

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: P196605

Luminaire Tested: **NAV-AF-03-D-UNV-SL3-7030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-SL3-7030-1200-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16314.6 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 191
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

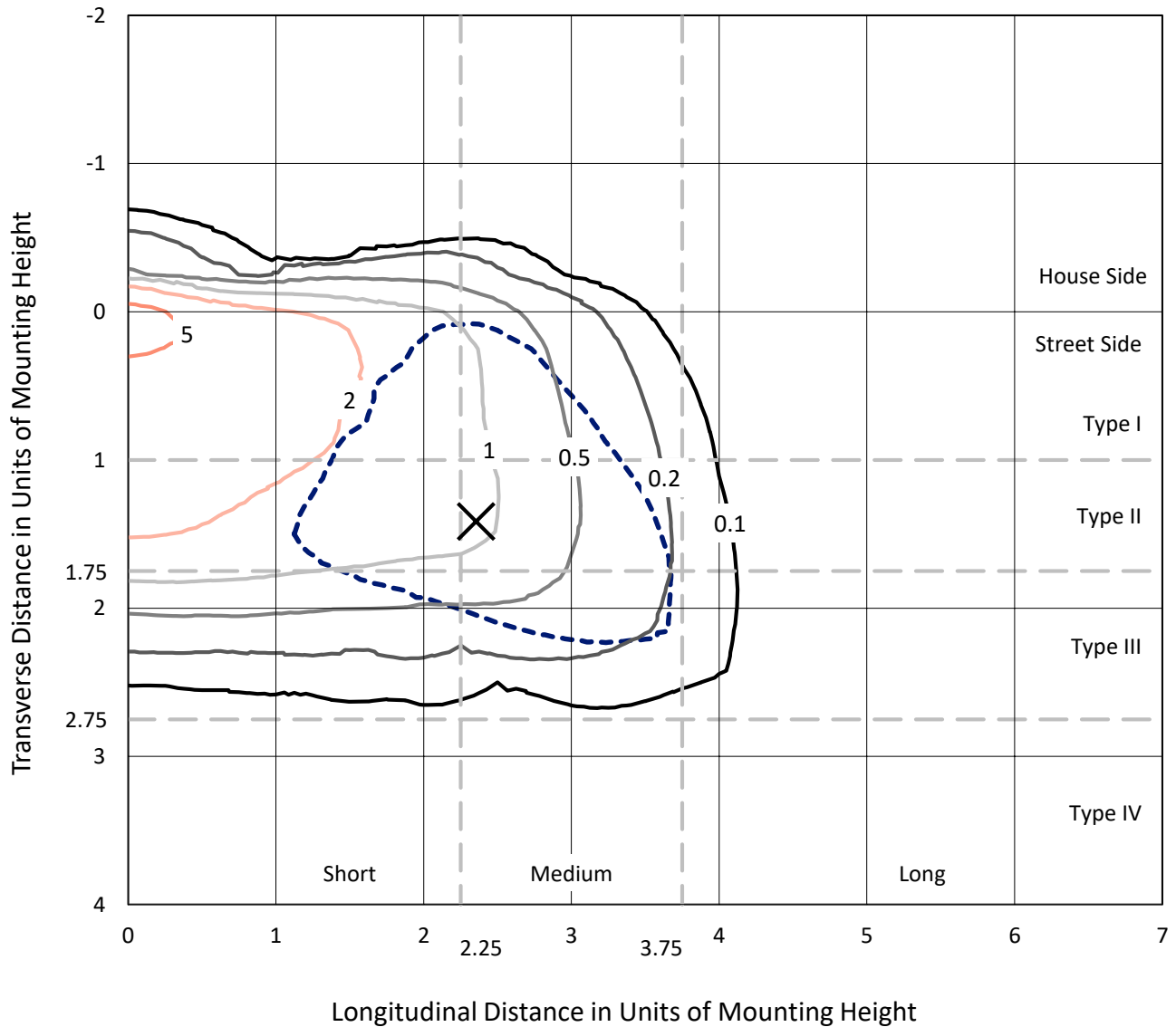


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

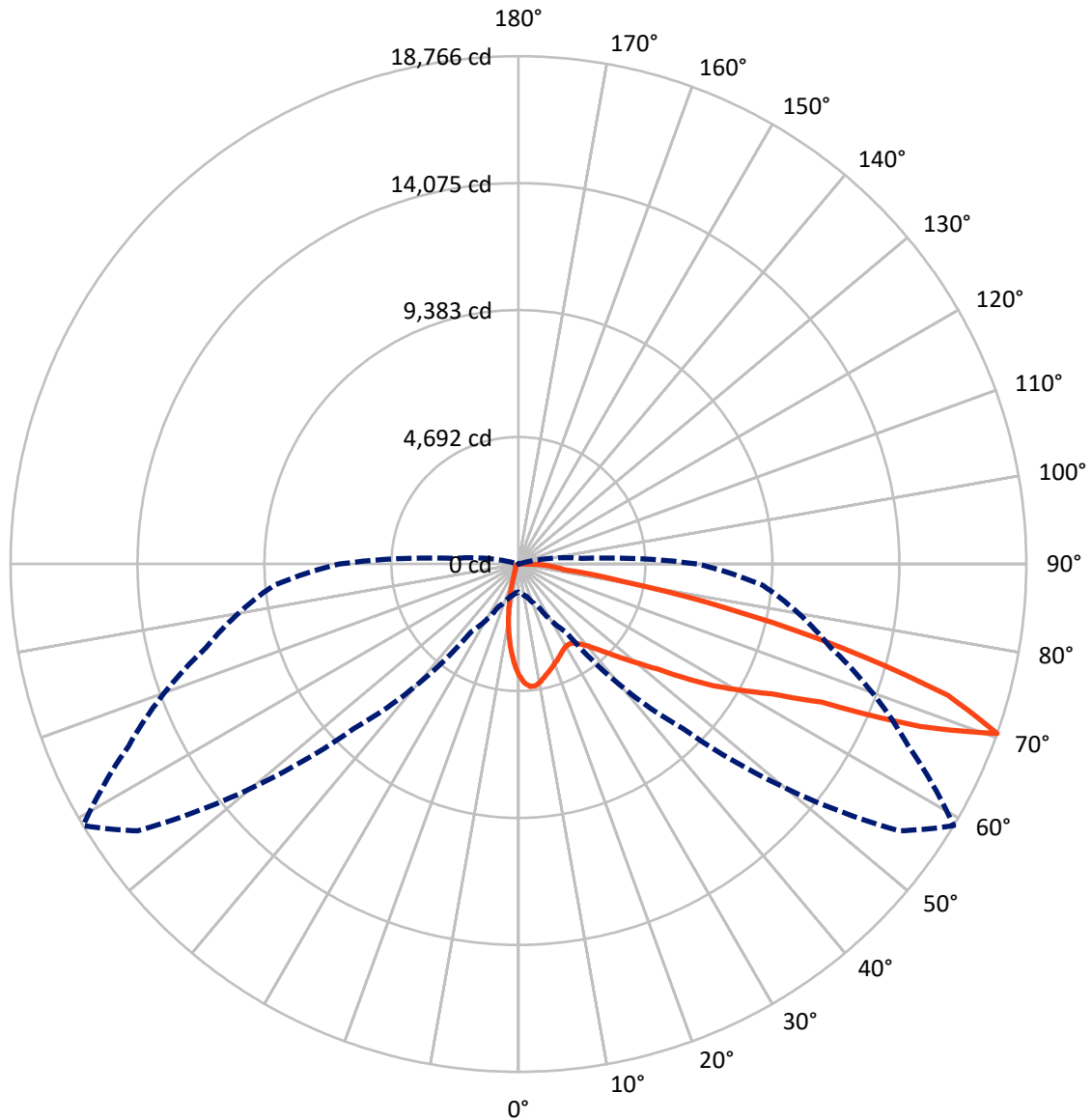


Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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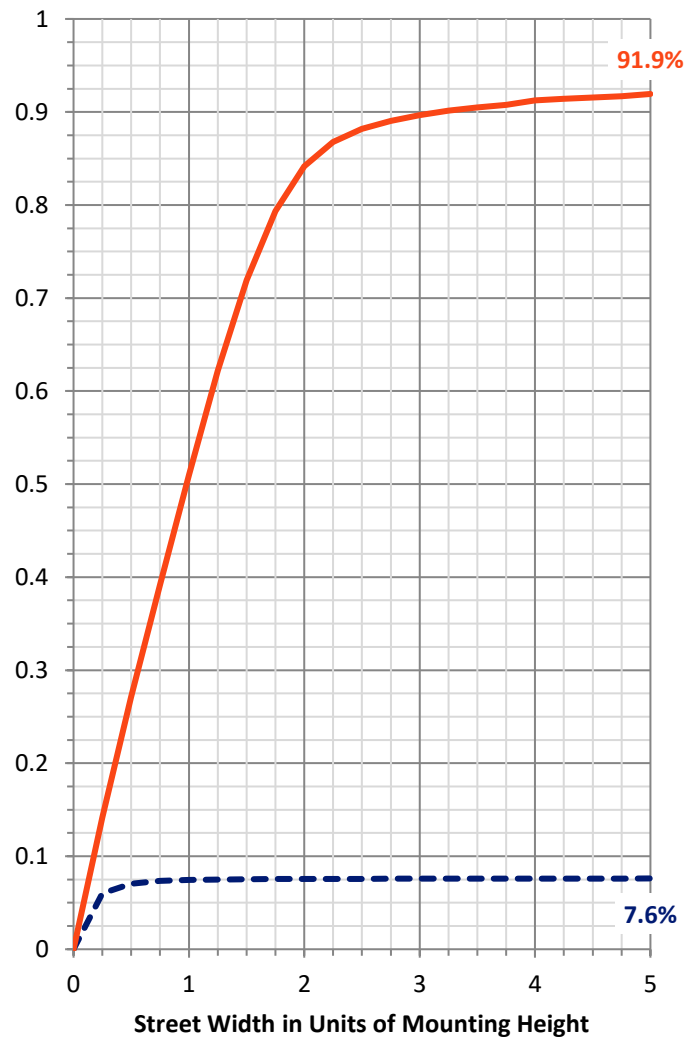
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1254.1	0.0	1254.1
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	15060.4	0.0	15060.4
	% Fixture	92.3	0.0	92.3
Total	Lumens	16314.6	0.0	16314.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.2	2.1
10°-20°	711.5	4.4
20°-30°	963.2	5.9
30°-40°	1390.0	8.5
40°-50°	2308.4	14.1
50°-60°	3531.0	21.6
60°-70°	4391.8	26.9
70°-80°	2427.7	14.9
80°-90°	251.7	1.5
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°	16314.6	100.0
0°-180°	16314.6	100.0



--- HS — SS

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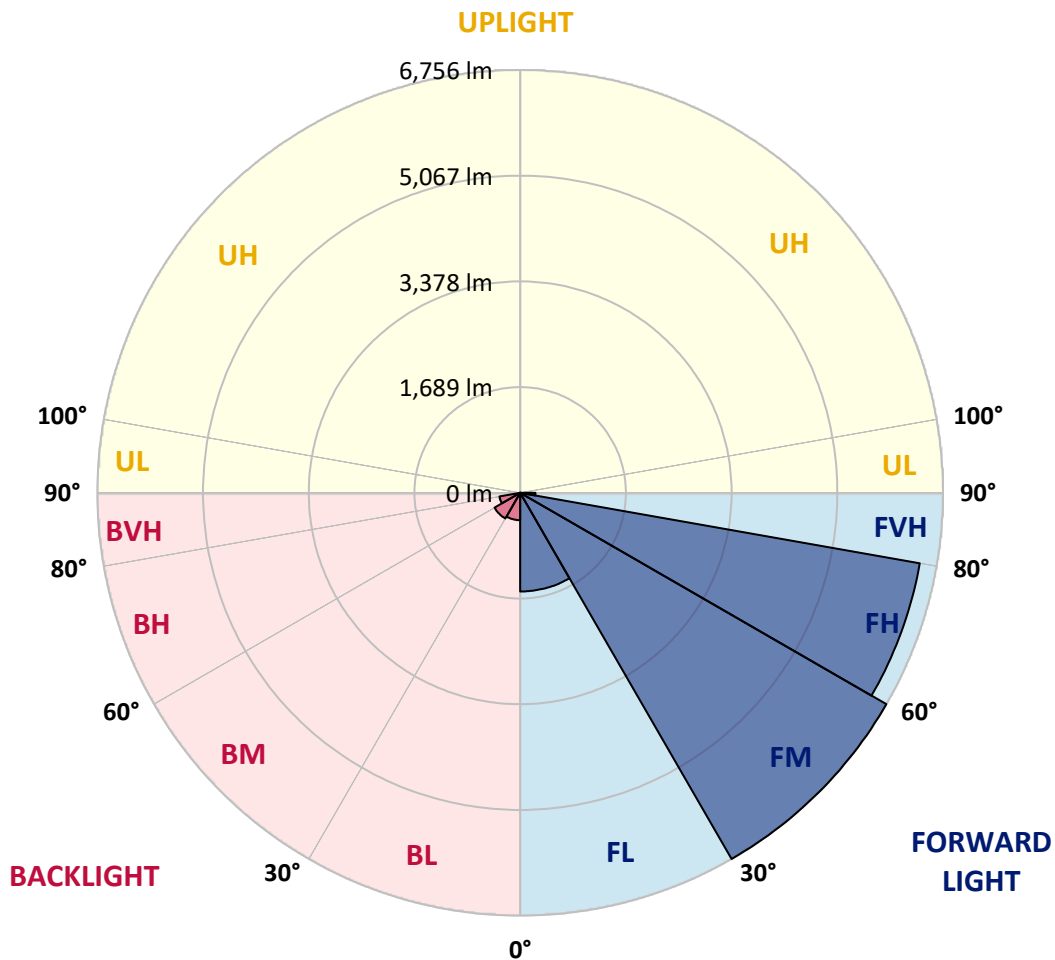
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1576.9	9.7			
FM	(30°-60°)	6756.0	41.4			
FH	(60°-80°)	6483.1	39.7			G3/7500
FVH	(80°-90°)	244.5	1.5			G3/500
BL	(0°-30°)	437.0	2.7	B1/500		
BM	(30°-60°)	473.4	2.9	B1/1000		
BH	(60°-80°)	336.4	2.1	B1/500		G1/500
BVH	(80°-90°)	7.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4
2.5°	4663.1	4655.9	4625.1	4618.9	4584.4	4515.4	4435.5	4403.4	4338.2	4234.9	4120.5
5°	4740.8	4744.5	4746.9	4733.3	4728.4	4671.8	4583.2	4545.0	4457.7	4287.9	4078.6
7.5°	4450.2	4460.2	4490.9	4504.4	4563.5	4585.6	4567.2	4542.6	4473.6	4273.0	3978.9
10°	4143.8	4162.3	4195.5	4217.6	4290.3	4349.4	4424.5	4430.6	4415.8	4223.9	3866.9
12.5°	3880.5	3897.8	3934.7	3978.9	4052.8	4129.0	4241.0	4280.4	4329.7	4191.8	3786.9
15°	3653.9	3659.0	3694.6	3750.0	3847.2	3951.8	4084.7	4142.6	4238.6	4179.5	3725.4
17.5°	3455.9	3457.1	3480.5	3530.9	3649.0	3786.9	3942.0	4018.3	4140.2	4162.3	3671.2
20°	3325.5	3324.2	3325.5	3352.5	3457.1	3620.8	3809.1	3889.1	4045.4	4141.4	3615.8
22.5°	3281.0	3274.9	3246.6	3236.8	3303.2	3447.2	3672.4	3777.1	3960.4	4135.3	3575.3
25°	3335.2	3331.6	3271.2	3214.6	3220.8	3310.7	3533.5	3661.4	3894.0	4157.5	3565.3
27.5°	3510.1	3502.7	3410.3	3299.5	3229.3	3245.4	3429.9	3564.1	3841.1	4211.5	3578.9
30°	3739.0	3740.2	3641.7	3507.6	3342.7	3251.5	3374.6	3501.4	3805.4	4292.8	3608.5
32.5°	3993.7	3992.5	3922.3	3767.3	3556.8	3364.7	3399.3	3506.3	3810.3	4412.1	3665.1
35°	4257.1	4243.5	4220.1	4083.6	3837.4	3563.0	3511.3	3590.0	3862.0	4569.7	3761.0
37.5°	4561.0	4556.1	4579.5	4435.5	4184.4	3854.6	3708.2	3761.0	3992.5	4802.3	3916.2
40°	5044.7	5017.6	5028.7	4833.1	4575.8	4247.2	3983.8	3997.4	4200.5	5109.9	4161.0
42.5°	5966.5	5857.0	5651.4	5284.8	5006.6	4682.9	4344.4	4321.1	4494.6	5482.8	4483.6
45°	7068.0	6942.5	6424.3	5783.2	5437.3	5150.6	4789.9	4727.2	4856.5	5927.1	4899.5
47.5°	7987.4	7852.0	7165.2	6303.7	5875.4	5633.0	5283.4	5209.6	5289.7	6442.8	5399.1
50°	8301.2	8226.1	7623.1	6736.9	6317.3	6174.6	5902.5	5779.5	5799.2	6999.1	5982.5
52.5°	8157.2	8131.4	7727.7	7033.6	6725.9	6772.7	6580.6	6451.4	6429.3	7607.0	6627.4
55°	7853.2	7840.9	7644.0	7198.4	7086.4	7320.4	7532.0	7420.1	7210.8	8253.2	7160.3
57.5°	7418.8	7465.5	7607.0	7516.1	7529.5	7898.8	8415.7	8473.5	8160.9	8767.6	7555.4
60°	6258.3	6383.7	7032.4	7857.0	8488.3	8861.2	9362.1	9470.4	8965.9	9119.7	8012.0
62.5°	4626.2	4806.0	5730.2	7245.2	9016.3	10691.2	10621.1	10573.1	9733.8	9591.0	8842.7
65°	2717.4	2927.9	3709.4	5661.3	8220.0	11867.8	12971.8	12307.2	10904.2	10570.7	10165.7
67.5°	1353.8	1355.1	1708.3	2988.2	6074.9	11046.9	16403.0	16019.0	13392.7	12014.2	10687.5
70°	1041.2	1069.5	1263.9	1736.5	3071.9	8603.9	17189.4	18766.1	15893.5	11950.3	9068.0
72.5°	882.4	900.9	1124.9	1511.3	2296.5	4723.5	14880.7	16587.6	15166.2	10096.8	6684.1
75°	635.1	649.9	995.7	1370.9	2114.3	2343.3	10207.5	12302.3	11379.3	7102.5	3678.6
77.5°	157.6	156.3	347.1	1112.6	1891.6	1951.9	5857.0	7888.9	6529.0	2908.2	945.2
80°	70.2	67.7	78.7	233.9	1759.9	1842.4	2575.9	3983.8	2504.5	471.4	289.2
82.5°	49.2	46.8	49.2	86.1	588.3	1709.5	1556.8	1726.8	916.9	161.2	123.0
85°	16.0	14.7	27.1	72.6	164.9	985.8	1518.7	1289.8	681.8	69.0	82.5
87.5°	2.5	2.5	9.9	39.4	48.0	328.7	891.0	893.5	306.5	40.7	36.9
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°	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4	4125.4
2.5°	4062.6	3990.0	3887.9	3785.8	3693.4	3598.7	3522.3	3486.7	3470.6	3448.4	3400.4
5°	3969.1	3837.4	3613.4	3393.0	3187.5	2990.7	2822.0	2726.0	2622.7	2617.8	2567.3
7.5°	3818.9	3631.9	3278.7	2936.5	2622.7	2322.5	2063.9	1896.5	1782.1	1710.7	1661.5
10°	3651.6	3411.5	2943.9	2462.7	2035.6	1634.4	1302.2	1085.5	953.9	887.4	849.2
12.5°	3518.5	3217.1	2614.0	2008.5	1473.2	1012.9	703.9	546.4	476.3	449.2	436.9
15°	3404.2	3038.6	2305.2	1602.4	983.4	582.2	407.3	355.6	344.6	344.6	343.4
17.5°	3288.4	2866.3	2004.8	1203.6	619.1	381.6	321.2	313.8	315.1	318.7	318.7
20°	3178.9	2702.6	1715.6	857.8	406.1	305.3	291.7	289.2	293.0	297.8	296.6
22.5°	3090.3	2558.7	1444.9	589.6	312.6	276.9	268.3	264.6	267.0	270.8	269.6
25°	3027.6	2435.6	1196.3	411.1	271.9	252.3	242.4	237.5	235.0	237.5	236.3
27.5°	2989.5	2332.2	962.5	308.8	243.6	227.7	215.3	205.5	199.4	199.4	196.8
30°	2964.8	2235.0	754.4	256.0	220.2	203.1	185.8	172.3	162.5	159.9	158.8
32.5°	2963.5	2151.4	563.7	226.5	198.2	178.4	157.6	140.3	129.3	126.7	125.5
35°	2994.4	2083.6	414.7	204.4	178.4	155.0	131.6	113.2	103.4	103.4	102.1
37.5°	3074.3	2044.2	313.8	187.1	162.5	135.4	110.8	93.5	84.9	87.4	87.4
40°	3223.2	2036.8	256.0	173.5	148.9	118.1	89.8	76.3	72.6	76.3	76.3
42.5°	3451.0	2076.3	227.7	163.7	136.6	100.9	75.1	65.2	64.0	67.7	67.7
45°	3747.6	2153.7	211.6	155.0	123.0	83.7	62.8	56.6	55.4	60.3	60.3
47.5°	4106.9	2258.4	196.8	145.2	109.6	69.0	52.9	48.0	48.0	52.9	54.2
50°	4532.7	2399.9	182.1	135.4	98.5	57.8	44.4	40.7	41.8	46.8	48.0
52.5°	5022.5	2573.4	168.6	126.7	86.1	46.8	36.9	34.4	35.7	40.7	41.8
55°	5444.7	2724.8	152.6	118.1	70.2	38.1	30.8	29.5	30.8	36.9	36.9
57.5°	5812.7	2870.0	137.8	104.6	55.4	30.8	24.6	24.6	27.1	33.3	34.4
60°	6301.3	3098.9	125.5	88.6	41.8	23.4	19.6	20.9	24.6	29.5	30.8
62.5°	7166.6	3487.9	109.6	73.9	30.8	18.5	16.0	17.3	22.2	28.3	29.5
65°	8249.5	3855.9	91.1	61.5	23.4	13.5	12.3	16.0	22.2	28.3	29.5
67.5°	8138.7	3353.7	71.3	49.2	17.3	11.0	9.9	14.7	20.9	28.3	29.5
70°	6600.4	2350.7	52.9	33.3	13.5	9.9	9.9	14.7	20.9	27.1	28.3
72.5°	4578.3	1308.3	40.7	22.2	12.3	9.9	8.6	13.5	19.6	27.1	28.3
75°	2178.4	401.2	32.0	16.0	11.0	8.6	7.4	13.5	19.6	27.1	28.3
77.5°	418.5	102.1	25.9	13.5	9.9	8.6	7.4	12.3	19.6	25.9	27.1
80°	141.5	45.6	20.9	12.3	9.9	8.6	7.4	12.3	18.5	24.6	25.9
82.5°	77.6	25.9	18.5	11.0	9.9	7.4	6.1	11.0	17.3	24.6	25.9
85°	60.3	18.5	14.7	11.0	9.9	7.4	6.1	11.0	17.3	23.4	24.6
87.5°	30.8	13.5	12.3	11.0	9.9	7.4	6.1	9.9	16.0	22.2	24.6
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)