

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: P196914

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196914  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
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-5NQ-8030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30217 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G2

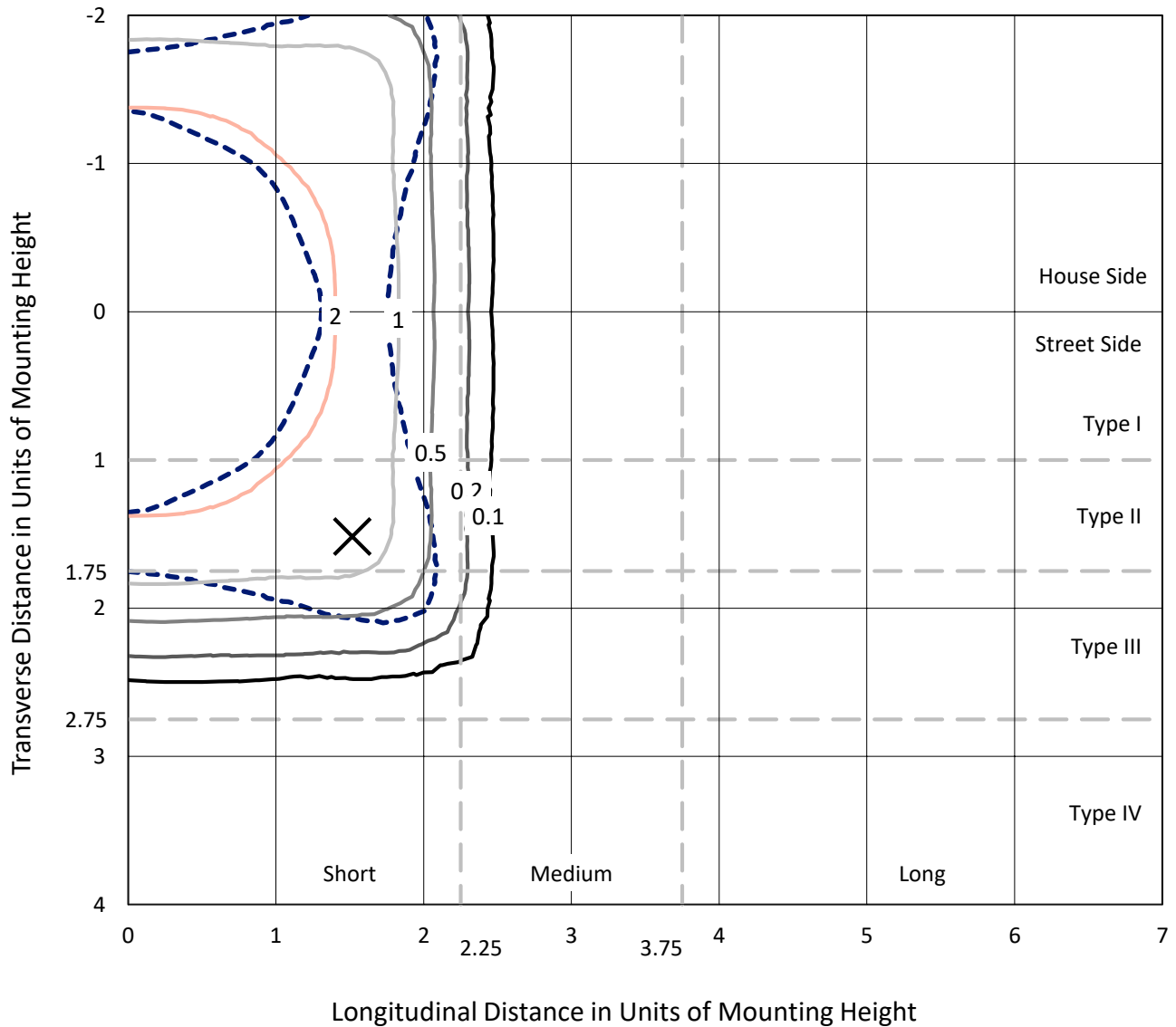
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

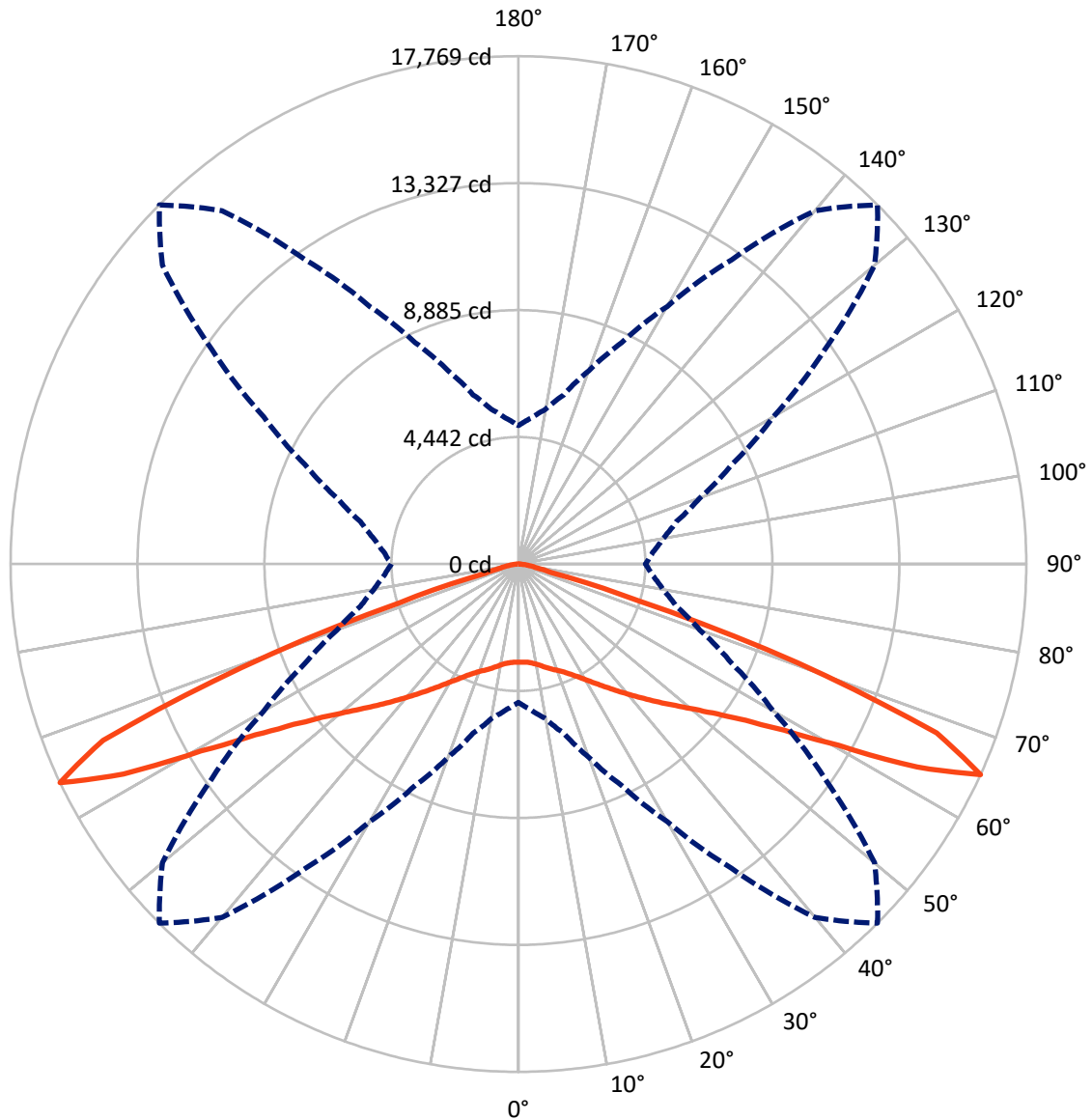
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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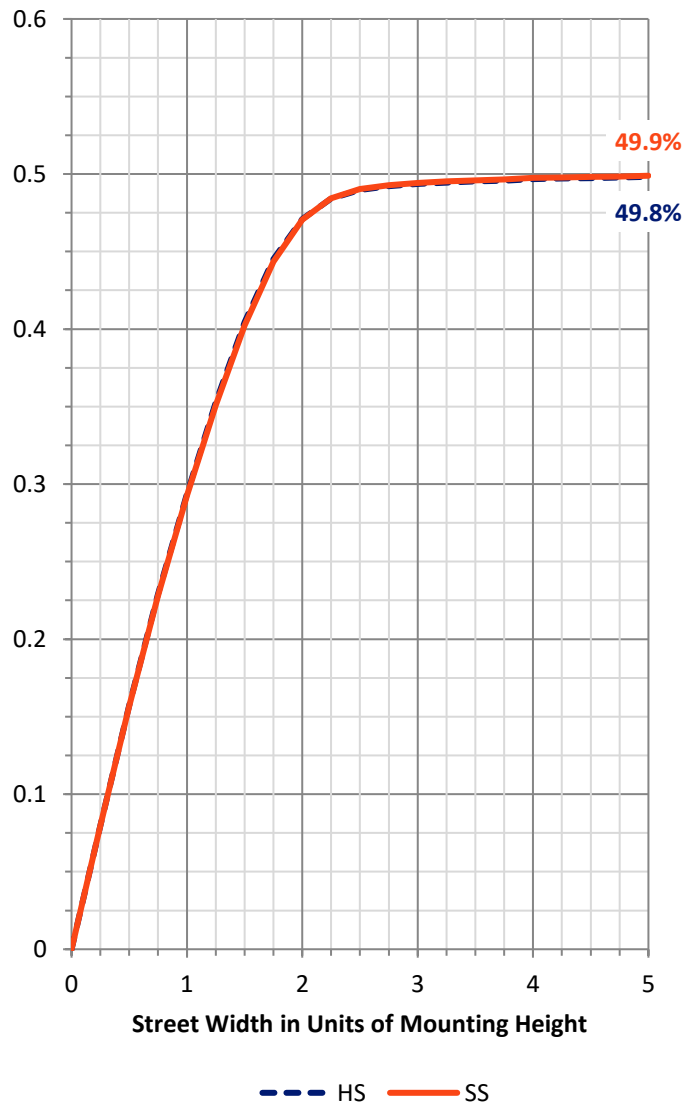
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	15108.5	0.0	15108.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	15108.5	0.0	15108.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	30217.0	0.0	30217.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	334.7	1.1
10°-20°	1072.8	3.6
20°-30°	2001.2	6.6
30°-40°	3374.4	11.2
40°-50°	5481.0	18.1
50°-60°	8587.7	28.4
60°-70°	8106.4	26.8
70°-80°	1092.5	3.6
80°-90°	166.4	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°	30217.0	100.0
0°-180°	30217.0	100.0



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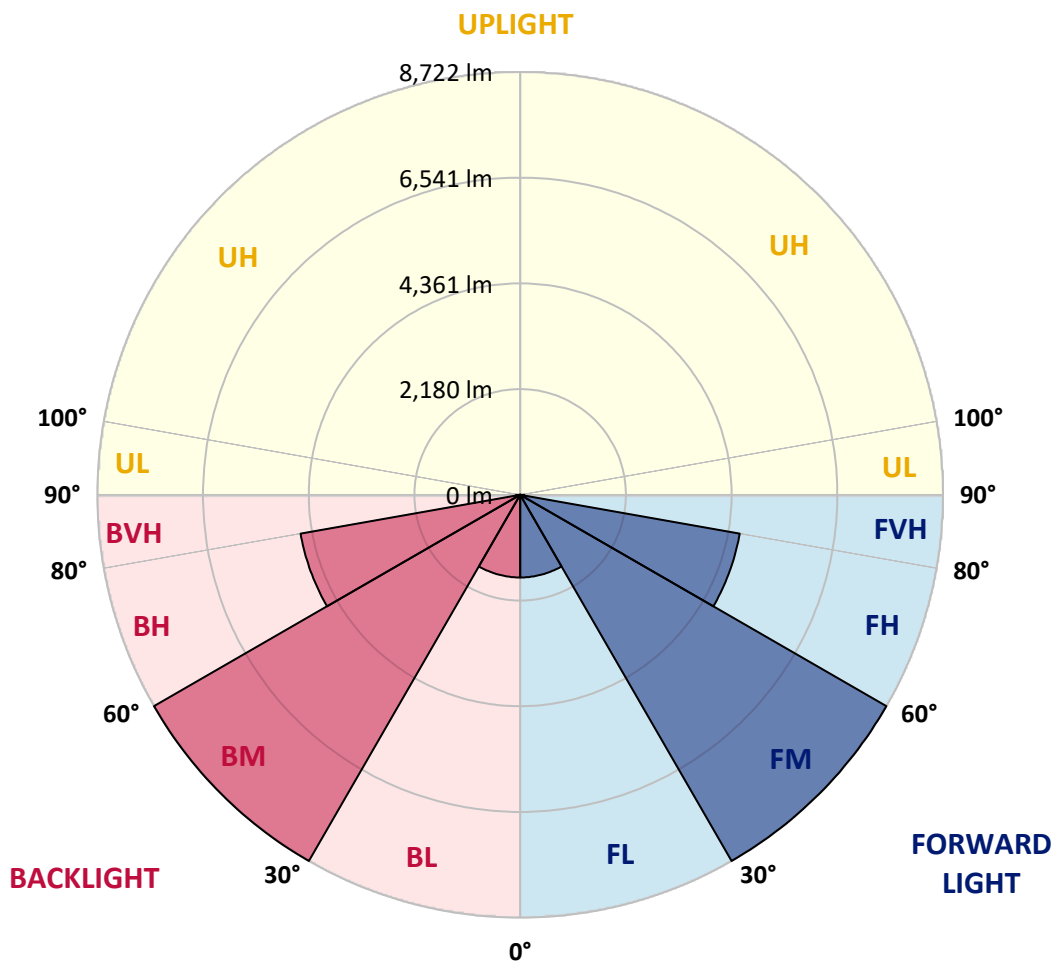
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1704.3	5.6			
FM	(30°-60°)	8721.5	28.9			
FH	(60°-80°)	4599.4	15.2			G2/5000
FVH	(80°-90°)	83.2	0.3			G1/100
BL	(0°-30°)	1704.3	5.6	B3/2500		
BM	(30°-60°)	8721.5	28.9	B5		
BH	(60°-80°)	4599.4	15.2	B4/5000		G2/5000
BVH	(80°-90°)	83.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1
2.5°	3465.4	3465.4	3471.0	3469.1	3461.6	3456.0	3450.3	3442.8	3439.0	3435.3	3433.4
5°	3484.2	3484.2	3489.9	3488.0	3482.3	3474.8	3471.0	3465.4	3459.7	3456.0	3457.9
7.5°	3531.3	3533.1	3535.0	3533.1	3527.5	3521.9	3514.3	3512.4	3504.9	3499.3	3503.0
10°	3602.8	3602.8	3604.7	3606.6	3602.8	3589.6	3589.6	3585.9	3578.3	3570.8	3572.7
12.5°	3681.9	3681.9	3683.7	3683.7	3683.7	3676.2	3678.1	3676.2	3666.8	3663.0	3666.8
15°	3759.0	3760.9	3760.9	3764.7	3764.7	3766.6	3774.1	3774.1	3770.3	3768.4	3768.4
17.5°	3849.4	3853.1	3855.0	3860.7	3862.6	3866.3	3873.8	3875.7	3877.6	3872.0	3873.8
20°	3969.8	3971.7	3977.4	3979.3	3986.8	3986.8	3990.6	3988.7	3984.9	3977.4	3977.4
22.5°	4105.4	4109.1	4120.4	4120.4	4129.8	4124.2	4126.1	4120.4	4111.0	4107.3	4103.5
25°	4282.3	4288.0	4297.4	4293.6	4297.4	4288.0	4288.0	4288.0	4282.3	4276.7	4274.8
27.5°	4506.3	4496.9	4506.3	4498.8	4496.9	4489.4	4491.3	4487.5	4481.8	4480.0	4472.4
30°	4739.7	4728.4	4734.1	4736.0	4732.2	4730.3	4722.8	4717.1	4707.7	4709.6	4704.0
32.5°	5007.0	4995.7	5001.4	5003.3	4999.5	5003.3	5001.4	4988.2	4976.9	4984.4	4984.4
35°	5325.1	5317.6	5332.7	5338.3	5327.0	5321.4	5313.8	5298.8	5281.8	5293.1	5295.0
37.5°	5707.2	5697.8	5709.1	5724.2	5703.5	5692.2	5662.1	5639.5	5628.2	5633.8	5641.4
40°	6104.4	6106.3	6138.3	6142.1	6119.5	6106.3	6076.2	6042.3	6010.3	6010.3	6019.7
42.5°	6522.3	6527.9	6565.6	6578.8	6571.2	6546.8	6505.4	6463.9	6422.5	6430.1	6441.4
45°	6994.8	6987.2	7026.8	7058.8	7053.1	7045.6	7006.1	6930.8	6893.1	6891.2	6910.1
47.5°	7491.7	7506.8	7548.2	7602.8	7600.9	7582.1	7531.2	7461.6	7391.9	7397.6	7420.2
50°	8071.5	8092.2	8161.8	8216.4	8223.9	8218.3	8158.0	8077.1	7979.2	7984.9	8015.0
52.5°	8591.0	8621.1	8702.0	8815.0	8884.6	8916.6	8877.1	8801.8	8702.0	8707.7	8739.7
55°	9061.6	9108.6	9229.1	9383.5	9522.7	9652.6	9711.0	9709.1	9635.7	9652.6	9694.0
57.5°	9357.1	9423.0	9605.6	9854.0	10130.7	10392.4	10618.3	10831.0	10878.0	10966.5	10966.5
60°	8959.9	9114.3	9357.1	9782.5	10326.5	10913.8	11550.0	12169.3	12568.4	12882.7	12713.3
62.5°	7482.3	7710.1	8050.8	8611.7	9458.7	10507.2	11785.3	13225.3	14727.4	15646.0	14972.1
65°	4841.4	5127.5	5498.3	6128.9	7196.2	8545.8	10407.4	12995.7	16139.2	17769.3	16263.4
67.5°	1918.1	2112.0	2337.9	2785.9	3712.0	5037.1	7126.5	10319.0	14251.2	15789.0	14100.6
70°	916.7	948.7	992.0	1088.0	1319.5	1780.7	2863.0	5084.2	8739.7	10360.4	8530.8
72.5°	662.6	668.2	688.9	720.9	788.7	882.8	1072.9	1554.8	3013.6	4382.1	3017.4
75°	502.6	510.1	521.4	538.3	574.1	619.3	690.8	828.2	1031.5	1189.6	1029.6
77.5°	382.1	389.6	399.1	416.0	434.8	466.8	493.2	547.8	634.3	668.2	664.5
80°	278.6	291.8	306.8	321.9	335.1	350.1	352.0	378.3	427.3	459.3	449.9
82.5°	176.9	188.2	227.8	244.7	246.6	250.4	248.5	250.4	276.7	299.3	291.8
85°	112.9	120.5	141.2	160.0	156.2	163.8	163.8	160.0	148.7	128.0	152.5
87.5°	56.5	58.4	67.8	84.7	80.9	71.5	69.6	69.6	50.8	43.3	47.1
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°	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1	3437.1
2.5°	3427.7	3431.5	3425.9	3425.9	3424.0	3427.7	3422.1	3422.1
5°	3454.1	3459.7	3457.9	3457.9	3461.6	3465.4	3463.5	3461.6
7.5°	3501.1	3504.9	3508.7	3510.6	3514.3	3512.4	3516.2	3514.3
10°	3572.7	3568.9	3574.6	3568.9	3570.8	3567.0	3568.9	3568.9
12.5°	3663.0	3657.4	3653.6	3649.9	3649.9	3642.3	3642.3	3644.2
15°	3766.6	3757.1	3749.6	3745.9	3742.1	3742.1	3736.4	3740.2
17.5°	3868.2	3858.8	3845.6	3845.6	3840.0	3836.2	3832.4	3841.9
20°	3975.5	3966.1	3958.6	3956.7	3945.4	3941.6	3943.5	3954.8
22.5°	4099.7	4094.1	4094.1	4090.3	4082.8	4077.1	4077.1	4090.3
25°	4267.3	4256.0	4257.8	4259.7	4256.0	4256.0	4252.2	4261.6
27.5°	4472.4	4463.0	4468.7	4472.4	4468.7	4474.3	4468.7	4476.2
30°	4713.4	4707.7	4713.4	4719.0	4709.6	4709.6	4705.8	4711.5
32.5°	5001.4	4993.8	4997.6	4997.6	4984.4	4973.1	4958.1	4969.4
35°	5317.6	5308.2	5315.7	5321.4	5306.3	5295.0	5272.4	5281.8
37.5°	5665.8	5669.6	5679.0	5703.5	5699.7	5680.9	5664.0	5671.5
40°	6055.5	6074.3	6115.7	6132.7	6128.9	6110.1	6087.5	6091.2
42.5°	6495.9	6520.4	6563.7	6591.9	6578.8	6552.4	6524.2	6535.5
45°	6975.9	7013.6	7070.1	7098.3	7081.4	7053.1	7013.6	7034.3
47.5°	7484.2	7559.5	7634.8	7672.4	7666.8	7627.2	7576.4	7582.1
50°	8092.2	8191.9	8287.9	8325.6	8297.3	8237.1	8165.6	8163.7
52.5°	8848.9	8956.2	9035.2	9025.8	8956.2	8862.0	8781.1	8777.3
55°	9793.8	9829.6	9818.3	9737.3	9615.0	9468.2	9364.6	9347.7
57.5°	10936.4	10815.9	10639.0	10394.3	10119.4	9840.9	9652.6	9583.0
60°	12333.1	11789.1	11156.6	10490.3	9882.3	9426.7	9138.7	8963.7
62.5°	13486.9	11911.4	10497.8	9340.2	8393.3	7830.5	7437.1	7194.3
65°	13091.7	10290.7	8242.8	6750.1	5716.7	5135.0	4719.0	4442.3
67.5°	10113.8	6876.2	4784.9	3316.7	2514.8	2128.9	1859.7	1684.7
70°	5099.3	2637.2	1598.1	1127.5	963.8	896.0	850.8	824.5
72.5°	1496.5	999.5	830.1	734.1	675.8	634.3	608.0	594.8
75°	828.2	675.8	596.7	542.1	504.5	476.2	459.3	448.0
77.5°	570.3	491.3	451.8	416.0	385.9	365.2	352.0	340.7
80°	399.1	359.5	342.6	323.8	301.2	284.2	265.4	257.9
82.5°	265.4	248.5	244.7	229.6	216.5	197.6	163.8	152.5
85°	156.2	154.4	154.4	148.7	139.3	122.4	97.9	97.9
87.5°	54.6	56.5	58.4	62.1	60.2	50.8	41.4	39.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)