

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: P883906

Luminaire Tested: **NAV-SB4C-722-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883906
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-SB4C-722-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 615mA 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: 17661 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

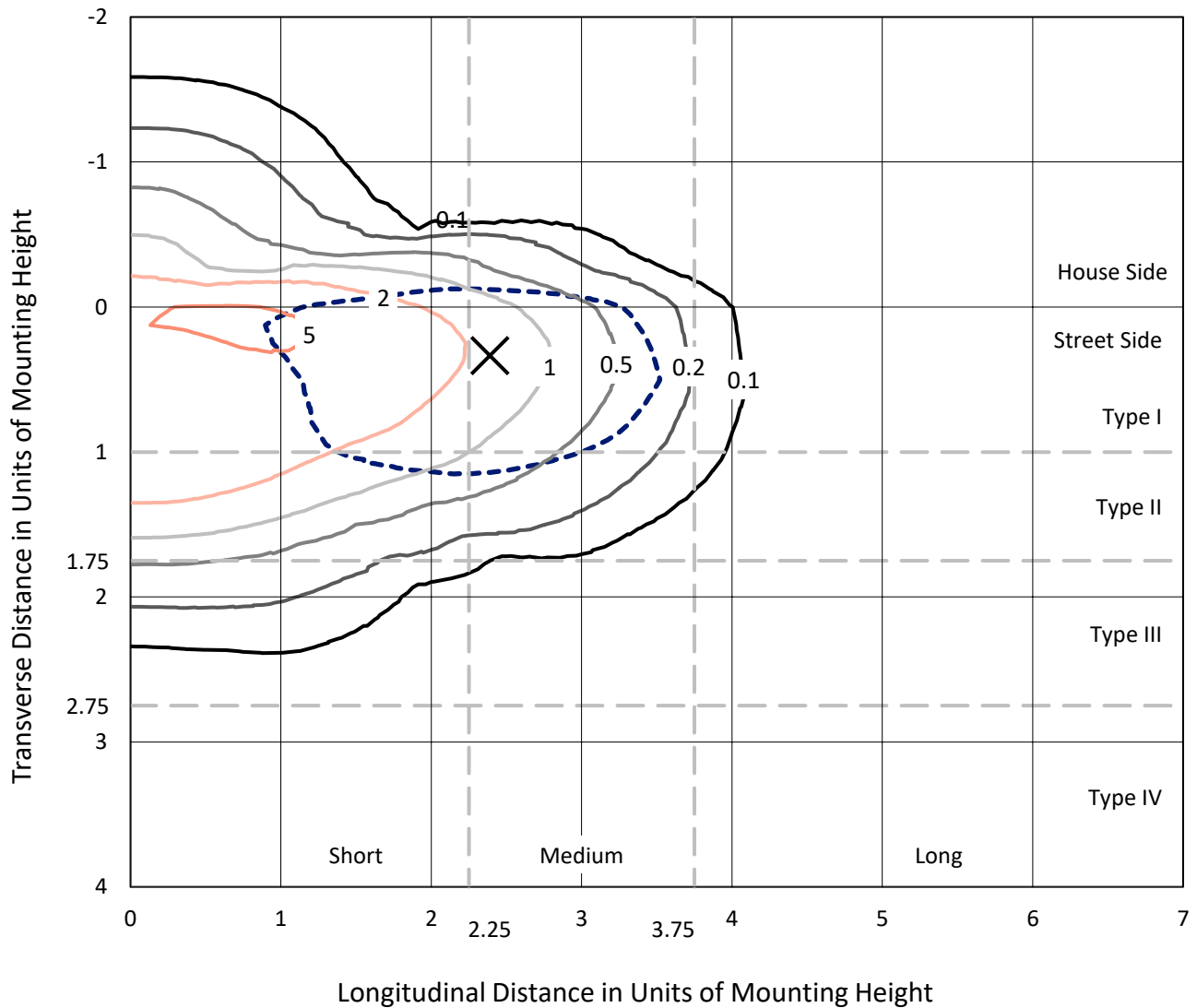
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

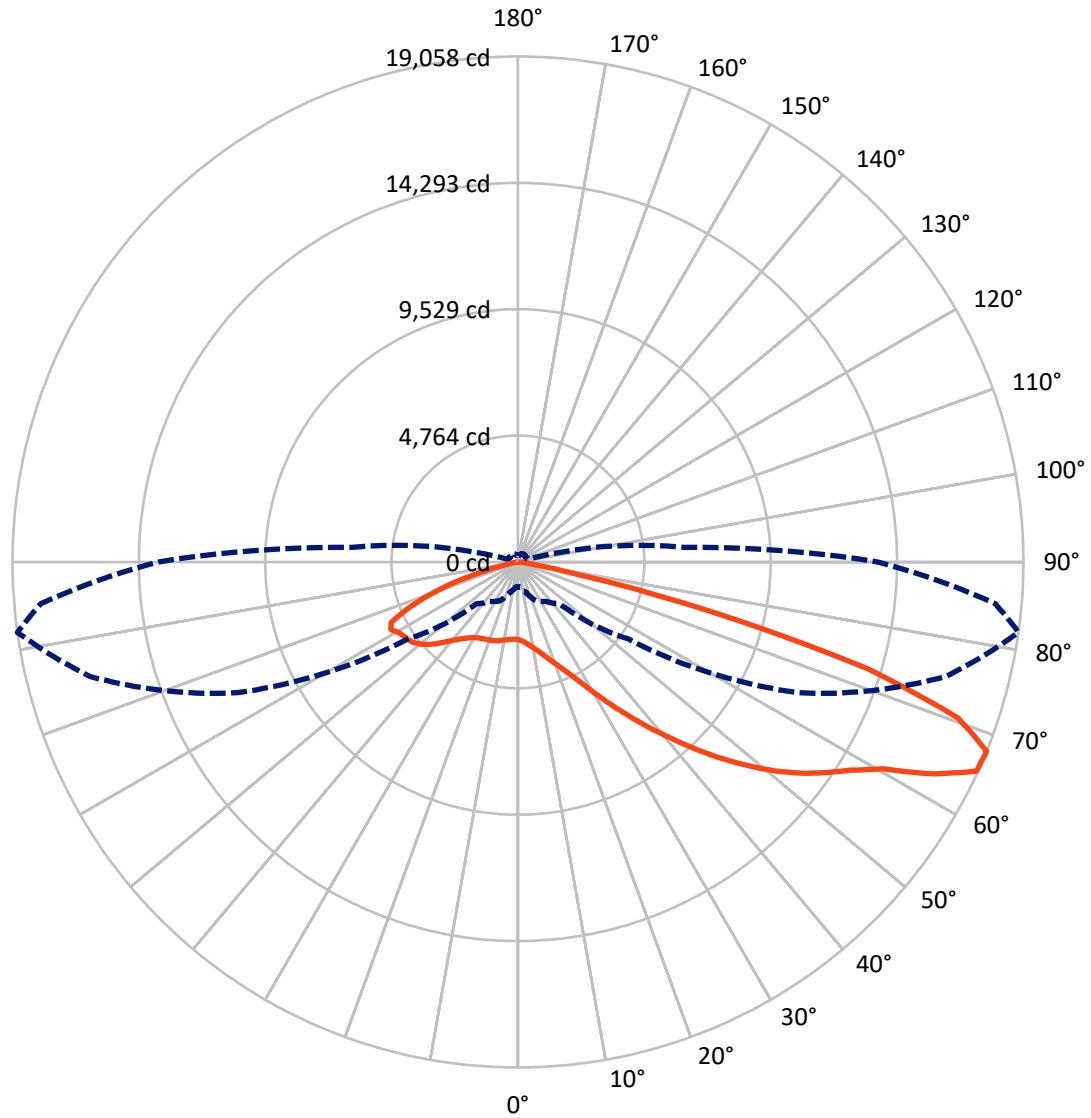
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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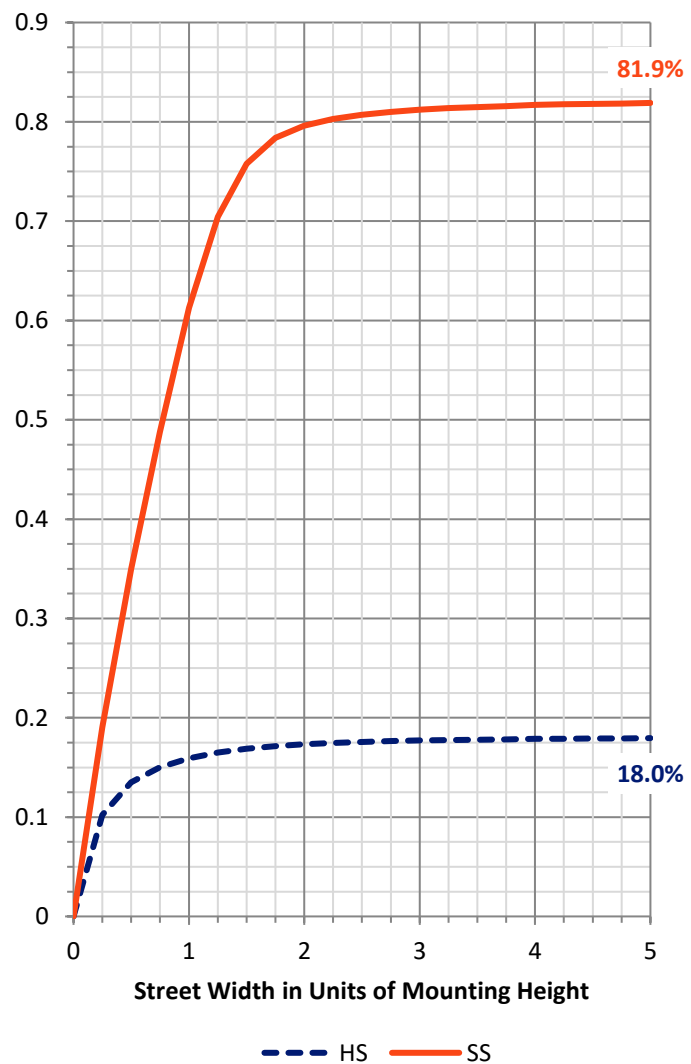
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3199.1	0.0	3199.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	14461.9	0.0	14461.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	17661.0	0.0	17661.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.7	1.5
10°-20°	677.4	3.8
20°-30°	1084.9	6.1
30°-40°	1918.5	10.9
40°-50°	3361.4	19.0
50°-60°	4483.2	25.4
60°-70°	4173.6	23.6
70°-80°	1601.8	9.1
80°-90°	99.5	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°	17661.0	100.0
0°-180°	17661.0	100.0

Coefficient of Utilization



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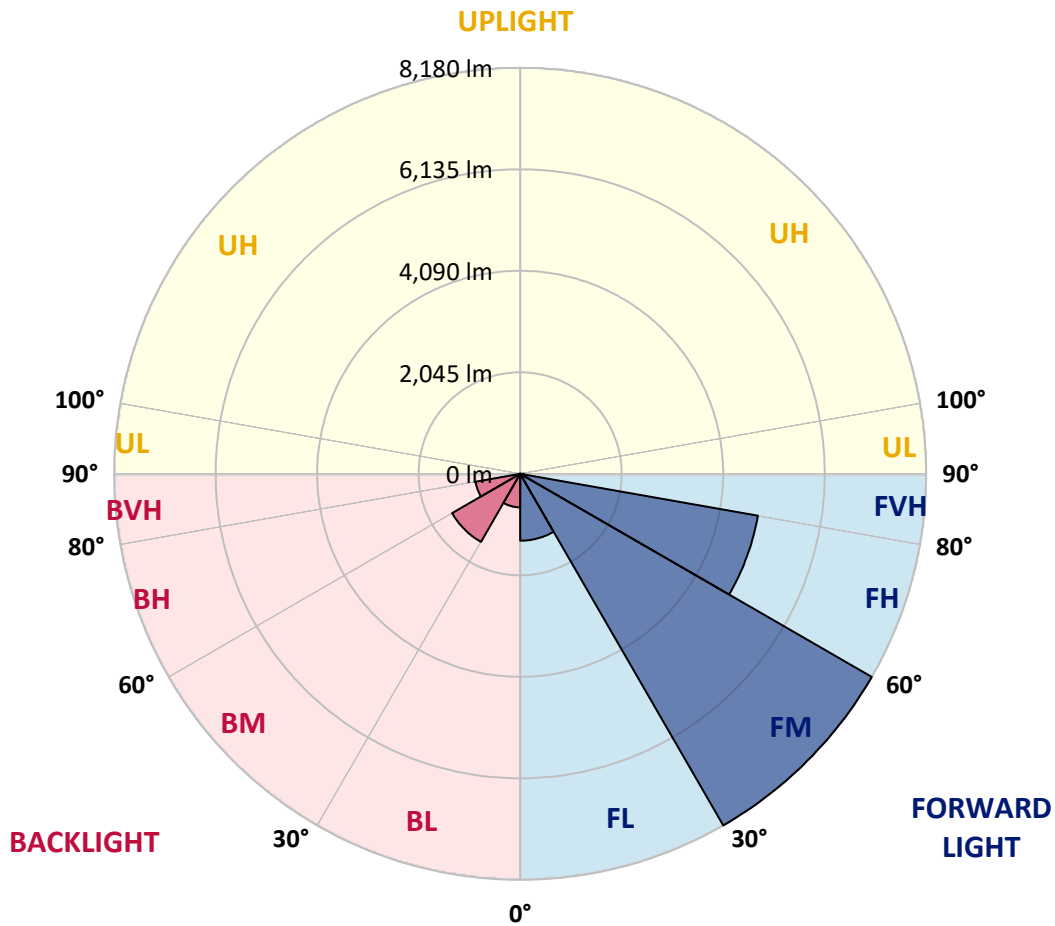
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1347.3	7.6			
FM (30°-60°)	8179.8	46.3			
FH (60°-80°)	4862.3	27.5			G2/5000
FVH (80°-90°)	72.3	0.4			G1/100
BL (0°-30°)	675.6	3.8	B2/1000		
BM (30°-60°)	1583.2	9.0	B2/2500		
BH (60°-80°)	913.1	5.2	B2/1000		G2/1000
BVH (80°-90°)	27.2	0.2			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°	82°	85°
0°	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8
2.5°	3092.4	3110.2	3100.0	3094.9	3086.0	3073.3	3063.2	3031.4	2998.3	2976.7	2969.1
5°	3154.7	3172.5	3171.2	3176.3	3182.7	3186.5	3184.0	3148.4	3101.3	3064.4	3042.8
7.5°	3101.3	3121.6	3138.2	3163.6	3208.1	3255.2	3278.0	3270.4	3222.1	3171.2	3144.5
10°	2950.0	2971.6	3011.0	3070.8	3164.9	3266.6	3351.8	3391.2	3360.7	3304.8	3267.9
12.5°	2672.8	2694.4	2772.0	2901.7	3059.3	3236.1	3398.8	3504.4	3512.0	3456.1	3412.8
15°	2361.3	2382.9	2465.5	2628.3	2868.6	3152.2	3424.3	3623.9	3691.3	3643.0	3590.8
17.5°	2168.0	2187.1	2249.4	2380.3	2630.8	2984.3	3415.4	3751.1	3904.9	3866.8	3804.5
20°	2109.5	2126.0	2155.3	2246.8	2455.4	2810.1	3356.9	3870.6	4135.1	4113.5	4043.5
22.5°	2171.8	2187.1	2196.0	2236.7	2367.6	2695.7	3283.1	3992.7	4402.1	4404.6	4319.4
25°	2315.5	2330.7	2320.6	2346.0	2403.2	2660.1	3255.2	4136.3	4737.8	4765.8	4669.1
27.5°	2552.0	2553.3	2529.1	2527.8	2536.7	2713.5	3284.4	4290.2	5161.2	5213.3	5093.8
30°	3026.3	3007.2	2914.4	2813.9	2768.2	2873.7	3365.8	4472.0	5660.9	5753.8	5603.7
32.5°	3757.4	3729.4	3559.1	3318.7	3077.1	3131.8	3512.0	4679.3	6205.2	6373.0	6189.9
35°	4550.9	4543.2	4365.2	4007.9	3585.8	3499.3	3749.8	4951.4	6799.0	7066.0	6848.6
37.5°	5288.4	5284.6	5182.8	4761.9	4248.2	4011.7	4131.3	5307.4	7434.7	7821.3	7564.4
40°	5962.3	5973.7	5872.0	5495.6	4978.1	4669.1	4650.0	5747.4	8141.7	8644.0	8338.8
42.5°	6544.7	6557.4	6454.4	6175.9	5699.1	5396.4	5287.1	6286.5	8832.2	9527.7	9166.6
45°	6940.1	7018.9	7003.7	6781.2	6439.1	6125.0	6052.6	6963.0	9619.3	10464.8	10041.4
47.5°	7052.0	7124.5	7238.9	7269.4	7060.9	6751.9	6838.4	7778.1	10415.2	11403.2	10921.3
50°	6776.1	6843.5	7081.2	7397.9	7542.8	7447.5	7602.6	8651.6	11230.3	12339.1	11784.7
52.5°	6231.9	6300.5	6600.6	7101.6	7692.9	7992.9	8369.3	9512.4	12019.9	13225.4	12602.3
55°	5444.8	5517.2	5902.5	6469.6	7406.8	8218.0	9008.9	10372.0	12743.4	14022.6	13339.8
57.5°	4374.1	4427.5	4828.1	5621.5	6687.1	7994.2	9480.7	11310.4	13425.0	14805.9	14070.9
60°	2850.8	2897.9	3363.2	4248.2	5494.4	7246.5	9574.8	12356.9	14330.3	15824.4	15056.4
62.5°	1895.9	1927.7	2203.6	2853.4	3869.3	5811.0	9024.2	13192.3	15657.8	17596.9	16746.3
65°	1300.8	1332.6	1608.5	2061.2	2499.9	3843.9	7441.1	13081.7	16860.7	19004.5	17998.8
67.5°	928.2	954.9	1188.9	1616.1	1809.4	2232.8	5044.2	11667.7	16687.8	19057.9	18066.1
70°	665.0	680.3	873.6	1258.8	1438.1	1341.5	2805.0	8923.7	14611.3	17598.2	16690.3
72.5°	465.4	470.5	606.5	958.7	1158.4	979.1	1335.1	5949.6	11051.0	13812.8	12939.3
75°	315.3	321.7	408.2	703.2	929.5	747.7	707.0	3190.3	6487.4	7645.8	6853.6
77.5°	193.3	195.8	263.2	480.6	695.5	569.7	455.2	1351.7	2510.0	2464.3	2100.6
80°	109.4	109.4	167.8	298.8	474.3	367.5	319.2	574.7	794.7	698.1	615.4
82.5°	61.0	62.3	122.1	185.6	314.1	217.4	175.5	265.8	343.3	303.9	264.5
85°	25.4	28.0	75.0	87.7	150.0	108.1	71.2	111.9	127.2	113.2	82.7
87.5°	2.5	3.8	22.9	16.5	17.8	21.6	10.2	21.6	17.8	17.8	12.7
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°	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8	2925.8
2.5°	2944.9	2925.8	2877.5	2821.6	2747.8	2712.2	2663.9	2630.8	2602.9	2605.4	2580.0
5°	3002.1	2953.8	2845.7	2710.9	2543.1	2423.6	2296.4	2208.7	2137.5	2122.2	2087.9
7.5°	3081.0	3004.7	2815.2	2572.3	2288.8	2073.9	1881.9	1758.5	1670.8	1642.8	1614.9
10°	3182.7	3072.1	2775.8	2398.1	1990.0	1716.6	1510.6	1414.0	1354.2	1333.9	1318.6
12.5°	3300.9	3149.6	2723.7	2185.8	1682.3	1419.0	1288.1	1239.8	1220.7	1214.3	1210.5
15°	3449.7	3246.3	2644.8	1934.0	1421.6	1237.2	1181.3	1174.9	1177.5	1174.9	1173.6
17.5°	3626.5	3351.8	2516.4	1674.6	1246.1	1144.4	1124.0	1129.1	1135.5	1134.2	1131.7
20°	3819.7	3456.1	2352.4	1444.5	1126.6	1078.3	1066.8	1071.9	1077.0	1074.5	1073.2
22.5°	4039.7	3568.0	2170.5	1265.2	1046.5	1017.2	1004.5	1005.8	1005.8	1000.7	998.2
25°	4302.9	3691.3	1979.8	1138.0	985.4	962.6	947.3	942.2	934.6	919.3	916.8
27.5°	4617.0	3822.3	1796.7	1049.0	937.1	915.5	897.7	885.0	865.9	840.5	837.9
30°	4970.5	3981.2	1641.6	993.1	899.0	877.4	857.0	837.9	810.0	778.2	775.6
32.5°	5386.3	4151.6	1528.4	956.2	864.7	841.8	817.6	794.7	764.2	732.4	733.7
35°	5882.2	4357.6	1462.3	930.8	837.9	807.4	780.7	755.3	732.4	704.4	701.9
37.5°	6420.0	4576.3	1441.9	918.1	820.1	773.1	742.6	724.8	722.2	705.7	704.4
40°	7008.8	4835.7	1457.2	910.4	801.1	740.0	707.0	703.2	709.5	680.3	681.5
42.5°	7631.8	5143.4	1482.6	901.5	774.4	707.0	675.2	675.2	670.1	629.4	629.4
45°	8305.7	5498.2	1508.1	879.9	742.6	673.9	649.8	640.9	619.2	579.8	578.6
47.5°	8984.8	5859.3	1527.1	840.5	704.4	645.9	624.3	604.0	572.2	536.6	535.3
50°	9629.4	6183.5	1506.8	782.0	661.2	619.2	596.4	568.4	534.0	509.9	506.1
52.5°	10205.4	6464.5	1420.3	713.3	615.4	591.3	570.9	541.7	513.7	488.3	485.7
55°	10706.4	6692.2	1267.7	648.5	574.7	567.1	546.8	509.9	471.7	450.1	447.6
57.5°	11187.1	6865.1	1077.0	595.1	537.9	540.4	509.9	476.8	441.2	418.3	415.8
60°	11826.7	7096.5	883.7	545.5	498.4	506.1	473.0	448.9	404.4	375.1	371.3
62.5°	12849.0	7456.4	701.9	484.5	452.7	455.2	441.2	412.0	358.6	324.2	321.7
65°	13660.2	7324.1	553.1	418.3	400.5	404.4	404.4	372.6	315.3	275.9	272.1
67.5°	13568.7	6271.3	441.2	353.5	350.9	353.5	362.4	335.7	279.7	248.0	242.9
70°	12499.3	4988.3	353.5	293.7	305.2	298.8	324.2	306.4	251.8	220.0	216.2
72.5°	10199.1	3593.4	269.6	242.9	234.0	244.1	292.5	275.9	209.8	174.2	170.4
75°	5959.7	1917.5	200.9	192.0	169.1	203.4	259.4	235.2	160.2	128.4	124.6
77.5°	1940.4	668.8	147.5	141.1	125.9	164.0	221.2	198.4	131.0	101.7	97.9
80°	520.1	202.2	100.5	92.8	81.4	122.1	175.5	157.7	94.1	66.1	64.8
82.5°	208.5	85.2	58.5	52.1	44.5	83.9	138.6	127.2	69.9	42.0	42.0
85°	67.4	28.0	21.6	16.5	20.3	52.1	82.7	86.5	49.6	21.6	16.5
87.5°	8.9	3.8	3.8	5.1	3.8	8.9	25.4	24.2	14.0	2.5	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)