

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: P963181

Luminaire Tested: **NAV-SB2D-835-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19360.2 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

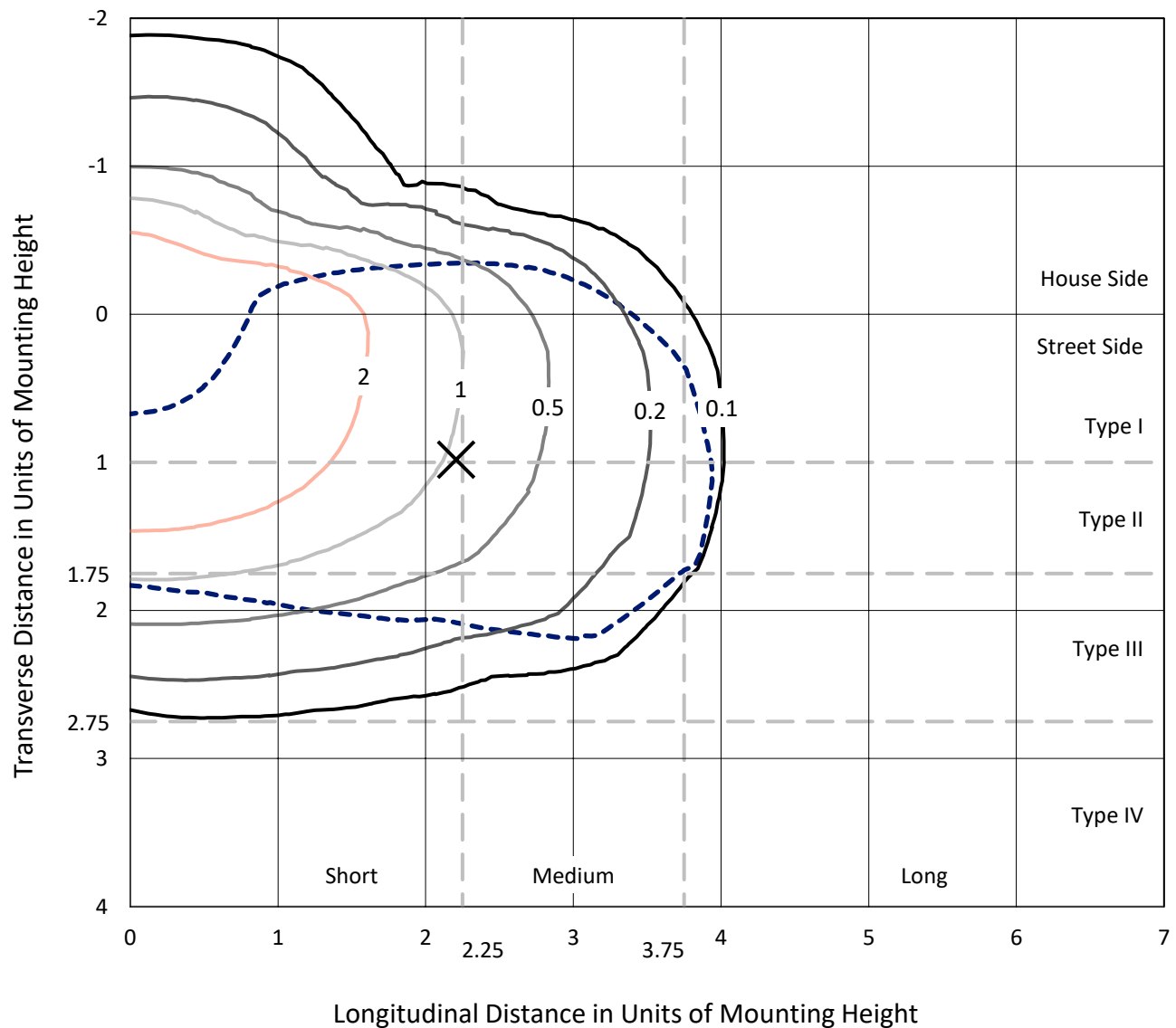
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

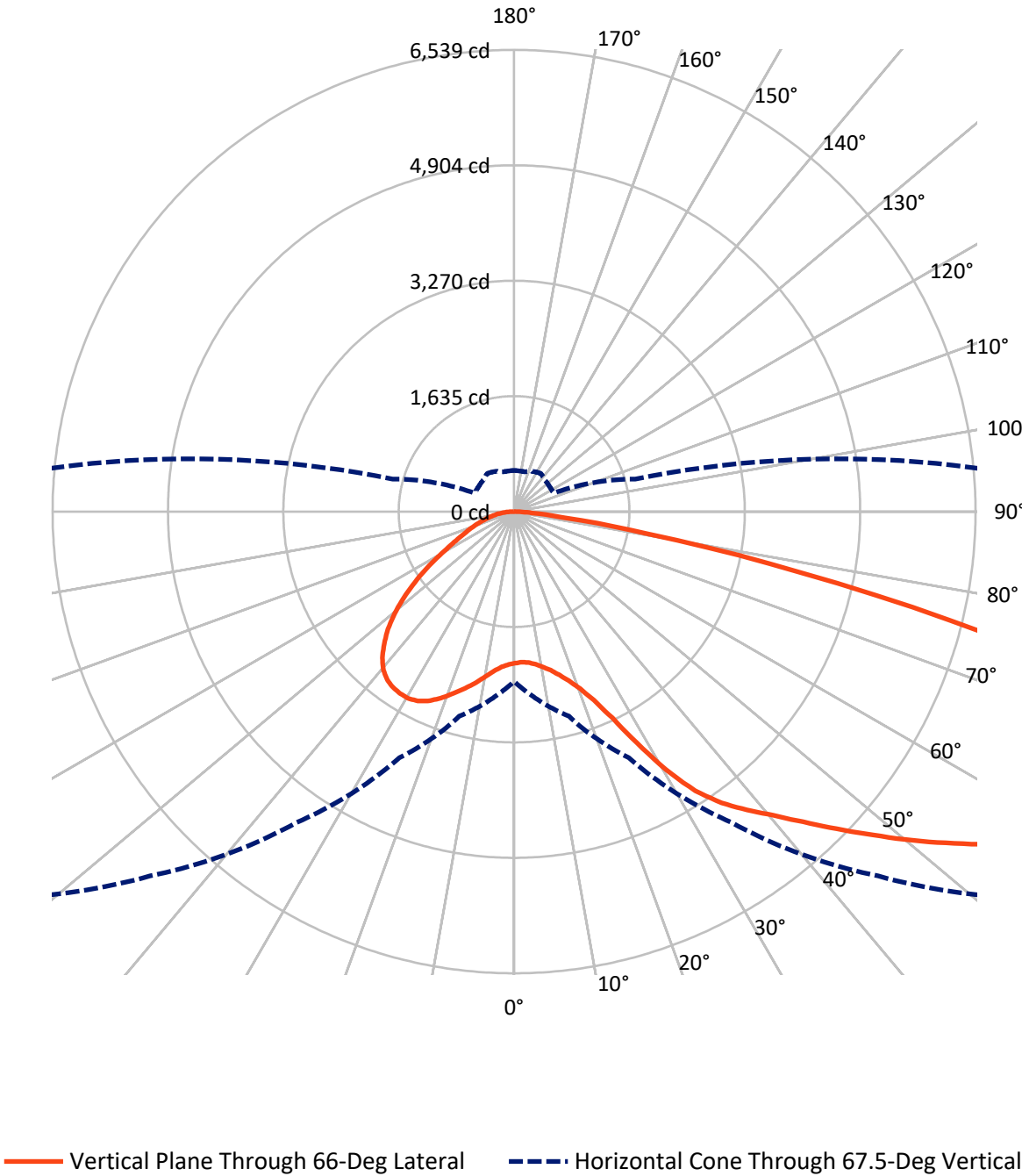
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4813.9	0.0	4813.9
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	14546.3	0.0	14546.3
	% Fixture	75.1	0.0	75.1
Total	Lumens	19360.2	0.0	19360.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.9	1.1
10°-20°	703.4	3.6
20°-30°	1355.7	7.0
30°-40°	2377.1	12.3
40°-50°	3534.0	18.3
50°-60°	4479.6	23.1
60°-70°	4383.2	22.6
70°-80°	2090.8	10.8
80°-90°	223.5	1.2
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°	19360.2	100.0
0°-180°	19360.2	100.0

Coefficient of Utilization



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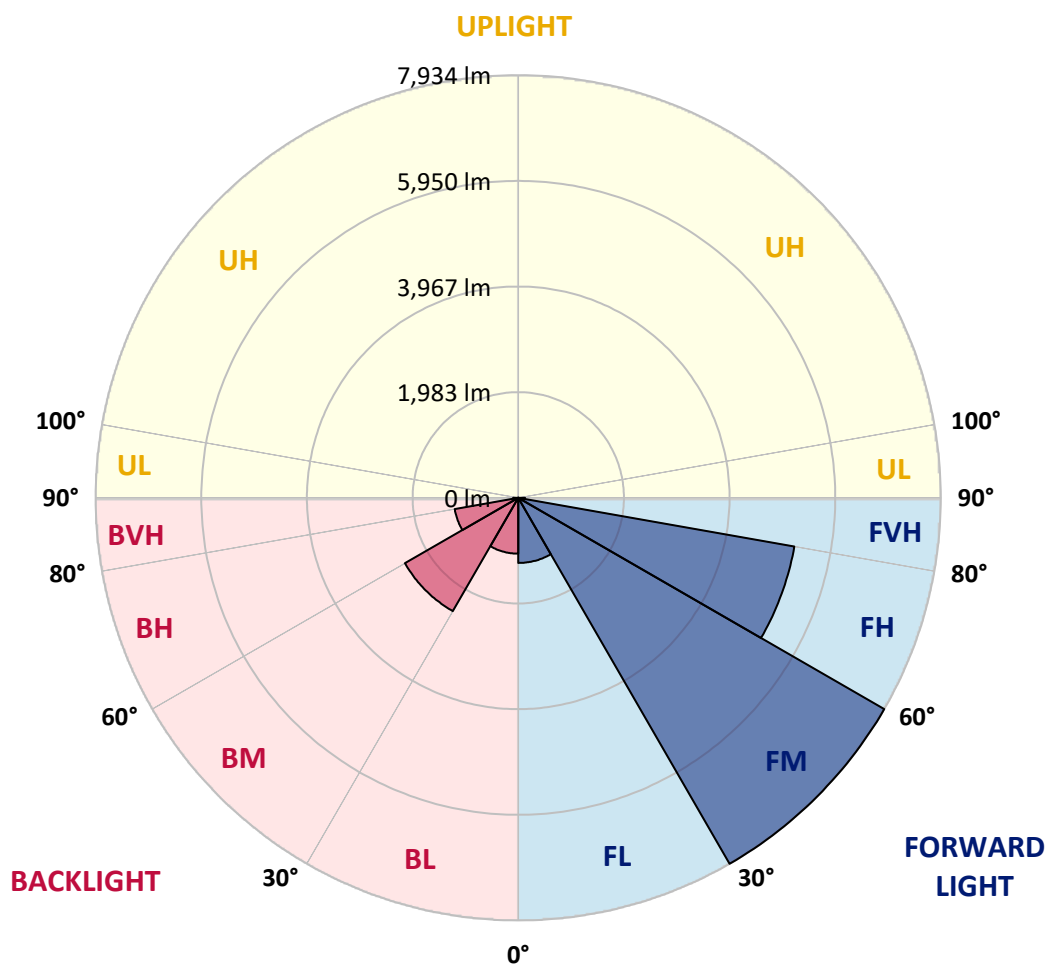
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1223.4	6.3			
FM	(30°-60°)	7933.6	41.0			
FH	(60°-80°)	5262.6	27.2			G3/7500
FVH	(80°-90°)	126.7	0.7			G2/225
BL	(0°-30°)	1048.6	5.4	B3/2500		
BM	(30°-60°)	2457.0	12.7	B2/2500		
BH	(60°-80°)	1211.4	6.3	B3/2500		G3/2500
BVH	(80°-90°)	96.8	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3
2.5°	2124.9	2137.1	2134.0	2129.0	2128.0	2130.1	2133.0	2136.1	2135.1	2140.2	2148.3
5°	2118.8	2131.1	2130.1	2130.1	2134.0	2142.2	2147.3	2152.4	2147.3	2153.4	2164.6
7.5°	2122.9	2132.0	2136.1	2140.2	2150.3	2165.6	2177.8	2189.0	2182.9	2190.0	2204.3
10°	2174.7	2181.9	2185.9	2185.9	2193.1	2210.4	2222.6	2242.9	2237.9	2249.1	2267.3
12.5°	2269.4	2276.5	2276.5	2272.4	2277.5	2288.7	2292.7	2315.2	2305.9	2324.3	2342.6
15°	2385.3	2399.5	2388.4	2381.3	2383.3	2394.5	2393.5	2410.8	2401.6	2416.8	2433.1
17.5°	2513.5	2531.9	2513.5	2512.5	2508.4	2520.6	2521.6	2536.9	2520.6	2531.9	2543.0
20°	2665.1	2690.5	2675.2	2680.3	2671.1	2676.3	2681.3	2703.7	2678.3	2686.4	2683.3
22.5°	2878.7	2909.2	2892.9	2912.2	2906.1	2902.1	2901.1	2940.7	2901.1	2904.1	2874.6
25°	3189.9	3226.6	3198.1	3224.5	3224.5	3237.8	3253.0	3303.9	3237.8	3218.4	3142.1
27.5°	3649.7	3686.3	3630.3	3646.6	3641.5	3674.1	3657.8	3784.0	3712.8	3681.2	3527.6
30°	4203.0	4268.2	4162.3	4158.3	4153.2	4205.1	4228.5	4311.9	4239.7	4208.1	4023.0
32.5°	4801.2	4869.4	4743.2	4706.6	4687.2	4718.8	4699.4	4766.6	4716.7	4668.0	4439.1
35°	5433.8	5501.0	5380.9	5309.8	5232.4	5166.3	5097.2	5114.4	5067.7	4993.4	4756.4
37.5°	6032.0	6155.0	6027.9	5951.7	5809.2	5680.0	5486.7	5406.4	5362.7	5294.5	5055.5
40°	6641.3	6711.5	6614.8	6549.7	6395.1	6192.7	5883.5	5713.6	5654.6	5588.5	5386.1
42.5°	7089.8	7157.0	7105.1	7060.4	6939.4	6704.3	6304.6	6092.0	6006.5	5932.3	5760.4
45°	7445.9	7495.7	7463.1	7479.4	7427.6	7199.7	6740.9	6497.9	6409.3	6318.8	6183.5
47.5°	7589.3	7642.2	7694.1	7790.7	7879.2	7711.4	7209.8	6937.3	6843.7	6751.2	6617.9
50°	7573.0	7626.9	7777.5	7983.0	8257.6	8201.6	7704.2	7405.2	7318.7	7212.9	7089.8
52.5°	7442.8	7503.8	7697.1	8038.9	8476.3	8568.9	8207.8	7888.4	7807.0	7680.8	7557.7
55°	7101.1	7137.7	7427.6	7911.8	8528.2	8825.1	8701.1	8403.1	8321.7	8145.7	8011.4
57.5°	6467.3	6520.2	6942.3	7569.0	8397.9	8999.1	9134.4	8944.3	8865.8	8612.6	8472.2
60°	5640.4	5724.8	6207.9	6993.3	8066.3	8998.2	9528.1	9476.2	9411.1	9072.4	8925.9
62.5°	4704.5	4802.2	5267.1	6179.5	7486.6	8742.8	9774.2	9921.7	9888.2	9496.5	9309.4
65°	3613.1	3680.3	4143.0	5126.6	6584.3	8194.6	9802.7	10225.9	10232.0	9819.0	9509.7
67.5°	2405.7	2598.9	3000.7	3847.0	5375.9	7298.4	9552.5	10275.7	10334.8	9929.9	9409.1
70°	1173.8	1428.1	1821.8	2500.3	3847.0	5924.2	8898.4	9866.9	9998.1	9606.4	8809.0
72.5°	487.3	569.6	784.2	1233.9	2208.4	3997.6	7584.2	8758.1	9001.1	8511.9	7406.2
75°	328.5	356.0	448.5	632.7	1006.0	1971.3	5469.5	6530.4	6922.0	6428.7	5254.9
77.5°	253.3	270.6	326.6	442.5	598.1	745.6	2927.5	3935.5	4137.9	3830.7	2734.2
80°	199.4	212.6	244.2	322.5	424.1	398.7	997.8	1783.2	1900.1	1594.0	878.8
82.5°	172.9	178.0	175.0	218.7	281.8	233.0	327.5	658.2	726.3	527.0	286.9
85°	125.2	139.4	145.4	135.3	149.5	118.0	134.3	233.0	256.4	228.9	161.7
87.5°	50.8	75.2	92.6	87.4	54.9	33.5	41.7	68.2	78.3	85.5	52.9
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°	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3	2147.3
2.5°	2149.3	2156.5	2161.5	2167.7	2171.7	2177.8	2190.0	2197.2	2198.1	2203.2	2202.2
5°	2168.7	2178.8	2190.0	2206.3	2224.7	2239.8	2263.3	2279.5	2285.6	2290.8	2289.7
7.5°	2210.4	2224.7	2245.0	2273.4	2299.9	2320.2	2348.7	2368.1	2387.3	2394.5	2395.5
10°	2272.4	2292.7	2322.2	2360.9	2389.4	2415.8	2445.3	2461.6	2480.9	2489.1	2493.1
12.5°	2349.7	2371.1	2409.8	2463.7	2490.1	2508.4	2518.6	2514.5	2518.6	2525.7	2527.8
15°	2438.3	2461.6	2505.3	2563.3	2581.7	2565.4	2543.0	2522.6	2519.6	2521.6	2528.8
17.5°	2543.0	2560.2	2611.2	2660.0	2646.8	2579.6	2530.8	2498.2	2481.9	2476.9	2484.0
20°	2689.5	2689.5	2731.2	2761.7	2673.2	2559.2	2483.0	2430.1	2396.6	2382.3	2379.2
22.5°	2867.4	2851.2	2877.7	2856.3	2668.1	2502.3	2396.6	2304.9	2254.1	2233.8	2230.7
25°	3093.2	3074.0	3066.8	2934.6	2631.5	2411.7	2239.8	2129.0	2084.2	2073.1	2075.1
27.5°	3434.1	3385.3	3292.7	2977.3	2564.3	2269.4	2056.8	1954.1	1928.6	1929.7	1932.6
30°	3887.7	3790.0	3563.2	2984.5	2454.5	2067.9	1869.6	1796.4	1784.1	1789.2	1806.6
32.5°	4307.9	4215.3	3840.0	2951.9	2285.6	1870.6	1701.8	1652.9	1634.7	1640.7	1648.9
35°	4637.4	4612.0	4096.2	2906.1	2078.1	1685.5	1551.2	1509.5	1473.9	1465.7	1471.9
37.5°	4948.7	4938.4	4288.5	2842.0	1872.7	1554.3	1430.2	1375.2	1323.4	1294.9	1295.9
40°	5290.4	5280.3	4414.7	2743.4	1690.5	1440.3	1321.3	1249.2	1185.0	1133.1	1138.3
42.5°	5674.9	5615.0	4474.6	2602.0	1536.0	1343.7	1232.9	1135.2	1050.7	1003.0	1006.0
45°	6095.1	5959.8	4473.6	2422.0	1405.8	1255.2	1138.3	999.9	921.6	876.8	874.8
47.5°	6540.5	6289.3	4418.7	2222.6	1279.6	1157.5	991.8	886.0	834.1	806.7	800.5
50°	7000.3	6597.5	4325.1	1993.7	1150.5	1046.7	900.3	828.0	788.3	762.9	753.8
52.5°	7432.7	6877.2	4212.2	1734.3	1019.3	938.9	859.6	803.6	761.9	733.4	721.2
55°	7834.5	7118.3	4052.5	1468.8	912.5	866.6	840.2	793.5	745.6	712.1	698.8
57.5°	8191.5	7275.0	3776.8	1219.6	836.1	816.8	819.9	776.1	721.2	692.7	674.4
60°	8488.5	7389.9	3369.0	988.7	774.1	768.0	788.3	743.5	679.5	647.0	632.7
62.5°	8666.5	7387.9	2868.5	809.6	721.2	723.2	746.6	702.8	637.8	607.3	598.1
65°	8651.3	7206.9	2319.2	692.7	670.3	672.4	702.8	658.2	603.2	584.9	583.8
67.5°	8345.0	6765.4	1779.1	616.4	614.4	623.5	659.2	627.6	581.8	579.8	582.8
70°	7516.0	5848.9	1281.7	555.3	556.4	569.6	616.4	608.2	570.6	574.7	573.7
72.5°	6026.9	4459.4	860.6	491.3	492.3	513.7	575.7	593.1	559.4	613.4	621.5
75°	4013.9	2781.0	553.4	423.1	424.1	451.6	540.2	563.5	528.9	611.3	616.4
77.5°	1928.6	1250.1	400.8	356.0	356.0	381.4	466.9	504.5	450.6	475.0	435.3
80°	666.2	470.0	315.3	286.9	280.7	298.1	393.7	437.4	388.6	358.0	335.7
82.5°	262.4	244.2	253.3	222.7	202.4	213.6	306.2	361.1	285.9	258.4	257.4
85°	150.6	158.7	179.1	147.5	117.0	131.2	224.8	259.4	215.7	190.2	194.2
87.5°	40.7	56.0	82.4	76.3	52.9	56.0	106.8	143.4	124.1	95.6	98.7
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)