

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: P884817

Luminaire Tested: **NAV-SB5D-760-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884817
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-760-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 5700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55161 lumens
Efficiency: N/A
Efficacy: 151.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

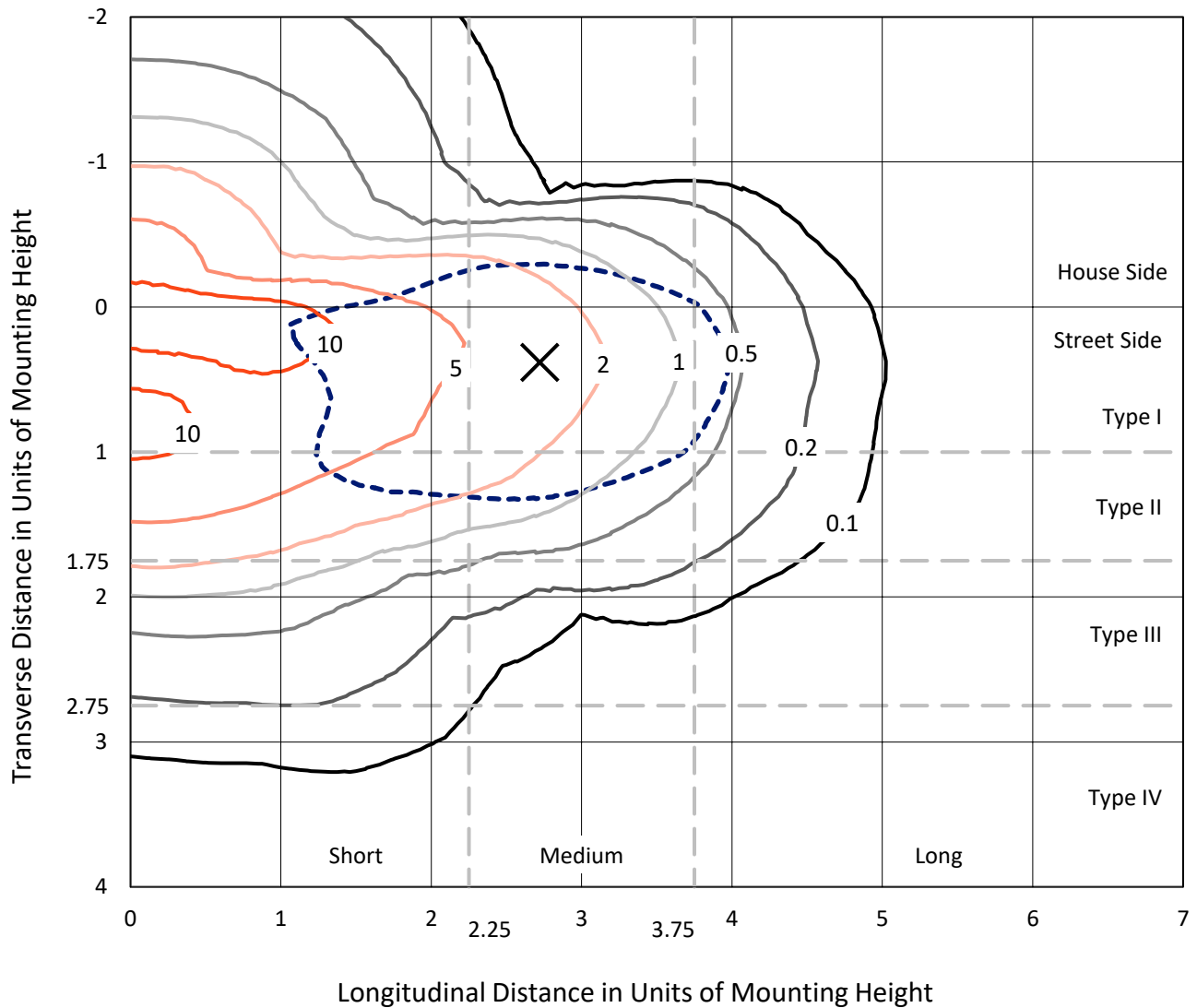
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

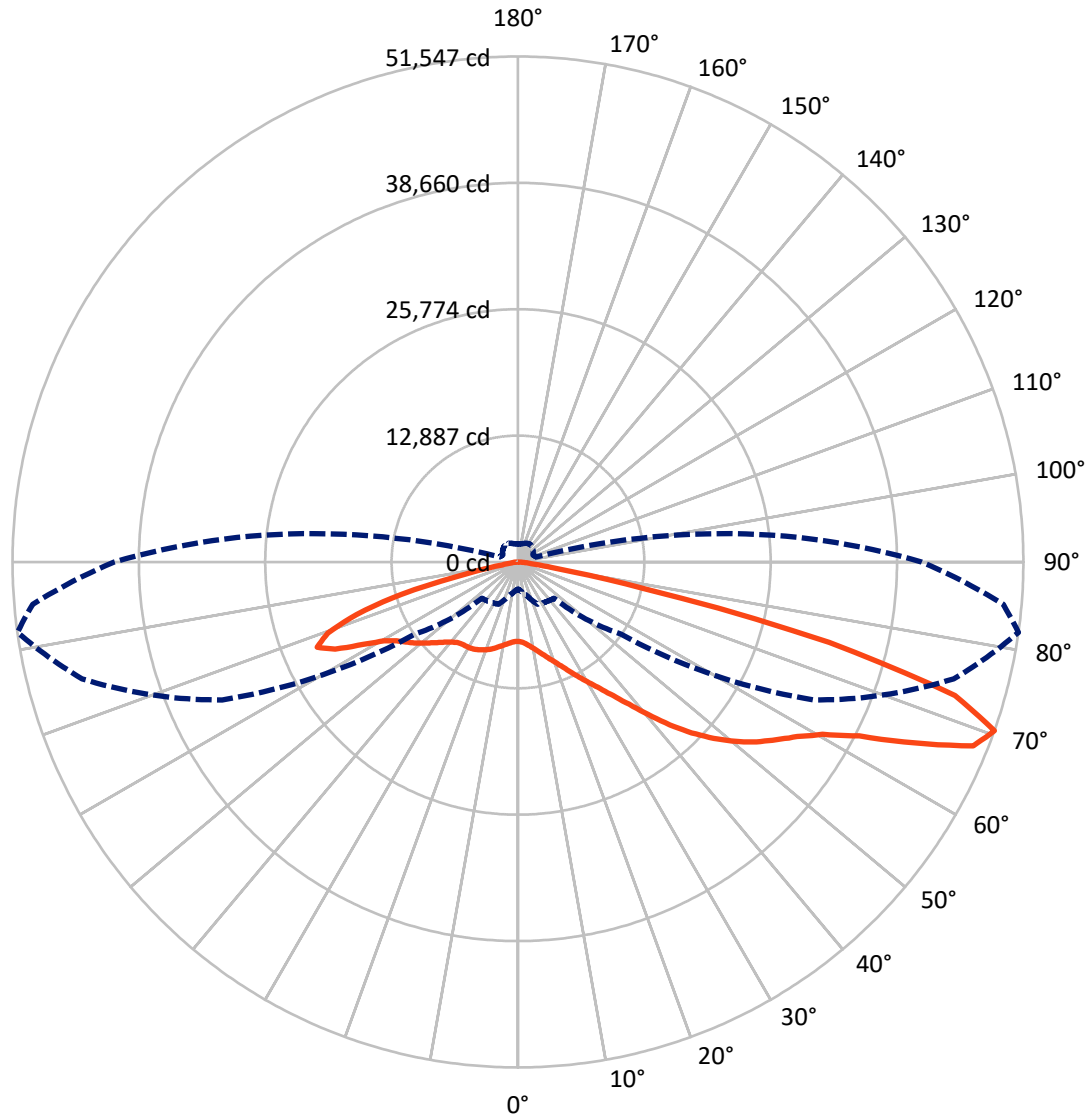
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.7 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	13598.5	0.0	13598.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	41562.5	0.0	41562.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	55161.0	0.0	55161.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	763.6	1.4
10°-20°	2193.8	4.0
20°-30°	3670.0	6.7
30°-40°	5733.6	10.4
40°-50°	9131.3	16.6
50°-60°	12707.4	23.0
60°-70°	13292.5	24.1
70°-80°	6947.4	12.6
80°-90°	721.4	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°	55161.0	100.0
0°-180°	55161.0	100.0

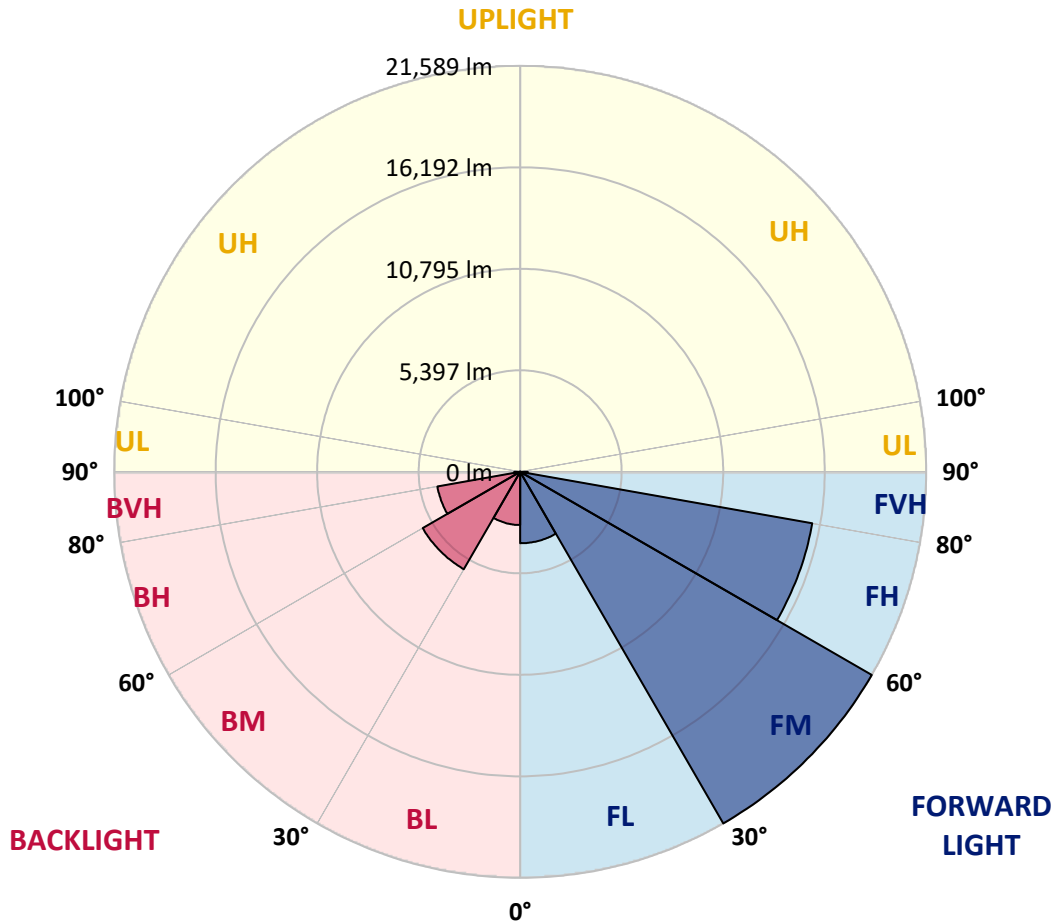


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3798.5	6.9			
FM (30°-60°)	21589.5	39.1			
FH (60°-80°)	15770.7	28.6			G5
FVH (80°-90°)	403.8	0.7			G3/500
BL (0°-30°)	2829.0	5.1	B4/5000		
BM (30°-60°)	5982.8	10.8	B4/8500		
BH (60°-80°)	4469.2	8.1	B4/5000		G4/5000
BVH (80°-90°)	317.6	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°	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3
2.5°	8280.5	8327.3	8312.7	8298.0	8298.0	8277.5	8274.6	8245.4	8221.9	8183.9	8175.1
5°	8385.8	8435.6	8429.8	8441.5	8479.5	8488.3	8497.1	8479.5	8432.7	8385.8	8365.4
7.5°	8292.2	8347.8	8365.4	8435.6	8552.7	8658.1	8737.1	8769.3	8725.4	8658.1	8625.9
10°	7976.1	8037.5	8099.0	8265.8	8473.7	8722.5	8933.2	9059.1	9050.3	8985.9	8930.3
12.5°	7335.1	7399.4	7531.2	7856.1	8236.6	8675.6	9067.8	9331.3	9422.0	9375.2	9278.6
15°	6822.8	6878.4	6978.0	7311.6	7806.3	8473.7	9117.6	9629.8	9861.1	9834.7	9717.6
17.5°	6808.2	6831.6	6893.1	7051.1	7431.6	8157.5	9064.9	9922.5	10364.5	10361.6	10215.2
20°	7065.8	7074.6	7109.7	7141.9	7358.5	7917.5	8930.3	10165.5	10929.4	10929.4	10771.3
22.5°	7422.9	7417.0	7452.1	7422.9	7528.2	7897.0	8845.4	10379.1	11558.7	11605.5	11406.5
25°	7958.5	7929.2	7920.5	7853.1	7873.6	8087.3	8939.0	10622.1	12305.1	12401.7	12152.9
27.5°	8672.7	8625.9	8593.7	8438.5	8385.8	8479.5	9225.9	10914.8	13136.4	13303.2	12987.1
30°	9603.5	9518.6	9471.8	9202.5	9012.2	9026.9	9659.1	11304.1	14005.7	14275.0	13874.0
32.5°	10873.8	10742.1	10616.2	10174.2	9825.9	9711.8	10218.1	11842.6	14948.2	15378.4	14863.3
35°	12296.3	12190.9	12056.3	11374.3	10838.7	10575.2	10973.3	12594.9	16051.7	16733.6	16063.4
37.5°	13666.1	13575.4	13639.8	12720.7	12030.0	11646.5	11962.6	13604.7	17412.7	18419.6	17567.8
40°	15082.8	15012.6	15021.3	14143.2	13338.3	12908.1	13162.7	14872.1	18972.8	20424.6	19376.7
42.5°	16622.4	16569.7	16394.1	15615.5	14711.1	14310.1	14544.2	16335.6	20647.0	22707.6	21361.2
45°	18346.4	18314.2	18150.3	17257.6	16221.4	15770.7	16086.8	17951.3	22330.1	24856.1	23354.5
47.5°	19836.3	19862.6	19842.1	19089.9	18015.7	17354.2	17731.7	19637.2	23896.0	26875.7	25265.8
50°	20553.4	20690.9	20892.9	20658.7	19991.4	19318.2	19391.4	21264.6	25388.8	28769.5	27098.1
52.5°	20178.7	20439.2	20989.5	21364.2	21621.7	21481.2	21285.1	22880.3	26793.7	30478.8	28830.9
55°	18782.5	19148.4	20061.6	20966.1	22280.3	23301.8	23559.4	24671.7	28163.6	31983.3	30470.0
57.5°	16239.0	16833.2	17652.7	19482.1	21694.9	24182.8	26211.3	27156.7	29615.4	33590.2	32185.3
60°	11877.8	12673.9	13692.5	16414.6	19646.0	23711.6	28468.0	30973.5	31678.9	35671.3	34418.6
62.5°	7601.4	8093.1	9029.8	11593.8	15308.2	21296.8	29158.7	35744.5	35176.6	39084.2	37767.0
65°	5204.2	5520.3	6377.9	7818.0	9896.2	15852.6	27308.9	39321.3	40732.1	44493.3	43492.2
67.5°	3781.7	4021.7	4753.4	6015.0	6448.2	9381.0	21191.5	39157.4	46132.4	50066.3	48509.1
70°	2757.2	2927.0	3541.7	4753.4	4961.3	5218.8	12837.8	33285.8	46015.3	51547.3	49682.8
72.5°	2043.0	2160.1	2572.8	3688.0	4015.8	3524.1	6354.5	24191.6	39540.8	46624.1	45128.4
75°	1478.1	1565.9	1870.4	2821.6	3213.8	2684.1	3169.9	14137.4	27581.1	32797.0	33060.4
77.5°	1129.8	1197.1	1396.2	2066.5	2572.8	2013.8	1966.9	6503.8	13077.8	13142.2	13879.8
80°	907.4	951.3	1059.6	1454.7	1972.8	1507.4	1282.0	2625.5	4132.9	3497.8	3670.5
82.5°	667.4	740.5	895.7	1021.5	1410.8	1039.1	781.5	1325.9	1571.8	1352.3	1364.0
85°	380.5	430.3	541.5	731.7	901.5	635.2	447.8	588.3	731.7	600.0	535.6
87.5°	134.6	175.6	190.3	286.8	392.2	263.4	172.7	169.8	240.0	178.5	149.3
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°	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3	8087.3
2.5°	8145.8	8131.2	8072.7	7993.6	7911.7	7832.6	7806.3	7750.7	7712.6	7692.1	7715.6
5°	8309.7	8262.9	8125.3	7949.7	7765.3	7566.3	7425.8	7297.0	7203.3	7115.5	7150.7
7.5°	8543.9	8461.9	8224.9	7917.5	7589.7	7259.0	7013.1	6825.8	6699.9	6617.9	6635.5
10°	8816.1	8690.3	8327.3	7867.8	7361.4	6887.2	6597.5	6436.5	6357.4	6313.5	6325.2
12.5°	9129.3	8950.8	8432.7	7753.6	7013.1	6471.6	6272.6	6225.7	6228.6	6231.6	6237.4
15°	9515.7	9266.9	8517.6	7504.8	6559.4	6152.5	6117.4	6193.5	6272.6	6310.6	6307.7
17.5°	9951.8	9600.5	8532.2	7095.0	6114.5	5947.7	6058.9	6222.8	6342.8	6395.5	6407.2
20°	10420.1	9940.1	8426.8	6515.5	5748.6	5780.8	5979.9	6190.6	6322.3	6389.6	6407.2
22.5°	10955.7	10303.0	8175.1	5906.7	5450.1	5599.3	5833.5	6038.4	6176.0	6243.3	6260.8
25°	11567.5	10709.9	7780.0	5394.5	5192.5	5394.5	5628.6	5798.4	5909.6	5971.1	5988.6
27.5°	12246.6	11134.3	7253.1	4987.6	4967.1	5183.7	5376.9	5508.6	5567.1	5614.0	5631.5
30°	12928.5	11520.7	6615.0	4680.3	4771.0	4975.9	5113.5	5172.0	5189.6	5198.3	5218.8
32.5°	13666.1	11854.3	5944.7	4425.6	4583.7	4773.9	4855.9	4882.2	4800.3	4744.7	4762.2
35°	14558.9	12211.4	5289.1	4223.7	4399.3	4563.2	4589.5	4566.1	4469.5	4355.4	4361.2
37.5°	15662.4	12656.3	4765.2	4080.2	4226.6	4334.9	4302.7	4296.8	4305.6	4171.0	4179.8
40°	17014.6	13235.9	4381.7	3969.0	4086.1	4109.5	4018.8	4068.5	4112.4	3907.5	3913.4
42.5°	18516.2	13935.4	4138.8	3892.9	3969.0	3913.4	3772.9	3828.5	3822.7	3553.4	3550.4
45°	20047.0	14696.5	4053.9	3837.3	3860.7	3749.5	3594.4	3609.0	3486.1	3243.1	3251.9
47.5°	21569.0	15513.1	4106.6	3790.5	3726.1	3600.2	3480.2	3415.8	3234.3	3052.9	3052.9
50°	23061.8	16370.7	4299.8	3696.8	3541.7	3468.5	3380.7	3266.5	3073.3	2918.2	2906.5
52.5°	24446.3	17234.2	4516.4	3541.7	3310.4	3354.3	3298.7	3167.0	2976.8	2818.7	2821.6
55°	25757.6	18097.6	4601.2	3328.0	3093.8	3254.8	3222.6	2979.7	2751.4	2622.6	2610.9
57.5°	27185.9	19136.7	4507.6	3055.8	2918.2	3140.7	3017.7	2748.5	2616.7	2520.1	2511.4
60°	29164.6	20767.0	4305.6	2719.2	2751.4	2970.9	2760.2	2648.9	2505.5	2397.2	2391.4
62.5°	32451.6	23808.2	3980.7	2385.5	2555.3	2719.2	2637.2	2526.0	2379.6	2274.3	2274.3
65°	37310.4	28034.8	3369.0	2125.0	2335.7	2473.3	2505.5	2394.3	2242.1	2130.9	2136.7
67.5°	41408.2	30686.6	2549.4	1908.4	2110.4	2274.3	2365.0	2256.7	2095.7	1987.4	1990.4
70°	41182.8	28760.7	1946.5	1694.7	1911.3	2078.2	2195.2	2110.4	1937.7	1835.2	1844.0
72.5°	36578.7	24059.9	1574.7	1478.1	1709.4	1873.3	2013.8	1949.4	1773.8	1674.2	1674.2
75°	26872.8	17079.0	1258.6	1258.6	1457.6	1659.6	1814.7	1773.8	1612.8	1542.5	1522.0
77.5°	11327.5	7165.3	986.4	1044.9	1211.8	1425.4	1618.6	1633.3	1492.8	1580.6	1434.2
80°	3011.9	1975.7	752.2	822.5	951.3	1176.7	1407.9	1402.0	1249.8	1167.9	1085.9
82.5°	1147.4	778.6	535.6	579.5	687.8	901.5	1115.2	1150.3	998.1	863.5	863.5
85°	442.0	333.7	330.8	348.3	401.0	597.1	843.0	872.2	752.2	638.1	658.6
87.5°	114.2	99.5	122.9	117.1	184.4	319.0	483.0	500.5	459.5	266.4	380.5
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)