

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: P883777

Luminaire Tested: **NAV-SB4B-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883777
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24378 lumens
Efficiency: N/A
Efficacy: 165.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

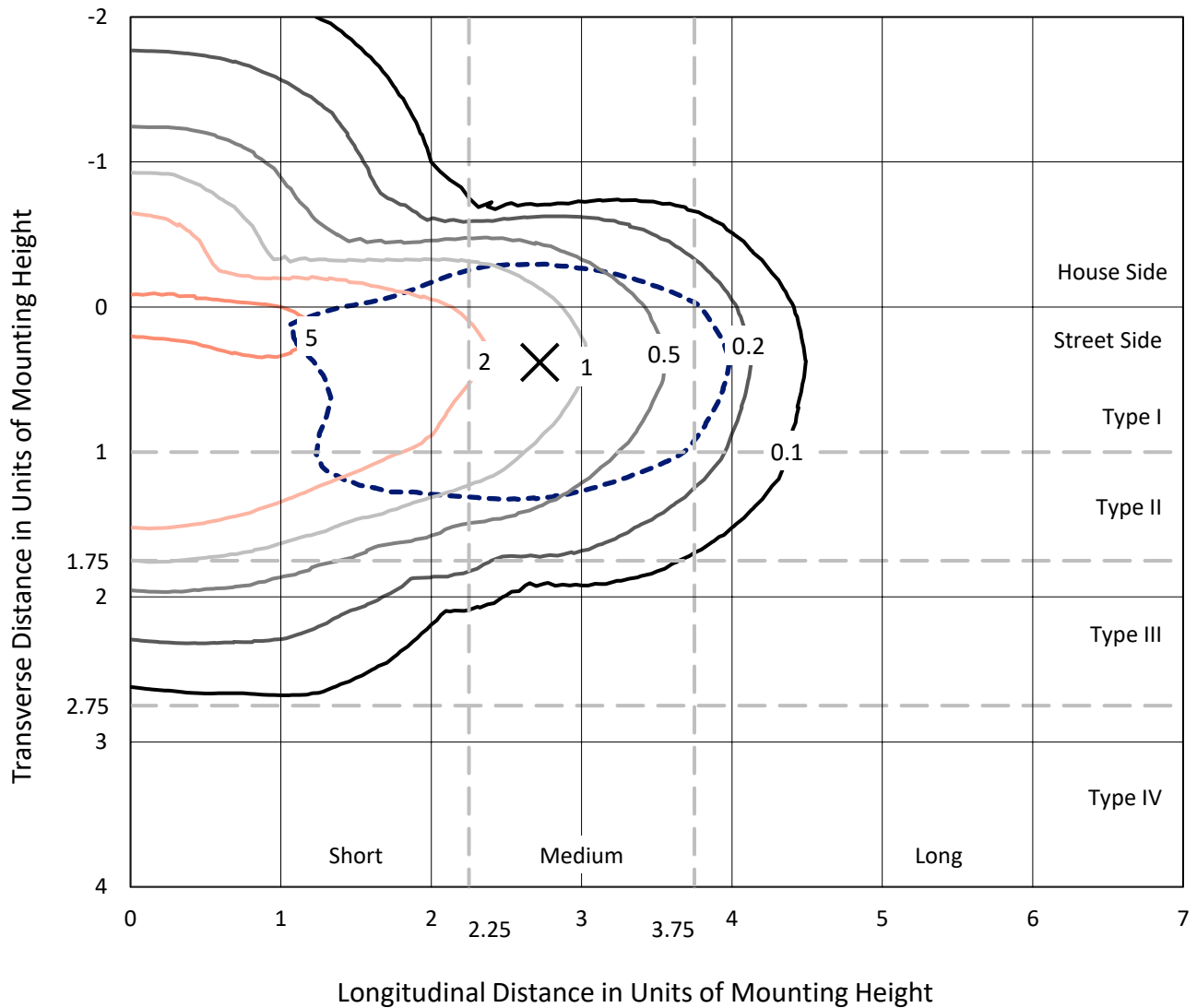
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

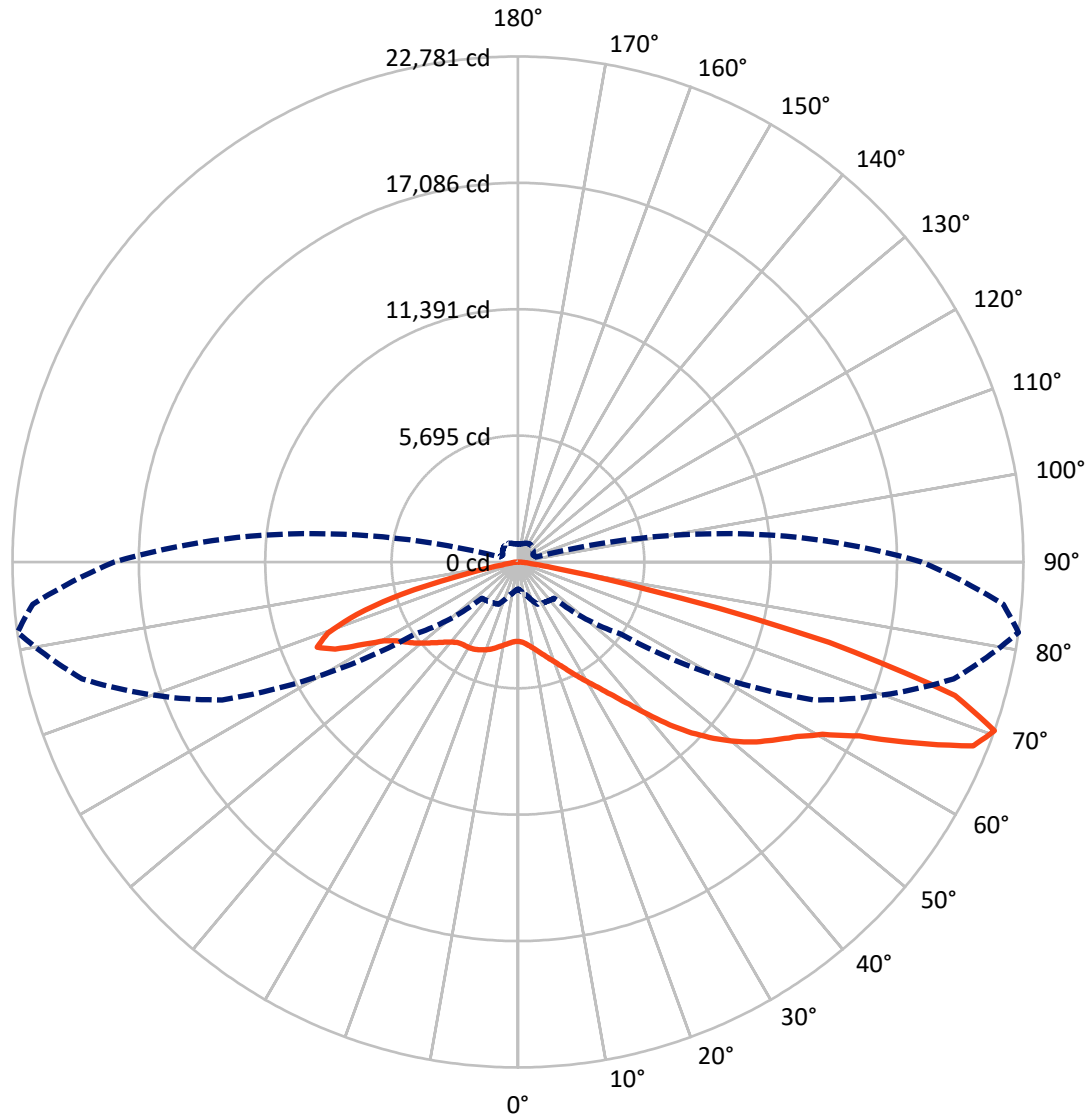
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6009.8	0.0	6009.8
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	18368.2	0.0	18368.2
	% Fixture	75.3	0.0	75.3
Total	Lumens	24378.0	0.0	24378.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.5	1.4
10°-20°	969.5	4.0
20°-30°	1621.9	6.7
30°-40°	2533.9	10.4
40°-50°	4035.5	16.6
50°-60°	5615.9	23.0
60°-70°	5874.5	24.1
70°-80°	3070.3	12.6
80°-90°	318.8	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°	24378.0	100.0
0°-180°	24378.0	100.0

Coefficient of Utilization



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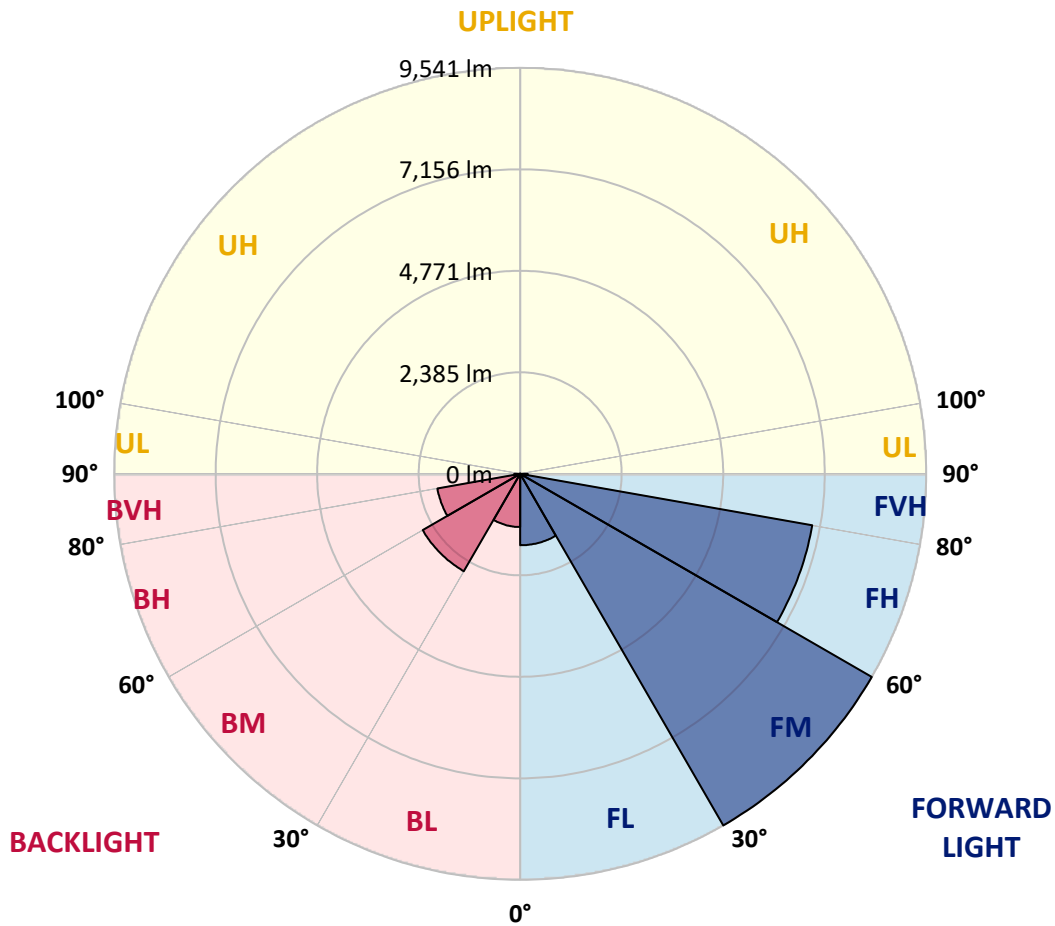
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1678.7	6.9			
FM (30°-60°)	9541.3	39.1			
FH (60°-80°)	6969.7	28.6			G3/7500
FVH (80°-90°)	178.5	0.7			G2/225
BL (0°-30°)	1250.3	5.1	B3/2500		
BM (30°-60°)	2644.1	10.8	B3/5000		
BH (60°-80°)	1975.1	8.1	B3/2500		G3/2500
BVH (80°-90°)	140.3	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-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1
2.5°	3659.5	3680.2	3673.7	3667.3	3667.3	3658.2	3656.9	3644.0	3633.6	3616.8	3612.9
5°	3706.1	3728.1	3725.5	3730.6	3747.5	3751.3	3755.2	3747.5	3726.8	3706.1	3697.0
7.5°	3664.7	3689.2	3697.0	3728.1	3779.8	3826.4	3861.3	3875.5	3856.1	3826.4	3812.1
10°	3525.0	3552.1	3579.3	3653.0	3744.9	3854.8	3948.0	4003.6	3999.7	3971.2	3946.7
12.5°	3241.7	3270.1	3328.3	3471.9	3640.1	3834.1	4007.5	4123.9	4164.0	4143.3	4100.6
15°	3015.3	3039.9	3083.9	3231.3	3449.9	3744.9	4029.5	4255.8	4358.0	4346.4	4294.6
17.5°	3008.8	3019.2	3046.3	3116.2	3284.4	3605.2	4006.2	4385.2	4580.5	4579.2	4514.5
20°	3122.7	3126.5	3142.1	3156.3	3252.0	3499.1	3946.7	4492.6	4830.2	4830.2	4760.3
22.5°	3280.5	3277.9	3293.4	3280.5	3327.0	3490.0	3909.2	4587.0	5108.3	5129.0	5041.0
25°	3517.2	3504.3	3500.4	3470.6	3479.7	3574.1	3950.5	4694.3	5438.1	5480.8	5370.9
27.5°	3832.8	3812.1	3797.9	3729.3	3706.1	3747.5	4077.3	4823.7	5805.5	5879.3	5739.5
30°	4244.2	4206.7	4186.0	4067.0	3982.9	3989.4	4268.8	4995.7	6189.7	6308.7	6131.5
32.5°	4805.6	4747.4	4691.8	4496.4	4342.5	4292.0	4515.8	5233.8	6606.2	6796.4	6568.7
35°	5434.3	5387.7	5328.2	5026.8	4790.1	4673.6	4849.6	5566.2	7093.9	7395.3	7099.1
37.5°	6039.7	5999.6	6028.0	5621.8	5316.6	5147.1	5286.8	6012.5	7695.4	8140.4	7764.0
40°	6665.7	6634.7	6638.6	6250.5	5894.8	5704.6	5817.2	6572.6	8384.9	9026.5	8563.4
42.5°	7346.2	7322.9	7245.3	6901.2	6501.5	6324.2	6427.7	7219.4	9124.8	10035.5	9440.4
45°	8108.1	8093.8	8021.4	7626.9	7168.9	6969.7	7109.4	7933.4	9868.6	10985.0	10321.4
47.5°	8766.5	8778.1	8769.1	8436.6	7961.9	7669.5	7836.4	8678.5	10560.7	11877.5	11166.1
50°	9083.4	9144.2	9233.5	9130.0	8835.0	8537.5	8569.9	9397.7	11220.4	12714.4	11975.8
52.5°	8917.8	9033.0	9276.2	9441.7	9555.6	9493.5	9406.8	10111.8	11841.3	13469.9	12741.6
55°	8300.8	8462.5	8866.1	9265.8	9846.6	10298.1	10411.9	10903.5	12446.7	14134.8	13466.0
57.5°	7176.7	7439.3	7801.5	8610.0	9587.9	10687.4	11583.9	12001.7	13088.3	14845.0	14224.0
60°	5249.3	5601.1	6051.3	7254.3	8682.4	10479.2	12581.2	13688.5	14000.3	15764.7	15211.0
62.5°	3359.4	3576.7	3990.6	5123.8	6765.3	9412.0	12886.5	15797.0	15546.1	17273.0	16690.9
65°	2300.0	2439.7	2818.7	3455.1	4373.5	7005.9	12069.0	17377.7	18001.2	19663.5	19221.1
67.5°	1671.3	1777.4	2100.7	2658.3	2849.7	4145.9	9365.4	17305.3	20387.9	22126.4	21438.2
70°	1218.5	1293.6	1565.2	2100.7	2192.6	2306.4	5673.6	14710.4	20336.1	22781.0	21957.0
72.5°	902.9	954.7	1137.0	1629.9	1774.8	1557.5	2808.3	10691.3	17474.8	20605.2	19944.2
75°	653.3	692.1	826.6	1247.0	1420.3	1186.2	1400.9	6247.9	12189.3	14494.4	14610.8
77.5°	499.3	529.1	617.0	913.3	1137.0	890.0	869.3	2874.3	5779.6	5808.1	6134.1
80°	401.0	420.4	468.3	642.9	871.9	666.2	566.6	1160.3	1826.5	1545.8	1622.1
82.5°	294.9	327.3	395.8	451.5	623.5	459.2	345.4	586.0	694.6	597.6	602.8
85°	168.2	190.2	239.3	323.4	398.4	280.7	197.9	260.0	323.4	265.2	236.7
87.5°	59.5	77.6	84.1	126.8	173.3	116.4	76.3	75.0	106.1	78.9	66.0
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°	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1	3574.1
2.5°	3600.0	3593.5	3567.7	3532.7	3496.5	3461.6	3449.9	3425.4	3408.5	3399.5	3409.8
5°	3672.4	3651.7	3590.9	3513.3	3431.8	3343.9	3281.8	3224.9	3183.5	3144.7	3160.2
7.5°	3775.9	3739.7	3634.9	3499.1	3354.2	3208.0	3099.4	3016.6	2961.0	2924.8	2932.5
10°	3896.2	3840.6	3680.2	3477.1	3253.3	3043.8	2915.7	2844.5	2809.6	2790.2	2795.4
12.5°	4034.6	3955.7	3726.8	3426.7	3099.4	2860.1	2772.1	2751.4	2752.7	2754.0	2756.6
15°	4205.4	4095.4	3764.3	3316.7	2898.9	2719.1	2703.6	2737.2	2772.1	2788.9	2787.6
17.5°	4398.1	4242.9	3770.7	3135.6	2702.3	2628.5	2677.7	2750.1	2803.2	2826.4	2831.6
20°	4605.1	4392.9	3724.2	2879.5	2540.6	2554.8	2642.8	2735.9	2794.1	2823.9	2831.6
22.5°	4841.8	4553.3	3612.9	2610.4	2408.6	2474.6	2578.1	2668.6	2729.4	2759.2	2766.9
25°	5112.2	4733.2	3438.3	2384.0	2294.8	2384.0	2487.5	2562.6	2611.7	2638.9	2646.6
27.5°	5412.3	4920.7	3205.5	2204.2	2195.2	2290.9	2376.3	2434.5	2460.4	2481.1	2488.8
30°	5713.7	5091.5	2923.5	2068.4	2108.5	2199.1	2259.9	2285.7	2293.5	2297.4	2306.4
32.5°	6039.7	5238.9	2627.2	1955.9	2025.7	2109.8	2146.0	2157.7	2121.4	2096.9	2104.6
35°	6434.2	5396.8	2337.5	1866.6	1944.2	2016.7	2028.3	2018.0	1975.3	1924.8	1927.4
37.5°	6921.9	5593.4	2105.9	1803.2	1867.9	1915.8	1901.5	1899.0	1902.8	1843.3	1847.2
40°	7519.5	5849.5	1936.5	1754.1	1805.8	1816.2	1776.1	1798.1	1817.5	1726.9	1729.5
42.5°	8183.1	6158.7	1829.1	1720.4	1754.1	1729.5	1667.4	1692.0	1689.4	1570.4	1569.1
45°	8859.6	6495.0	1791.6	1695.9	1706.2	1657.1	1588.5	1595.0	1540.6	1433.3	1437.2
47.5°	9532.3	6855.9	1814.9	1675.2	1646.7	1591.1	1538.0	1509.6	1429.4	1349.2	1349.2
50°	10192.0	7234.9	1900.2	1633.8	1565.2	1532.9	1494.1	1443.6	1358.2	1289.7	1284.5
52.5°	10803.9	7616.5	1996.0	1565.2	1463.0	1482.4	1457.8	1399.6	1315.6	1245.7	1247.0
55°	11383.4	7998.1	2033.5	1470.8	1367.3	1438.4	1424.2	1316.8	1216.0	1159.0	1153.9
57.5°	12014.6	8457.3	1992.1	1350.5	1289.7	1388.0	1333.7	1214.7	1156.4	1113.8	1109.9
60°	12889.1	9177.8	1902.8	1201.7	1216.0	1313.0	1219.8	1170.7	1107.3	1059.4	1056.8
62.5°	14341.8	10521.9	1759.2	1054.3	1129.3	1201.7	1165.5	1116.3	1051.7	1005.1	1005.1
65°	16489.1	12389.8	1488.9	939.1	1032.3	1093.1	1107.3	1058.1	990.9	941.7	944.3
67.5°	18300.1	13561.7	1126.7	843.4	932.7	1005.1	1045.2	997.3	926.2	878.3	879.6
70°	18200.5	12710.6	860.2	749.0	844.7	918.4	970.2	932.7	856.3	811.1	814.9
72.5°	16165.7	10633.1	695.9	653.3	755.4	827.9	890.0	861.5	783.9	739.9	739.9
75°	11876.2	7548.0	556.2	556.2	644.2	733.5	802.0	783.9	712.8	681.7	672.7
77.5°	5006.1	3166.6	435.9	461.8	535.5	630.0	715.3	721.8	659.7	698.5	633.8
80°	1331.1	873.2	332.4	363.5	420.4	520.0	622.2	619.6	552.4	516.1	479.9
82.5°	507.1	344.1	236.7	256.1	304.0	398.4	492.8	508.4	441.1	381.6	381.6
85°	195.3	147.5	146.2	153.9	177.2	263.9	372.5	385.5	332.4	282.0	291.1
87.5°	50.4	44.0	54.3	51.7	81.5	141.0	213.4	221.2	203.1	117.7	168.2
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)