

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: P963670

Luminaire Tested: **NAV-SB3A-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963670
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-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12625.9 lumens
Efficiency: N/A
Efficacy: 149.1 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

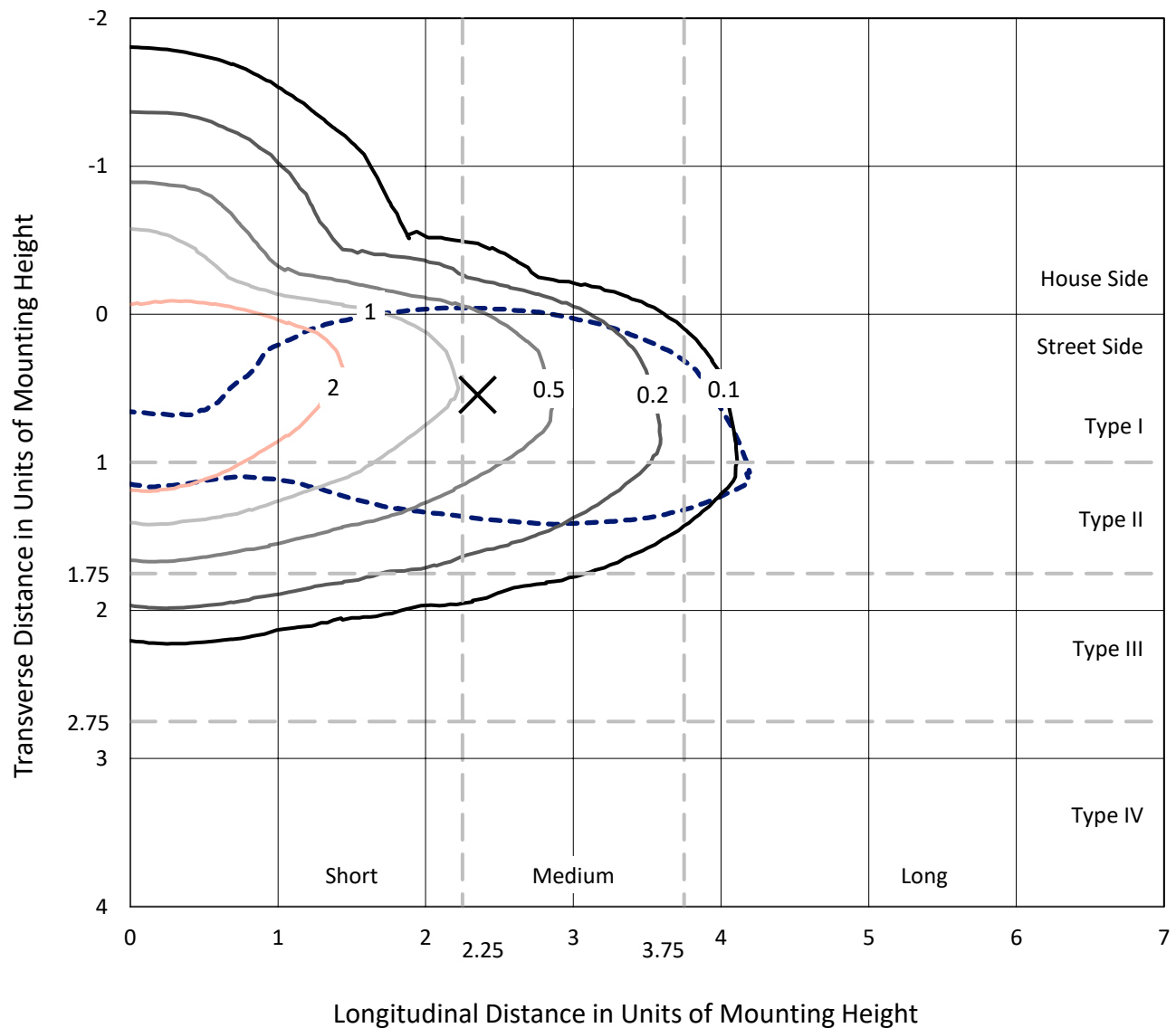


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Iso-Footcandle Lines of Horizontal Illumination

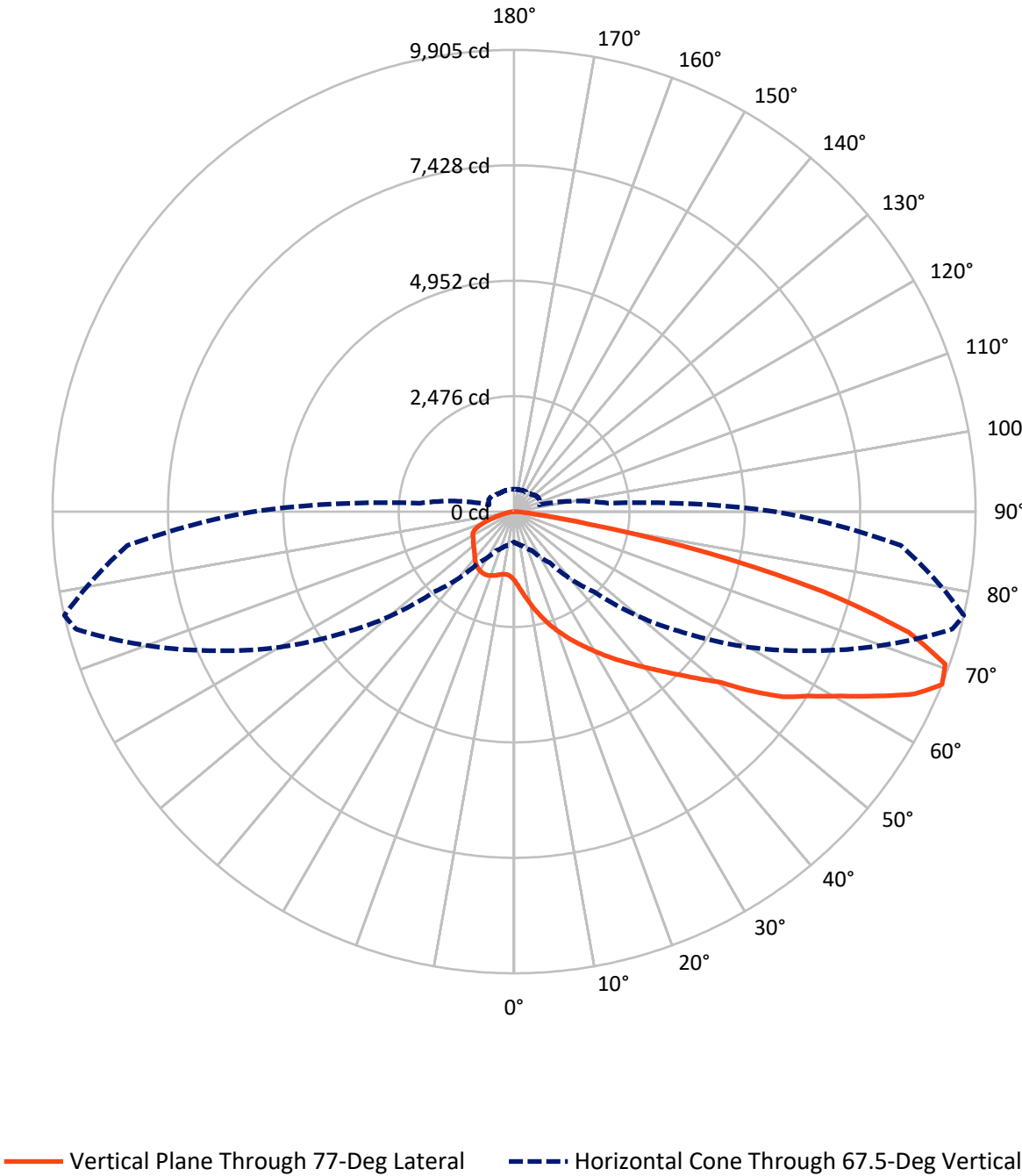
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 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	2388.3	0.0	2388.3
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	10237.6	0.0	10237.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	12625.9	0.0	12625.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	1.3
10°-20°	570.5	4.5
20°-30°	1077.1	8.5
30°-40°	1735.2	13.7
40°-50°	2373.4	18.8
50°-60°	2677.2	21.2
60°-70°	2498.8	19.8
70°-80°	1369.8	10.8
80°-90°	165.2	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°	12625.9	100.0
0°-180°	12625.9	100.0

Coefficient of Utilization



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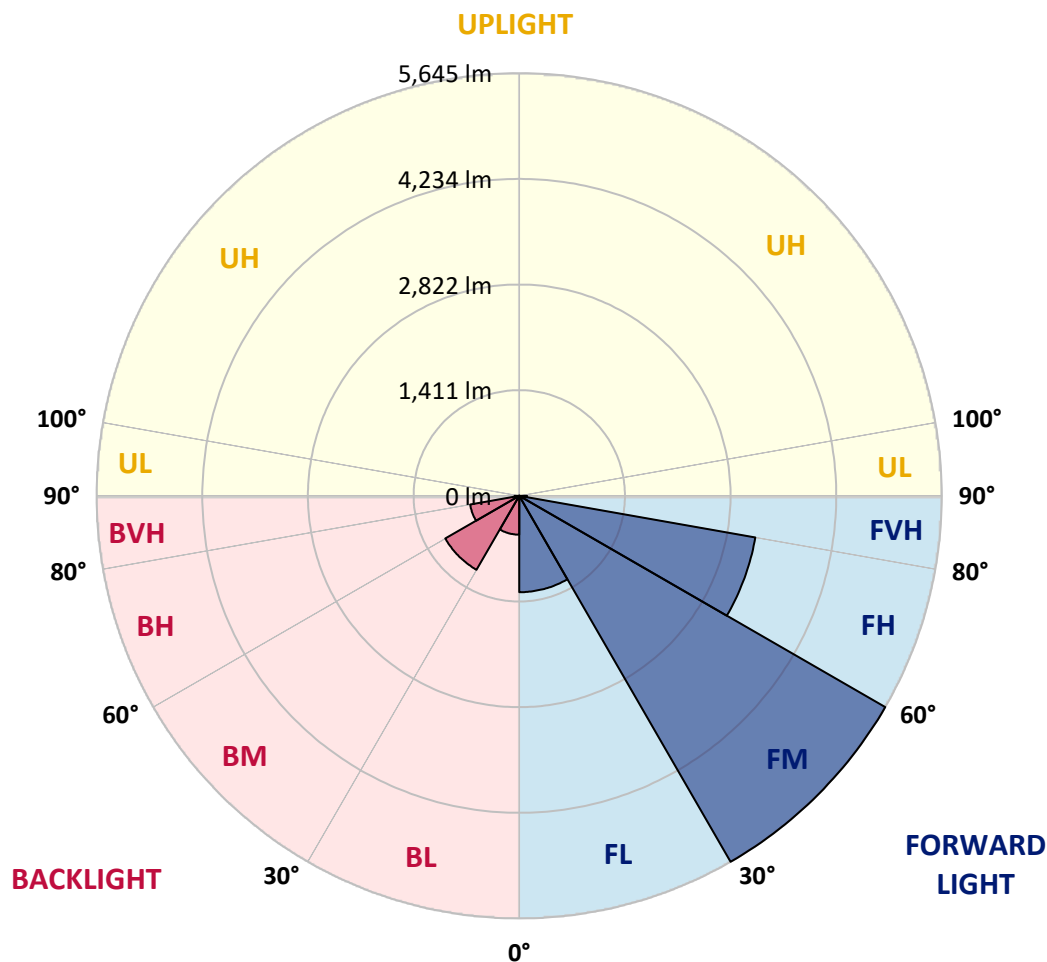
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1287.1	10.2			
FM	(30°-60°)	5644.9	44.7			
FH	(60°-80°)	3202.3	25.4			G2/5000
FVH	(80°-90°)	103.3	0.8			G2/225
BL	(0°-30°)	519.3	4.1	B2/1000		
BM	(30°-60°)	1140.8	9.0	B2/2500		
BH	(60°-80°)	666.3	5.3	B2/1000		G2/1000
BVH	(80°-90°)	61.9	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°	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4
2.5°	1854.8	1867.9	1851.6	1851.6	1796.8	1768.2	1713.4	1671.8	1596.7	1583.7	1534.2
5°	2192.5	2208.8	2185.9	2176.2	2111.6	2052.4	1960.4	1869.8	1736.2	1722.5	1605.9
7.5°	2453.8	2474.7	2454.5	2444.0	2386.7	2320.2	2212.7	2086.3	1897.9	1871.1	1702.3
10°	2666.9	2670.2	2663.7	2667.6	2622.7	2567.8	2457.7	2310.5	2075.1	2038.6	1819.1
12.5°	2787.5	2802.5	2815.6	2839.0	2831.2	2797.3	2698.2	2522.2	2262.9	2215.9	1946.1
15°	2844.2	2870.3	2899.6	2953.7	2997.4	3005.8	2930.3	2749.7	2453.8	2397.2	2074.5
17.5°	2864.5	2889.2	2935.5	3013.7	3107.5	3170.7	3136.8	2970.7	2642.9	2577.7	2209.4
20°	2966.8	2973.9	3001.9	3076.2	3177.9	3282.9	3308.3	3183.1	2829.9	2756.2	2348.9
22.5°	3185.7	3171.4	3179.2	3213.1	3286.0	3387.7	3445.7	3370.8	3022.1	2937.4	2489.6
25°	3547.4	3505.7	3464.0	3424.9	3462.0	3519.4	3585.2	3558.5	3223.5	3116.0	2631.8
27.5°	4004.4	3953.5	3861.6	3733.2	3688.3	3708.4	3737.8	3732.5	3410.0	3301.1	2778.4
30°	4454.0	4394.7	4285.2	4099.5	3980.9	3927.4	3905.2	3890.3	3612.6	3496.6	2926.4
32.5°	4813.1	4766.2	4658.6	4450.8	4278.7	4187.4	4113.8	4060.3	3824.5	3708.4	3082.8
35°	5127.3	5083.6	4960.4	4733.7	4546.6	4449.4	4353.0	4239.0	4044.8	3927.4	3250.9
37.5°	5414.0	5370.4	5201.6	4965.6	4777.3	4710.2	4624.1	4430.6	4265.6	4154.8	3428.8
40°	5595.3	5585.4	5427.7	5160.5	4965.0	4931.8	4903.1	4652.8	4510.7	4407.7	3624.4
42.5°	5641.5	5663.0	5537.9	5318.2	5131.9	5105.1	5172.3	4904.4	4785.7	4687.3	3845.9
45°	5530.1	5592.0	5509.9	5360.6	5250.5	5236.1	5410.8	5179.4	5090.2	5000.2	4113.1
47.5°	5247.9	5352.8	5318.9	5298.0	5282.4	5344.3	5620.7	5471.3	5434.9	5356.6	4418.2
50°	4678.2	4877.1	4936.3	5068.0	5219.2	5428.4	5811.6	5790.1	5837.7	5758.9	4789.7
52.5°	3693.5	3967.2	4311.3	4641.1	5025.0	5400.3	6021.5	6247.6	6448.4	6405.3	5380.1
55°	3048.9	3172.1	3436.6	4041.5	4648.3	5282.4	6116.0	6617.2	7054.5	7016.0	5827.9
57.5°	2553.6	2663.7	2826.6	3331.8	4078.6	5014.5	6174.6	6842.7	7469.7	7465.7	6269.8
60°	2022.3	2139.1	2305.8	2663.7	3413.1	4551.8	6161.6	7099.5	7999.5	8032.1	6808.8
62.5°	1422.8	1551.1	1736.2	2070.0	2733.4	3952.2	5895.7	7285.2	8623.2	8711.9	7457.3
65°	935.2	1020.0	1159.5	1447.5	2036.7	3181.2	5388.0	7309.3	9290.6	9440.6	8066.0
67.5°	655.7	688.3	770.4	926.8	1342.5	2439.5	4579.2	7059.7	9735.8	9904.6	8330.0
70°	511.6	527.9	569.6	632.2	843.4	1640.4	3509.0	6410.6	9640.6	9816.6	8054.2
72.5°	441.9	457.6	473.1	481.0	565.7	1012.8	2376.9	5359.9	8744.5	8863.7	7003.0
75°	400.8	404.8	417.8	415.1	431.4	656.9	1372.0	3905.2	6899.4	6858.3	5169.7
77.5°	336.9	342.1	363.7	360.4	383.2	449.1	712.4	2520.3	4472.9	4194.0	2877.5
80°	285.5	288.0	311.5	307.6	333.0	325.2	363.7	1284.6	1897.3	1607.2	829.6
82.5°	99.0	122.5	237.9	245.1	254.2	196.8	209.8	524.0	579.4	443.8	174.0
85°	48.3	51.5	121.3	172.1	171.4	99.0	102.3	187.1	182.4	143.4	58.0
87.5°	7.8	9.7	14.3	67.1	53.4	26.0	35.2	36.5	37.8	32.6	13.0
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°	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4	1481.4
2.5°	1497.7	1465.1	1396.7	1333.4	1283.9	1236.4	1209.6	1186.8	1173.8	1171.2	1171.2
5°	1538.1	1471.0	1346.5	1241.6	1173.1	1122.3	1095.6	1078.6	1070.2	1065.0	1064.3
7.5°	1596.1	1497.7	1320.4	1201.2	1129.4	1093.0	1079.3	1076.7	1076.0	1076.7	1078.6
10°	1676.3	1541.4	1317.8	1191.4	1131.4	1111.2	1110.6	1111.2	1113.9	1114.5	1115.1
12.5°	1763.0	1586.4	1328.3	1199.9	1156.2	1145.1	1143.2	1142.5	1144.5	1145.7	1146.5
15°	1857.5	1645.6	1345.8	1218.1	1183.6	1171.9	1169.8	1165.9	1165.3	1164.7	1164.0
17.5°	1954.6	1704.3	1365.4	1237.7	1201.2	1184.9	1177.7	1168.6	1161.4	1159.5	1161.4
20°	2053.0	1762.3	1379.1	1247.4	1202.4	1179.7	1165.3	1149.6	1137.3	1130.2	1132.7
22.5°	2157.9	1823.0	1387.5	1244.9	1190.7	1159.5	1133.3	1115.1	1096.2	1083.8	1084.6
25°	2260.2	1875.7	1386.9	1231.1	1167.9	1128.2	1094.9	1071.4	1045.4	1032.4	1032.4
27.5°	2358.6	1923.3	1370.6	1207.0	1135.3	1091.0	1051.2	1023.3	997.8	985.4	984.8
30°	2460.3	1963.1	1345.2	1171.9	1096.9	1048.0	1004.3	980.2	957.5	945.7	945.0
32.5°	2561.4	1999.6	1309.3	1128.2	1052.6	1005.6	962.6	940.4	926.8	926.8	927.4
35°	2668.3	2025.0	1261.8	1077.4	1005.6	960.6	926.8	913.8	912.5	904.7	902.7
37.5°	2781.0	2041.3	1203.8	1025.2	959.4	917.0	906.6	890.9	877.9	861.0	858.3
40°	2899.6	2057.6	1134.1	971.1	910.5	887.0	882.4	861.6	824.4	782.8	776.8
42.5°	3043.6	2068.7	1061.7	917.0	859.0	851.2	857.7	821.8	762.5	731.2	732.0
45°	3210.5	2086.9	995.2	863.6	806.2	806.2	833.6	786.7	737.8	718.2	721.5
47.5°	3426.9	2129.2	933.3	804.9	757.4	770.4	780.1	744.3	716.9	692.8	692.2
50°	3739.7	2230.9	869.4	745.6	720.2	746.2	732.6	711.7	679.8	660.2	658.3
52.5°	4128.2	2290.9	812.7	692.2	688.3	714.3	694.7	675.2	651.1	625.0	619.8
55°	4392.7	2301.9	765.2	653.0	666.8	664.1	656.9	639.4	626.4	591.8	592.4
57.5°	4688.7	2324.1	726.0	629.6	653.0	624.3	621.8	606.8	589.8	566.4	558.5
60°	5042.6	2358.6	692.2	620.4	641.3	598.3	585.3	579.4	562.4	550.7	554.0
62.5°	5428.4	2390.0	657.6	621.8	627.6	572.9	553.3	551.3	541.0	537.0	537.0
65°	5691.7	2304.6	614.6	620.4	606.1	546.8	522.0	521.4	512.9	511.6	511.0
67.5°	5599.8	2034.1	556.6	602.2	583.9	520.7	493.3	490.8	479.7	480.3	480.3
70°	5139.7	1648.3	476.4	557.3	556.6	497.3	463.4	454.9	439.9	442.5	445.2
72.5°	4276.7	1221.4	368.9	482.3	512.9	475.8	428.9	415.1	396.3	398.8	398.2
75°	3088.6	830.4	268.5	367.0	446.5	450.4	394.9	371.5	348.7	352.6	353.9
77.5°	1580.4	470.6	197.5	252.9	350.7	409.3	364.3	333.0	327.8	364.3	359.2
80°	515.6	236.0	136.8	177.3	230.1	335.0	319.4	283.5	282.2	290.7	249.6
82.5°	153.9	99.7	87.9	116.6	127.1	256.8	275.7	214.4	184.4	194.2	200.7
85°	52.8	48.3	50.2	58.0	60.6	150.6	192.9	142.1	134.3	147.9	146.0
87.5°	12.4	16.9	14.3	13.0	13.0	36.5	74.9	59.3	82.1	54.7	52.8
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)