

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: P884107

Luminaire Tested: **NAV-SB4D-735-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884107  
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-SB4D-735-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

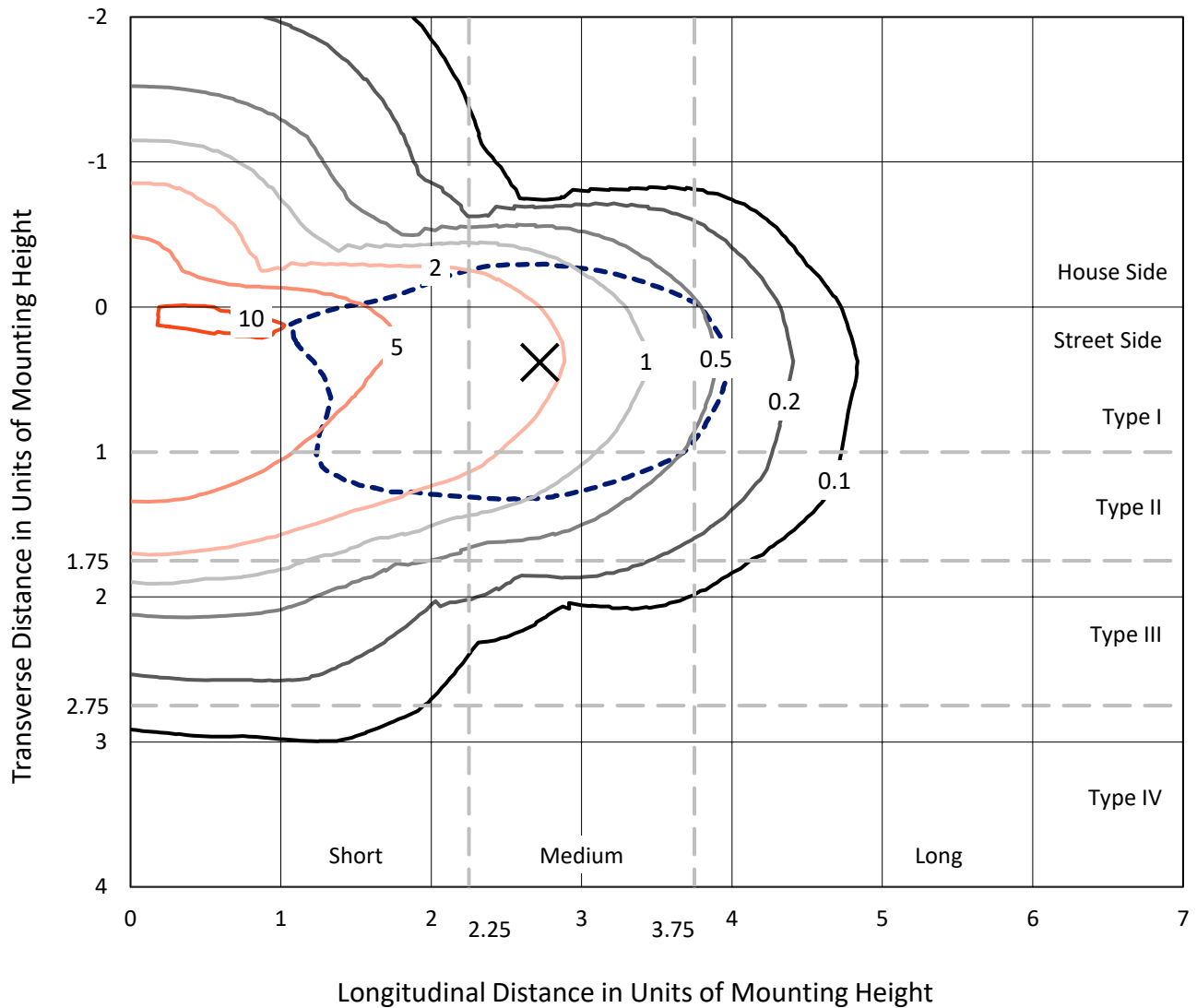
Lumens per Lamp: N/A  
Luminaire Lumens: 40862 lumens  
Efficiency: N/A  
Efficacy: 139.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

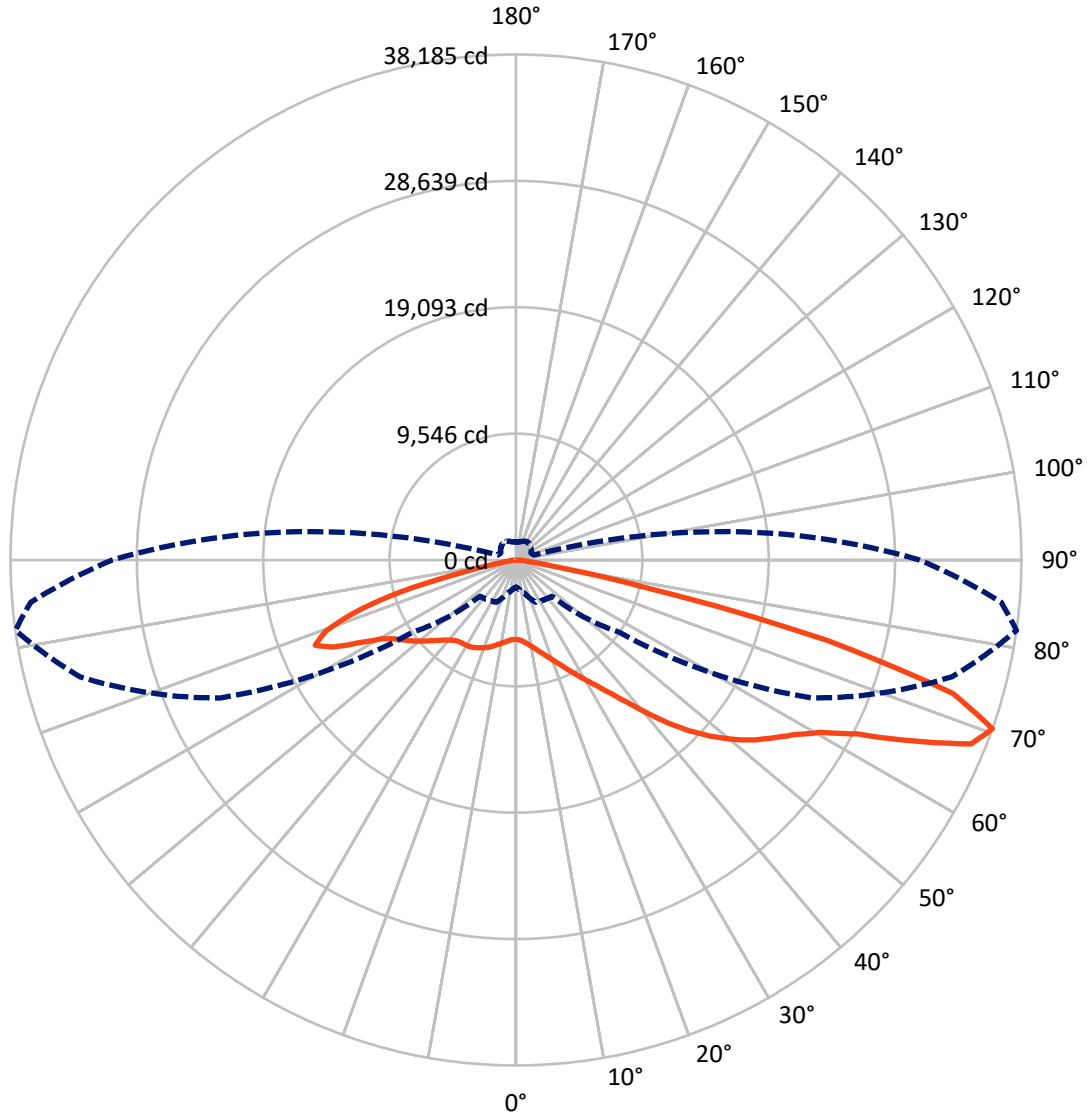
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 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
<b>House Side</b>	Lumens	10073.5	0.0	10073.5
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	30788.5	0.0	30788.5
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	40862.0	0.0	40862.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	565.6	1.4
10°-20°	1625.1	4.0
20°-30°	2718.7	6.7
30°-40°	4247.3	10.4
40°-50°	6764.3	16.6
50°-60°	9413.3	23.0
60°-70°	9846.8	24.1
70°-80°	5146.5	12.6
80°-90°	534.4	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°	40862.0	100.0
0°-180°	40862.0	100.0

**Coefficient of Utilization**

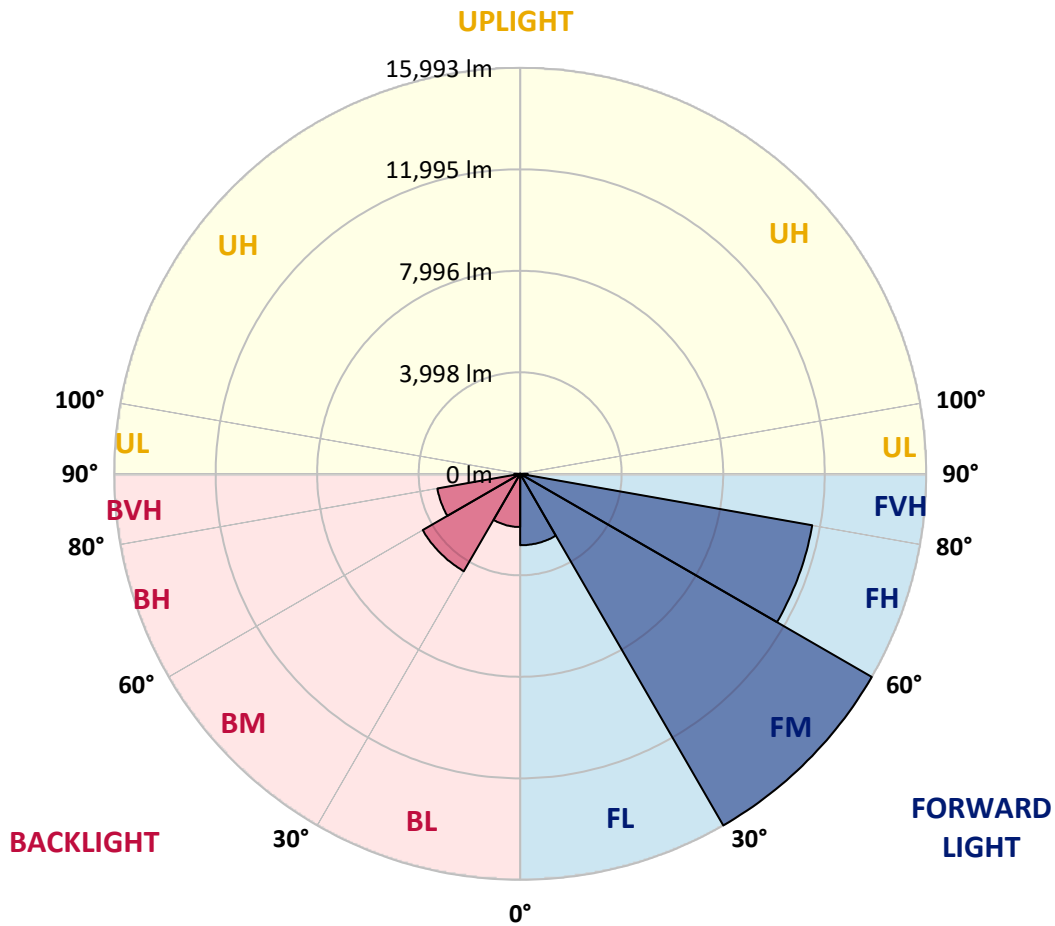


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2813.8	6.9			
FM (30°-60°)	15993.0	39.1			
FH (60°-80°)	11682.6	28.6			G4/12000
FVH (80°-90°)	299.2	0.7			G3/500
BL (0°-30°)	2095.7	5.1	B3/2500		
BM (30°-60°)	4431.9	10.8	B3/5000		
BH (60°-80°)	3310.7	8.1	B4/5000		G4/5000
BVH (80°-90°)	235.2	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-G4**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9
2.5°	6134.0	6168.7	6157.8	6147.0	6147.0	6131.8	6129.6	6108.0	6090.6	6062.4	6055.9
5°	6212.0	6248.9	6244.6	6253.2	6281.4	6287.9	6294.4	6281.4	6246.7	6212.0	6196.9
7.5°	6142.7	6183.9	6196.9	6248.9	6335.6	6413.7	6472.2	6496.1	6463.6	6413.7	6389.8
10°	5908.5	5954.0	5999.6	6123.1	6277.1	6461.4	6617.5	6710.7	6704.2	6656.5	6615.3
12.5°	5433.6	5481.3	5578.9	5819.6	6101.5	6426.7	6717.2	6912.4	6979.6	6944.9	6873.4
15°	5054.2	5095.4	5169.1	5416.3	5782.7	6277.1	6754.1	7133.5	7304.8	7285.3	7198.6
17.5°	5043.4	5060.7	5106.2	5223.3	5505.2	6042.9	6715.1	7350.4	7677.8	7675.6	7567.2
20°	5234.2	5240.7	5266.7	5290.5	5451.0	5865.1	6615.3	7530.3	8096.3	8096.3	7979.2
22.5°	5498.7	5494.4	5520.4	5498.7	5576.7	5849.9	6552.5	7688.6	8562.4	8597.1	8449.7
25°	5895.5	5873.8	5867.3	5817.4	5832.6	5990.9	6621.8	7868.6	9115.3	9186.9	9002.6
27.5°	6424.5	6389.8	6366.0	6251.1	6212.0	6281.4	6834.3	8085.4	9731.1	9854.7	9620.5
30°	7114.0	7051.2	7016.5	6817.0	6676.0	6686.9	7155.2	8373.8	10375.1	10574.6	10277.5
32.5°	8055.1	7957.5	7864.2	7536.8	7278.8	7194.3	7569.4	8772.7	11073.3	11392.0	11010.4
35°	9108.8	9030.8	8931.0	8425.8	8029.0	7833.9	8128.8	9330.0	11890.7	12395.9	11899.4
37.5°	10123.6	10056.4	10104.1	9423.2	8911.5	8627.5	8861.6	10078.0	12898.9	13644.8	13013.8
40°	11173.0	11121.0	11127.5	10477.0	9880.7	9562.0	9750.6	11016.9	14054.6	15130.1	14353.8
42.5°	12313.5	12274.5	12144.4	11567.6	10897.6	10600.6	10774.0	12101.0	15294.8	16821.3	15823.9
45°	13590.6	13566.8	13445.3	12784.0	12016.5	11682.5	11916.7	13297.9	16541.6	18412.8	17300.5
47.5°	14694.2	14713.8	14698.6	14141.3	13345.6	12855.6	13135.3	14546.8	17701.6	19908.9	18716.4
50°	15225.5	15327.4	15477.0	15303.5	14809.2	14310.5	14364.7	15752.4	18807.4	21311.7	20073.7
52.5°	14947.9	15140.9	15548.5	15826.1	16016.9	15912.8	15767.5	16949.2	19848.2	22578.0	21357.3
55°	13913.7	14184.7	14861.2	15531.2	16504.7	17261.5	17452.3	18276.2	20862.9	23692.5	22571.5
57.5°	12029.5	12469.6	13076.7	14431.9	16071.1	17914.1	19416.7	20117.0	21938.4	24882.9	23842.1
60°	8798.8	9388.5	10143.1	12159.6	14553.3	17565.0	21088.4	22944.4	23467.0	26424.5	25496.5
62.5°	5631.0	5995.2	6689.1	8588.4	11340.0	15776.2	21600.1	26478.7	26058.1	28952.7	27977.0
65°	3855.2	4089.3	4724.6	5791.4	7330.9	11743.3	20229.8	29128.3	30173.4	32959.6	32218.1
67.5°	2801.4	2979.2	3521.2	4455.8	4776.7	6949.2	15698.1	29006.9	34173.8	37087.9	35934.4
70°	2042.5	2168.3	2623.6	3521.2	3675.2	3866.0	9510.0	24657.4	34087.1	38185.1	36803.9
72.5°	1513.4	1600.2	1905.9	2732.0	2974.8	2610.6	4707.3	17920.6	29290.9	34538.1	33430.1
75°	1095.0	1160.0	1385.5	2090.2	2380.7	1988.3	2348.2	10472.7	20431.4	24295.3	24490.4
77.5°	836.9	886.8	1034.3	1530.8	1905.9	1491.8	1457.1	4817.9	9687.7	9735.5	10281.9
80°	672.2	704.7	784.9	1077.6	1461.4	1116.6	949.7	1944.9	3061.6	2591.1	2719.0
82.5°	494.4	548.6	663.5	756.7	1045.1	769.7	578.9	982.2	1164.4	1001.7	1010.4
85°	281.9	318.7	401.1	542.1	667.8	470.5	331.7	435.8	542.1	444.5	396.8
87.5°	99.7	130.1	140.9	212.5	290.5	195.1	127.9	125.8	177.8	132.3	110.6
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°	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9	5990.9
2.5°	6034.2	6023.4	5980.0	5921.5	5860.8	5802.2	5782.7	5741.5	5713.3	5698.2	5715.5
5°	6155.7	6121.0	6019.1	5889.0	5752.4	5604.9	5500.9	5405.5	5336.1	5271.0	5297.0
7.5°	6329.1	6268.4	6092.8	5865.1	5622.3	5377.3	5195.1	5056.4	4963.1	4902.4	4915.4
10°	6530.8	6437.5	6168.7	5828.3	5453.2	5101.9	4887.2	4768.0	4709.4	4676.9	4685.6
12.5°	6762.8	6630.5	6246.7	5743.7	5195.1	4794.0	4646.6	4611.9	4614.0	4616.2	4620.5
15°	7049.0	6864.7	6309.6	5559.4	4859.1	4557.7	4531.6	4588.0	4646.6	4674.8	4672.6
17.5°	7372.1	7111.9	6320.5	5255.8	4529.5	4405.9	4488.3	4609.7	4698.6	4737.6	4746.3
20°	7719.0	7363.4	6242.4	4826.5	4258.4	4282.3	4429.7	4585.9	4683.4	4733.3	4746.3
22.5°	8115.8	7632.2	6055.9	4375.5	4037.3	4147.9	4321.3	4473.1	4575.0	4624.9	4637.9
25°	8568.9	7933.6	5763.2	3996.1	3846.5	3996.1	4169.5	4295.3	4377.7	4423.2	4436.2
27.5°	9072.0	8248.0	5372.9	3694.7	3679.5	3840.0	3983.1	4080.7	4124.0	4158.7	4171.7
30°	9577.2	8534.2	4900.2	3467.0	3534.3	3686.0	3787.9	3831.3	3844.3	3850.8	3866.0
32.5°	10123.6	8781.4	4403.7	3278.4	3395.5	3536.4	3597.1	3616.6	3555.9	3514.7	3527.7
35°	10784.9	9045.9	3918.0	3128.8	3258.9	3380.3	3399.8	3382.5	3310.9	3226.4	3230.7
37.5°	11602.3	9375.5	3529.9	3022.5	3131.0	3211.2	3187.3	3183.0	3189.5	3089.8	3096.3
40°	12604.0	9804.8	3245.9	2940.1	3026.9	3044.2	2977.0	3013.9	3046.4	2894.6	2899.0
42.5°	13716.4	10323.0	3065.9	2883.8	2940.1	2899.0	2794.9	2836.1	2831.7	2632.3	2630.1
45°	14850.4	10886.8	3003.0	2842.6	2859.9	2777.5	2662.6	2673.5	2582.4	2402.4	2408.9
47.5°	15977.8	11491.7	3042.1	2807.9	2760.2	2666.9	2578.1	2530.4	2395.9	2261.5	2261.5
50°	17083.7	12127.0	3185.2	2738.5	2623.6	2569.4	2504.3	2419.8	2276.7	2161.7	2153.1
52.5°	18109.2	12766.7	3345.6	2623.6	2452.3	2484.8	2443.6	2346.0	2205.1	2088.0	2090.2
55°	19080.6	13406.3	3408.5	2465.3	2291.8	2411.1	2387.2	2207.3	2038.2	1942.8	1934.1
57.5°	20138.7	14176.0	3339.1	2263.7	2161.7	2326.5	2235.5	2036.0	1938.4	1866.9	1860.4
60°	21604.5	15383.7	3189.5	2014.3	2038.2	2200.8	2044.7	1962.3	1856.0	1775.8	1771.5
62.5°	24039.4	17636.6	2948.8	1767.1	1892.9	2014.3	1953.6	1871.2	1762.8	1684.7	1684.7
65°	27638.7	20767.5	2495.7	1574.2	1730.3	1832.2	1856.0	1773.6	1660.9	1578.5	1582.8
67.5°	30674.3	22732.0	1888.5	1413.7	1563.3	1684.7	1751.9	1671.7	1552.5	1472.2	1474.4
70°	30507.3	21305.2	1441.9	1255.4	1415.9	1539.5	1626.2	1563.3	1435.4	1359.5	1366.0
72.5°	27096.6	17823.0	1166.5	1095.0	1266.3	1387.7	1491.8	1444.1	1314.0	1240.2	1240.2
75°	19906.7	12651.8	932.3	932.3	1079.8	1229.4	1344.3	1314.0	1194.7	1142.7	1127.5
77.5°	8391.1	5307.9	730.7	774.1	897.7	1055.9	1199.0	1209.9	1105.8	1170.9	1062.4
80°	2231.1	1463.6	557.2	609.3	704.7	871.6	1042.9	1038.6	925.8	865.1	804.4
82.5°	850.0	576.8	396.8	429.3	509.5	667.8	826.1	852.1	739.4	639.6	639.6
85°	327.4	247.2	245.0	258.0	297.1	442.3	624.5	646.1	557.2	472.7	487.9
87.5°	84.6	73.7	91.1	86.7	136.6	236.3	357.8	370.8	340.4	197.3	281.9
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)