

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: P884837

Luminaire Tested: **NAV-SB5D-830-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884837
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-SB5D-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44768 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

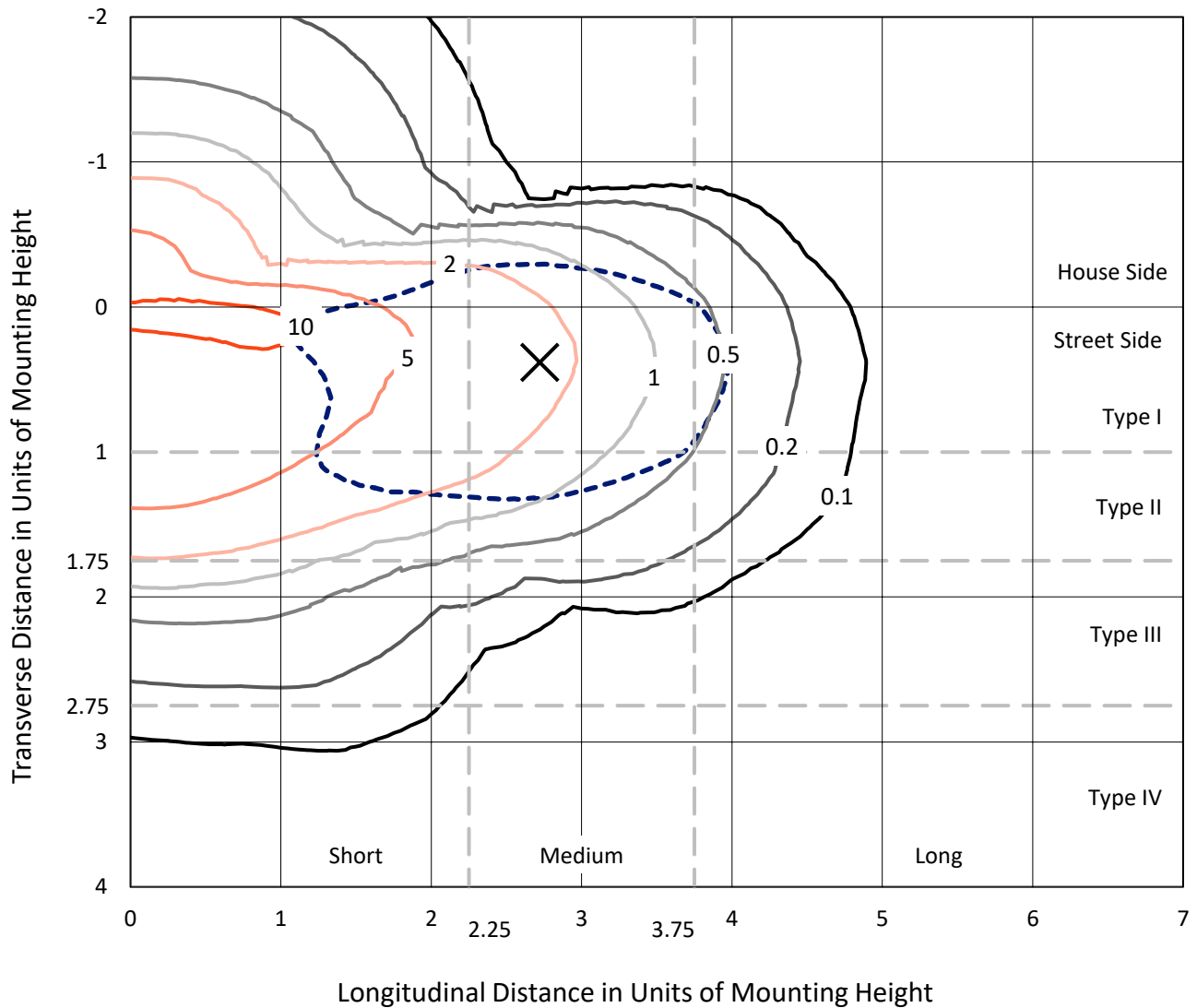
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

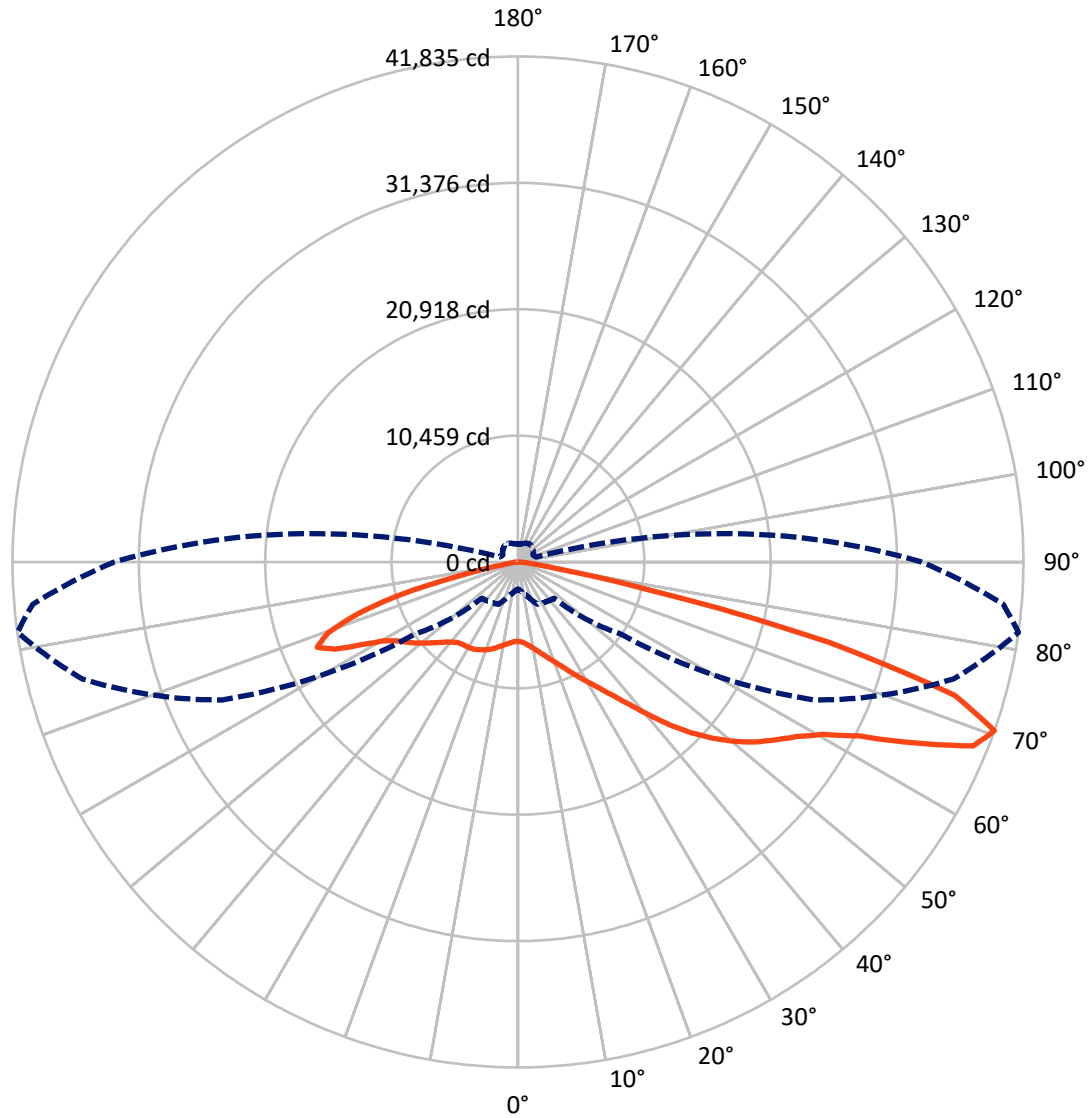
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.9 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	11036.4	0.0	11036.4
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	33731.6	0.0	33731.6
	% Fixture	75.3	0.0	75.3
Total	Lumens	44768.0	0.0	44768.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	619.7	1.4
10°-20°	1780.5	4.0
20°-30°	2978.6	6.7
30°-40°	4653.3	10.4
40°-50°	7410.9	16.6
50°-60°	10313.2	23.0
60°-70°	10788.0	24.1
70°-80°	5638.4	12.6
80°-90°	585.5	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°	44768.0	100.0
0°-180°	44768.0	100.0

Coefficient of Utilization



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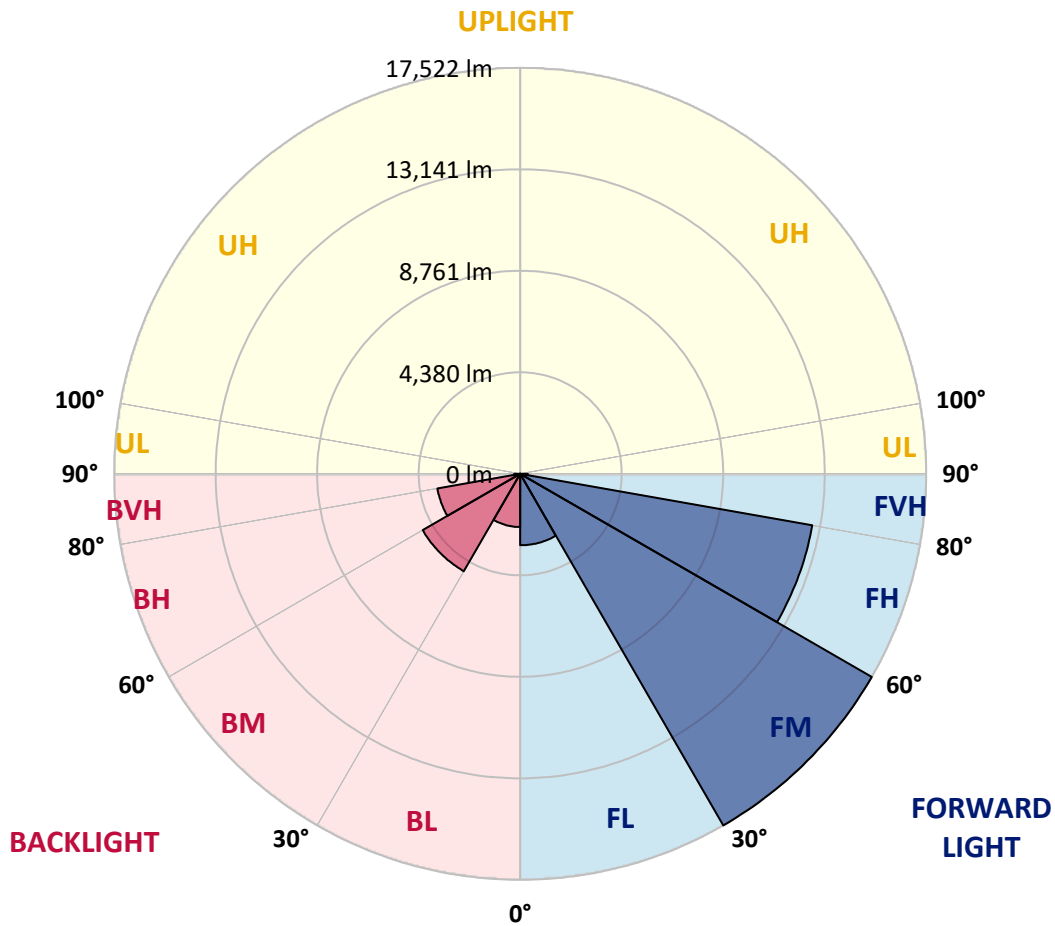
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3082.8	6.9			
FM (30°-60°)	17521.7	39.1			
FH (60°-80°)	12799.3	28.6			G5
FVH (80°-90°)	327.8	0.7			G3/500
BL (0°-30°)	2296.0	5.1	B3/2500		
BM (30°-60°)	4855.6	10.8	B3/5000		
BH (60°-80°)	3627.1	8.1	B4/5000		G4/5000
BVH (80°-90°)	257.7	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5
2.5°	6720.3	6758.3	6746.5	6734.6	6734.6	6718.0	6715.6	6691.8	6672.8	6641.9	6634.8
5°	6805.9	6846.2	6841.5	6851.0	6881.9	6889.0	6896.1	6881.9	6843.9	6805.9	6789.2
7.5°	6729.8	6775.0	6789.2	6846.2	6941.3	7026.8	7090.9	7117.0	7081.4	7026.8	7000.6
10°	6473.3	6523.2	6573.1	6708.5	6877.1	7079.0	7250.1	7352.2	7345.1	7292.8	7247.7
12.5°	5953.0	6005.3	6112.2	6375.9	6684.7	7041.0	7359.3	7573.1	7646.8	7608.8	7530.4
15°	5537.3	5582.5	5663.2	5934.0	6335.5	6877.1	7399.7	7815.4	8003.1	7981.7	7886.7
17.5°	5525.4	5544.5	5594.3	5722.6	6031.4	6620.6	7357.0	8053.0	8411.7	8409.3	8290.5
20°	5734.5	5741.6	5770.1	5796.3	5972.0	6425.8	7247.7	8250.2	8870.2	8870.2	8741.9
22.5°	6024.3	6019.6	6048.1	6024.3	6109.8	6409.1	7178.8	8423.6	9380.9	9418.9	9257.4
25°	6459.0	6435.3	6428.1	6373.5	6390.1	6563.5	7254.8	8620.7	9986.7	10065.1	9863.1
27.5°	7038.7	7000.6	6974.5	6848.6	6805.9	6881.9	7487.6	8858.3	10661.3	10796.7	10540.2
30°	7794.1	7725.2	7687.2	7468.6	7314.2	7326.1	7839.2	9174.2	11366.8	11585.4	11259.9
32.5°	8825.0	8718.1	8616.0	8257.3	7974.6	7882.0	8292.9	9611.3	12131.8	12481.0	12062.9
35°	9979.5	9894.0	9784.7	9231.3	8796.5	8582.7	8905.8	10221.8	13027.3	13580.8	13036.8
37.5°	11091.3	11017.6	11069.9	10324.0	9763.4	9452.2	9708.7	11041.4	14131.9	14949.1	14257.8
40°	12241.0	12184.0	12191.1	11478.5	10825.2	10476.0	10682.7	12070.0	15398.1	16576.3	15725.9
42.5°	13490.6	13447.8	13305.3	12673.4	11939.3	11613.9	11803.9	13257.8	16756.9	18429.2	17336.5
45°	14889.7	14863.6	14730.6	14006.0	13165.1	12799.3	13055.8	14569.0	18122.8	20172.9	18954.2
47.5°	16098.9	16120.2	16103.6	15493.1	14621.3	14084.4	14390.9	15937.3	19393.7	21812.0	20505.4
50°	16680.9	16792.5	16956.4	16766.4	16224.8	15678.4	15737.8	17258.1	20605.2	23348.9	21992.5
52.5°	16376.8	16588.2	17034.8	17338.9	17547.9	17433.9	17274.7	18569.4	21745.5	24736.2	23398.8
55°	15243.7	15540.6	16281.8	17015.8	18082.4	18911.5	19120.5	20023.2	22857.2	25957.3	24729.1
57.5°	13179.4	13661.6	14326.7	15811.4	17607.3	19626.5	21272.7	22040.0	24035.5	27261.4	26121.2
60°	9639.8	10286.0	11112.7	13321.9	15944.5	19244.0	23104.3	25137.7	25710.2	28950.4	27933.7
62.5°	6169.2	6568.3	7328.5	9409.4	12423.9	17284.2	23664.9	29009.8	28548.9	31720.3	30651.3
65°	4223.7	4480.2	5176.2	6345.0	8031.6	12865.8	22163.6	31912.7	33057.7	36110.2	35297.8
67.5°	3069.2	3264.0	3857.8	4881.7	5233.3	7613.5	17198.7	31779.6	37440.5	40633.2	39369.4
70°	2237.7	2375.5	2874.4	3857.8	4026.5	4235.5	10419.0	27014.4	37345.5	41835.2	40322.0
72.5°	1658.1	1753.1	2088.1	2993.1	3259.2	2860.1	5157.2	19633.6	32090.8	37839.6	36625.7
75°	1199.6	1270.9	1518.0	2290.0	2608.3	2178.3	2572.7	11473.7	22384.5	26617.6	26831.4
77.5°	916.9	971.6	1133.1	1677.1	2088.1	1634.4	1596.3	5278.4	10613.8	10666.1	11264.7
80°	736.4	772.0	859.9	1180.6	1601.1	1223.4	1040.5	2130.8	3354.2	2838.7	2978.9
82.5°	541.6	601.0	726.9	829.1	1145.0	843.3	634.3	1076.1	1275.7	1097.5	1107.0
85°	308.8	349.2	439.5	593.9	731.7	515.5	363.5	477.5	593.9	487.0	434.7
87.5°	109.3	142.5	154.4	232.8	318.3	213.8	140.2	137.8	194.8	144.9	121.2
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°	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5	6563.5
2.5°	6611.1	6599.2	6551.7	6487.5	6421.0	6356.9	6335.5	6290.4	6259.5	6242.9	6261.9
5°	6744.1	6706.1	6594.4	6451.9	6302.2	6140.7	6026.7	5922.2	5846.1	5774.9	5803.4
7.5°	6934.1	6867.6	6675.2	6425.8	6159.7	5891.3	5691.7	5539.7	5437.6	5371.0	5385.3
10°	7155.1	7052.9	6758.3	6385.4	5974.4	5589.6	5354.4	5223.8	5159.6	5124.0	5133.5
12.5°	7409.2	7264.3	6843.9	6292.7	5691.7	5252.3	5090.7	5052.7	5055.1	5057.5	5062.2
15°	7722.8	7520.9	6912.7	6090.8	5323.5	4993.3	4964.8	5026.6	5090.7	5121.6	5119.2
17.5°	8076.8	7791.7	6924.6	5758.2	4962.5	4827.0	4917.3	5050.3	5147.7	5190.5	5200.0
20°	8456.8	8067.2	6839.1	5287.9	4665.5	4691.6	4853.2	5024.2	5131.1	5185.7	5200.0
22.5°	8891.6	8361.8	6634.8	4793.8	4423.2	4544.4	4734.4	4900.7	5012.3	5067.0	5081.2
25°	9388.0	8692.0	6314.1	4378.1	4214.2	4378.1	4568.1	4705.9	4796.2	4846.1	4860.3
27.5°	9939.2	9036.5	5886.5	4047.9	4031.2	4207.0	4363.8	4470.7	4518.2	4556.2	4570.5
30°	10492.7	9350.0	5368.7	3798.4	3872.1	4038.4	4150.0	4197.5	4211.8	4218.9	4235.5
32.5°	11091.3	9620.8	4824.7	3591.8	3720.1	3874.5	3941.0	3962.4	3895.8	3850.7	3865.0
35°	11815.8	9910.6	4292.6	3427.9	3570.4	3703.4	3724.8	3705.8	3627.4	3534.8	3539.5
37.5°	12711.4	10271.7	3867.3	3311.5	3430.2	3518.1	3492.0	3487.3	3494.4	3385.1	3392.2
40°	13808.9	10742.1	3556.1	3221.2	3316.2	3335.2	3261.6	3302.0	3337.6	3171.3	3176.1
42.5°	15027.5	11309.8	3359.0	3159.4	3221.2	3176.1	3062.0	3107.2	3102.4	2883.9	2881.5
45°	16269.9	11927.5	3290.1	3114.3	3133.3	3043.0	2917.1	2929.0	2829.2	2632.1	2639.2
47.5°	17505.2	12590.2	3332.8	3076.3	3024.0	2921.9	2824.5	2772.2	2624.9	2477.7	2477.7
50°	18716.7	13286.3	3489.6	3000.3	2874.4	2815.0	2743.7	2651.1	2494.3	2368.4	2358.9
52.5°	19840.3	13987.0	3665.4	2874.4	2686.7	2722.3	2677.2	2570.3	2415.9	2287.6	2290.0
55°	20904.5	14687.8	3734.3	2701.0	2510.9	2641.6	2615.4	2418.3	2233.0	2128.5	2119.0
57.5°	22063.8	15531.1	3658.3	2480.0	2368.4	2548.9	2449.2	2230.6	2123.7	2045.3	2038.2
60°	23669.6	16854.3	3494.4	2206.9	2233.0	2411.1	2240.1	2149.8	2033.4	1945.5	1940.8
62.5°	26337.3	19322.4	3230.7	1936.0	2073.8	2206.9	2140.3	2050.1	1931.3	1845.8	1845.8
65°	30280.7	22752.7	2734.2	1724.6	1895.7	2007.3	2033.4	1943.2	1819.6	1729.4	1734.1
67.5°	33606.4	24904.9	2069.1	1548.8	1712.7	1845.8	1919.4	1831.5	1700.9	1613.0	1615.4
70°	33423.5	23341.8	1579.7	1375.4	1551.2	1686.6	1781.6	1712.7	1572.6	1489.4	1496.6
72.5°	29686.8	19526.7	1278.0	1199.6	1387.3	1520.3	1634.4	1582.1	1439.6	1358.8	1358.8
75°	21809.6	13861.1	1021.5	1021.5	1183.0	1346.9	1472.8	1439.6	1308.9	1251.9	1235.3
77.5°	9193.2	5815.3	800.5	848.1	983.5	1156.9	1313.7	1325.5	1211.5	1282.8	1164.0
80°	2444.4	1603.5	610.5	667.5	772.0	955.0	1142.6	1137.9	1014.3	947.8	881.3
82.5°	931.2	631.9	434.7	470.4	558.2	731.7	905.1	933.6	810.1	700.8	700.8
85°	358.7	270.8	268.4	282.7	325.4	484.6	684.1	707.9	610.5	517.9	534.5
87.5°	92.6	80.8	99.8	95.0	149.7	258.9	392.0	406.2	373.0	216.2	308.8
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)