

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: P965251

Luminaire Tested: **NAV-SB3D-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965251
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-SB3D-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28641.6 lumens
Efficiency: N/A
Efficacy: 131.3 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): 218.1
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

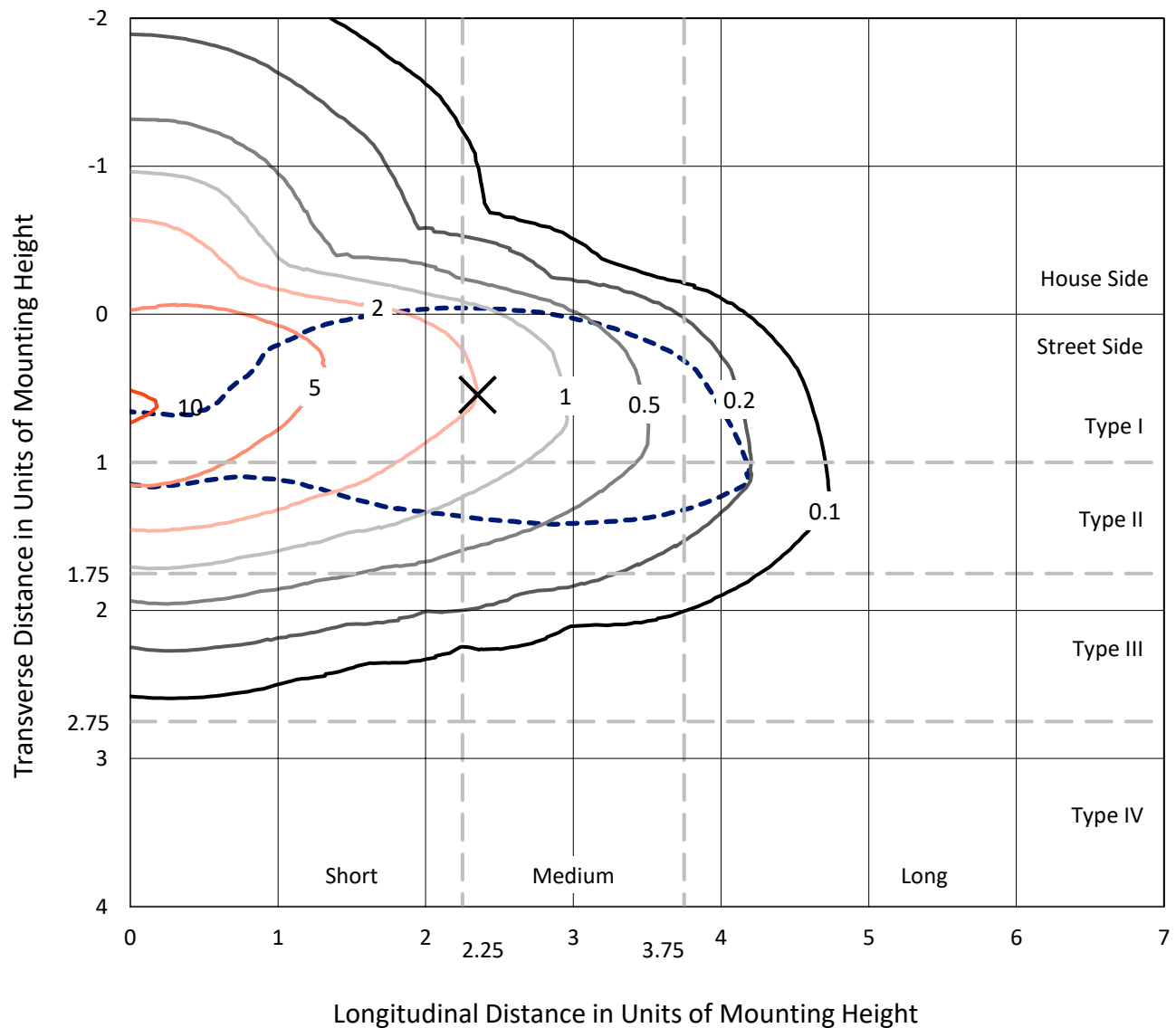


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Iso-Footcandle Lines of Horizontal Illumination

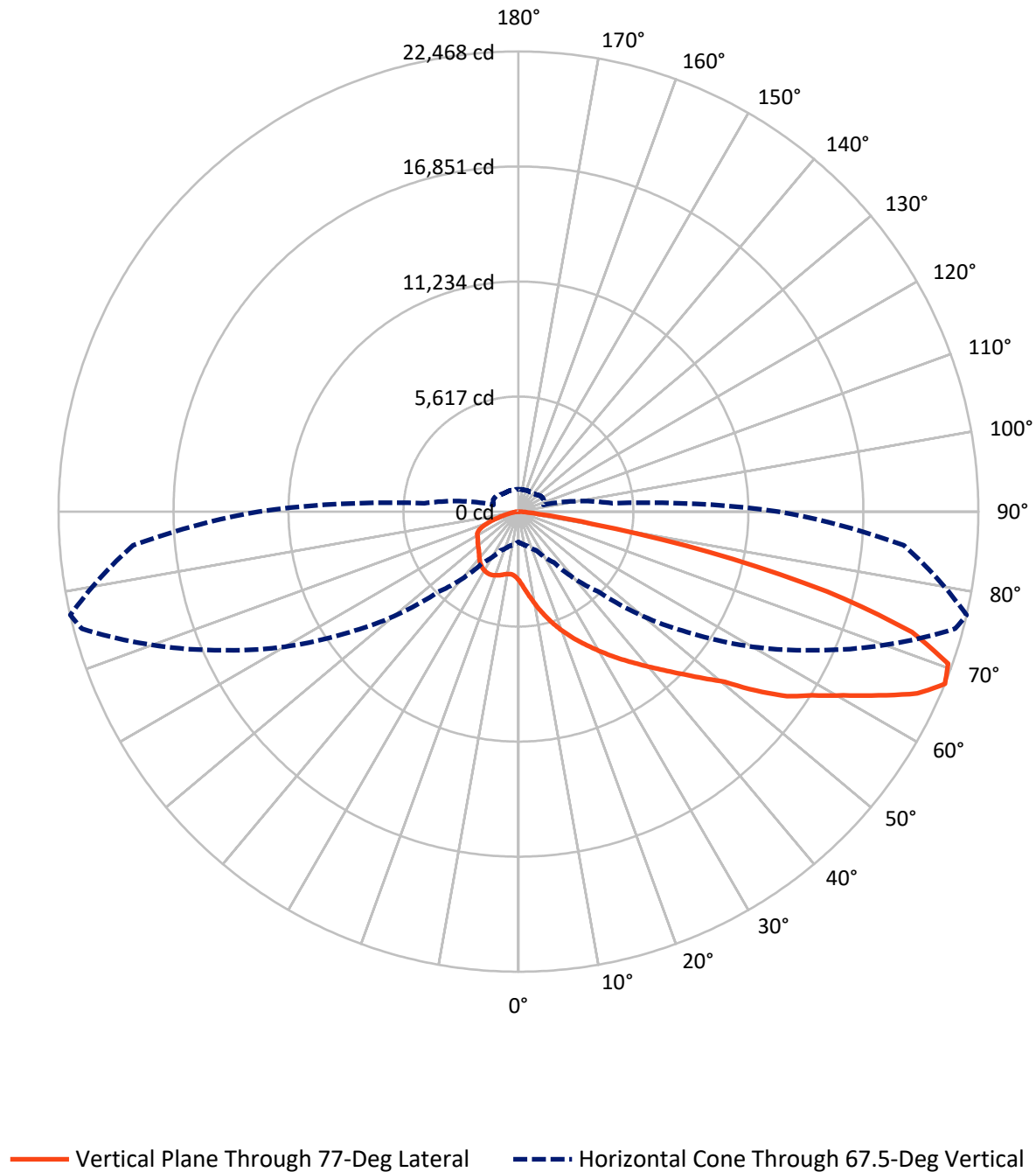
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 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	5417.8	0.0	5417.8
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	23223.7	0.0	23223.7
	% Fixture	81.1	0.0	81.1
Total	Lumens	28641.6	0.0	28641.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.2	1.3
10°-20°	1294.1	4.5
20°-30°	2443.3	8.5
30°-40°	3936.2	13.7
40°-50°	5384.0	18.8
50°-60°	6073.2	21.2
60°-70°	5668.5	19.8
70°-80°	3107.3	10.8
80°-90°	374.8	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°	28641.6	100.0
0°-180°	28641.6	100.0

Coefficient of Utilization



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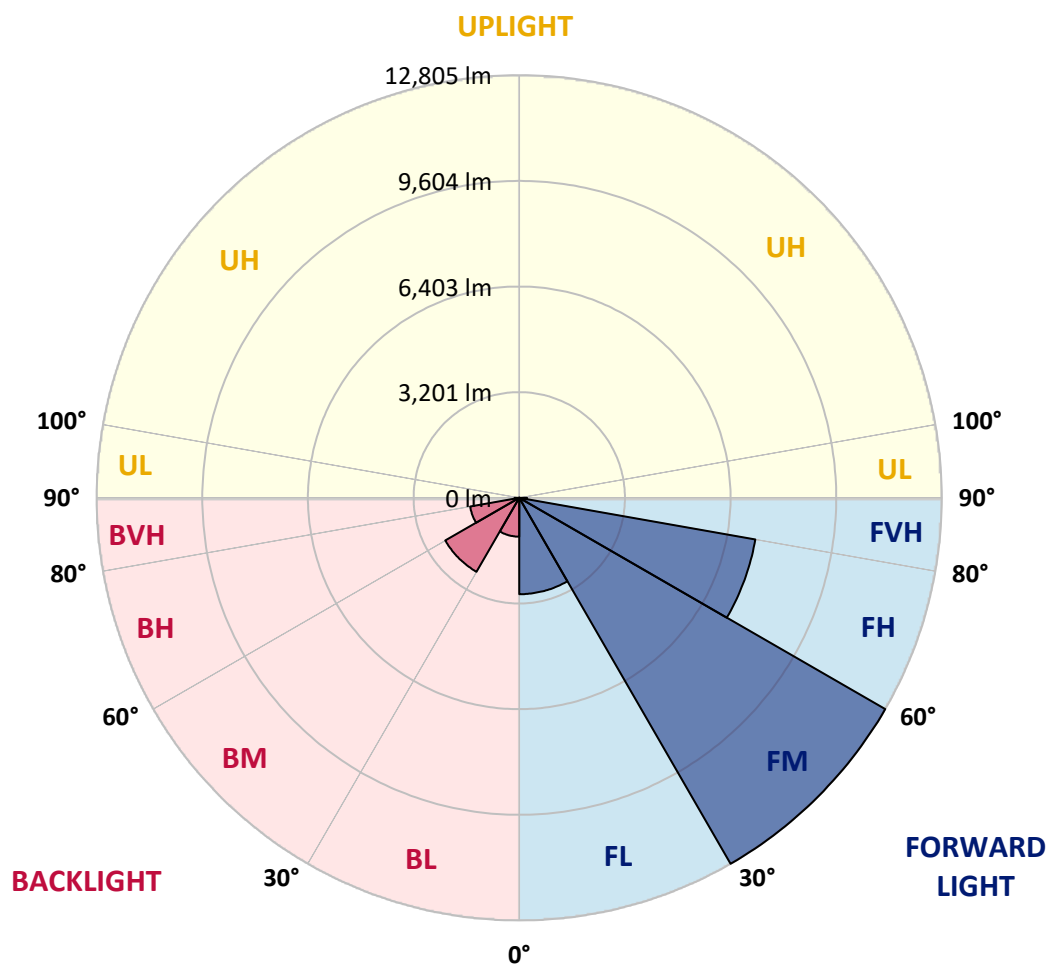
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2919.6	10.2			
FM	(30°-60°)	12805.3	44.7			
FH	(60°-80°)	7264.3	25.4			G3/7500
FVH	(80°-90°)	234.4	0.8			G3/500
BL	(0°-30°)	1178.0	4.1	B3/2500		
BM	(30°-60°)	2588.0	9.0	B3/5000		
BH	(60°-80°)	1511.5	5.3	B3/2500		G3/2500
BVH	(80°-90°)	140.4	0.5			G2/225
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°	77°	85°
0°	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6
2.5°	4207.7	4237.2	4200.3	4200.3	4076.1	4011.0	3886.9	3792.3	3622.2	3592.6	3480.3
5°	4973.5	5010.5	4958.7	4936.6	4790.2	4655.7	4447.2	4241.8	3938.7	3907.6	3643.0
7.5°	5566.4	5613.7	5567.9	5544.2	5414.2	5263.4	5019.4	4732.5	4305.3	4244.6	3861.8
10°	6049.9	6057.2	6042.5	6051.4	5949.3	5825.2	5575.3	5241.1	4707.4	4624.6	4126.3
12.5°	6323.4	6357.4	6387.0	6440.2	6422.4	6345.6	6120.8	5721.7	5133.2	5026.8	4414.7
15°	6452.0	6511.1	6577.7	6700.4	6799.4	6818.7	6647.1	6237.6	5566.4	5437.8	4706.0
17.5°	6497.9	6554.1	6659.0	6836.4	7049.3	7192.7	7115.9	6738.9	5995.1	5847.3	5011.9
20°	6729.9	6746.2	6809.8	6978.3	7209.0	7447.0	7504.6	7220.8	6419.5	6252.4	5328.4
22.5°	7226.8	7194.2	7211.9	7288.8	7454.4	7685.0	7816.6	7646.6	6855.6	6663.4	5647.7
25°	8047.3	7952.7	7858.1	7769.3	7853.6	7983.7	8133.1	8072.4	7312.5	7068.5	5970.0
27.5°	9083.7	8968.3	8759.9	8468.7	8366.7	8412.5	8479.0	8467.1	7735.4	7488.4	6302.7
30°	10103.8	9969.3	9720.9	9299.5	9030.5	8909.2	8859.0	8824.9	8195.1	7932.0	6638.3
32.5°	10918.4	10812.0	10568.1	10096.5	9706.1	9499.1	9332.0	9210.9	8675.6	8412.5	6993.2
35°	11631.1	11532.0	11252.6	10738.1	10313.8	10093.5	9874.6	9615.9	9175.4	8909.2	7374.6
37.5°	12281.6	12182.5	11799.6	11264.4	10837.1	10684.8	10489.6	10050.6	9676.5	9425.2	7778.2
40°	12692.6	12670.4	12312.6	11706.4	11262.9	11187.6	11122.5	10554.7	10232.5	9998.9	8221.7
42.5°	12797.5	12846.3	12562.5	12064.2	11641.4	11580.8	11733.1	11125.5	10856.4	10633.1	8724.4
45°	12544.8	12685.2	12499.0	12160.4	11910.5	11878.0	12274.2	11749.4	11546.8	11342.8	9330.6
47.5°	11904.6	12142.7	12065.8	12018.4	11983.0	12123.4	12750.3	12411.7	12328.9	12151.5	10022.4
50°	10612.4	11063.3	11197.9	11496.5	11839.6	12314.1	13183.4	13134.7	13242.6	13063.7	10865.2
52.5°	8378.5	8999.4	9780.0	10528.2	11398.9	12250.6	13659.6	14172.6	14627.9	14530.3	12204.7
55°	6916.3	7195.7	7795.9	9167.9	10544.4	11983.0	13873.9	15010.8	16002.9	15915.7	13220.4
57.5°	5792.6	6042.5	6412.1	7557.9	9252.3	11375.2	14006.9	15522.4	16944.7	16935.8	14222.8
60°	4587.7	4852.3	5230.8	6042.5	7742.7	10325.5	13977.4	16104.9	18146.7	18220.6	15445.5
62.5°	3227.5	3518.7	3938.7	4695.6	6200.6	8965.4	13374.2	16526.3	19561.5	19762.6	16916.6
65°	2121.5	2313.8	2630.1	3283.7	4620.2	7216.4	12222.4	16580.9	21075.5	21415.5	18297.5
67.5°	1487.4	1561.3	1747.5	2102.4	3045.7	5533.9	10387.7	16014.7	22085.3	22468.2	18896.3
70°	1160.6	1197.5	1292.2	1434.1	1913.2	3721.3	7960.0	14542.2	21869.4	22268.6	18270.8
72.5°	1002.3	1037.9	1073.4	1091.1	1283.3	2297.5	5391.9	12158.9	19836.5	20107.1	15886.1
75°	909.3	918.1	947.7	941.8	978.8	1490.2	3112.2	8859.0	15651.0	15557.9	11727.1
77.5°	764.3	776.2	825.0	817.5	869.3	1018.6	1615.9	5717.2	10146.7	9513.9	6527.4
80°	647.6	653.4	706.7	697.8	755.5	737.8	825.0	2914.1	4303.8	3645.9	1882.1
82.5°	224.7	278.0	539.7	555.9	576.6	446.5	476.1	1188.7	1314.4	1006.9	394.7
85°	109.4	116.7	275.0	390.3	388.9	224.7	232.2	424.4	414.0	325.2	131.6
87.5°	17.7	22.1	32.5	152.3	121.3	59.1	79.8	82.8	85.8	73.9	29.5
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°	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6	3360.6
2.5°	3397.5	3323.6	3168.4	3025.0	2912.5	2804.6	2744.0	2692.3	2662.7	2656.8	2656.8
5°	3489.2	3336.9	3054.5	2816.5	2661.2	2545.9	2485.3	2446.9	2427.6	2415.8	2414.3
7.5°	3620.7	3397.5	2995.4	2724.8	2562.2	2479.4	2448.3	2442.4	2440.9	2442.4	2446.9
10°	3802.6	3496.6	2989.4	2702.6	2566.6	2520.8	2519.3	2520.8	2526.7	2528.2	2529.7
12.5°	3999.2	3598.6	3013.1	2721.9	2622.8	2597.7	2593.2	2591.7	2596.2	2599.1	2600.6
15°	4213.6	3733.2	3053.1	2763.3	2684.9	2658.2	2653.8	2645.0	2643.5	2642.0	2640.5
17.5°	4433.9	3866.2	3097.3	2807.6	2724.8	2687.9	2671.6	2650.9	2634.7	2630.1	2634.7
20°	4657.2	3997.8	3128.4	2829.8	2727.7	2676.0	2643.5	2608.0	2579.9	2563.6	2569.6
22.5°	4895.2	4135.3	3147.7	2823.9	2701.2	2630.1	2571.0	2529.7	2486.8	2458.7	2460.2
25°	5127.4	4255.0	3146.1	2792.8	2649.4	2559.2	2483.8	2430.6	2371.4	2341.9	2341.9
27.5°	5350.6	4362.9	3109.2	2738.1	2575.5	2475.0	2384.8	2321.2	2263.5	2235.4	2234.0
30°	5581.2	4453.1	3051.5	2658.2	2488.3	2377.4	2278.3	2223.6	2171.9	2145.2	2143.8
32.5°	5810.3	4535.9	2970.2	2559.2	2387.7	2281.2	2183.7	2133.4	2102.4	2102.4	2103.8
35°	6052.8	4593.5	2862.3	2443.9	2281.2	2179.3	2102.4	2072.8	2069.9	2052.2	2047.6
37.5°	6308.6	4630.5	2730.7	2325.6	2176.3	2080.2	2056.6	2021.1	1991.5	1953.0	1947.1
40°	6577.7	4667.5	2572.5	2202.9	2065.4	2012.2	2001.8	1954.6	1870.2	1775.6	1762.3
42.5°	6904.4	4692.7	2408.4	2080.2	1948.6	1930.9	1945.7	1864.4	1729.8	1658.9	1660.3
45°	7282.9	4734.1	2257.6	1959.0	1828.9	1828.9	1890.9	1784.5	1673.6	1629.2	1636.6
47.5°	7773.8	4830.1	2117.1	1825.9	1718.0	1747.5	1769.8	1688.4	1626.3	1571.6	1570.1
50°	8483.4	5060.7	1972.3	1691.4	1633.7	1692.9	1661.8	1614.5	1542.0	1497.7	1493.2
52.5°	9364.6	5196.8	1843.7	1570.1	1561.3	1620.4	1576.0	1531.7	1477.0	1417.9	1406.0
55°	9964.8	5222.0	1735.7	1481.4	1512.5	1506.5	1490.2	1450.4	1420.8	1342.4	1343.9
57.5°	10636.0	5272.2	1647.0	1428.2	1481.4	1416.3	1410.5	1376.5	1338.0	1284.7	1267.0
60°	11438.9	5350.6	1570.1	1407.5	1454.8	1357.2	1327.7	1314.4	1275.9	1249.3	1256.6
62.5°	12314.1	5421.5	1491.8	1410.5	1423.7	1299.6	1255.2	1250.8	1227.1	1218.2	1218.2
65°	12911.4	5227.8	1394.2	1407.5	1374.9	1240.5	1184.3	1182.7	1163.6	1160.6	1159.1
67.5°	12702.9	4614.2	1262.6	1366.1	1324.7	1181.3	1119.2	1113.3	1088.1	1089.7	1089.7
70°	11659.2	3739.0	1080.8	1264.1	1262.6	1128.1	1051.1	1032.0	997.9	1003.9	1009.8
72.5°	9701.6	2770.7	836.8	1094.1	1163.6	1079.3	972.8	941.8	898.9	904.9	903.3
75°	7006.4	1883.5	609.2	832.4	1012.7	1021.6	896.0	842.8	791.0	799.8	802.8
77.5°	3585.2	1067.4	447.9	573.7	795.4	928.4	826.5	755.5	743.6	826.5	814.7
80°	1169.4	535.2	310.5	402.1	521.9	759.9	724.5	643.1	640.2	659.4	566.2
82.5°	348.9	226.2	199.6	264.7	288.3	582.5	625.4	486.5	418.4	440.5	455.4
85°	119.7	109.4	113.9	131.6	137.5	341.5	437.7	322.3	304.5	335.6	331.2
87.5°	28.1	38.4	32.5	29.5	29.5	82.8	170.0	134.6	186.2	124.2	119.7
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)