

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: P195018

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195018  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-5WQ-7060  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37476 lumens  
Efficiency: N/A  
Efficacy: 112.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

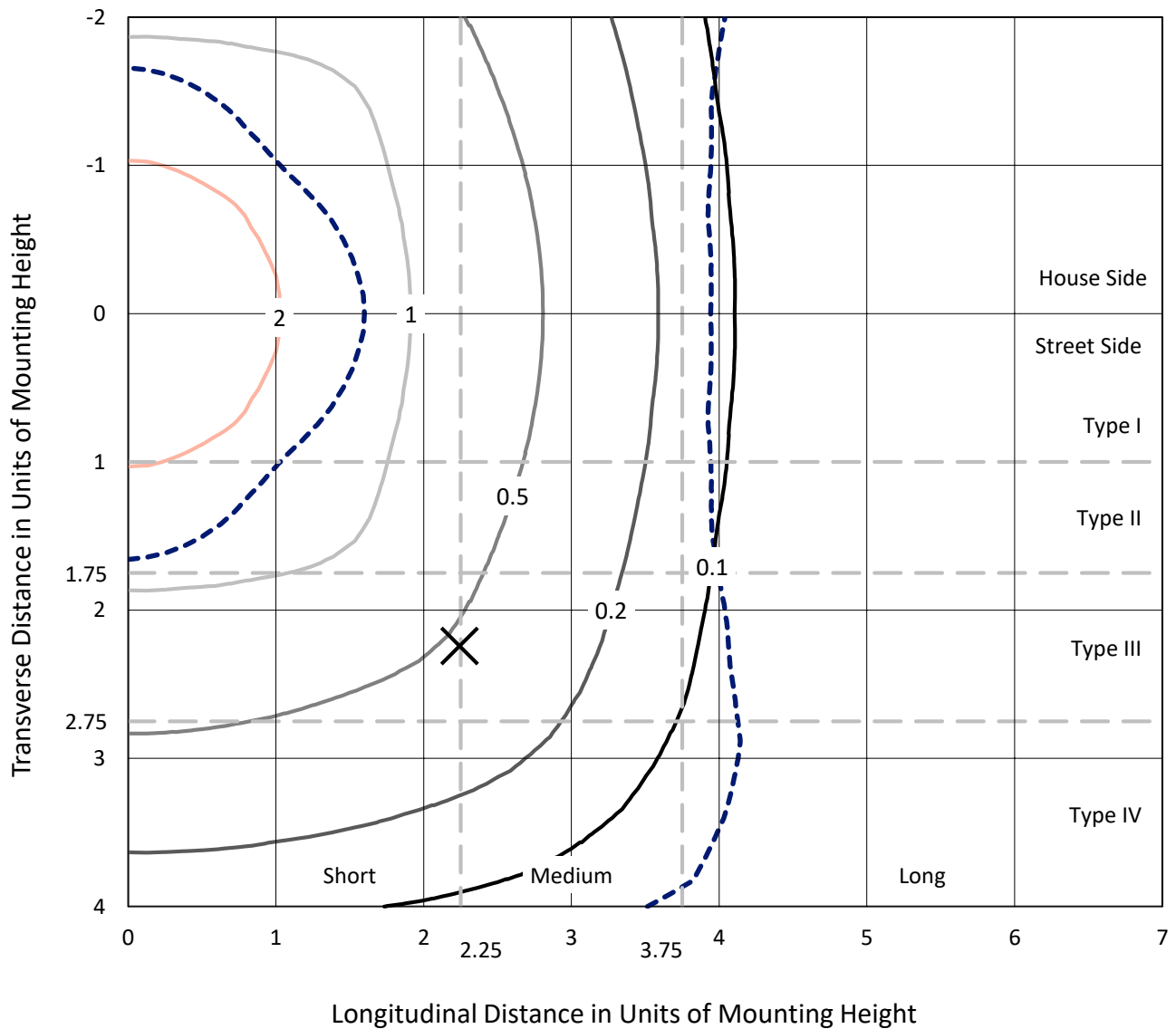
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

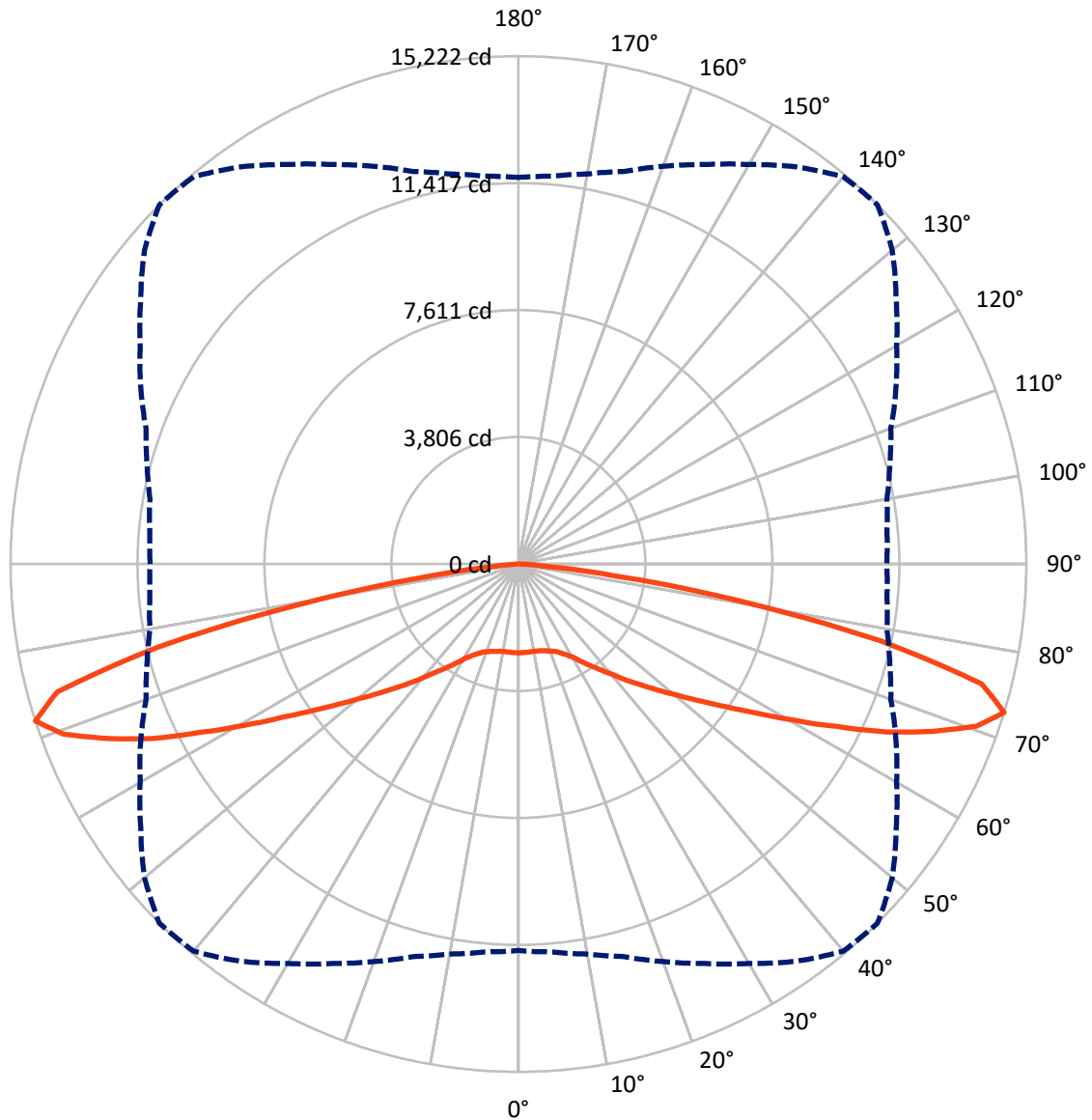


Based on 30 foot mounting height. Maximum calculated value = 3 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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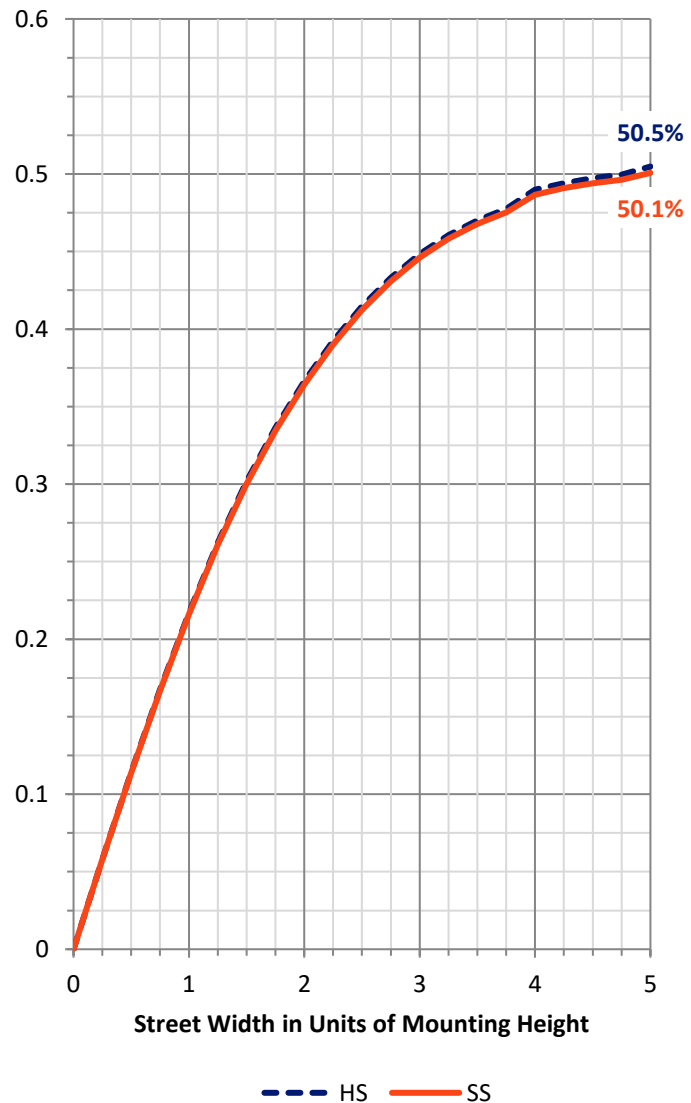
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18738.0	0.0	18738.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	18738.0	0.0	18738.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	37476.0	0.0	37476.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.3	0.7
10°-20°	769.6	2.1
20°-30°	1389.4	3.7
30°-40°	2369.9	6.3
40°-50°	4034.8	10.8
50°-60°	6493.4	17.3
60°-70°	10798.7	28.8
70°-80°	10446.5	27.9
80°-90°	919.4	2.5
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°	37476.0	100.0
0°-180°	37476.0	100.0



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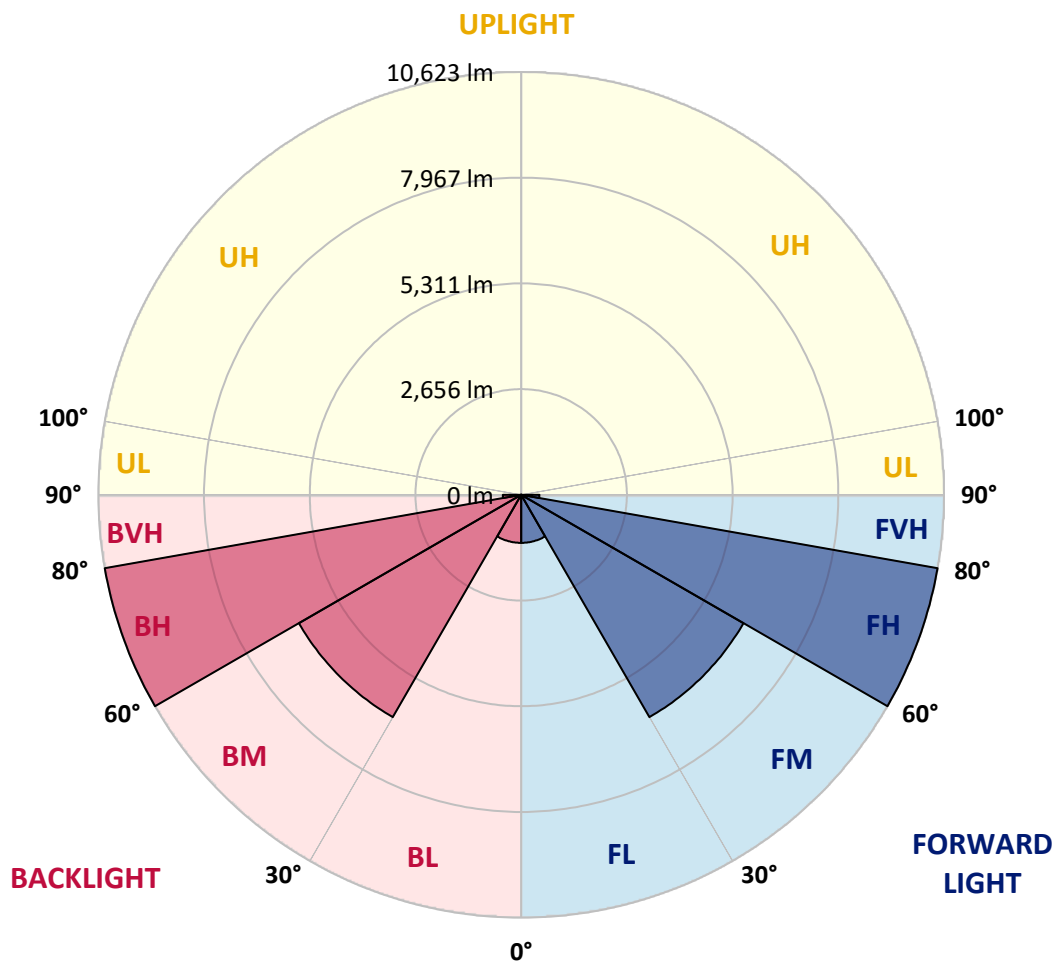
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.7	3.2			
FM	(30°-60°)	6449.1	17.2			
FH	(60°-80°)	10622.6	28.3			G4/12000
FVH	(80°-90°)	459.7	1.2			G3/500
BL	(0°-30°)	1206.7	3.2	B3/2500		
BM	(30°-60°)	6449.1	17.2	B4/8500		
BH	(60°-80°)	10622.6	28.3	B5		G4/12000
BVH	(80°-90°)	459.7	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3
2.5°	2685.0	2685.0	2687.3	2685.0	2680.4	2678.1	2671.2	2666.6	2662.0	2659.6	2655.0
5°	2687.3	2687.3	2689.6	2687.3	2682.7	2678.1	2673.5	2666.6	2662.0	2657.3	2655.0
7.5°	2696.6	2698.9	2701.2	2698.9	2689.6	2685.0	2678.1	2671.2	2662.0	2657.3	2652.7
10°	2715.0	2715.0	2715.0	2712.7	2705.8	2696.6	2687.3	2680.4	2668.9	2657.3	2650.4
12.5°	2728.9	2731.2	2731.2	2726.5	2717.3	2705.8	2696.6	2689.6	2680.4	2671.2	2664.3
15°	2749.6	2749.6	2747.3	2738.1	2724.2	2715.0	2710.4	2708.1	2705.8	2701.2	2694.2
17.5°	2791.1	2788.8	2781.9	2768.1	2751.9	2745.0	2740.4	2740.4	2740.4	2738.1	2733.5
20°	2851.1	2851.1	2841.9	2818.8	2805.0	2798.1	2791.1	2791.1	2791.1	2784.2	2777.3
22.5°	2948.0	2950.3	2936.5	2908.8	2890.3	2876.5	2867.3	2860.3	2853.4	2848.8	2837.3
25°	3079.5	3077.2	3061.0	3026.4	3012.6	2998.7	2980.3	2968.7	2959.5	2952.6	2938.8
27.5°	3217.9	3215.6	3197.1	3167.1	3157.9	3137.1	3123.3	3107.2	3095.6	3084.1	3070.2
30°	3395.5	3384.0	3370.1	3347.1	3342.4	3326.3	3307.8	3284.8	3266.3	3247.9	3231.7
32.5°	3554.7	3554.7	3533.9	3522.4	3531.6	3524.7	3527.0	3513.1	3501.6	3494.7	3478.5
35°	3776.1	3776.1	3766.9	3753.0	3755.3	3739.2	3736.9	3739.2	3748.4	3748.4	3730.0
37.5°	4071.4	4076.0	4046.0	4041.4	4029.8	4006.8	3995.2	3999.9	4020.6	4032.1	4006.8
40°	4438.1	4447.4	4438.1	4408.1	4394.3	4355.1	4332.0	4332.0	4348.2	4359.7	4350.5
42.5°	4800.3	4816.4	4800.3	4777.2	4765.7	4735.7	4724.2	4733.4	4754.2	4768.0	4754.2
45°	5204.0	5215.5	5194.7	5167.1	5153.2	5137.1	5130.1	5137.1	5160.1	5174.0	5169.4
47.5°	5600.7	5616.9	5591.5	5580.0	5580.0	5563.8	5582.3	5600.7	5621.5	5653.8	5639.9
50°	5988.2	6009.0	5992.9	5995.2	6013.6	6043.6	6078.2	6115.1	6152.0	6186.6	6191.2
52.5°	6334.3	6366.5	6368.9	6410.4	6468.0	6514.2	6611.1	6691.8	6779.5	6809.4	6795.6
55°	6698.7	6742.5	6800.2	6864.8	6957.1	7051.6	7215.4	7360.7	7476.1	7547.6	7536.1
57.5°	7220.0	7263.9	7323.8	7429.9	7568.4	7697.5	7921.3	8147.3	8322.6	8431.1	8378.0
60°	7895.9	7942.0	8020.5	8133.5	8313.4	8488.7	8795.5	9120.8	9393.0	9517.5	9420.6
62.5°	8790.9	8834.7	8885.5	9035.4	9236.1	9462.2	9847.4	10264.9	10610.9	10730.9	10594.8
65°	10066.5	10119.6	10135.7	10258.0	10454.1	10664.0	11079.2	11549.7	11944.2	12140.3	11868.1
67.5°	11503.6	11524.4	11589.0	11732.0	11932.7	12121.8	12449.4	12894.6	13272.9	13381.3	13090.6
70°	12345.6	12387.1	12500.1	12698.5	12938.4	13236.0	13593.5	14073.3	14502.4	14553.1	14184.0
72.5°	11584.4	11669.7	11870.4	12179.5	12682.3	13210.6	13826.5	14534.6	15150.5	15222.0	14629.2
75°	9291.5	9388.4	9628.3	9967.3	10562.5	11346.8	12237.2	13300.6	14223.2	14340.9	13556.6
77.5°	4952.5	5072.5	5420.8	5877.5	6726.4	7764.4	8837.0	10050.4	10834.7	11099.9	10534.8
80°	1247.9	1312.5	1480.9	1748.5	2322.9	3160.2	4085.2	5390.8	6364.2	6777.1	6364.2
82.5°	484.4	532.9	579.0	611.3	666.6	782.0	1079.5	1760.0	2371.3	2920.3	2528.2
85°	186.8	198.4	286.0	325.2	325.2	357.5	410.6	484.4	599.7	655.1	549.0
87.5°	73.8	80.7	99.2	152.2	156.9	138.4	147.6	166.1	126.9	106.1	119.9
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3	2664.3
2.5°	2652.7	2650.4	2645.8	2648.1	2645.8	2645.8	2645.8	2645.8
5°	2650.4	2650.4	2645.8	2645.8	2645.8	2648.1	2645.8	2645.8
7.5°	2648.1	2645.8	2641.2	2638.9	2638.9	2636.6	2636.6	2636.6
10°	2643.5	2638.9	2634.3	2632.0	2632.0	2627.4	2627.4	2627.4
12.5°	2655.0	2648.1	2643.5	2641.2	2641.2	2641.2	2643.5	2643.5
15°	2687.3	2673.5	2666.6	2664.3	2666.6	2671.2	2673.5	2675.8
17.5°	2721.9	2708.1	2696.6	2691.9	2694.2	2701.2	2708.1	2712.7
20°	2765.8	2754.2	2740.4	2735.8	2735.8	2745.0	2749.6	2756.5
22.5°	2828.0	2818.8	2807.3	2800.4	2795.7	2807.3	2814.2	2818.8
25°	2927.2	2918.0	2908.8	2901.9	2899.5	2911.1	2915.7	2918.0
27.5°	3058.7	3049.5	3044.9	3042.6	3035.6	3040.3	3047.2	3044.9
30°	3229.4	3236.3	3229.4	3229.4	3217.9	3222.5	3217.9	3213.3
32.5°	3457.8	3450.9	3430.1	3416.3	3400.1	3400.1	3393.2	3386.3
35°	3686.1	3663.1	3651.5	3658.5	3651.5	3656.2	3644.6	3633.1
37.5°	3956.0	3942.2	3939.9	3960.6	3956.0	3960.6	3960.6	3944.5
40°	4313.6	4304.3	4320.5	4355.1	4368.9	4366.6	4371.2	4350.5
42.5°	4724.2	4708.0	4714.9	4744.9	4761.1	4765.7	4763.4	4744.9
45°	5134.8	5139.4	5139.4	5171.7	5187.8	5197.0	5180.9	5174.0
47.5°	5598.4	5605.3	5589.2	5609.9	5614.6	5630.7	5616.9	5605.3
50°	6133.6	6108.2	6071.3	6078.2	6078.2	6073.6	6057.4	6043.6
52.5°	6731.0	6673.3	6604.1	6581.1	6555.7	6530.3	6498.0	6472.7
55°	7411.5	7312.3	7187.7	7130.1	7081.6	7024.0	6950.1	6924.8
57.5°	8200.4	8029.7	7863.6	7759.8	7635.2	7559.1	7464.5	7459.9
60°	9136.9	8906.2	8613.3	8458.7	8334.2	8244.2	8172.7	8145.0
62.5°	10218.8	9822.0	9506.0	9339.9	9194.6	9139.2	9049.3	9060.8
65°	11328.3	10924.6	10617.8	10484.0	10347.9	10311.0	10228.0	10258.0
67.5°	12530.1	12197.9	11861.2	11736.6	11612.0	11575.1	11489.8	11515.1
70°	13607.3	13185.2	12802.3	12557.8	12345.6	12174.9	12066.5	12022.6
72.5°	13821.9	13090.6	12488.6	11877.3	11524.4	11215.3	11088.4	11040.0
75°	12419.4	11284.5	10426.4	9709.0	9312.2	8862.4	8814.0	8747.1
77.5°	9660.5	8368.8	7330.8	6408.1	5875.2	5326.2	5137.1	4994.1
80°	5762.2	4428.9	3432.4	2405.9	1963.0	1580.1	1485.5	1386.3
82.5°	2062.2	1321.8	890.4	694.3	620.5	572.1	535.2	486.7
85°	498.3	419.8	396.8	359.8	355.2	302.2	214.5	191.5
87.5°	159.2	145.3	147.6	140.7	147.6	110.7	90.0	80.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)