

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: STREETWORKS

Report Number: P270980

Luminaire Tested: **NVN-AF-04-LED-U-AFL-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270980
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-04-LED-U-AFL-7027-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17790.3 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 225
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: 28.75 FT

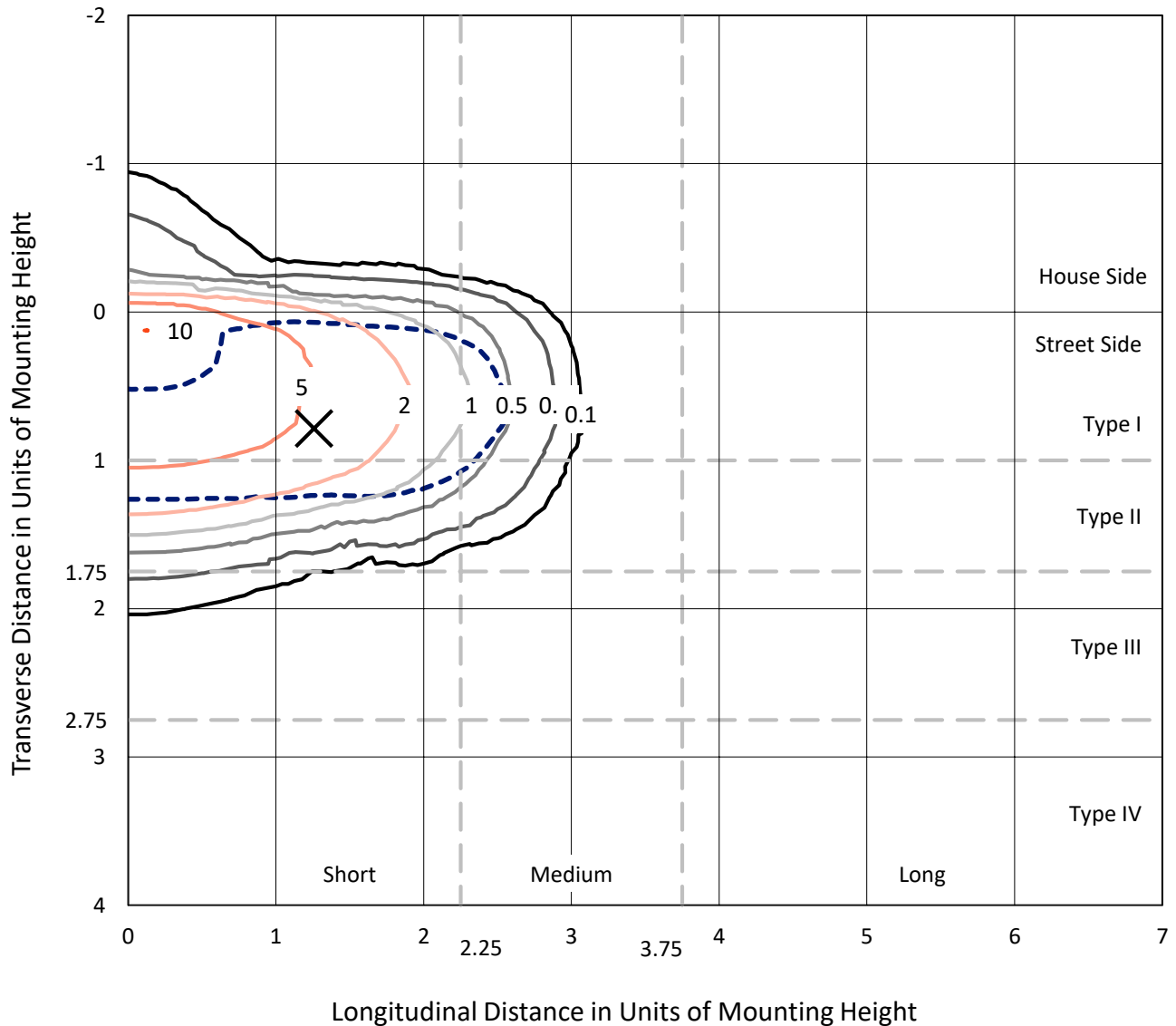


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Iso-Footcandle Lines of Horizontal Illumination

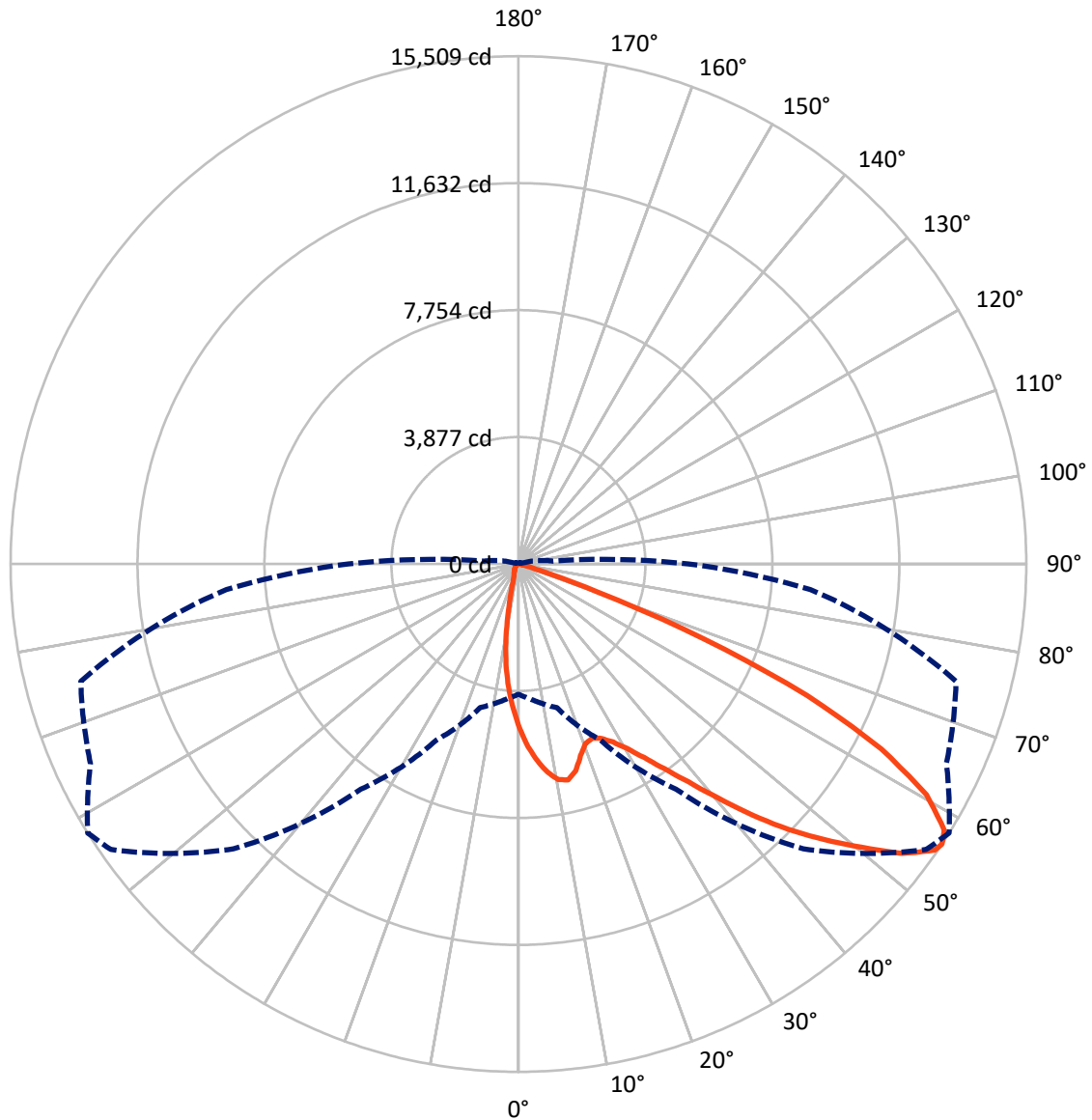
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 56-Deg Vertical

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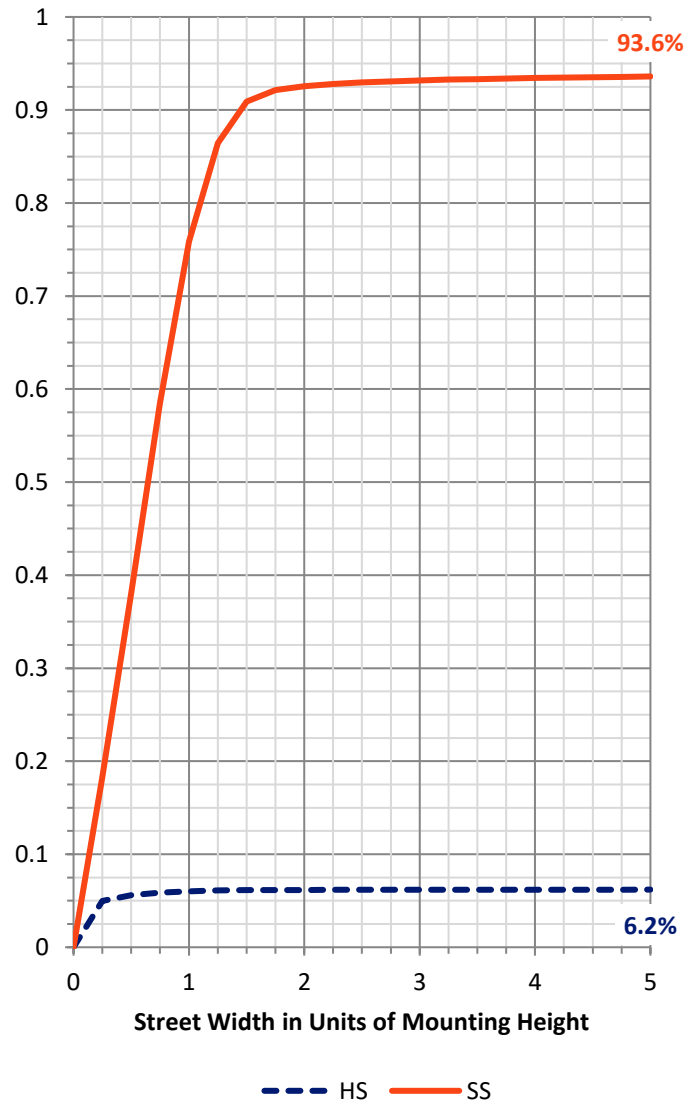
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1110.5	0.0	1110.5
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	16679.8	0.0	16679.8
	% Fixture	93.8	0.0	93.8
Total	Lumens	17790.3	0.0	17790.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	429.7	2.4
10°-20°	999.8	5.6
20°-30°	1682.3	9.5
30°-40°	2880.8	16.2
40°-50°	4347.2	24.4
50°-60°	4518.8	25.4
60°-70°	2536.8	14.3
70°-80°	347.7	2.0
80°-90°	47.1	0.3
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°	17790.3	100.0
0°-180°	17790.3	100.0

Coefficient of Utilization



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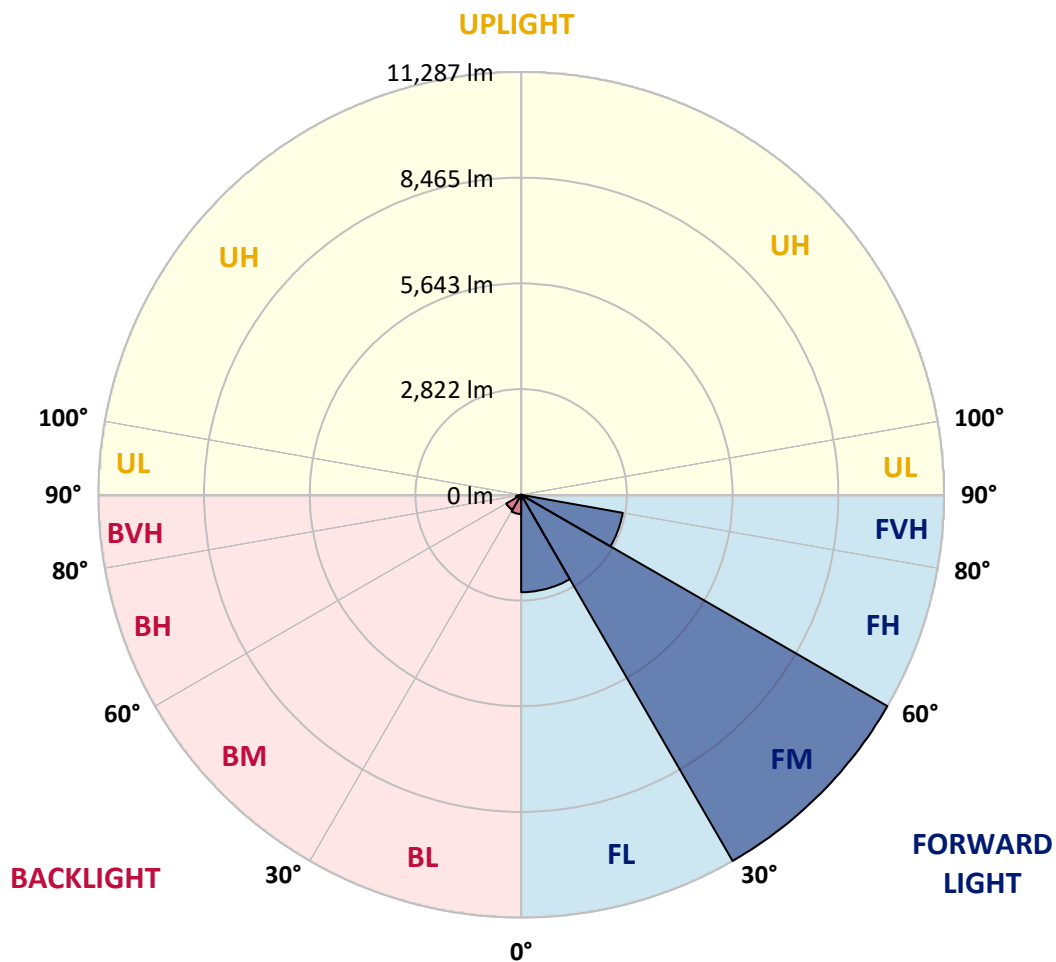
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2599.6	14.6			
FM	(30°-60°)	11286.9	63.4			
FH	(60°-80°)	2752.8	15.5			G2/5000
FVH	(80°-90°)	40.6	0.2			G1/100
BL	(0°-30°)	512.3	2.9	B2/1000		
BM	(30°-60°)	460.0	2.6	B1/1000		
BH	(60°-80°)	131.7	0.7	B1/500		G1/500
BVH	(80°-90°)	6.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9
2.5°	6060.3	6023.8	5985.8	5915.2	5850.0	5749.6	5611.2	5577.1	5468.6	5289.4	5122.4
5°	6583.0	6576.2	6550.4	6493.4	6422.8	6300.6	6144.5	6040.1	5871.7	5589.4	5267.8
7.5°	6273.6	6330.4	6424.1	6557.2	6646.7	6634.5	6515.0	6424.1	6257.2	5871.7	5410.2
10°	5288.1	5298.9	5427.9	5707.6	6149.9	6562.6	6718.8	6694.3	6540.9	6118.7	5535.1
12.5°	4940.6	4947.3	4977.2	5066.8	5354.5	5930.2	6637.2	6764.9	6752.6	6354.9	5668.1
15°	4967.7	4971.8	4979.9	5008.5	5089.9	5379.1	6224.6	6549.1	6888.4	6578.8	5798.4
17.5°	5182.2	5179.4	5153.8	5126.5	5152.4	5247.4	5803.9	6145.9	6859.8	6767.6	5905.6
20°	5600.3	5613.9	5527.0	5406.2	5343.7	5347.8	5596.3	5852.7	6699.6	6914.2	5985.8
22.5°	6188.0	6197.4	6054.9	5845.9	5662.6	5570.4	5639.6	5775.4	6515.0	7049.9	6051.0
25°	6889.7	6889.7	6690.1	6393.0	6109.3	5907.1	5847.2	5898.9	6444.5	7203.2	6116.0
27.5°	7647.1	7674.2	7413.6	7024.0	6649.4	6353.6	6166.2	6156.8	6498.8	7395.9	6189.3
30°	8470.9	8495.5	8186.0	7709.6	7265.8	6886.9	6599.3	6536.7	6706.4	7655.3	6296.6
32.5°	9290.8	9311.1	8969.0	8483.2	7966.1	7520.9	7142.2	7043.2	7079.7	8033.9	6454.1
35°	10333.3	10337.2	9904.4	9326.1	8773.7	8251.1	7772.0	7674.2	7633.4	8511.7	6680.6
37.5°	11162.5	11130.0	10855.7	10308.8	9674.9	9129.3	8566.0	8438.4	8340.7	9183.6	7032.2
40°	11358.0	11358.0	11317.2	11153.0	10649.4	10124.2	9578.5	9388.5	9172.8	9974.9	7504.6
42.5°	10849.0	10881.6	11150.3	11507.3	11511.4	11174.7	10641.3	10481.2	10101.1	10876.0	8020.3
45°	9710.1	9719.8	10364.5	11328.2	11982.3	12175.1	11781.5	11560.2	11033.6	11812.7	8492.7
47.5°	9300.3	9330.2	9604.3	10782.4	12017.6	12985.4	12875.4	12571.4	11896.9	12667.8	8933.9
50°	8670.5	8707.1	9042.3	9978.9	11700.1	13505.3	13921.9	13596.1	12682.7	13380.3	9152.3
52.5°	7164.0	7220.8	7694.6	8916.1	10906.1	13526.9	14880.2	14684.8	13487.6	13761.8	9126.6
55°	4929.8	4971.8	5524.2	6960.2	9304.4	12863.2	15292.8	15427.2	14205.5	13847.4	9001.6
56°	3976.9	4134.4	4538.9	5930.2	8392.2	12298.5	15197.9	15508.7	14418.8	13833.7	8947.4
57.5°	2629.1	2659.0	3100.1	4297.2	6739.1	11073.0	14768.9	15334.8	14692.9	13764.5	8908.0
60°	1236.4	1250.1	1408.9	1983.0	3647.1	8069.3	13375.0	14314.2	14793.4	13619.3	8906.6
62.5°	806.3	809.0	828.0	946.0	1491.6	4395.0	11087.9	12439.8	13961.3	13602.9	8881.0
65°	663.7	670.6	647.5	662.4	780.4	1657.3	7820.9	9698.0	12008.2	13220.1	8590.4
67.5°	584.9	586.4	555.2	537.5	571.4	727.4	3940.2	6117.4	8981.3	11233.1	7075.7
70°	533.5	532.1	496.8	456.1	457.3	483.2	1283.9	2540.9	4969.2	6669.8	4062.4
72.5°	473.6	476.5	456.1	399.0	380.1	342.1	483.2	685.4	1691.1	2141.7	1070.9
75°	415.3	409.8	389.5	352.9	317.6	229.3	242.9	291.8	441.1	437.0	230.8
77.5°	314.9	309.5	319.0	301.3	248.4	160.2	132.9	152.1	199.6	185.9	93.7
80°	240.2	237.5	217.2	258.0	226.6	120.8	91.0	93.7	108.5	99.2	46.2
82.5°	173.7	172.4	164.2	158.8	143.9	88.3	69.2	73.3	81.4	69.2	34.0
85°	66.6	66.6	128.9	108.5	99.2	59.6	48.9	52.9	62.4	50.2	23.0
87.5°	10.9	10.9	86.9	72.0	44.7	29.9	31.3	34.0	36.7	29.9	17.6
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°	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9	5036.9
2.5°	5023.4	4932.5	4732.9	4540.3	4372.0	4187.3	4093.7	3985.2	3944.4	3862.9	3871.1
5°	5075.0	4885.0	4484.6	4062.4	3675.5	3282.0	3002.3	2739.0	2592.5	2447.3	2447.3
7.5°	5128.0	4837.5	4218.5	3544.0	2892.5	2217.8	1740.0	1357.2	1144.3	1001.7	997.6
10°	5164.5	4776.4	3915.8	2942.7	1981.8	1142.9	689.4	542.9	489.9	466.8	465.5
12.5°	5212.1	4715.4	3571.1	2234.2	1100.8	542.9	430.3	407.2	397.7	392.3	392.3
15°	5252.7	4628.4	3153.1	1502.5	578.1	407.2	370.6	362.3	361.1	359.7	361.1
17.5°	5262.4	4504.9	2652.2	879.5	419.4	355.5	339.3	332.6	332.6	331.1	331.1
20°	5240.6	4342.0	2098.4	542.9	362.3	327.2	309.5	301.3	299.9	299.9	299.9
22.5°	5195.7	4134.4	1551.5	411.2	329.8	301.3	278.3	270.1	270.1	271.5	272.8
25°	5140.1	3888.8	1065.5	354.2	305.5	274.2	251.0	242.9	245.6	248.4	249.8
27.5°	5069.6	3595.6	697.7	306.7	272.8	247.0	226.6	221.3	226.6	232.1	234.7
30°	4999.0	3273.9	472.4	266.1	236.2	217.2	205.0	203.6	211.7	223.9	225.4
32.5°	4952.9	2944.0	356.9	238.9	207.7	191.3	185.9	188.6	201.0	214.4	217.2
35°	4948.8	2622.3	304.0	217.2	188.6	173.7	170.9	179.1	192.7	203.6	206.3
37.5°	5012.5	2321.0	275.5	201.0	173.7	158.8	154.8	169.7	181.8	192.7	195.4
40°	5141.4	2050.9	256.6	185.9	161.5	143.9	141.2	153.4	165.6	177.9	181.8
42.5°	5303.1	1798.4	234.7	170.9	148.0	127.6	124.9	134.3	146.7	164.2	166.9
45°	5442.8	1563.6	211.7	154.8	132.9	110.0	108.5	119.5	128.9	145.3	148.0
47.5°	5560.9	1368.2	190.0	137.1	114.1	97.7	96.4	101.8	107.3	122.2	124.9
50°	5498.4	1202.7	168.3	112.6	92.3	84.1	82.9	82.9	89.7	104.6	107.3
52.5°	5345.1	1099.4	148.0	93.7	75.9	72.0	67.8	69.2	75.9	82.9	84.1
55°	5221.6	1050.6	130.3	82.9	63.8	59.6	55.7	54.3	55.7	52.9	50.2
56°	5191.8	1045.1	126.2	80.0	61.1	55.7	50.2	47.5	46.2	40.8	39.3
57.5°	5178.1	1045.1	119.5	74.6	57.0	50.2	43.5	38.0	32.6	28.4	28.4
60°	5167.3	1051.9	111.3	65.1	48.9	40.8	31.3	23.0	19.0	19.0	19.0
62.5°	5144.2	1049.2	101.8	54.3	42.1	31.3	19.0	14.9	13.6	14.9	16.3
65°	4885.0	974.5	89.7	43.5	32.6	21.6	10.9	10.9	12.1	14.9	16.3
67.5°	3936.3	738.3	73.3	34.0	23.0	16.3	9.5	9.5	12.1	14.9	16.3
70°	2162.2	389.5	62.4	24.4	17.6	13.6	9.5	8.2	12.1	14.9	16.3
72.5°	528.1	163.0	57.0	19.0	16.3	12.1	8.2	8.2	12.1	14.9	16.3
75°	130.3	122.2	46.2	14.9	13.6	10.9	8.2	8.2	12.1	14.9	16.3
77.5°	61.1	161.5	31.3	13.6	12.1	9.5	8.2	8.2	12.1	14.9	14.9
80°	36.7	122.2	19.0	12.1	10.9	9.5	8.2	8.2	12.1	14.9	16.3
82.5°	21.6	35.4	13.6	12.1	10.9	8.2	8.2	8.2	12.1	14.9	16.3
85°	19.0	17.6	13.6	12.1	10.9	9.5	8.2	8.2	13.6	16.3	16.3
87.5°	14.9	13.6	12.1	10.9	10.9	9.5	8.2	8.2	12.1	14.9	16.3
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)