.3	666.0	1192.5	2798.6	6310.7	10295.6	10436.0	8245.2
75°	471.9	476.5	491.9	488.8	508.0	773.5	1615.3	4597.9	8123.2	8074.8	6086.7
77.5°	396.7	402.8	428.1	424.4	451.2	528.7	838.8	2967.4	5266.3	4937.9	3387.8
80°	336.1	339.2	366.7	362.2	392.2	382.9	428.1	1512.5	2233.8	1892.3	976.8
82.5°	116.6	144.2	280.1	288.5	299.3	231.8	247.1	616.9	682.1	522.5	204.9
85°	56.8	60.6	142.7	202.5	201.8	116.6	120.4	220.3	214.8	168.8	68.3
87.5°	9.2	11.5	16.9	79.0	62.9	30.6	41.4	42.9	44.5	38.3	15.4
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°	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2	1744.2
2.5°	1763.4	1725.0	1644.4	1570.0	1511.7	1455.7	1424.2	1397.4	1382.0	1378.9	1378.9
5°	1811.0	1731.9	1585.4	1461.9	1381.2	1321.4	1290.0	1270.0	1260.0	1253.9	1253.1
7.5°	1879.2	1763.4	1554.6	1414.2	1329.8	1286.9	1270.7	1267.6	1266.9	1267.6	1270.0
10°	1973.6	1814.8	1551.5	1402.7	1332.1	1308.3	1307.6	1308.3	1311.4	1312.2	1312.9
12.5°	2075.7	1867.8	1563.8	1412.7	1361.3	1348.3	1345.9	1345.2	1347.5	1349.0	1349.8
15°	2186.9	1937.6	1584.5	1434.2	1393.5	1379.6	1377.4	1372.8	1372.1	1371.2	1370.5
17.5°	2301.3	2006.6	1607.6	1457.2	1414.2	1395.0	1386.6	1375.9	1367.5	1365.1	1367.5
20°	2417.2	2074.9	1623.7	1468.7	1415.7	1388.9	1372.1	1353.6	1339.1	1330.6	1333.6
22.5°	2540.7	2146.2	1633.6	1465.6	1402.0	1365.1	1334.4	1312.9	1290.7	1276.1	1276.8
25°	2661.2	2208.5	1632.9	1449.6	1375.1	1328.3	1289.1	1261.6	1230.8	1215.4	1215.4
27.5°	2777.0	2264.4	1613.8	1421.2	1336.7	1284.5	1237.8	1204.8	1174.9	1160.2	1159.5
30°	2896.8	2311.3	1583.8	1379.6	1291.5	1233.9	1182.5	1154.1	1127.2	1113.5	1112.6
32.5°	3015.7	2354.2	1541.6	1328.3	1239.2	1184.0	1133.3	1107.3	1091.2	1091.2	1091.9
35°	3141.5	2384.1	1485.6	1268.4	1184.0	1131.1	1091.2	1075.8	1074.3	1065.1	1062.8
37.5°	3274.3	2403.3	1417.3	1207.0	1129.6	1079.6	1067.4	1049.0	1033.6	1013.6	1010.6
40°	3414.0	2422.5	1335.2	1143.4	1071.9	1044.4	1039.0	1014.4	970.7	921.6	914.7
42.5°	3583.5	2435.6	1250.0	1079.6	1011.4	1002.1	1009.8	967.6	897.8	861.0	861.7
45°	3780.0	2457.0	1171.8	1016.7	949.3	949.3	981.4	926.2	868.7	845.6	849.4
47.5°	4034.7	2506.9	1098.8	947.7	891.6	907.0	918.5	876.3	844.1	815.7	815.0
50°	4403.1	2626.7	1023.7	877.8	847.9	878.6	862.5	837.9	800.3	777.4	775.0
52.5°	4860.4	2697.3	956.9	815.0	810.4	841.0	817.9	795.0	766.6	735.8	729.8
55°	5171.9	2710.3	900.9	768.9	785.0	782.0	773.5	752.8	737.4	696.8	697.5
57.5°	5520.3	2736.3	854.8	741.3	768.9	735.1	732.1	714.4	694.4	666.9	657.6
60°	5937.0	2777.0	815.0	730.5	755.1	704.4	689.1	682.1	662.3	648.4	652.2
62.5°	6391.3	2813.9	774.3	732.1	738.9	674.6	651.5	649.1	636.9	632.3	632.3
65°	6701.2	2713.4	723.6	730.5	713.6	643.8	614.7	613.9	603.9	602.4	601.6
67.5°	6593.1	2394.9	655.3	709.0	687.6	613.2	580.9	577.8	564.8	565.5	565.5
70°	6051.4	1940.6	561.0	656.1	655.3	585.5	545.6	535.6	517.9	521.0	524.1
72.5°	5035.4	1438.0	434.3	567.8	603.9	560.2	504.9	488.8	466.6	469.7	468.8
75°	3636.5	977.6	316.1	432.0	525.6	530.2	465.0	437.4	410.5	415.1	416.7
77.5°	1860.8	554.0	232.5	297.8	412.9	481.9	429.0	392.2	386.0	429.0	422.8
80°	607.0	277.8	161.1	208.7	270.9	394.4	376.0	333.8	332.3	342.2	293.9
82.5°	181.1	117.4	103.6	137.4	149.6	302.4	324.6	252.5	217.2	228.7	236.4
85°	62.1	56.8	59.0	68.3	71.3	177.2	227.1	167.3	158.1	174.1	171.9
87.5°	14.6	20.0	16.9	15.4	15.4	42.9	88.3	69.8	96.7	64.5	62.1
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)