

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: P195522

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195522
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: LUMARK
Catalog Number: NAV-AF-06-D-UNV-AFL-7050-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5000K, 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: 30235 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - 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

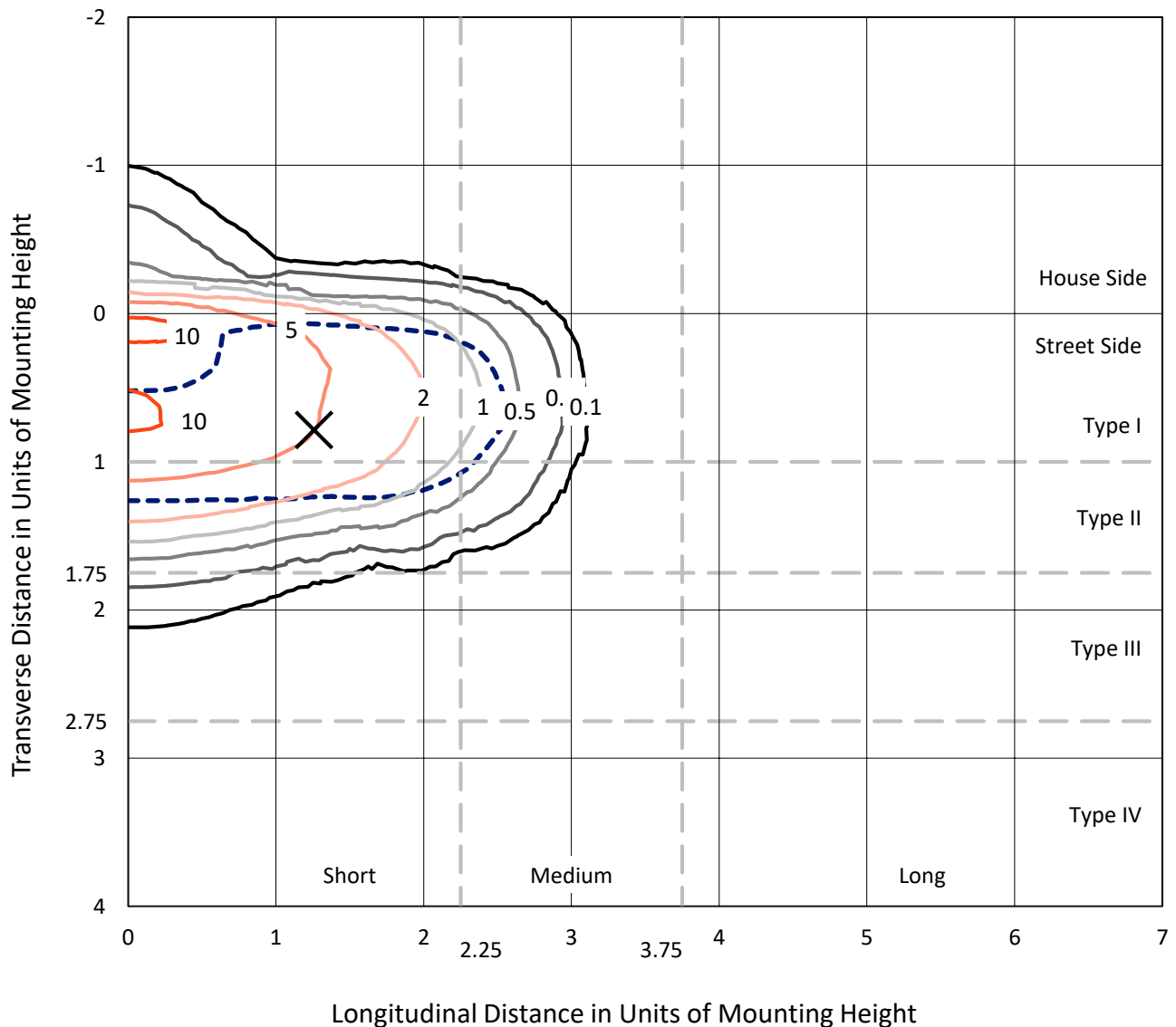


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

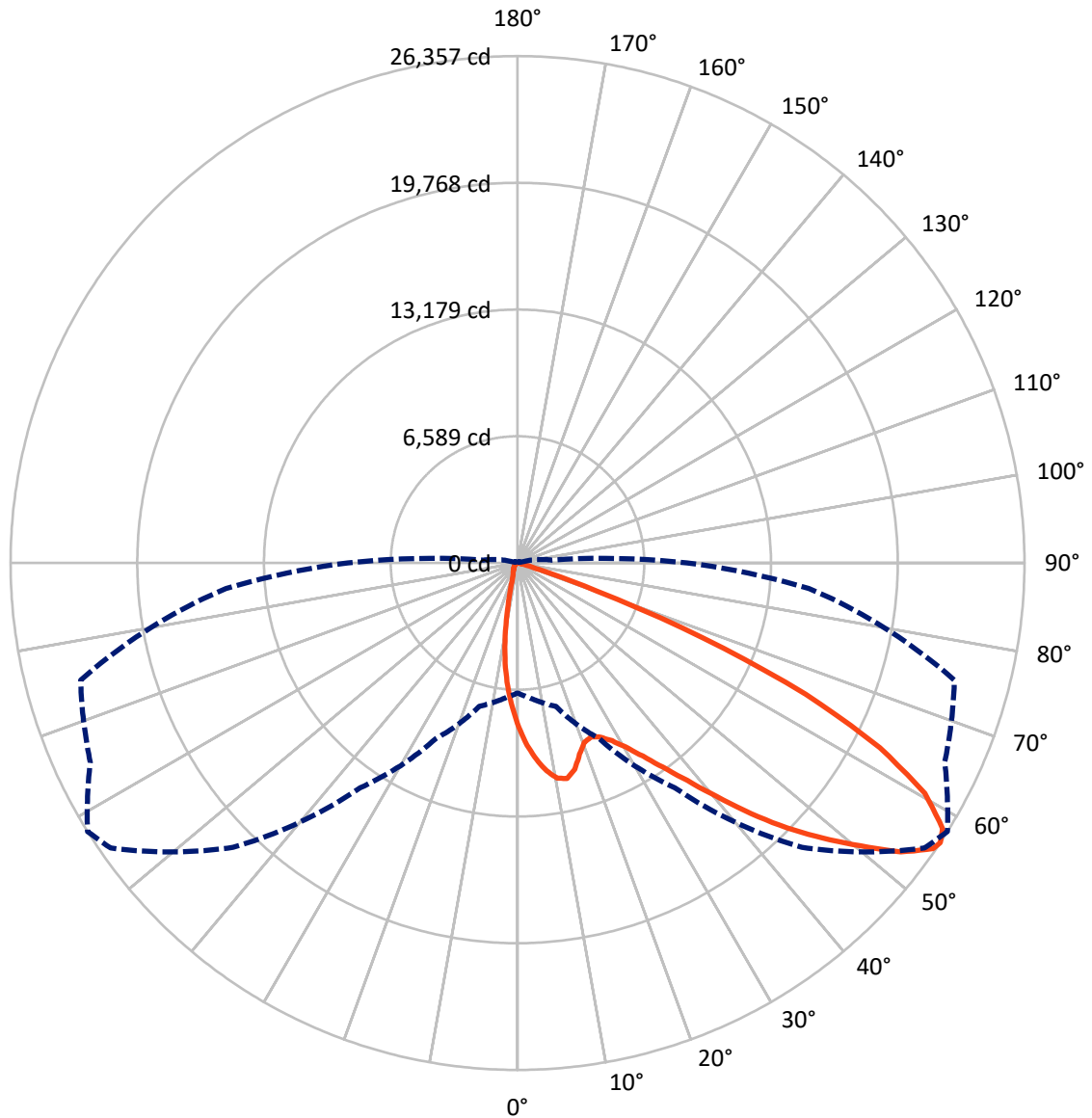


Based on 30 foot mounting height. Maximum calculated value = 11.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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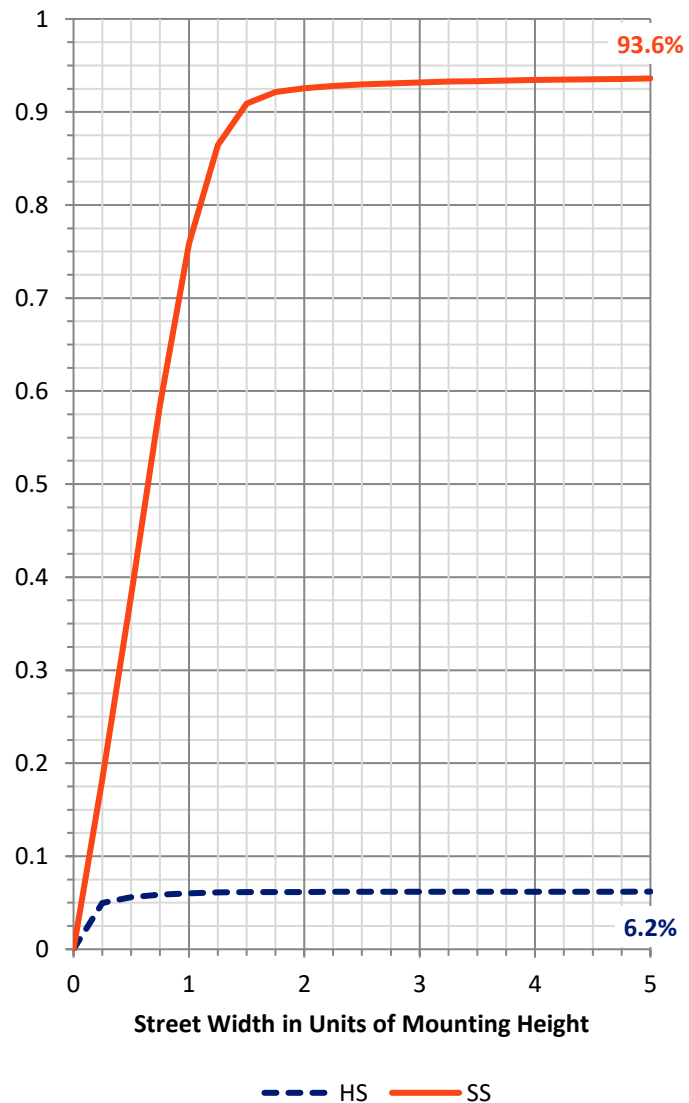
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1887.3	0.0	1887.3
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	28347.7	0.0	28347.7
	% Fixture	93.8	0.0	93.8
Total	Lumens	30235.0	0.0	30235.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	730.3	2.4
10°-20°	1699.2	5.6
20°-30°	2859.2	9.5
30°-40°	4896.1	16.2
40°-50°	7388.2	24.4
50°-60°	7679.8	25.4
60°-70°	4311.3	14.3
70°-80°	590.9	2.0
80°-90°	80.1	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°	30235.0	100.0
0°-180°	30235.0	100.0

Coefficient of Utilization



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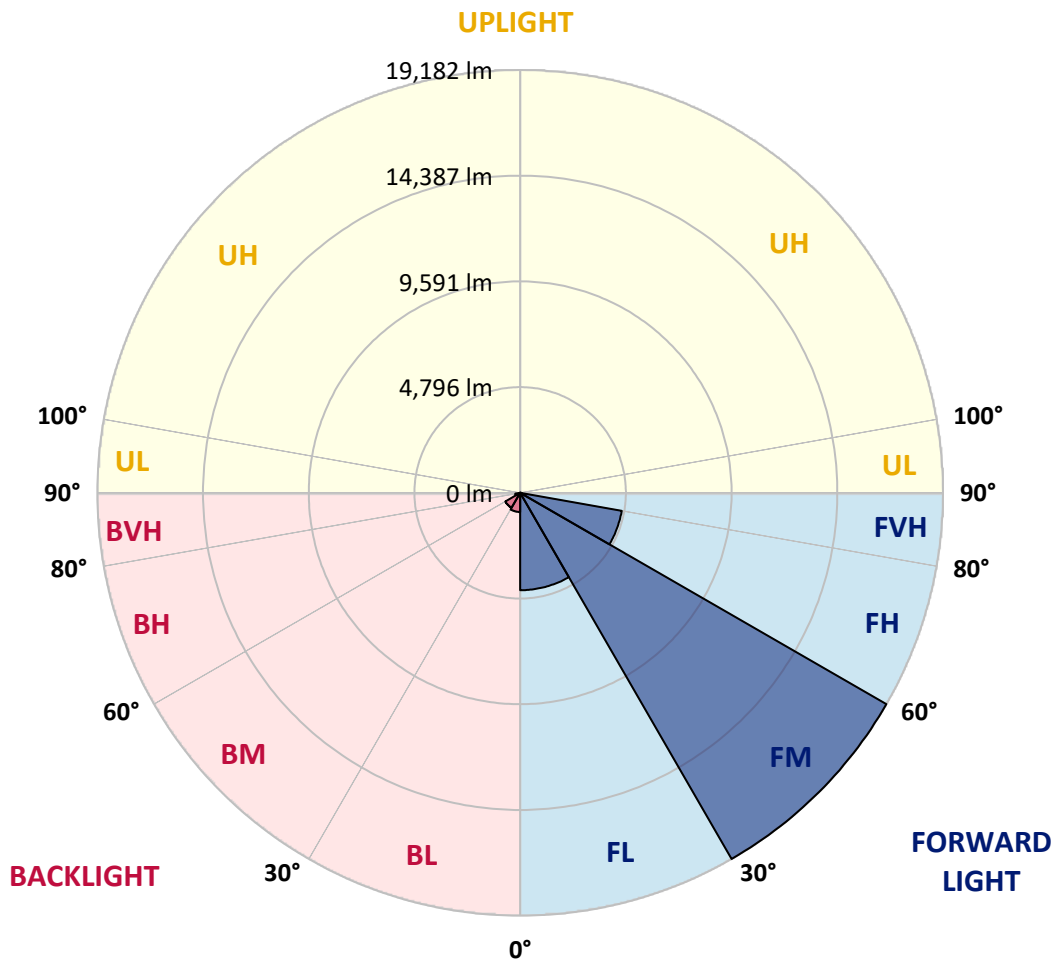
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4418.0	14.6			
FM	(30°-60°)	19182.3	63.4			
FH	(60°-80°)	4678.4	15.5			G2/5000
FVH	(80°-90°)	69.0	0.2			G1/100
BL	(0°-30°)	870.6	2.9	B2/1000		
BM	(30°-60°)	781.8	2.6	B1/1000		
BH	(60°-80°)	223.9	0.7	B1/500		G1/500
BVH	(80°-90°)	11.1	0.0			G1/100
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°	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4
2.5°	10299.8	10237.5	10172.9	10052.9	9942.2	9771.5	9536.2	9478.5	9294.0	8989.5	8705.8
5°	11187.9	11176.3	11132.5	11035.6	10915.7	10708.1	10442.8	10265.1	9979.1	9499.3	8952.6
7.5°	10661.9	10758.8	10918.0	11144.0	11296.3	11275.5	11072.5	10918.0	10634.2	9979.1	9194.8
10°	8987.2	9005.7	9224.8	9700.0	10452.0	11153.3	11418.5	11377.0	11116.4	10398.9	9407.0
12.5°	8396.7	8408.2	8458.9	8611.2	9100.2	10078.3	11280.1	11497.0	11476.2	10800.3	9633.1
15°	8442.8	8449.7	8463.6	8512.0	8650.4	9141.8	10578.9	11130.2	11706.9	11180.9	9854.5
17.5°	8807.3	8802.7	8758.8	8712.7	8756.5	8918.0	9863.8	10445.1	11658.4	11501.6	10036.8
20°	9517.8	9540.8	9393.2	9187.9	9081.8	9088.7	9510.8	9946.8	11386.2	11750.7	10172.9
22.5°	10516.6	10532.7	10290.5	9935.3	9623.9	9467.0	9584.7	9815.3	11072.5	11981.4	10283.6
25°	11709.2	11709.2	11370.1	10864.9	10382.8	10039.1	9937.6	10025.2	10952.6	12242.1	10394.3
27.5°	12996.4	13042.5	12599.6	11937.6	11300.9	10798.0	10479.7	10463.5	11044.8	12569.6	10518.9
30°	14396.6	14438.1	13912.2	13102.5	12348.2	11704.6	11215.5	11109.4	11397.8	13010.2	10701.1
32.5°	15789.9	15824.5	15243.2	14417.3	13538.5	12781.8	12138.3	11969.9	12032.1	13653.8	10968.7
35°	17561.5	17568.4	16832.5	15849.9	14911.0	14022.9	13208.6	13042.5	12973.3	14465.8	11353.9
37.5°	18970.9	18915.6	18449.6	17520.0	16442.7	15515.4	14558.1	14341.2	14175.1	15607.6	11951.4
40°	19303.1	19303.1	19233.9	18954.8	18099.0	17206.2	16278.9	15956.0	15589.2	16952.5	12754.2
42.5°	18438.1	18493.4	18950.2	19556.8	19563.8	18991.7	18085.1	17812.9	17167.0	18484.2	13630.7
45°	16502.7	16518.8	17614.5	19252.3	20364.2	20691.8	20022.8	19646.8	18751.8	20075.9	14433.5
47.5°	15806.0	15856.8	16322.7	18325.0	20424.2	22068.9	21882.1	21365.4	20218.9	21529.1	15183.2
50°	14735.7	14798.0	15367.7	16959.4	19884.4	22952.4	23660.6	23107.0	21554.5	22740.2	15554.6
52.5°	12175.2	12272.0	13077.1	15153.2	18534.9	22989.3	25289.2	24957.0	22922.4	23388.4	15510.8
55°	8378.2	8449.7	9388.6	11829.1	15812.9	21861.3	25990.4	26218.8	24142.7	23533.7	15298.5
56°	6758.9	7026.4	7713.9	10078.3	14262.8	20901.7	25829.0	26357.2	24504.9	23510.7	15206.3
57.5°	4468.2	4519.0	5268.7	7303.3	11453.1	18818.7	25100.0	26061.9	24970.8	23393.0	15139.4
60°	2101.5	2124.5	2394.4	3370.2	6198.3	13713.8	22731.0	24327.3	25141.5	23146.2	15137.1
62.5°	1370.2	1374.8	1407.1	1607.8	2535.1	7469.3	18844.0	21141.6	23727.5	23118.5	15093.2
65°	1128.0	1139.5	1100.3	1125.7	1326.4	2816.6	13291.6	16481.9	20408.0	22468.0	14599.6
67.5°	994.2	996.5	943.5	913.5	971.2	1236.4	6696.6	10396.6	15263.9	19090.9	12025.2
70°	906.6	904.3	844.3	775.1	777.4	821.2	2182.2	4318.3	8445.1	11335.5	6904.2
72.5°	805.1	809.7	775.1	678.2	645.9	581.3	821.2	1164.9	2874.2	3640.1	1820.0
75°	705.9	696.6	662.0	599.8	539.8	389.8	412.9	496.0	749.7	742.8	392.2
77.5°	535.2	525.9	542.1	512.1	422.1	272.2	226.1	258.4	339.1	316.0	159.2
80°	408.3	403.7	369.1	438.3	385.2	205.3	154.6	159.2	184.5	168.4	78.4
82.5°	295.3	293.0	279.1	269.9	244.5	149.9	117.6	124.6	138.4	117.6	57.7
85°	113.0	113.0	219.1	184.5	168.4	101.5	83.0	90.0	106.1	85.4	39.2
87.5°	18.5	18.5	147.6	122.3	76.1	50.7	53.1	57.7	62.3	50.7	30.0
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°	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4	8560.4
2.5°	8537.4	8382.8	8043.7	7716.2	7430.1	7116.4	6957.2	6772.7	6703.5	6565.1	6578.9
5°	8625.0	8302.1	7621.6	6904.2	6246.7	5577.8	5102.6	4655.1	4405.9	4159.1	4159.1
7.5°	8715.0	8221.3	7169.5	6023.0	4915.7	3769.3	2957.3	2306.8	1944.6	1702.4	1695.5
10°	8777.3	8117.5	6655.0	5001.1	3367.9	1942.3	1171.8	922.7	832.7	793.5	791.2
12.5°	8858.0	8013.7	6069.1	3797.0	1870.8	922.7	731.2	692.0	675.9	666.7	666.7
15°	8927.2	7866.1	5358.6	2553.6	982.7	692.0	629.7	615.9	613.6	611.3	613.6
17.5°	8943.4	7656.2	4507.4	1494.8	712.8	604.4	576.7	565.2	565.2	562.9	562.9
20°	8906.5	7379.4	3566.3	922.7	615.9	555.9	525.9	512.1	509.8	509.8	509.8
22.5°	8830.3	7026.4	2636.6	699.0	560.5	512.1	472.9	459.0	459.0	461.4	463.7
25°	8735.8	6608.9	1810.8	602.1	519.0	466.0	426.8	412.9	417.5	422.1	424.4
27.5°	8615.8	6110.6	1185.7	521.3	463.7	419.8	385.2	376.0	385.2	394.5	399.1
30°	8495.9	5563.9	802.8	452.1	401.4	369.1	348.3	346.0	359.9	380.6	382.9
32.5°	8417.4	5003.4	606.7	406.0	352.9	325.3	316.0	320.6	341.4	364.5	369.1
35°	8410.5	4456.7	516.7	369.1	320.6	295.3	290.7	304.5	327.6	346.0	350.6
37.5°	8518.9	3944.6	468.3	341.4	295.3	269.9	263.0	288.3	309.1	327.6	332.2
40°	8738.1	3485.5	436.0	316.0	274.5	244.5	239.9	260.7	281.4	302.2	309.1
42.5°	9012.6	3056.5	399.1	290.7	251.4	216.8	212.2	228.4	249.1	279.1	283.7
45°	9250.2	2657.4	359.9	263.0	226.1	186.8	184.5	203.0	219.1	246.8	251.4
47.5°	9450.9	2325.2	322.9	233.0	193.8	166.1	163.8	173.0	182.2	207.6	212.2
50°	9344.7	2043.8	286.0	191.5	156.9	143.0	140.7	140.7	152.2	177.6	182.2
52.5°	9084.1	1868.5	251.4	159.2	129.2	122.3	115.3	117.6	129.2	140.7	143.0
55°	8874.2	1785.4	221.5	140.7	108.4	101.5	94.6	92.3	94.6	90.0	85.4
56°	8823.4	1776.2	214.5	136.1	103.8	94.6	85.4	80.7	78.4	69.2	66.9
57.5°	8800.3	1776.2	203.0	126.9	96.9	85.4	73.8	64.6	55.4	48.4	48.4
60°	8781.9	1787.8	189.2	110.7	83.0	69.2	53.1	39.2	32.3	32.3	32.3
62.5°	8742.7	1783.1	173.0	92.3	71.5	53.1	32.3	25.4	23.1	25.4	27.7
65°	8302.1	1656.3	152.2	73.8	55.4	36.9	18.5	18.5	20.8	25.4	27.7
67.5°	6689.6	1254.9	124.6	57.7	39.2	27.7	16.1	16.1	20.8	25.4	27.7
70°	3674.7	662.0	106.1	41.5	30.0	23.1	16.1	13.8	20.8	25.4	27.7
72.5°	897.3	276.8	96.9	32.3	27.7	20.8	13.8	13.8	20.8	25.4	27.7
75°	221.5	207.6	78.4	25.4	23.1	18.5	13.8	13.8	20.8	25.4	27.7
77.5°	103.8	274.5	53.1	23.1	20.8	16.1	13.8	13.8	20.8	25.4	25.4
80°	62.3	207.6	32.3	20.8	18.5	16.1	13.8	13.8	20.8	25.4	27.7
82.5°	36.9	60.0	23.1	20.8	18.5	13.8	13.8	13.8	20.8	25.4	27.7
85°	32.3	30.0	23.1	20.8	18.5	16.1	13.8	13.8	23.1	27.7	27.7
87.5°	25.4	23.1	20.8	18.5	18.5	16.1	13.8	13.8	20.8	25.4	27.7
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)