

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: P459843

Luminaire Tested: **NAV-SA2A-AMB-U-SL2**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA2A-AMB-U-SL2
Description: NAVION AREA AND ROADWAY LUMINAIRE
(2) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2132 lumens
Efficiency: N/A
Efficacy: 51.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G1

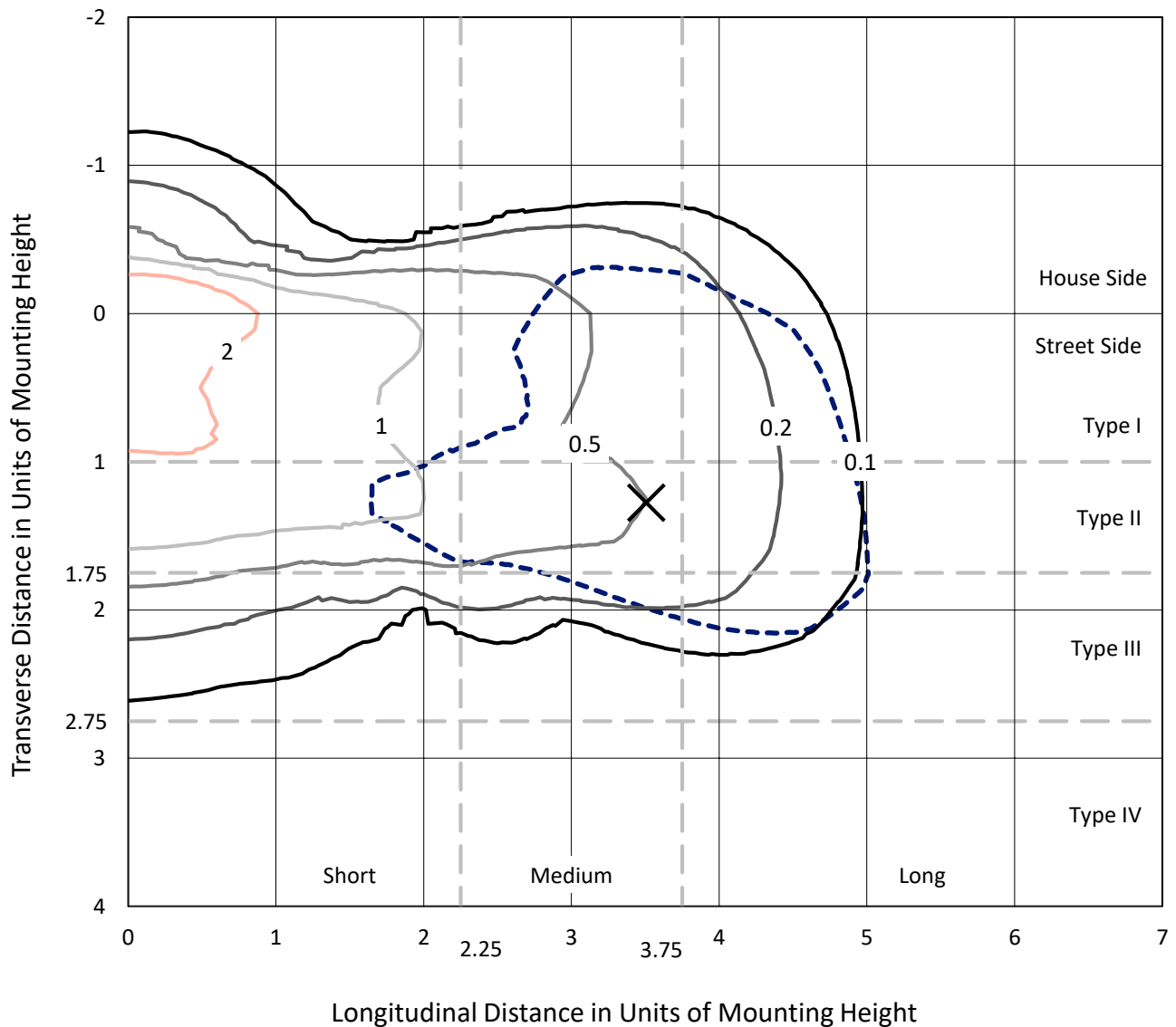
Input Watts (W): 41.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

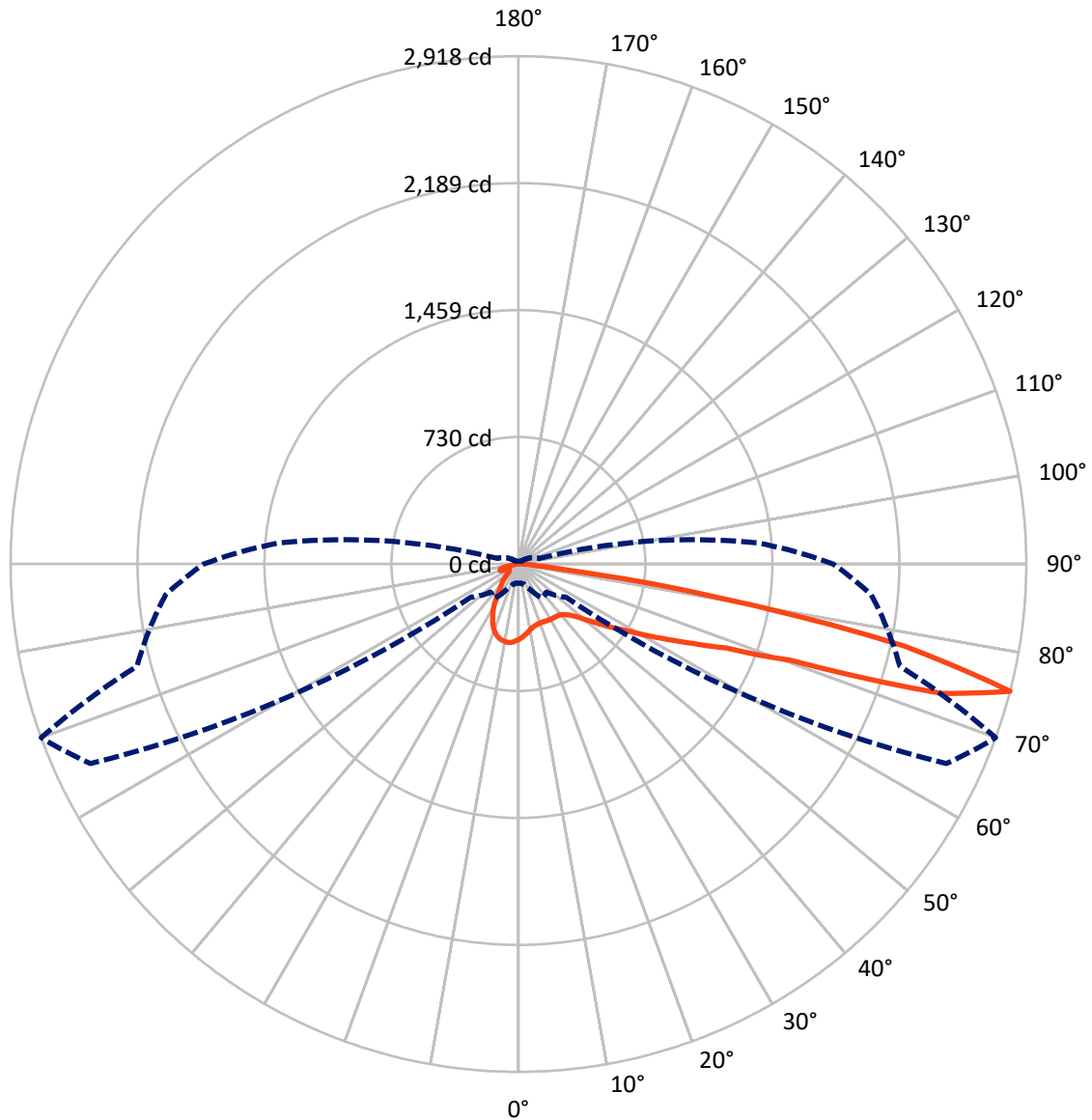


Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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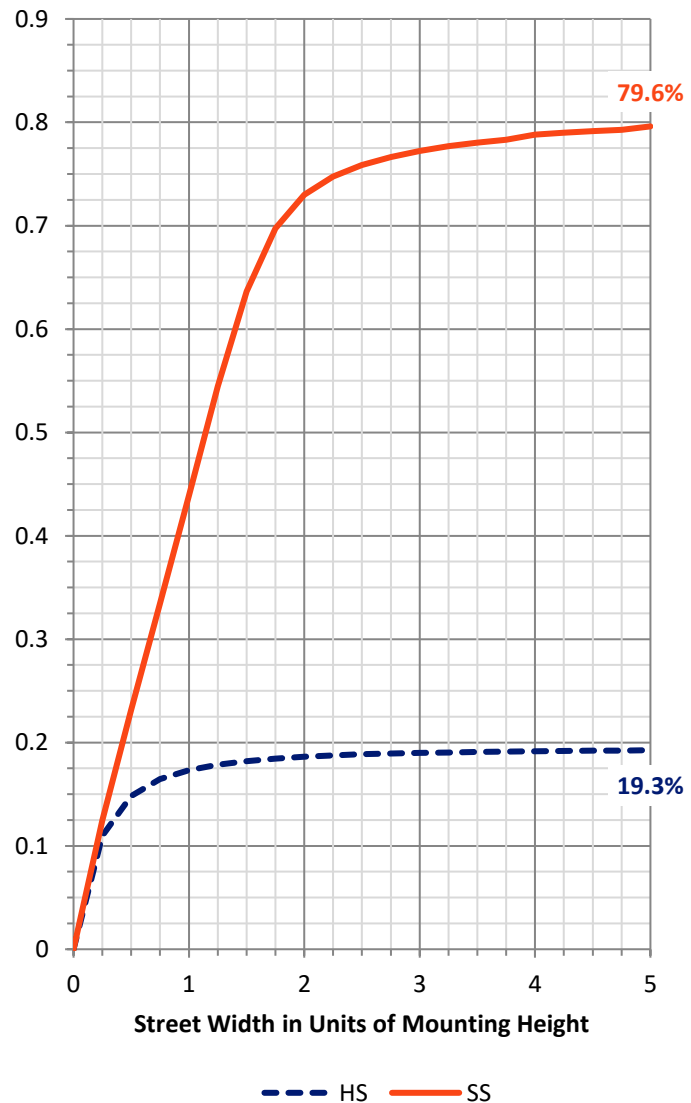
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	416.0	0.0	416.0
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	1716.0	0.0	1716.0
	% Fixture	80.5	0.0	80.5
Total	Lumens	2132.0	0.0	2132.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	1.8
10°-20°	95.4	4.5
20°-30°	128.3	6.0
30°-40°	168.8	7.9
40°-50°	240.8	11.3
50°-60°	375.0	17.6
60°-70°	489.6	23.0
70°-80°	520.3	24.4
80°-90°	74.5	3.5
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°	2132.0	100.0
0°-180°	2132.0	100.0

Coefficient of Utilization



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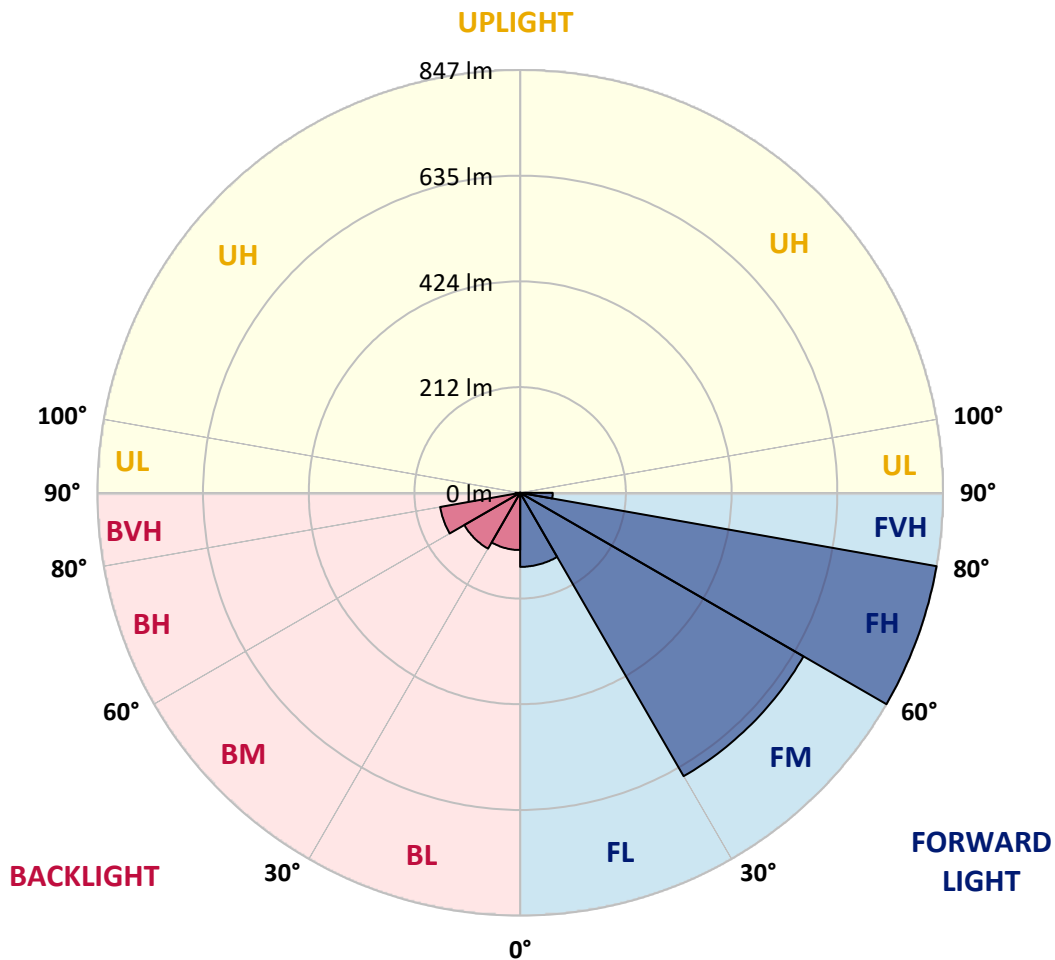
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	148.3	7.0			
FM (30°-60°)	655.4	30.7			
FH (60°-80°)	847.1	39.7			G1/1800
FVH (80°-90°)	65.1	3.1			G1/100
BL (0°-30°)	114.6	5.4	B1/500		
BM (30°-60°)	129.1	6.1	B0/220		
BH (60°-80°)	162.8	7.6	B1/500		G1/500
BVH (80°-90°)	9.4	0.4			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	406.3	406.3	409.1	409.1	412.7	413.6	417.3	419.1	420.9	423.7	429.2
5°	377.1	376.2	378.9	383.5	388.1	392.6	399.0	405.4	408.2	412.7	421.9
7.5°	355.2	355.2	357.0	359.8	366.2	371.6	381.7	389.0	395.4	401.8	414.5
10°	338.8	338.8	340.6	343.3	349.7	354.3	363.4	376.2	381.7	390.8	407.2
12.5°	323.2	325.1	326.0	329.6	334.2	340.6	349.7	363.4	372.5	383.5	405.4
15°	315.9	315.9	316.8	319.6	324.2	330.5	341.5	356.1	366.2	378.9	406.3
17.5°	314.1	313.2	312.3	313.2	317.8	324.2	335.1	351.5	362.5	377.1	410.9
20°	315.0	314.1	313.2	311.4	313.2	319.6	333.3	349.7	360.7	376.2	418.2
22.5°	319.6	319.6	317.8	314.1	313.2	317.8	332.4	349.7	361.6	377.1	425.5
25°	332.4	331.5	329.6	322.3	316.8	318.7	332.4	351.5	363.4	378.9	431.9
27.5°	346.1	346.1	344.2	337.8	326.9	322.3	334.2	354.3	366.2	380.8	439.2
30°	368.0	367.1	365.2	357.9	344.2	329.6	337.8	357.0	368.0	381.7	445.6
32.5°	394.5	394.5	395.4	386.2	366.2	342.4	341.5	358.8	368.9	382.6	452.9
35°	425.5	426.4	429.2	421.9	397.2	361.6	350.6	363.4	370.7	383.5	460.2
37.5°	448.3	449.2	459.3	461.1	431.9	387.2	365.2	372.5	374.4	385.3	467.5
40°	474.8	474.8	489.4	500.4	481.2	422.8	385.3	383.5	382.6	392.6	476.6
42.5°	504.0	507.7	520.5	538.7	530.5	463.9	413.6	402.7	398.1	405.4	491.2
45°	531.4	533.3	557.0	578.0	578.9	519.6	453.8	432.8	420.0	428.2	517.7
47.5°	561.6	564.3	593.5	627.3	633.7	578.9	499.5	470.2	453.8	462.0	556.1
50°	605.4	610.0	634.6	675.7	693.0	649.2	557.9	522.3	504.0	507.7	610.0
52.5°	675.7	674.8	686.7	726.8	768.8	726.8	636.4	586.2	561.6	567.0	679.3
55°	717.7	716.8	733.2	777.0	853.7	824.5	723.2	662.0	639.2	636.4	759.7
57.5°	680.3	682.1	710.4	778.9	911.3	977.0	818.1	754.2	715.0	719.5	857.4
60°	568.9	557.9	589.9	683.0	893.9	1147.8	953.3	865.6	824.5	816.3	980.7
62.5°	383.5	387.2	408.2	468.4	765.2	1194.3	1298.4	1004.4	947.8	933.2	1096.6
65°	288.5	287.6	288.5	298.6	414.5	1150.5	1655.4	1188.9	1100.3	1051.9	1219.0
67.5°	241.1	238.3	237.4	260.2	258.4	724.1	1774.2	1608.0	1287.5	1185.2	1337.7
70°	204.5	199.1	197.2	233.8	240.1	256.6	1760.5	2387.8	1653.6	1371.5	1494.7
72.5°	155.2	154.3	158.0	199.1	236.5	224.6	1060.1	2729.3	2543.0	1731.2	1818.9
75°	110.5	109.6	119.6	161.6	240.1	228.3	331.5	2712.8	2918.3	2269.1	2035.3
77.5°	73.0	72.1	81.3	116.0	225.5	229.2	216.4	1964.1	2269.1	2125.7	1668.2
80°	48.4	46.6	53.0	80.4	180.8	245.6	211.8	972.5	1156.9	984.3	554.3
82.5°	28.3	27.4	33.8	55.7	118.7	242.9	213.7	305.9	250.2	127.8	69.4
85°	14.6	15.5	21.9	33.8	76.7	214.6	228.3	157.1	73.0	52.0	34.7
87.5°	4.6	6.4	11.9	18.3	42.9	147.9	202.7	121.4	53.0	33.8	19.2
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°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	431.0	433.7	439.2	445.6	452.0	454.7	458.4	459.3	461.1	462.0	461.1
5°	428.2	434.6	446.5	454.7	460.2	459.3	458.4	455.6	454.7	453.8	452.0
7.5°	422.8	433.7	451.1	458.4	454.7	443.8	434.6	423.7	420.0	415.5	414.5
10°	420.0	435.5	452.9	452.0	437.4	416.4	398.1	380.8	368.9	361.6	357.9
12.5°	422.8	441.9	456.5	440.1	414.5	382.6	350.6	324.2	297.7	288.5	284.0
15°	431.0	452.0	456.5	424.6	385.3	339.7	291.3	249.3	218.2	202.7	200.0
17.5°	441.0	460.2	450.2	405.4	351.5	285.8	228.3	174.4	150.7	144.3	143.4
20°	452.9	470.2	440.1	381.7	307.7	230.1	155.2	127.8	125.1	126.0	126.9
22.5°	462.9	474.8	423.7	349.7	255.7	154.3	108.7	103.2	108.7	116.0	117.8
25°	470.2	472.1	405.4	309.5	196.3	98.6	85.8	84.9	93.1	105.9	109.6
27.5°	474.8	462.9	380.8	266.6	120.5	76.7	70.3	73.0	79.4	88.6	90.4
30°	477.6	453.8	357.0	221.9	76.7	64.8	63.9	65.7	68.5	73.0	74.0
32.5°	478.5	444.7	331.5	165.3	64.8	59.4	59.4	61.2	62.1	64.8	64.8
35°	476.6	433.7	305.9	104.1	59.4	57.5	56.6	56.6	56.6	57.5	57.5
37.5°	472.1	422.8	275.8	69.4	56.6	54.8	53.9	53.9	53.0	53.0	53.0
40°	469.3	413.6	247.4	60.3	53.9	53.0	52.0	50.2	49.3	49.3	49.3
42.5°	472.1	409.1	212.8	57.5	52.0	51.1	49.3	47.5	47.5	47.5	47.5
45°	483.9	410.0	168.9	55.7	51.1	49.3	46.6	44.7	44.7	45.7	45.7
47.5°	506.8	418.2	130.6	53.9	49.3	47.5	43.8	42.9	42.9	42.9	42.9
50°	541.5	434.6	103.2	52.0	48.4	45.7	42.9	41.1	41.1	41.1	40.2
52.5°	590.8	464.8	81.3	51.1	47.5	44.7	41.1	39.3	38.4	38.4	37.4
55°	659.3	512.2	74.9	51.1	45.7	42.9	39.3	36.5	35.6	34.7	34.7
57.5°	750.6	579.8	74.0	50.2	42.9	40.2	36.5	33.8	32.9	32.9	32.0
60°	862.0	670.2	74.9	48.4	41.1	37.4	33.8	32.0	30.1	30.1	30.1
62.5°	987.1	768.8	74.9	47.5	40.2	35.6	32.0	29.2	28.3	27.4	27.4
65°	1114.0	889.4	80.4	46.6	38.4	32.0	29.2	27.4	25.6	25.6	25.6
67.5°	1253.7	1036.4	109.6	46.6	36.5	29.2	26.5	24.7	23.7	23.7	23.7
70°	1434.5	1279.3	166.2	58.4	37.4	27.4	23.7	22.8	21.9	21.9	21.9
72.5°	1806.1	1559.6	132.4	81.3	43.8	24.7	21.0	20.1	20.1	19.2	19.2
75°	1807.9	1383.3	126.0	86.7	47.5	22.8	19.2	18.3	17.3	17.3	17.3
77.5°	1336.8	903.1	107.7	67.6	41.1	20.1	17.3	16.4	15.5	15.5	15.5
80°	394.5	232.8	67.6	49.3	26.5	16.4	14.6	13.7	12.8	12.8	12.8
82.5°	67.6	61.2	31.0	26.5	16.4	12.8	11.9	11.0	10.0	10.0	10.0
85°	32.9	32.0	17.3	14.6	11.0	9.1	9.1	8.2	7.3	7.3	7.3
87.5°	20.1	18.3	12.8	8.2	6.4	4.6	5.5	4.6	4.6	3.7	3.7
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)