

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: P884446

Luminaire Tested: **NAV-SB5B-735-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884446  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5B-735-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

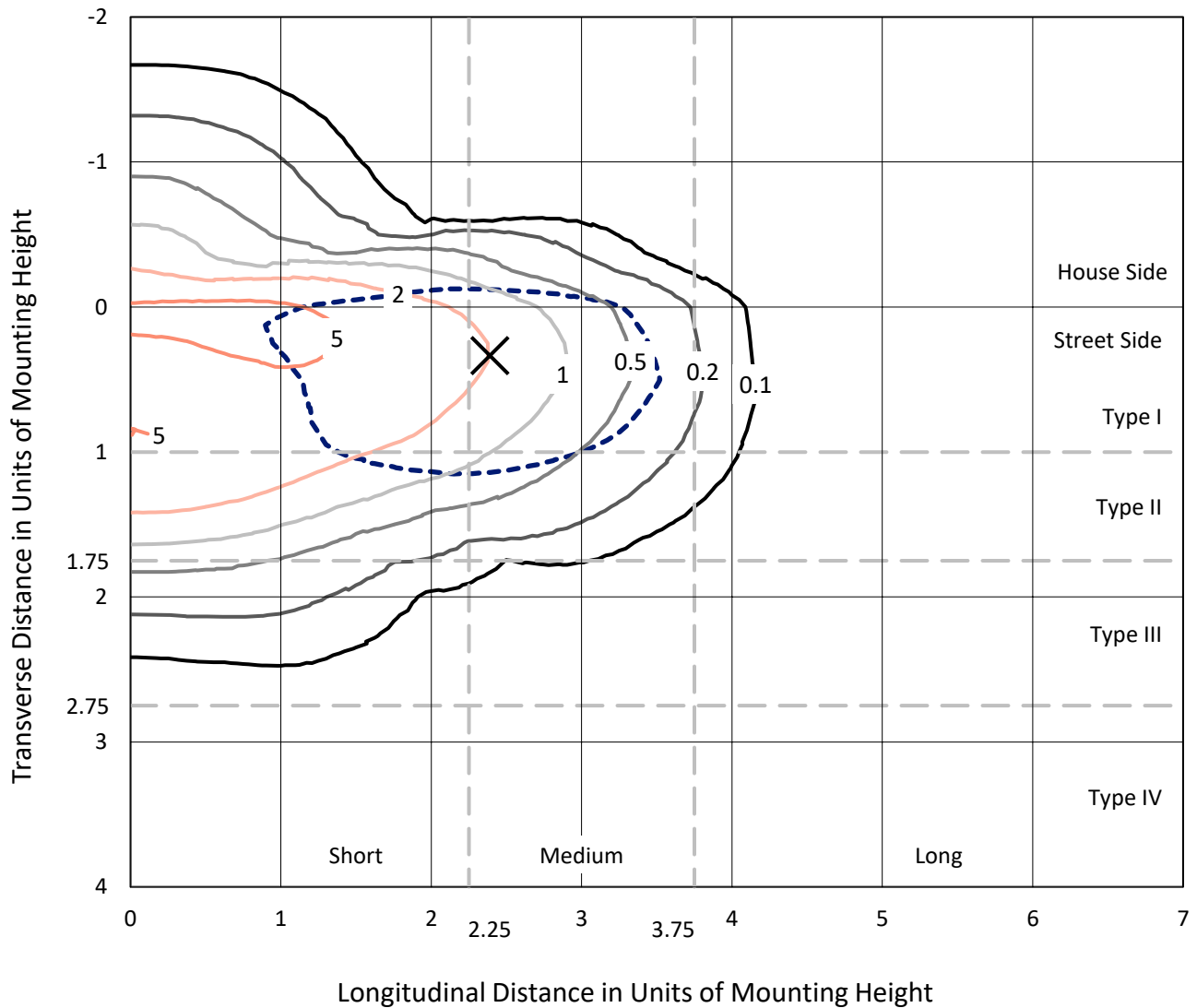
Lumens per Lamp: N/A  
Luminaire Lumens: 20865 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 182.7  
Input Voltage (V): 120.0  
Input Current (Ain): 1.547  
Voltage Rise (V): NR  
Power Factor: 0.992  
Total Harmonic Distortion (THDi): 11.125  
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

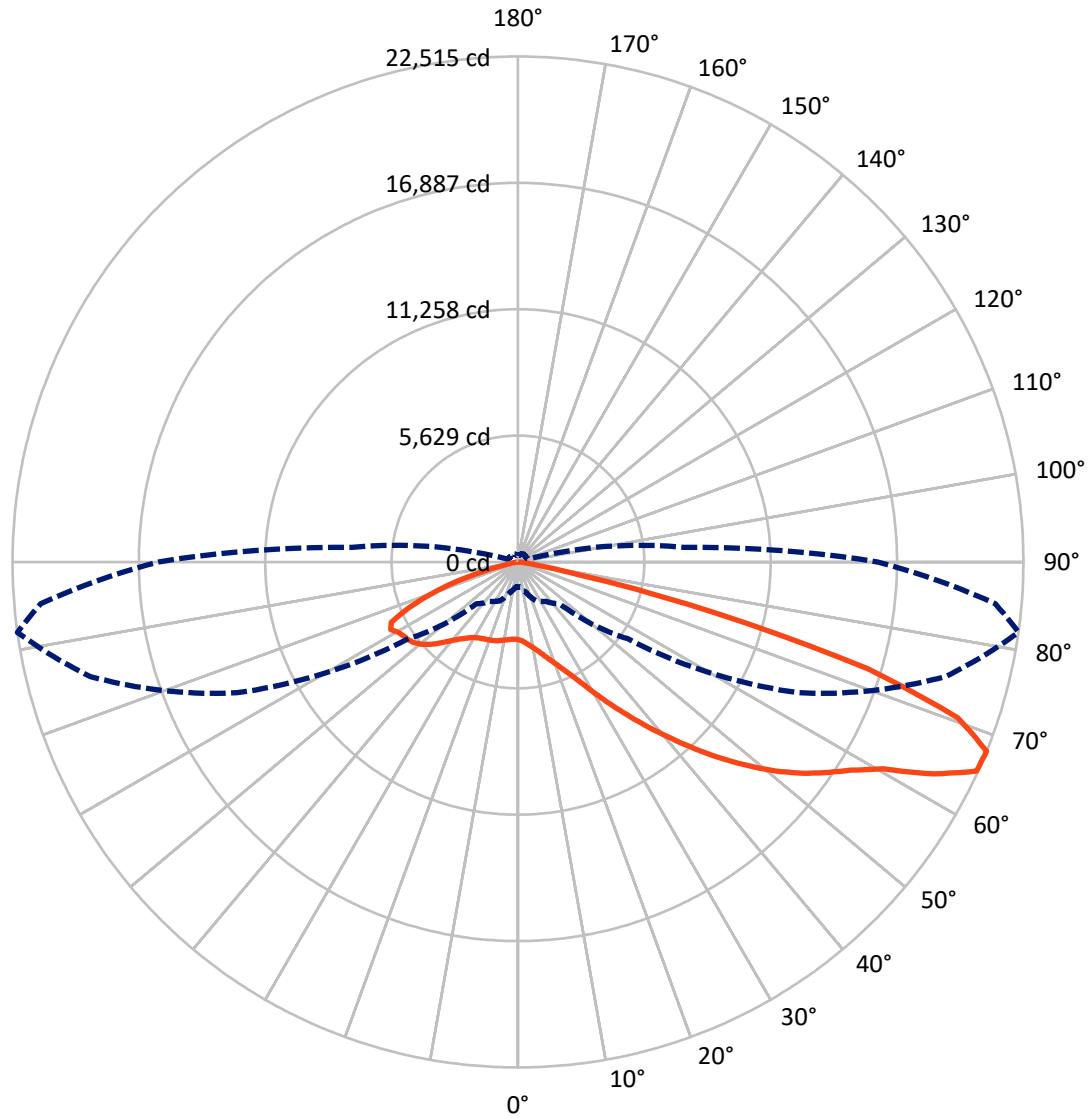
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3779.5	0.0	3779.5
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	17085.5	0.0	17085.5
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	20865.0	0.0	20865.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.0	1.5
10°-20°	800.3	3.8
20°-30°	1281.8	6.1
30°-40°	2266.6	10.9
40°-50°	3971.2	19.0
50°-60°	5296.5	25.4
60°-70°	4930.8	23.6
70°-80°	1892.4	9.1
80°-90°	117.5	0.6
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°	20865.0	100.0
0°-180°	20865.0	100.0

**Coefficient of Utilization**



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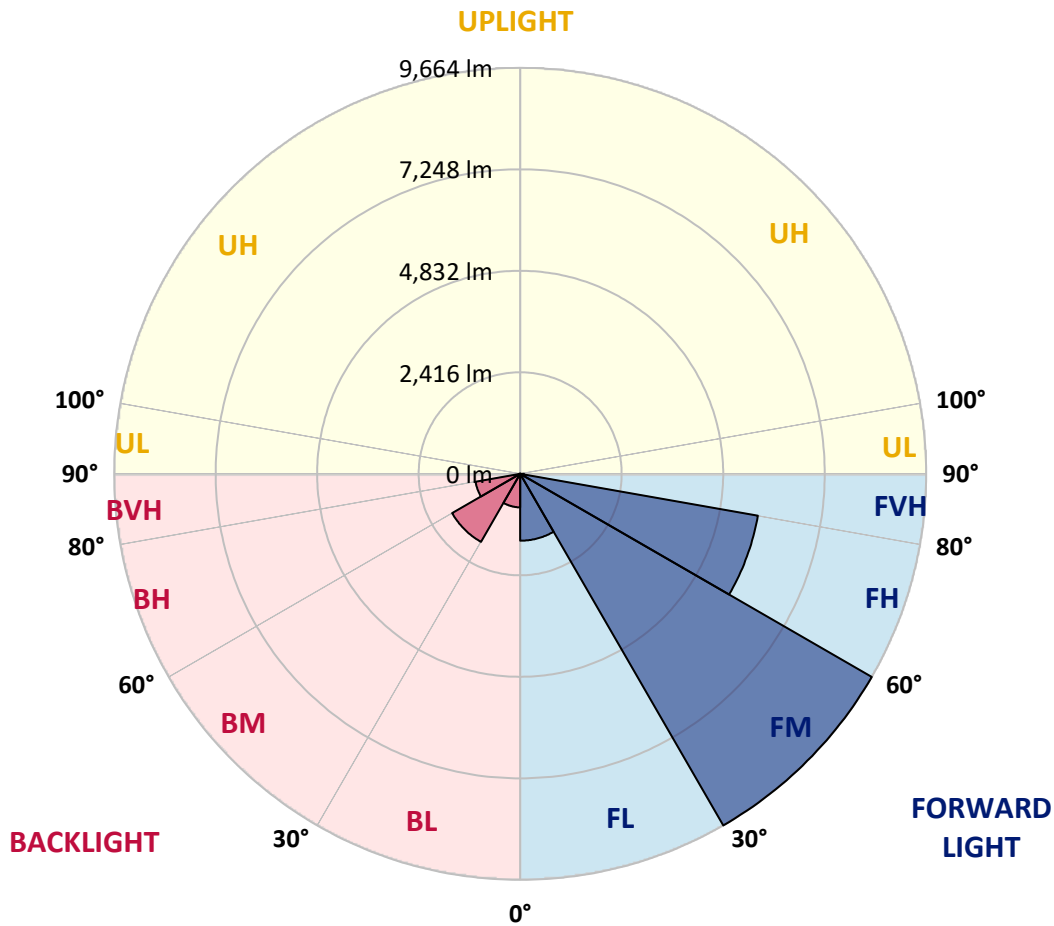
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1591.8	7.6			
FM (30°-60°)	9663.8	46.3			
FH (60°-80°)	5744.4	27.5			G3/7500
FVH (80°-90°)	85.5	0.4			G1/100
BL (0°-30°)	798.2	3.8	B2/1000		
BM (30°-60°)	1870.5	9.0	B2/2500		
BH (60°-80°)	1078.7	5.2	B3/2500		G3/2500
BVH (80°-90°)	32.1	0.2			G1/100
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°	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6
2.5°	3653.4	3674.4	3662.4	3656.4	3645.9	3630.9	3618.9	3581.3	3542.3	3516.7	3507.7
5°	3727.0	3748.1	3746.6	3752.6	3760.1	3764.6	3761.6	3719.5	3663.9	3620.4	3594.8
7.5°	3663.9	3688.0	3707.5	3737.5	3790.1	3845.7	3872.7	3863.7	3806.6	3746.6	3715.0
10°	3485.2	3510.7	3557.3	3627.9	3739.0	3859.2	3959.9	4006.4	3970.4	3904.3	3860.7
12.5°	3157.7	3183.2	3274.9	3428.1	3614.4	3823.2	4015.5	4140.1	4149.2	4083.1	4032.0
15°	2789.6	2815.2	2912.8	3105.1	3389.0	3724.0	4045.5	4281.3	4361.0	4303.9	4242.3
17.5°	2561.3	2583.8	2657.4	2812.2	3108.1	3525.7	4035.0	4431.6	4613.3	4568.3	4494.7
20°	2492.2	2511.7	2546.3	2654.4	2900.8	3319.9	3965.9	4572.8	4885.2	4859.7	4777.1
22.5°	2565.8	2583.8	2594.3	2642.4	2797.1	3184.7	3878.8	4717.0	5200.7	5203.7	5103.1
25°	2735.6	2753.6	2741.6	2771.6	2839.2	3142.7	3845.7	4886.7	5597.3	5630.3	5516.2
27.5°	3015.0	3016.5	2987.9	2986.4	2996.9	3205.8	3880.3	5068.5	6097.5	6159.1	6017.9
30°	3575.3	3552.8	3443.1	3324.4	3270.3	3395.0	3976.4	5283.3	6687.9	6797.6	6620.3
32.5°	4439.1	4406.0	4204.7	3920.8	3635.4	3700.0	4149.2	5528.2	7330.9	7529.2	7312.8
35°	5376.5	5367.5	5157.1	4735.0	4236.3	4134.1	4430.1	5849.7	8032.4	8347.9	8091.0
37.5°	6247.8	6243.3	6123.1	5625.8	5018.9	4739.5	4880.7	6270.3	8783.5	9240.2	8936.7
40°	7043.9	7057.5	6937.3	6492.6	5881.2	5516.2	5493.6	6790.1	9618.8	10212.1	9851.6
42.5°	7732.0	7747.0	7625.3	7296.3	6733.0	6375.5	6246.3	7427.0	10434.5	11256.2	10829.6
45°	8199.2	8292.3	8274.3	8011.4	7607.3	7236.2	7150.6	8226.2	11364.3	12363.3	11863.1
47.5°	8331.4	8417.0	8552.2	8588.2	8341.9	7976.8	8079.0	9189.1	12304.7	13472.0	12902.6
50°	8005.4	8085.0	8365.9	8740.0	8911.2	8798.5	8981.8	10221.2	13267.7	14577.6	13922.6
52.5°	7362.4	7443.5	7798.1	8389.9	9088.5	9443.0	9887.7	11238.2	14200.6	15624.7	14888.6
55°	6432.5	6518.2	6973.3	7643.3	8750.5	9708.9	10643.3	12253.7	15055.3	16566.6	15759.9
57.5°	5167.7	5230.8	5704.0	6641.3	7900.2	9444.5	11200.6	13362.3	15860.5	17491.9	16623.6
60°	3368.0	3423.6	3973.4	5018.9	6491.1	8561.2	11311.8	14598.6	16930.1	18695.2	17787.9
62.5°	2239.8	2277.4	2603.4	3371.0	4571.3	6865.2	10661.3	15585.6	18498.4	20789.3	19784.3
65°	1536.8	1574.3	1900.3	2435.1	2953.4	4541.2	8791.0	15454.9	19919.5	22452.3	21264.0
67.5°	1096.6	1128.2	1404.6	1909.3	2137.7	2637.9	5959.3	13784.4	19715.2	22515.4	21343.6
70°	785.7	803.7	1032.0	1487.2	1699.0	1584.8	3313.9	10542.6	17262.1	20790.8	19718.2
72.5°	549.8	555.8	716.6	1132.7	1368.5	1156.7	1577.3	7028.9	13055.9	16318.7	15286.7
75°	372.6	380.1	482.2	830.7	1098.1	883.3	835.2	3769.1	7664.4	9032.9	8097.0
77.5°	228.3	231.3	311.0	567.8	821.7	673.0	537.8	1596.9	2965.4	2911.3	2481.7
80°	129.2	129.2	198.3	353.0	560.3	434.1	377.1	679.0	938.9	824.7	727.1
82.5°	72.1	73.6	144.2	219.3	371.1	256.9	207.3	314.0	405.6	359.0	312.5
85°	30.0	33.0	88.6	103.7	177.3	127.7	84.1	132.2	150.2	133.7	97.6
87.5°	3.0	4.5	27.0	19.5	21.0	25.5	12.0	25.5	21.0	21.0	15.0
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°	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6	3456.6
2.5°	3479.2	3456.6	3399.5	3333.4	3246.3	3204.3	3147.2	3108.1	3075.1	3078.1	3048.0
5°	3546.8	3489.7	3362.0	3202.7	3004.5	2863.2	2713.0	2609.4	2525.2	2507.2	2466.7
7.5°	3639.9	3549.8	3325.9	3039.0	2704.0	2450.1	2223.3	2077.6	1973.9	1940.9	1907.8
10°	3760.1	3629.4	3279.4	2833.2	2351.0	2028.0	1784.6	1670.5	1599.9	1575.8	1557.8
12.5°	3899.8	3721.0	3217.8	2582.3	1987.4	1676.5	1521.8	1464.7	1442.1	1434.6	1430.1
15°	4075.5	3835.2	3124.6	2284.9	1679.5	1461.7	1395.6	1388.1	1391.1	1388.1	1386.6
17.5°	4284.4	3959.9	2972.9	1978.4	1472.2	1352.0	1328.0	1334.0	1341.5	1340.0	1337.0
20°	4512.7	4083.1	2779.1	1706.5	1331.0	1273.9	1260.4	1266.4	1272.4	1269.4	1267.9
22.5°	4772.6	4215.2	2564.3	1494.7	1236.3	1201.8	1186.8	1188.3	1188.3	1182.3	1179.2
25°	5083.5	4361.0	2339.0	1344.5	1164.2	1137.2	1119.2	1113.2	1104.1	1086.1	1083.1
27.5°	5454.6	4515.7	2122.6	1239.3	1107.1	1081.6	1060.6	1045.6	1023.0	993.0	990.0
30°	5872.2	4703.5	1939.4	1173.2	1062.1	1036.5	1012.5	990.0	956.9	919.4	916.4
32.5°	6363.4	4904.8	1805.7	1129.7	1021.5	994.5	965.9	938.9	902.8	865.3	866.8
35°	6949.3	5148.1	1727.6	1099.6	990.0	953.9	922.4	892.3	865.3	832.2	829.2
37.5°	7584.7	5406.5	1703.5	1084.6	968.9	913.4	877.3	856.3	853.3	833.7	832.2
40°	8280.3	5713.0	1721.6	1075.6	946.4	874.3	835.2	830.7	838.2	803.7	805.2
42.5°	9016.4	6076.5	1751.6	1065.1	914.9	835.2	797.7	797.7	791.7	743.6	743.6
45°	9812.5	6495.6	1781.6	1039.5	877.3	796.2	767.6	757.1	731.6	685.0	683.5
47.5°	10614.7	6922.3	1804.2	993.0	832.2	763.1	737.6	713.6	676.0	633.9	632.4
50°	11376.4	7305.3	1780.1	923.9	781.2	731.6	704.5	671.5	630.9	602.4	597.9
52.5°	12056.9	7637.3	1678.0	842.7	727.1	698.5	674.5	639.9	606.9	576.9	573.9
55°	12648.8	7906.2	1497.7	766.1	679.0	670.0	646.0	602.4	557.3	531.8	528.8
57.5°	13216.6	8110.5	1272.4	703.0	635.4	638.4	602.4	563.3	521.3	494.2	491.2
60°	13972.2	8383.9	1044.0	644.5	588.9	597.9	558.8	530.3	477.7	443.2	438.7
62.5°	15180.0	8809.1	829.2	572.3	534.8	537.8	521.3	486.7	423.6	383.1	380.1
65°	16138.4	8652.8	653.5	494.2	473.2	477.7	477.7	440.2	372.6	326.0	321.5
67.5°	16030.3	7409.0	521.3	417.6	414.6	417.6	428.1	396.6	330.5	292.9	286.9
70°	14766.9	5893.2	417.6	347.0	360.5	353.0	383.1	362.0	297.4	259.9	255.4
72.5°	12049.4	4245.3	318.5	286.9	276.4	288.4	345.5	326.0	247.9	205.8	201.3
75°	7040.9	2265.4	237.4	226.8	199.8	240.4	306.5	277.9	189.3	151.7	147.2
77.5°	2292.4	790.2	174.3	166.7	148.7	193.8	261.4	234.3	154.7	120.2	115.7
80°	614.4	238.9	118.7	109.7	96.1	144.2	207.3	186.3	111.2	78.1	76.6
82.5°	246.4	100.6	69.1	61.6	52.6	99.1	163.7	150.2	82.6	49.6	49.6
85°	79.6	33.0	25.5	19.5	24.0	61.6	97.6	102.2	58.6	25.5	19.5
87.5°	10.5	4.5	4.5	6.0	4.5	10.5	30.0	28.5	16.5	3.0	0.0
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)