

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: P884796

Luminaire Tested: **NAV-SB5D-740-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884796  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-740-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

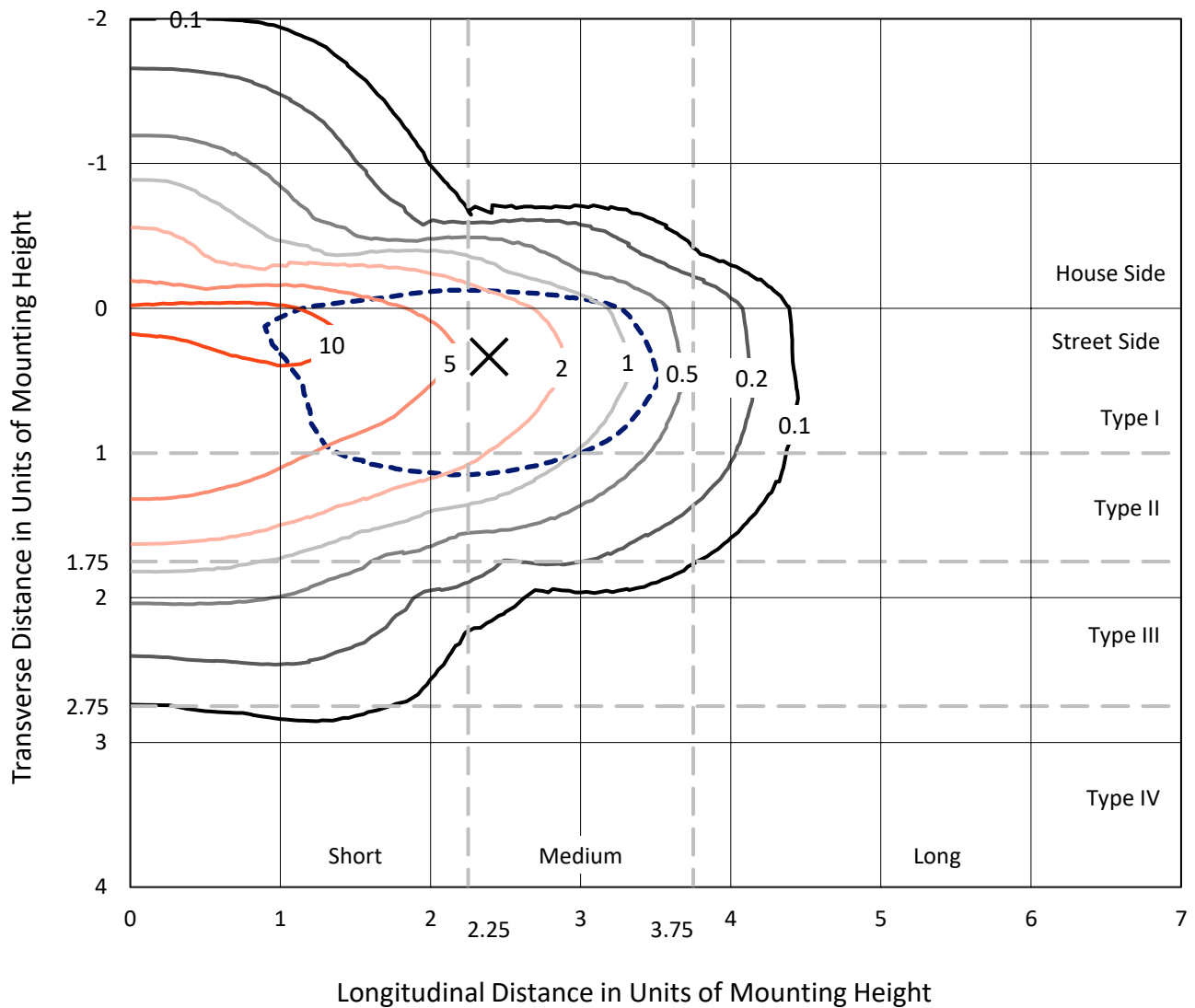
Lumens per Lamp: N/A  
Luminaire Lumens: 40652 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 3.094  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 3.28  
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

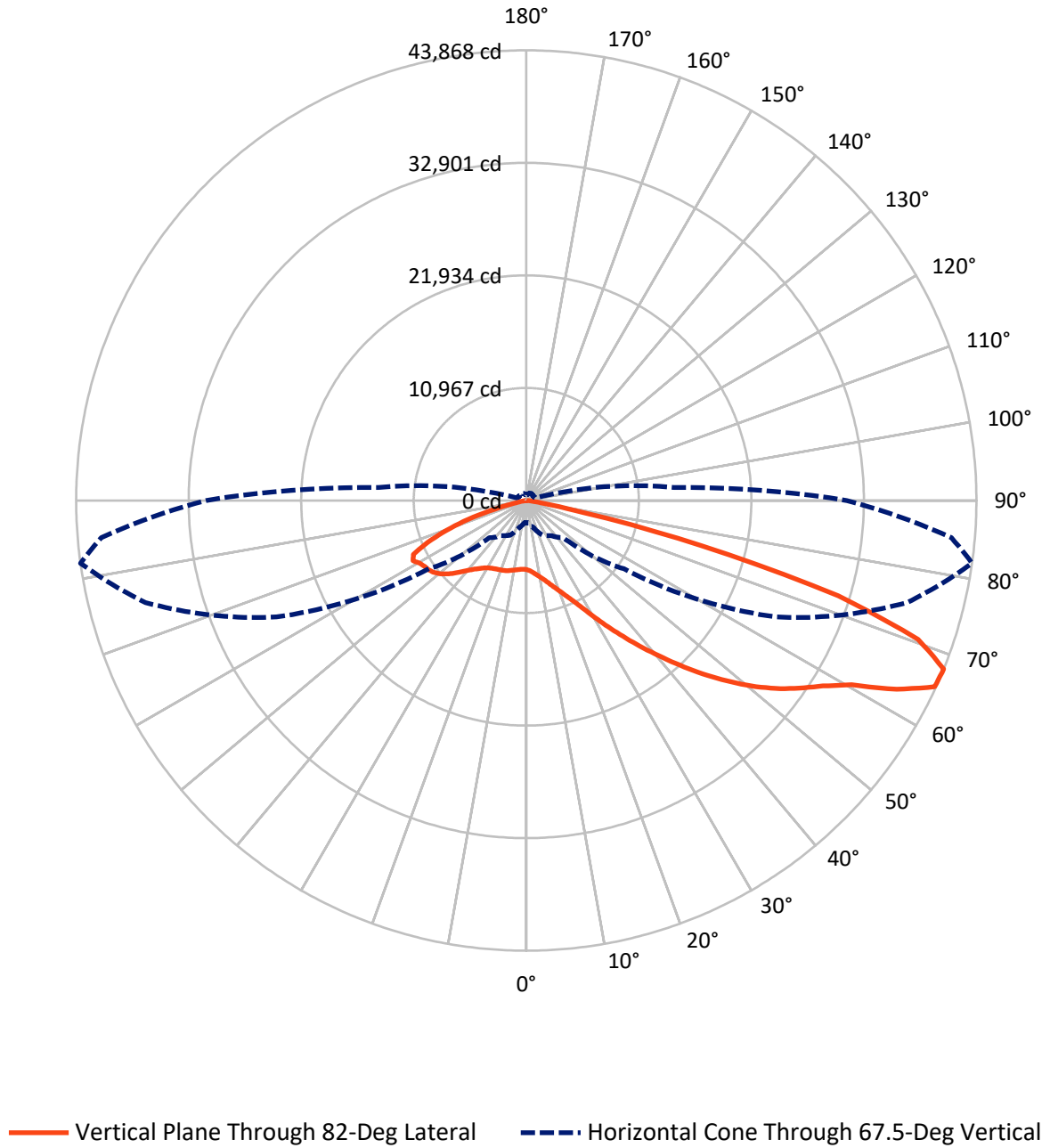
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7363.8	0.0	7363.8
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	33288.3	0.0	33288.3
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	40652.0	0.0	40652.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	600.0	1.5
10°-20°	1559.2	3.8
20°-30°	2497.3	6.1
30°-40°	4416.0	10.9
40°-50°	7737.3	19.0
50°-60°	10319.4	25.4
60°-70°	9606.8	23.6
70°-80°	3687.1	9.1
80°-90°	229.0	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°	40652.0	100.0
0°-180°	40652.0	100.0

**Coefficient of Utilization**



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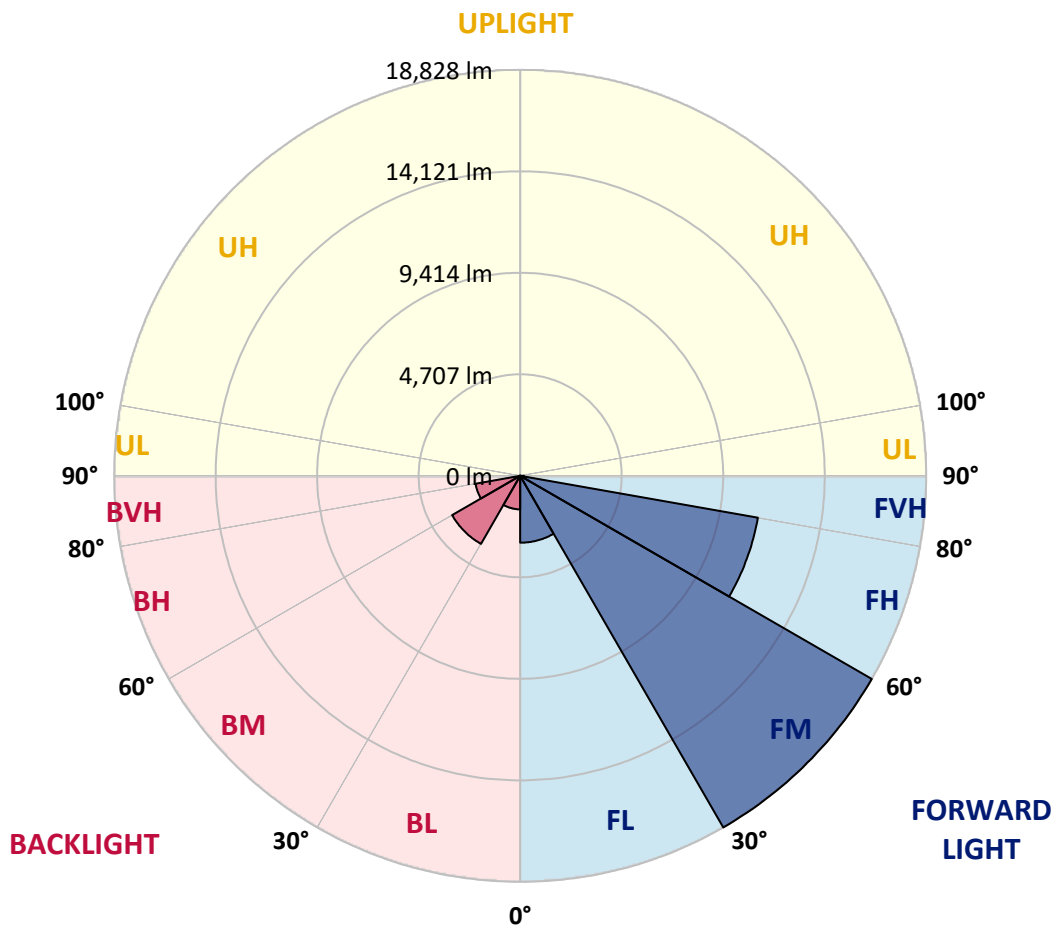
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3101.3	7.6			
FM (30°-60°)	18828.3	46.3			
FH (60°-80°)	11192.1	27.5			G4/12000
FVH (80°-90°)	166.5	0.4			G2/225
BL (0°-30°)	1555.2	3.8	B3/2500		
BM (30°-60°)	3644.3	9.0	B3/5000		
BH (60°-80°)	2101.8	5.2	B3/2500		G3/2500
BVH (80°-90°)	62.5	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-G4**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7
2.5°	7118.1	7159.1	7135.6	7123.9	7103.4	7074.2	7050.8	6977.6	6901.5	6851.7	6834.2
5°	7261.5	7302.5	7299.5	7311.2	7325.9	7334.7	7328.8	7246.9	7138.6	7053.7	7003.9
7.5°	7138.6	7185.4	7223.4	7282.0	7384.4	7492.7	7545.4	7527.8	7416.6	7299.5	7238.1
10°	6790.3	6840.0	6930.8	7068.3	7284.9	7519.1	7715.2	7805.9	7735.6	7606.9	7522.0
12.5°	6152.2	6202.0	6380.5	6679.1	7042.0	7448.8	7823.4	8066.4	8083.9	7955.2	7855.6
15°	5435.1	5484.9	5675.1	6049.8	6603.0	7255.6	7882.0	8341.5	8496.6	8385.4	8265.4
17.5°	4990.3	5034.2	5177.6	5479.0	6055.6	6869.3	7861.5	8634.2	8988.3	8900.5	8757.1
20°	4855.6	4893.7	4961.0	5171.7	5651.7	6468.3	7726.9	8909.3	9518.1	9468.3	9307.4
22.5°	4999.0	5034.2	5054.7	5148.3	5449.8	6204.9	7557.1	9190.3	10132.7	10138.6	9942.5
25°	5329.8	5364.9	5341.5	5400.0	5531.7	6123.0	7492.7	9521.0	10905.4	10969.8	10747.4
27.5°	5874.2	5877.1	5821.5	5818.6	5839.0	6245.9	7560.0	9875.2	11880.0	12000.0	11724.9
30°	6965.9	6922.0	6708.3	6477.1	6371.7	6614.7	7747.3	10293.7	13030.3	13244.0	12898.6
32.5°	8648.8	8584.4	8192.2	7639.1	7083.0	7208.8	8083.9	10770.8	14283.0	14669.3	14247.9
35°	10475.2	10457.6	10047.8	9225.4	8253.7	8054.7	8631.3	11397.1	15649.8	16264.5	15764.0
37.5°	12172.7	12164.0	11929.8	10961.0	9778.6	9234.2	9509.3	12216.6	17113.2	18003.0	17411.8
40°	13724.0	13750.3	13516.2	12649.8	11458.6	10747.4	10703.5	13229.3	18740.6	19896.7	19194.2
42.5°	15064.4	15093.7	14856.6	14215.7	13118.1	12421.5	12169.8	14470.3	20329.8	21930.8	21099.6
45°	15974.7	16156.2	16121.0	15608.8	14821.5	14098.6	13931.8	16027.4	22141.6	24087.9	23113.3
47.5°	16232.3	16399.1	16662.5	16732.7	16252.7	15541.5	15740.5	17903.5	23973.8	26247.9	25138.6
50°	15597.1	15752.3	16299.6	17028.4	17362.0	17142.5	17499.6	19914.2	25849.9	28402.1	27126.0
52.5°	14344.4	14502.5	15193.2	16346.4	17707.4	18398.1	19264.5	21895.7	27667.4	30442.1	29007.9
55°	12532.7	12699.6	13586.4	14891.8	17048.8	18916.2	20736.7	23874.2	29332.8	32277.2	30705.5
57.5°	10068.3	10191.3	11113.2	12939.6	15392.3	18401.0	21822.5	26034.2	30901.6	34080.1	32388.4
60°	6562.0	6670.3	7741.5	9778.6	12646.9	16680.1	22039.1	28443.0	32985.5	36424.5	34656.7
62.5°	4363.9	4437.1	5072.2	6567.8	8906.4	13375.7	20771.8	30366.0	36041.1	40504.5	38546.5
65°	2994.2	3067.3	3702.5	4744.4	5754.2	8847.8	17127.9	30111.3	38809.9	43744.6	41429.4
67.5°	2136.6	2198.1	2736.6	3720.0	4164.9	5139.5	11610.8	26856.7	38411.9	43867.5	41584.6
70°	1530.7	1565.9	2010.7	2897.6	3310.3	3087.8	6456.6	20540.6	33632.3	40507.5	38417.7
72.5°	1071.2	1082.9	1396.1	2206.8	2666.4	2253.7	3073.2	13694.7	25437.2	31794.3	29783.5
75°	725.9	740.5	939.5	1618.5	2139.5	1721.0	1627.3	7343.4	14932.7	17599.1	15775.7
77.5°	444.9	450.7	605.9	1106.3	1601.0	1311.2	1047.8	3111.2	5777.6	5672.2	4835.1
80°	251.7	251.7	386.3	687.8	1091.7	845.9	734.6	1322.9	1829.3	1606.8	1416.6
82.5°	140.5	143.4	281.0	427.3	722.9	500.5	403.9	611.7	790.2	699.5	608.8
85°	58.5	64.4	172.7	202.0	345.4	248.8	163.9	257.6	292.7	260.5	190.2
87.5°	5.9	8.8	52.7	38.0	41.0	49.8	23.4	49.8	41.0	41.0	29.3
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°	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7	6734.7
2.5°	6778.6	6734.7	6623.4	6494.7	6324.9	6243.0	6131.7	6055.6	5991.2	5997.1	5938.6
5°	6910.3	6799.1	6550.3	6240.0	5853.7	5578.6	5285.9	5083.9	4920.0	4884.9	4805.9
7.5°	7091.7	6916.1	6480.0	5921.0	5268.3	4773.7	4331.7	4047.8	3845.9	3781.5	3717.1
10°	7325.9	7071.2	6389.3	5520.0	4580.5	3951.2	3477.1	3254.6	3117.1	3070.3	3035.1
12.5°	7598.1	7249.8	6269.3	5031.2	3872.2	3266.4	2964.9	2853.7	2809.8	2795.1	2786.4
15°	7940.5	7472.2	6087.8	4451.7	3272.2	2847.8	2719.0	2704.4	2710.3	2704.4	2701.5
17.5°	8347.3	7715.2	5792.2	3854.6	2868.3	2634.2	2587.3	2599.0	2613.7	2610.7	2604.9
20°	8792.2	7955.2	5414.7	3324.9	2593.2	2482.0	2455.6	2467.3	2479.0	2473.2	2470.3
22.5°	9298.6	8212.7	4996.1	2912.2	2408.8	2341.5	2312.2	2315.1	2315.1	2303.4	2297.6
25°	9904.4	8496.6	4557.1	2619.5	2268.3	2215.6	2180.5	2168.8	2151.2	2116.1	2110.3
27.5°	10627.4	8798.1	4135.6	2414.6	2157.1	2107.3	2066.3	2037.1	1993.2	1934.6	1928.8
30°	11441.0	9163.9	3778.6	2285.9	2069.3	2019.5	1972.7	1928.8	1864.4	1791.2	1785.4
32.5°	12398.1	9556.1	3518.1	2201.0	1990.3	1937.6	1882.0	1829.3	1759.0	1685.9	1688.8
35°	13539.6	10030.3	3365.9	2142.4	1928.8	1858.5	1797.1	1738.5	1685.9	1621.5	1615.6
37.5°	14777.6	10533.7	3319.0	2113.2	1887.8	1779.5	1709.3	1668.3	1662.4	1624.4	1621.5
40°	16132.7	11130.8	3354.2	2095.6	1843.9	1703.4	1627.3	1618.5	1633.2	1565.9	1568.8
42.5°	17566.9	11839.1	3412.7	2075.1	1782.4	1627.3	1554.2	1554.2	1542.4	1448.8	1448.8
45°	19118.1	12655.7	3471.2	2025.4	1709.3	1551.2	1495.6	1475.1	1425.4	1334.6	1331.7
47.5°	20681.1	13486.9	3515.1	1934.6	1621.5	1486.8	1437.1	1390.2	1317.1	1235.1	1232.2
50°	22165.0	14233.2	3468.3	1800.0	1522.0	1425.4	1372.7	1308.3	1229.3	1173.7	1164.9
52.5°	23490.8	14880.1	3269.3	1642.0	1416.6	1361.0	1314.2	1246.8	1182.4	1123.9	1118.1
55°	24644.0	15404.0	2918.1	1492.7	1322.9	1305.4	1258.5	1173.7	1085.9	1036.1	1030.2
57.5°	25750.3	15802.0	2479.0	1369.8	1238.1	1243.9	1173.7	1097.6	1015.6	962.9	957.1
60°	27222.5	16334.7	2034.2	1255.6	1147.3	1164.9	1088.8	1033.2	930.7	863.4	854.6
62.5°	29575.7	17163.0	1615.6	1115.1	1042.0	1047.8	1015.6	948.3	825.4	746.3	740.5
65°	31443.1	16858.6	1273.2	962.9	922.0	930.7	930.7	857.6	725.9	635.1	626.3
67.5°	31232.3	14435.2	1015.6	813.7	807.8	813.7	834.1	772.7	643.9	570.7	559.0
70°	28770.8	11482.0	813.7	676.1	702.4	687.8	746.3	705.4	579.5	506.3	497.6
72.5°	23476.2	8271.3	620.5	559.0	538.5	562.0	673.2	635.1	482.9	401.0	392.2
75°	13718.1	4413.7	462.4	442.0	389.3	468.3	597.1	541.5	368.8	295.6	286.8
77.5°	4466.4	1539.5	339.5	324.9	289.8	377.6	509.3	456.6	301.5	234.1	225.4
80°	1197.1	465.4	231.2	213.7	187.3	281.0	403.9	362.9	216.6	152.2	149.3
82.5°	480.0	196.1	134.6	120.0	102.4	193.2	319.0	292.7	161.0	96.6	96.6
85°	155.1	64.4	49.8	38.0	46.8	120.0	190.2	199.0	114.1	49.8	38.0
87.5°	20.5	8.8	8.8	11.7	8.8	20.5	58.5	55.6	32.2	5.9	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)