

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: P884097

Luminaire Tested: **NAV-SB4D-730-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884097  
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-730-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

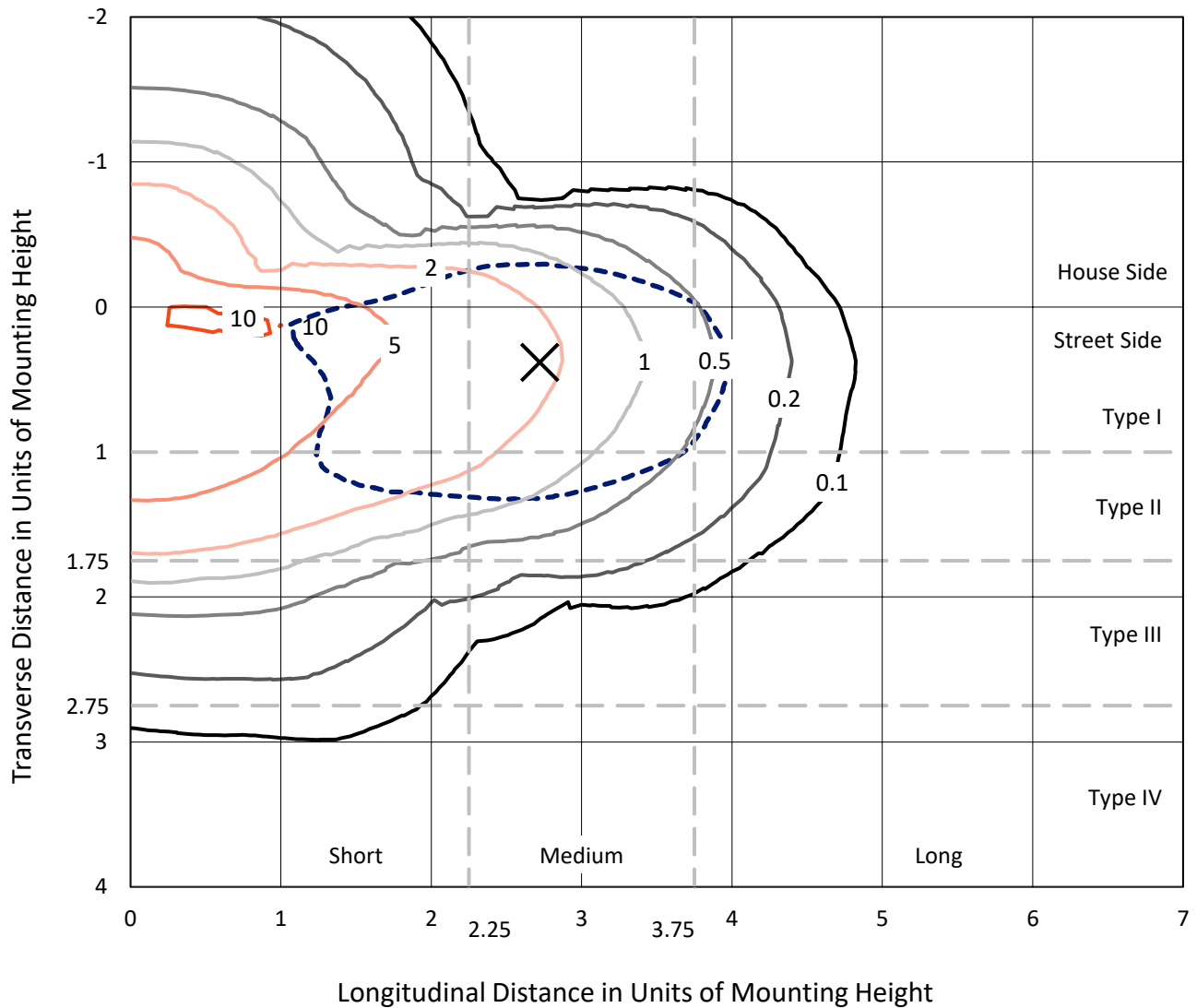
Lumens per Lamp: N/A  
Luminaire Lumens: 40224 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 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

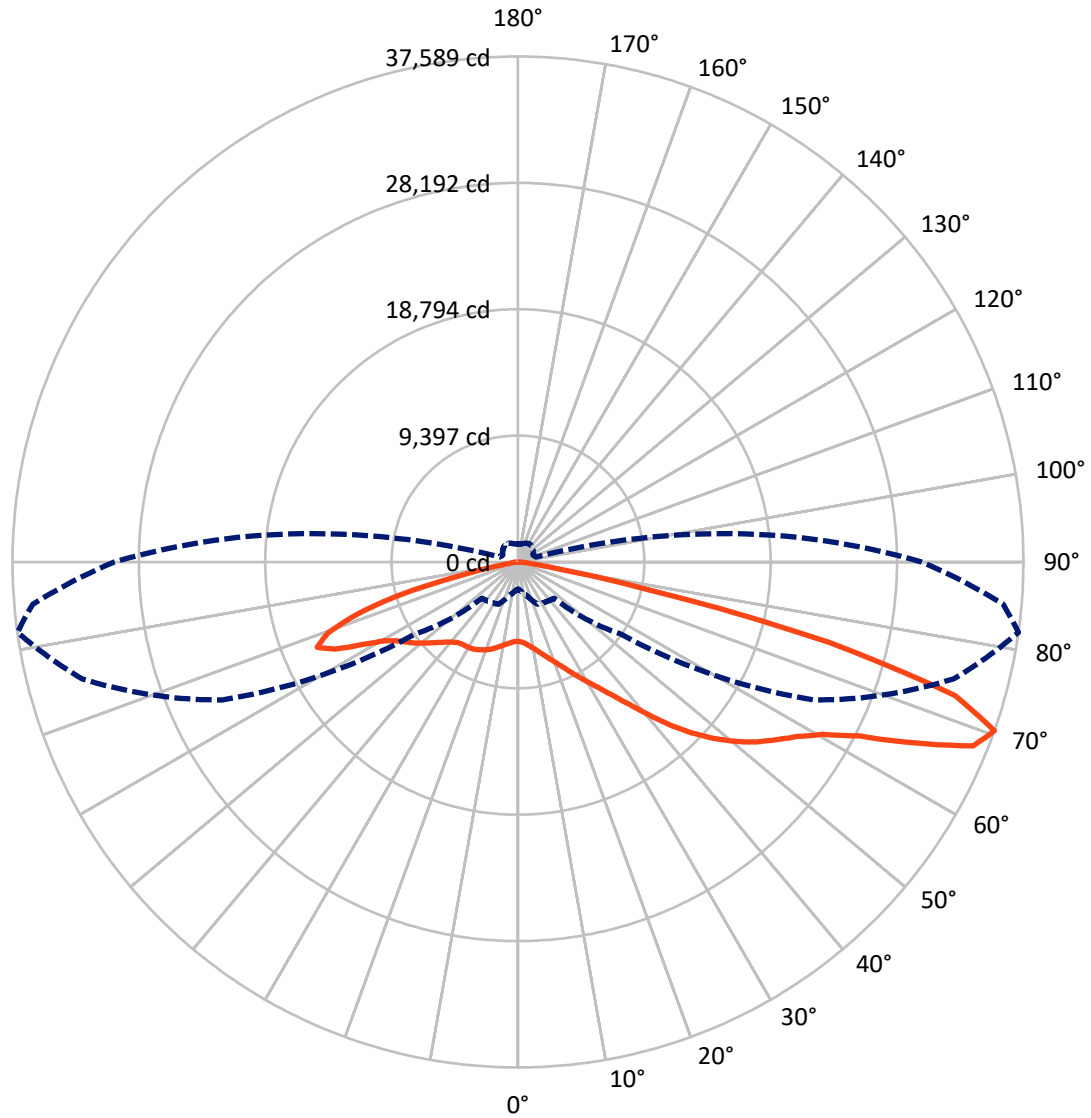
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 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
<b>House Side</b>	Lumens	9916.2	0.0	9916.2
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	30307.8	0.0	30307.8
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	40224.0	0.0	40224.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	556.8	1.4
10°-20°	1599.8	4.0
20°-30°	2676.2	6.7
30°-40°	4181.0	10.4
40°-50°	6658.7	16.6
50°-60°	9266.4	23.0
60°-70°	9693.0	24.1
70°-80°	5066.1	12.6
80°-90°	526.1	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°	40224.0	100.0
0°-180°	40224.0	100.0

**Coefficient of Utilization**

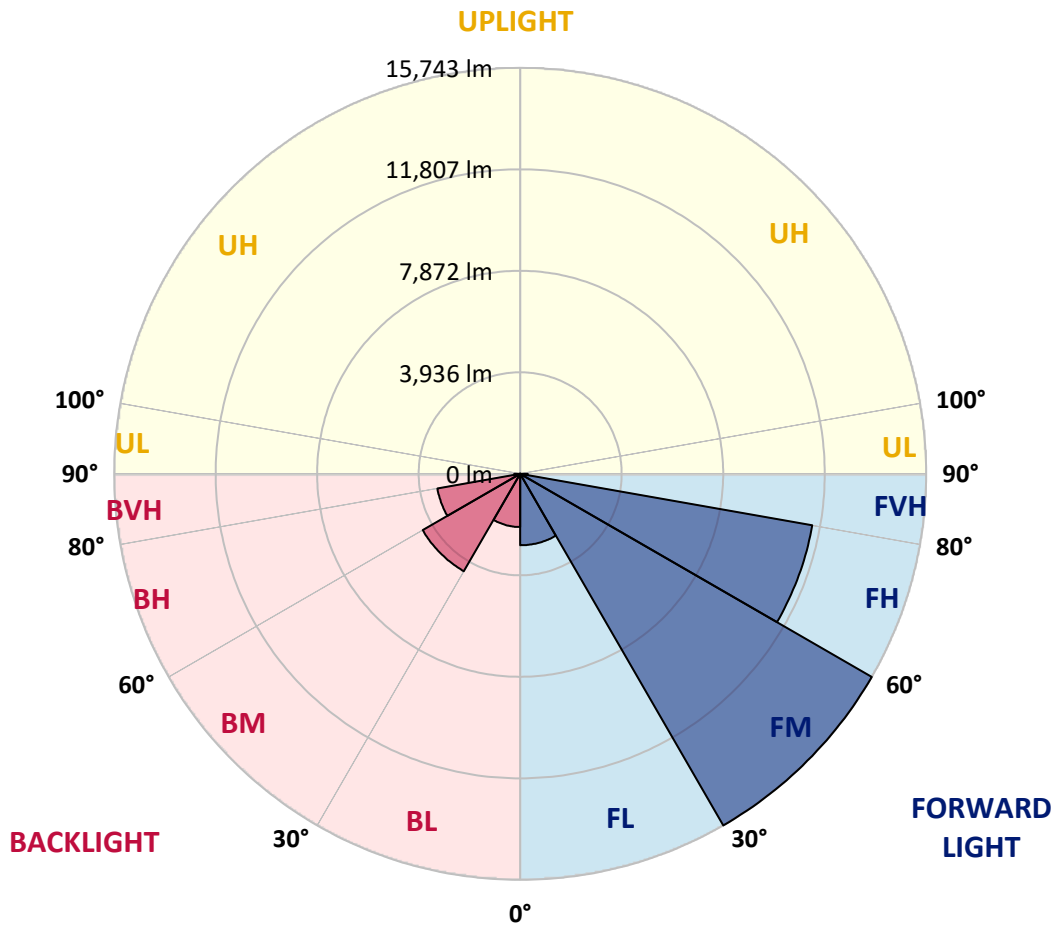


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2769.9	6.9			
FM (30°-60°)	15743.3	39.1			
FH (60°-80°)	11500.2	28.6			G4/12000
FVH (80°-90°)	294.5	0.7			G3/500
BL (0°-30°)	2062.9	5.1	B3/2500		
BM (30°-60°)	4362.7	10.8	B3/5000		
BH (60°-80°)	3259.0	8.1	B4/5000		G4/5000
BVH (80°-90°)	231.6	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-G4**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3
2.5°	6038.2	6072.4	6061.7	6051.0	6051.0	6036.1	6033.9	6012.6	5995.5	5967.8	5961.4
5°	6115.0	6151.3	6147.1	6155.6	6183.4	6189.8	6196.2	6183.4	6149.2	6115.0	6100.1
7.5°	6046.7	6087.3	6100.1	6151.3	6236.7	6313.5	6371.2	6394.7	6362.6	6313.5	6290.1
10°	5816.2	5861.1	5905.9	6027.5	6179.1	6360.5	6514.2	6606.0	6599.6	6552.6	6512.0
12.5°	5348.8	5395.8	5491.8	5728.7	6006.2	6326.4	6612.4	6804.5	6870.6	6836.5	6766.0
15°	4975.3	5015.8	5088.4	5331.7	5692.4	6179.1	6648.6	7022.2	7190.8	7171.6	7086.2
17.5°	4964.6	4981.7	5026.5	5141.8	5419.2	5948.6	6610.2	7235.6	7557.9	7555.8	7449.0
20°	5152.4	5158.8	5184.5	5207.9	5365.9	5773.5	6512.0	7412.8	7969.8	7969.8	7854.6
22.5°	5412.8	5408.6	5434.2	5412.8	5489.7	5758.6	6450.2	7568.6	8428.7	8462.9	8317.7
25°	5803.4	5782.1	5775.7	5726.6	5741.5	5897.3	6518.5	7745.7	8973.0	9043.4	8862.0
27.5°	6324.2	6290.1	6266.6	6153.5	6115.0	6183.4	6727.6	7959.2	9579.2	9700.8	9470.3
30°	7003.0	6941.1	6906.9	6710.5	6571.8	6582.5	7043.5	8243.0	10213.1	10409.5	10117.0
32.5°	7929.3	7833.2	7741.5	7419.2	7165.2	7081.9	7451.2	8635.8	10900.4	11214.1	10838.5
35°	8966.6	8889.8	8791.6	8294.3	7903.7	7711.6	8001.9	9184.3	11705.0	12202.4	11713.6
37.5°	9965.5	9899.3	9946.3	9276.1	8772.4	8492.8	8723.3	9920.7	12697.5	13431.8	12810.7
40°	10998.6	10947.3	10953.7	10313.4	9726.5	9412.7	9598.4	10844.9	13835.2	14893.8	14129.7
42.5°	12121.2	12082.8	11954.8	11387.0	10727.5	10435.1	10605.8	11912.1	15056.0	16558.7	15576.8
45°	13378.4	13354.9	13235.4	12584.4	11828.8	11500.1	11730.7	13090.3	16283.3	18125.3	17030.4
47.5°	14464.8	14484.0	14469.1	13920.5	13137.2	12654.8	12930.2	14319.7	17425.2	19598.0	18424.1
50°	14987.7	15088.1	15235.3	15064.6	14577.9	14087.0	14140.4	15506.4	18513.8	20979.0	19760.3
52.5°	14714.5	14904.5	15305.8	15579.0	15766.8	15664.3	15521.3	16684.6	19538.3	22225.5	21023.8
55°	13696.4	13963.2	14629.2	15288.7	16247.0	16991.9	17179.8	17990.8	20537.2	23322.6	22219.1
57.5°	11841.6	12274.9	12872.6	14206.6	15820.2	17634.4	19113.5	19802.9	21595.8	24494.4	23469.8
60°	8661.4	9241.9	9984.7	11969.7	14326.1	17290.8	20759.2	22586.2	23100.6	26011.9	25098.4
62.5°	5543.0	5901.6	6584.6	8454.4	11162.9	15529.9	21262.9	26065.3	25651.2	28500.6	27540.1
65°	3795.0	4025.5	4650.9	5701.0	7216.4	11559.9	19913.9	28673.5	29702.3	32445.0	31715.0
67.5°	2757.6	2932.7	3466.3	4386.2	4702.1	6840.7	15453.0	28554.0	33640.2	36508.9	35373.4
70°	2010.6	2134.4	2582.6	3466.3	3617.8	3805.6	9361.5	24272.4	33554.9	37588.9	36229.3
72.5°	1489.8	1575.2	1876.1	2689.3	2928.4	2569.8	4633.8	17640.8	28833.6	33998.8	32908.1
75°	1077.9	1141.9	1363.9	2057.6	2343.6	1957.2	2311.6	10309.1	20112.4	23915.9	24108.0
77.5°	823.9	873.0	1018.1	1506.9	1876.1	1468.5	1434.3	4742.6	9536.5	9583.4	10121.3
80°	661.7	693.7	772.7	1060.8	1438.6	1099.2	934.9	1914.6	3013.8	2550.6	2676.5
82.5°	486.6	540.0	653.1	744.9	1028.8	757.7	569.9	966.9	1146.2	986.1	994.6
85°	277.5	313.8	394.9	533.6	657.4	463.2	326.6	429.0	533.6	437.6	390.6
87.5°	98.2	128.1	138.7	209.2	286.0	192.1	125.9	123.8	175.0	130.2	108.9
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°	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3	5897.3
2.5°	5940.0	5929.4	5886.7	5829.0	5769.3	5711.6	5692.4	5651.9	5624.1	5609.2	5626.3
5°	6059.6	6025.4	5925.1	5797.0	5662.6	5517.4	5415.0	5321.1	5252.8	5188.7	5214.3
7.5°	6230.3	6170.5	5997.7	5773.5	5534.5	5293.3	5114.0	4977.4	4885.6	4825.9	4838.7
10°	6428.8	6337.0	6072.4	5737.3	5368.0	5022.2	4810.9	4693.5	4635.9	4603.9	4612.4
12.5°	6657.2	6527.0	6149.2	5654.0	5114.0	4719.2	4574.0	4539.9	4542.0	4544.1	4548.4
15°	6938.9	6757.5	6211.1	5472.6	4783.2	4486.5	4460.9	4516.4	4574.0	4601.8	4599.6
17.5°	7257.0	7000.8	6221.8	5173.8	4458.8	4337.1	4418.2	4537.7	4625.2	4663.7	4672.2
20°	7598.5	7248.4	6144.9	4751.2	4192.0	4215.4	4360.6	4514.3	4610.3	4659.4	4672.2
22.5°	7989.1	7513.1	5961.4	4307.2	3974.2	4083.1	4253.9	4403.3	4503.6	4552.7	4565.5
25°	8435.1	7809.8	5673.2	3933.7	3786.4	3933.7	4104.4	4228.2	4309.3	4354.2	4367.0
27.5°	8930.3	8119.2	5289.0	3637.0	3622.1	3780.0	3920.9	4016.9	4059.6	4093.8	4106.6
30°	9427.6	8401.0	4823.7	3412.9	3479.1	3628.5	3728.8	3771.5	3784.3	3790.7	3805.6
32.5°	9965.5	8644.3	4335.0	3227.2	3342.5	3481.2	3541.0	3560.2	3500.4	3459.9	3472.7
35°	10616.5	8904.7	3856.9	3079.9	3208.0	3327.5	3346.7	3329.7	3259.2	3176.0	3180.3
37.5°	11421.2	9229.1	3474.8	2975.4	3082.1	3161.0	3137.6	3133.3	3139.7	3041.5	3047.9
40°	12407.3	9651.7	3195.2	2894.2	2979.6	2996.7	2930.5	2966.8	2998.8	2849.4	2853.7
42.5°	13502.2	10161.9	3018.0	2838.7	2894.2	2853.7	2751.2	2791.8	2787.5	2591.2	2589.0
45°	14618.5	10716.8	2956.1	2798.2	2815.3	2734.2	2621.0	2631.7	2542.1	2364.9	2371.3
47.5°	15728.4	11312.3	2994.6	2764.0	2717.1	2625.3	2537.8	2490.8	2358.5	2226.2	2226.2
50°	16816.9	11937.7	3135.4	2695.7	2582.6	2529.3	2465.2	2382.0	2241.1	2128.0	2119.5
52.5°	17826.5	12567.3	3293.4	2582.6	2414.0	2446.0	2405.5	2309.4	2170.7	2055.4	2057.6
55°	18782.7	13197.0	3355.3	2426.8	2256.1	2373.5	2350.0	2172.8	2006.3	1912.4	1903.9
57.5°	19824.3	13954.7	3287.0	2228.3	2128.0	2290.2	2200.6	2004.2	1908.2	1837.7	1831.3
60°	21267.1	15143.6	3139.7	1982.9	2006.3	2166.4	2012.7	1931.6	1827.0	1748.1	1743.8
62.5°	23664.1	17361.2	2902.8	1739.5	1863.3	1982.9	1923.1	1842.0	1735.3	1658.4	1658.4
65°	27207.2	20443.3	2456.7	1549.6	1703.2	1803.6	1827.0	1745.9	1634.9	1553.8	1558.1
67.5°	30195.3	22377.0	1859.1	1391.6	1538.9	1658.4	1724.6	1645.6	1528.2	1449.3	1451.4
70°	30031.0	20972.6	1419.4	1235.8	1393.8	1515.4	1600.8	1538.9	1413.0	1338.3	1344.7
72.5°	26673.6	17544.8	1148.3	1077.9	1246.5	1366.0	1468.5	1421.5	1293.4	1220.9	1220.9
75°	19595.9	12454.2	917.8	917.8	1062.9	1210.2	1323.3	1293.4	1176.1	1124.8	1109.9
77.5°	8260.1	5225.0	719.3	762.0	883.6	1039.5	1180.3	1191.0	1088.5	1152.6	1045.9
80°	2196.3	1440.7	548.5	599.8	693.7	858.0	1026.6	1022.4	911.4	851.6	791.9
82.5°	836.7	567.7	390.6	422.6	501.6	657.4	813.2	838.8	727.8	629.6	629.6
85°	322.3	243.3	241.2	254.0	292.4	435.4	614.7	636.1	548.5	465.3	480.2
87.5°	83.2	72.6	89.6	85.4	134.5	232.6	352.2	365.0	335.1	194.2	277.5
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)