

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: P884421

Luminaire Tested: **NAV-SB5B-722-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-722-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22505 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

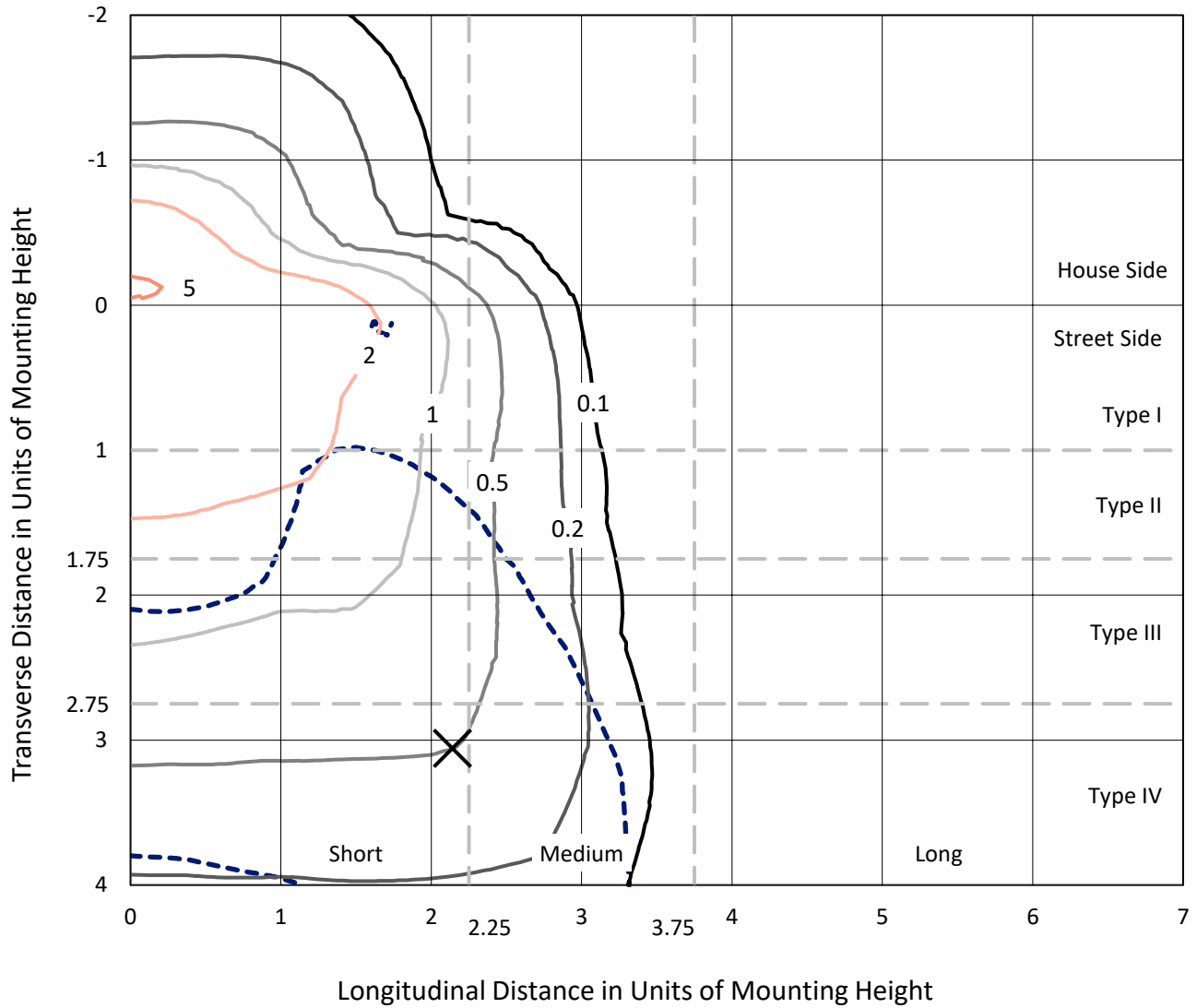
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

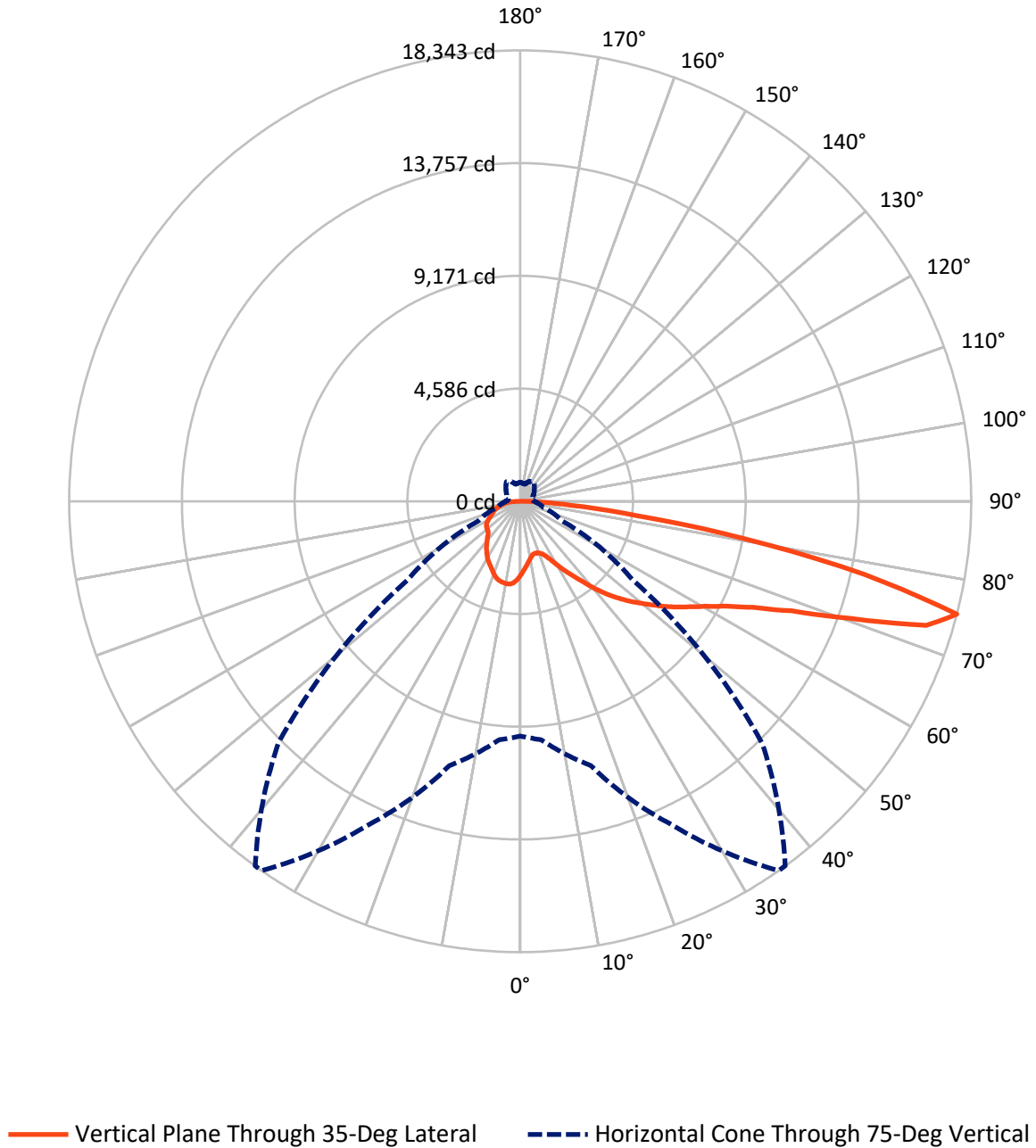
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5355.6	0.0	5355.6
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	17149.4	0.0	17149.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	22505.0	0.0	22505.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.9	1.3
10°-20°	819.0	3.6
20°-30°	1375.3	6.1
30°-40°	2137.4	9.5
40°-50°	3172.5	14.1
50°-60°	4379.9	19.5
60°-70°	5313.8	23.6
70°-80°	4391.4	19.5
80°-90°	631.6	2.8
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°	22505.0	100.0
0°-180°	22505.0	100.0

Coefficient of Utilization



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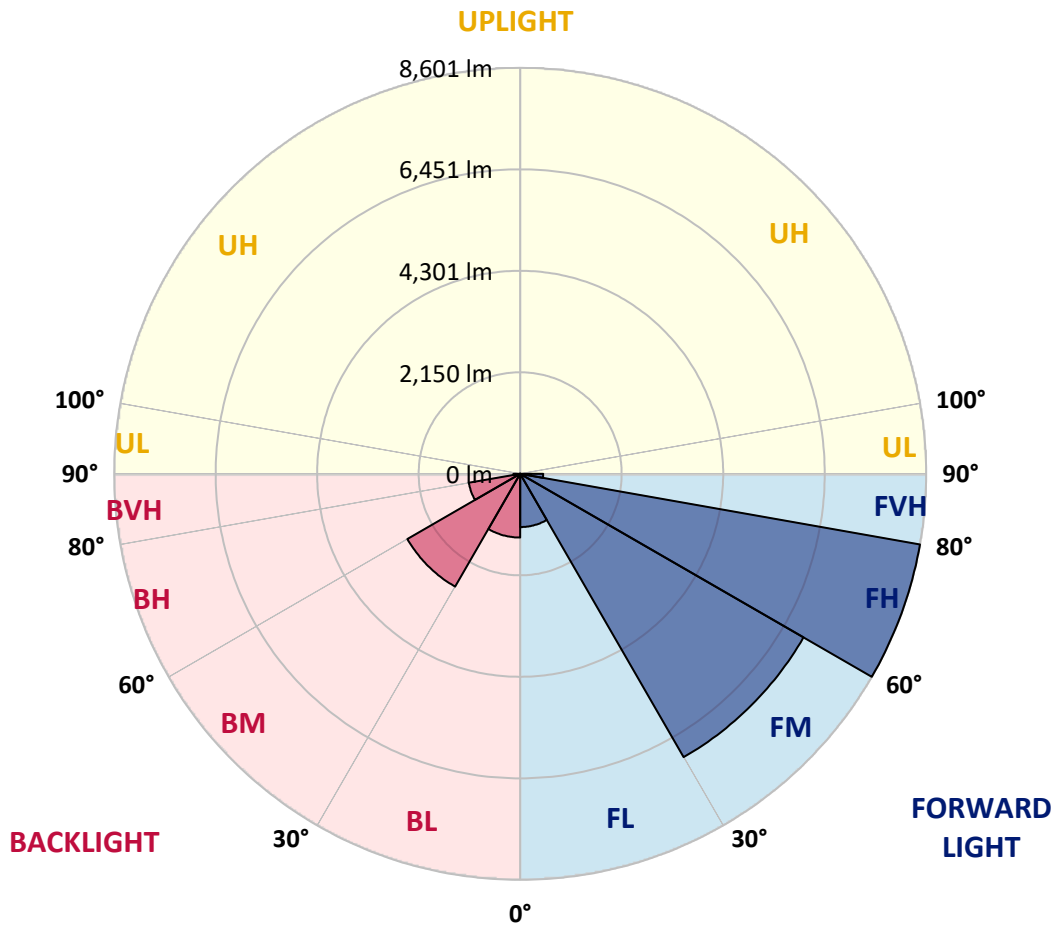
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1128.6	5.0			
FM (30°-60°)	6930.3	30.8			
FH (60°-80°)	8601.1	38.2			G4/12000
FVH (80°-90°)	489.4	2.2			G3/500
BL (0°-30°)	1349.7	6.0	B3/2500		
BM (30°-60°)	2759.5	12.3	B3/5000		
BH (60°-80°)	1104.2	4.9	B3/2500		G3/2500
BVH (80°-90°)	142.2	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9
2.5°	2765.4	2782.4	2789.7	2786.0	2804.3	2801.9	2827.4	2859.0	2902.8	2945.4	3007.5
5°	2552.4	2570.7	2586.5	2601.1	2636.4	2647.3	2687.5	2748.3	2828.6	2910.1	3012.3
7.5°	2354.1	2370.0	2394.3	2421.1	2480.7	2491.6	2558.5	2653.4	2765.4	2884.6	3025.7
10°	2192.3	2208.1	2233.7	2264.1	2338.3	2351.7	2436.9	2563.4	2709.4	2860.2	3040.3
12.5°	2123.0	2127.9	2142.5	2172.9	2237.3	2245.9	2339.5	2484.3	2654.6	2842.0	3062.2
15°	2119.3	2129.1	2130.3	2146.1	2199.6	2203.3	2289.7	2433.2	2620.6	2838.4	3095.1
17.5°	2155.8	2163.1	2152.2	2161.9	2206.9	2213.0	2281.1	2408.9	2609.6	2854.2	3151.0
20°	2253.2	2259.2	2226.4	2213.0	2245.9	2250.7	2317.6	2424.7	2620.6	2887.0	3227.7
22.5°	2460.0	2463.6	2383.3	2328.6	2331.0	2333.5	2391.9	2489.2	2663.2	2946.6	3325.0
25°	2782.4	2780.0	2652.2	2546.4	2485.5	2472.2	2511.1	2593.8	2734.9	3025.7	3450.3
27.5°	3159.5	3141.3	3013.5	2855.4	2722.8	2703.3	2694.8	2730.1	2837.1	3130.3	3603.6
30°	3585.3	3568.3	3430.8	3224.0	3040.3	3008.7	2928.4	2910.1	2989.2	3272.7	3816.5
32.5°	4052.5	4041.6	3877.3	3626.7	3381.0	3344.5	3209.4	3160.8	3222.8	3488.0	4113.4
35°	4444.3	4434.5	4298.3	4040.4	3739.9	3694.8	3557.4	3502.6	3534.3	3764.2	4501.5
37.5°	4798.3	4793.4	4676.6	4473.5	4163.2	4108.5	3954.0	3935.7	3929.7	4128.0	4972.3
40°	5126.8	5114.6	4993.0	4885.9	4656.0	4606.1	4469.8	4454.0	4407.8	4575.7	5505.2
42.5°	5490.6	5458.9	5282.5	5232.6	5170.6	5129.2	5047.7	5050.1	4948.0	5080.6	6069.7
45°	5787.4	5769.2	5587.9	5558.7	5625.6	5608.6	5679.1	5697.4	5499.1	5609.8	6656.1
47.5°	6106.2	6089.1	5935.8	5915.2	6096.4	6101.3	6350.7	6356.8	6036.8	6159.7	7243.7
50°	6499.1	6474.8	6322.7	6348.3	6551.4	6569.7	7025.9	6984.6	6532.0	6718.1	7826.5
52.5°	6758.3	6772.9	6740.0	6781.4	7058.8	7075.8	7690.2	7584.3	7022.3	7269.2	8398.3
55°	6949.3	6978.5	7080.7	7175.6	7594.1	7611.1	8316.7	8154.9	7428.6	7780.2	8936.0
57.5°	7195.0	7153.7	7344.7	7529.6	8102.6	8147.6	8926.3	8704.8	7788.7	8220.6	9304.6
60°	7547.8	7518.6	7667.1	7940.8	8672.0	8743.8	9571.1	9200.0	8052.7	8569.8	9376.4
62.5°	8263.2	8190.2	8213.3	8455.4	9389.8	9484.7	10298.6	9631.9	8184.1	8706.1	8992.0
65°	9332.6	9207.3	9090.5	9258.4	10400.8	10494.5	11119.8	9971.3	8135.5	8442.1	7971.2
67.5°	10679.4	10555.3	10411.7	10569.9	11889.9	11964.1	12133.3	10162.3	7752.2	7425.0	6167.0
70°	11790.2	11743.9	11915.5	12566.4	14268.4	14270.8	13432.6	10004.2	6702.3	5264.3	3568.3
72.5°	11643.0	11615.0	12518.9	14531.2	17266.1	17201.6	14662.6	8807.0	4514.8	2374.8	1337.1
75°	9551.6	9732.9	11133.2	14495.9	18342.8	18334.3	13909.5	5598.8	1867.5	984.2	691.0
77.5°	5121.9	5409.0	7227.9	10702.5	14319.5	14534.8	9779.1	1958.7	801.7	630.2	478.1
80°	1670.4	1921.0	2880.9	5449.2	9304.6	9264.5	4191.2	768.9	548.7	446.5	330.9
82.5°	709.3	738.5	1287.2	2573.1	4775.2	4701.0	1334.6	441.6	385.7	305.4	204.4
85°	277.4	310.2	568.2	1189.8	2068.2	2023.2	481.8	219.0	247.0	199.5	121.7
87.5°	91.2	110.7	203.2	407.6	643.6	620.5	118.0	75.4	107.1	91.2	43.8
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°	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9	2998.9
2.5°	3024.5	3044.0	3067.1	3101.1	3130.3	3154.7	3180.2	3196.0	3202.1	3220.4	3219.1
5°	3046.4	3089.0	3146.2	3202.1	3256.9	3289.7	3318.9	3333.5	3346.9	3356.6	3359.1
7.5°	3082.9	3137.6	3227.7	3300.7	3346.9	3373.7	3393.1	3388.3	3393.1	3395.6	3399.2
10°	3114.5	3191.2	3298.2	3367.6	3402.9	3404.1	3399.2	3382.2	3373.7	3374.9	3377.3
12.5°	3152.2	3237.4	3353.0	3411.4	3421.1	3394.3	3373.7	3344.5	3333.5	3328.6	3326.2
15°	3203.3	3300.7	3412.6	3434.5	3410.2	3376.1	3340.8	3293.4	3269.0	3249.6	3255.6
17.5°	3265.4	3372.4	3458.8	3443.0	3390.7	3334.7	3277.5	3205.8	3155.9	3135.2	3136.4
20°	3351.8	3447.9	3494.1	3424.8	3345.7	3260.5	3163.2	3075.6	3029.4	3008.7	3006.2
22.5°	3456.4	3548.9	3528.2	3393.1	3281.2	3144.9	3023.3	2958.8	2935.7	2921.1	2923.5
25°	3581.7	3660.8	3552.5	3346.9	3175.4	2991.6	2898.0	2877.3	2866.3	2855.4	2855.4
27.5°	3744.7	3787.3	3570.8	3278.8	3009.9	2828.6	2794.6	2798.2	2794.6	2776.3	2780.0
30°	3960.1	3951.5	3587.8	3168.1	2820.1	2681.4	2683.8	2699.7	2702.1	2689.9	2696.0
32.5°	4243.5	4157.2	3596.3	3024.5	2638.8	2552.4	2554.9	2571.9	2584.1	2563.4	2573.1
35°	4586.6	4396.8	3582.9	2844.4	2498.9	2429.6	2411.3	2416.2	2419.8	2400.4	2413.8
37.5°	4986.9	4665.7	3523.3	2644.9	2383.3	2309.1	2270.2	2237.3	2217.9	2199.6	2211.8
40°	5426.1	4958.9	3413.8	2450.3	2254.4	2181.4	2123.0	2060.9	1995.2	1970.9	1981.9
42.5°	5886.0	5260.6	3281.2	2264.1	2106.0	2046.3	1984.3	1894.3	1795.7	1745.8	1751.9
45°	6362.9	5569.6	3151.0	2080.4	1953.9	1928.3	1856.5	1748.3	1641.2	1577.9	1573.1
47.5°	6830.0	5861.6	2960.0	1895.5	1811.5	1839.5	1783.6	1683.8	1564.6	1464.8	1453.8
50°	7276.5	6135.4	2647.3	1708.1	1696.0	1812.7	1759.2	1615.7	1479.4	1351.7	1340.7
52.5°	7719.4	6356.8	2247.1	1537.8	1633.9	1805.4	1727.6	1569.4	1402.8	1268.9	1254.3
55°	8095.3	6471.1	1861.4	1391.8	1543.9	1743.4	1689.9	1514.7	1294.5	1152.1	1140.0
57.5°	8309.4	6378.7	1540.2	1248.2	1419.8	1641.2	1625.4	1397.9	1165.5	1056.0	1041.4
60°	8217.0	6004.0	1277.4	1122.9	1301.8	1530.5	1513.5	1282.3	1067.0	963.6	949.0
62.5°	7707.2	5289.8	1069.4	1013.4	1194.7	1417.4	1401.5	1193.5	991.5	891.8	876.0
65°	6680.4	4303.1	907.6	922.2	1086.4	1281.1	1304.2	1119.3	931.9	834.6	818.8
67.5°	5095.2	3117.0	781.1	843.1	980.6	1147.3	1214.2	1065.8	882.0	789.6	775.0
70°	2904.0	1770.2	674.0	766.5	886.9	1023.2	1144.8	1023.2	828.5	751.9	742.1
72.5°	1101.0	812.7	582.8	689.8	796.9	918.5	1068.2	956.3	766.5	709.3	699.6
75°	587.6	495.2	490.3	599.8	693.5	816.3	972.1	890.6	720.2	749.4	773.8
77.5°	400.3	350.4	410.0	513.4	580.3	703.2	869.9	790.8	624.1	621.7	573.0
80°	277.4	248.2	333.4	413.6	448.9	591.3	759.2	678.9	508.5	474.5	453.8
82.5°	166.7	161.8	249.4	309.0	317.5	456.2	629.0	569.4	416.1	362.5	365.0
85°	91.2	96.1	159.4	181.3	184.9	318.8	492.7	440.4	320.0	268.9	271.3
87.5°	25.5	32.8	58.4	71.8	88.8	165.5	293.2	261.6	160.6	111.9	111.9
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)