

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: P459835

Luminaire Tested: **NAV-SA1A-AMB-U-SL2**

Issue Date: 1/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459835  
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-SA1A-AMB-U-SL2  
Description: NAVION AREA AND ROADWAY LUMINAIRE  
(1) NARROW BAND AMBER, 500mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1141 lumens  
Efficiency: N/A  
Efficacy: 50.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B0 - U0 - G1

Input Watts (W): 22.6  
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

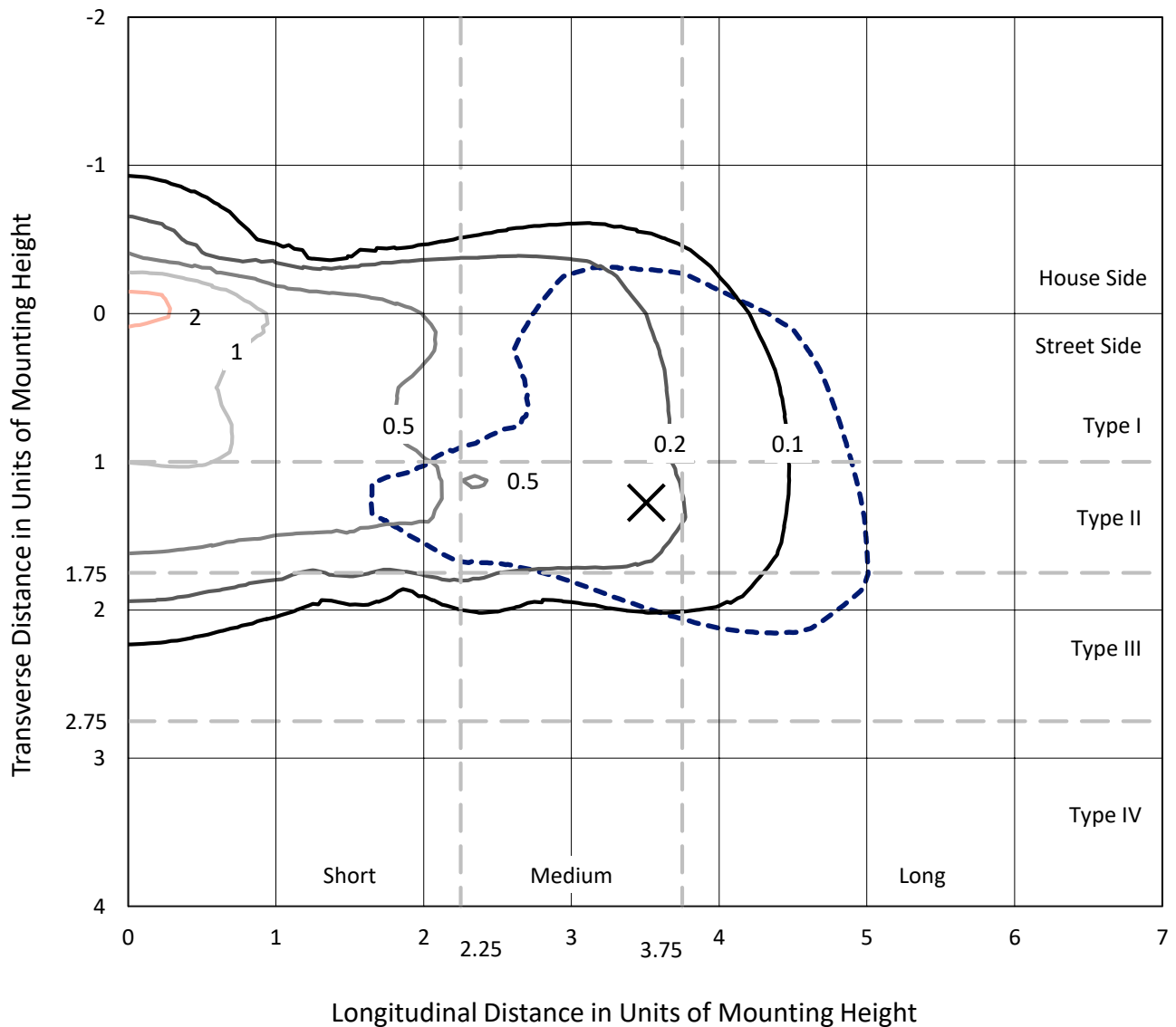


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

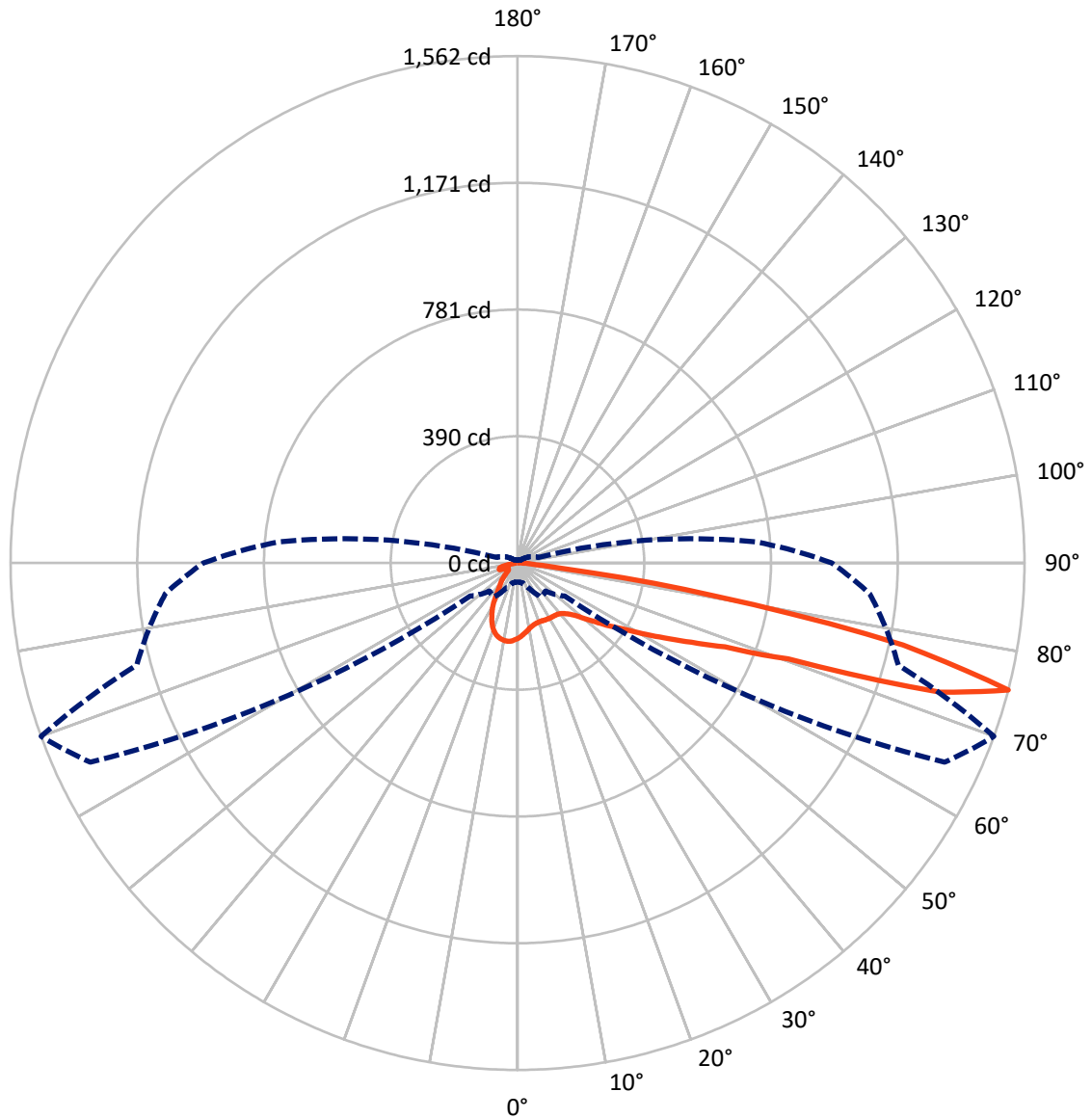


Based on 10 foot mounting height. Maximum calculated value = 2.3 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



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



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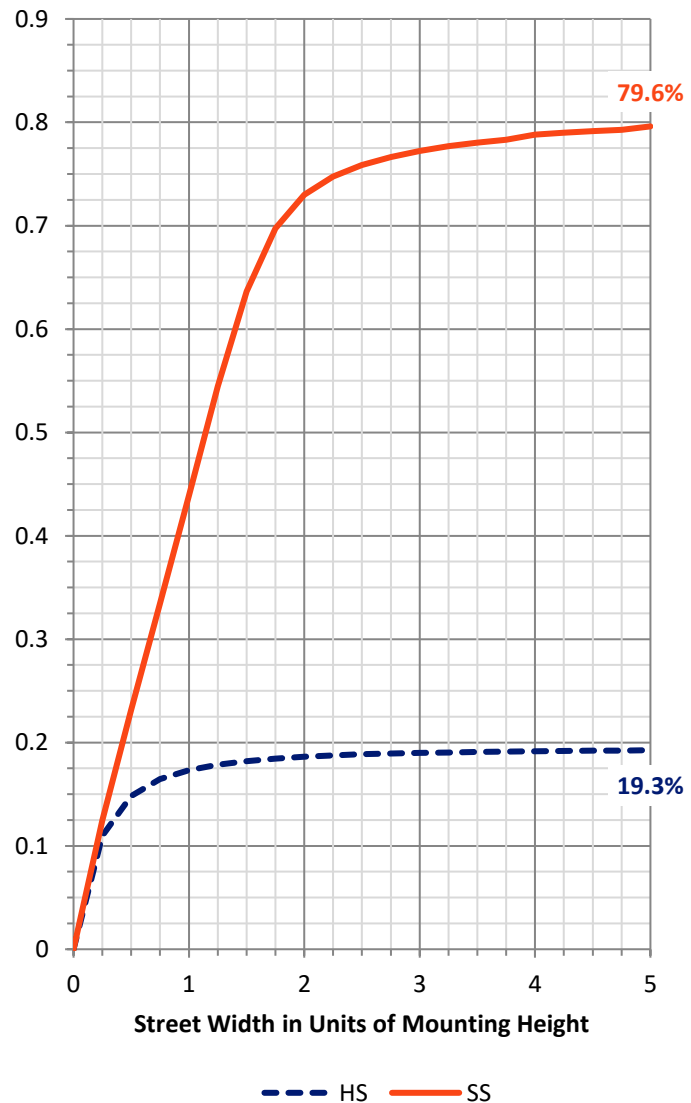
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	222.6	0.0	222.6
	% Fixture	19.5	0.0	19.5
<b>Street Side</b>	Lumens	918.4	0.0	918.4
	% Fixture	80.5	0.0	80.5
<b>Total</b>	Lumens	1141.0	0.0	1141.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	21.0	1.8
10°-20°	51.1	4.5
20°-30°	68.7	6.0
30°-40°	90.3	7.9
40°-50°	128.8	11.3
50°-60°	200.7	17.6
60°-70°	262.0	23.0
70°-80°	278.5	24.4
80°-90°	39.9	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°	1141.0	100.0
0°-180°	1141.0	100.0

**Coefficient of Utilization**



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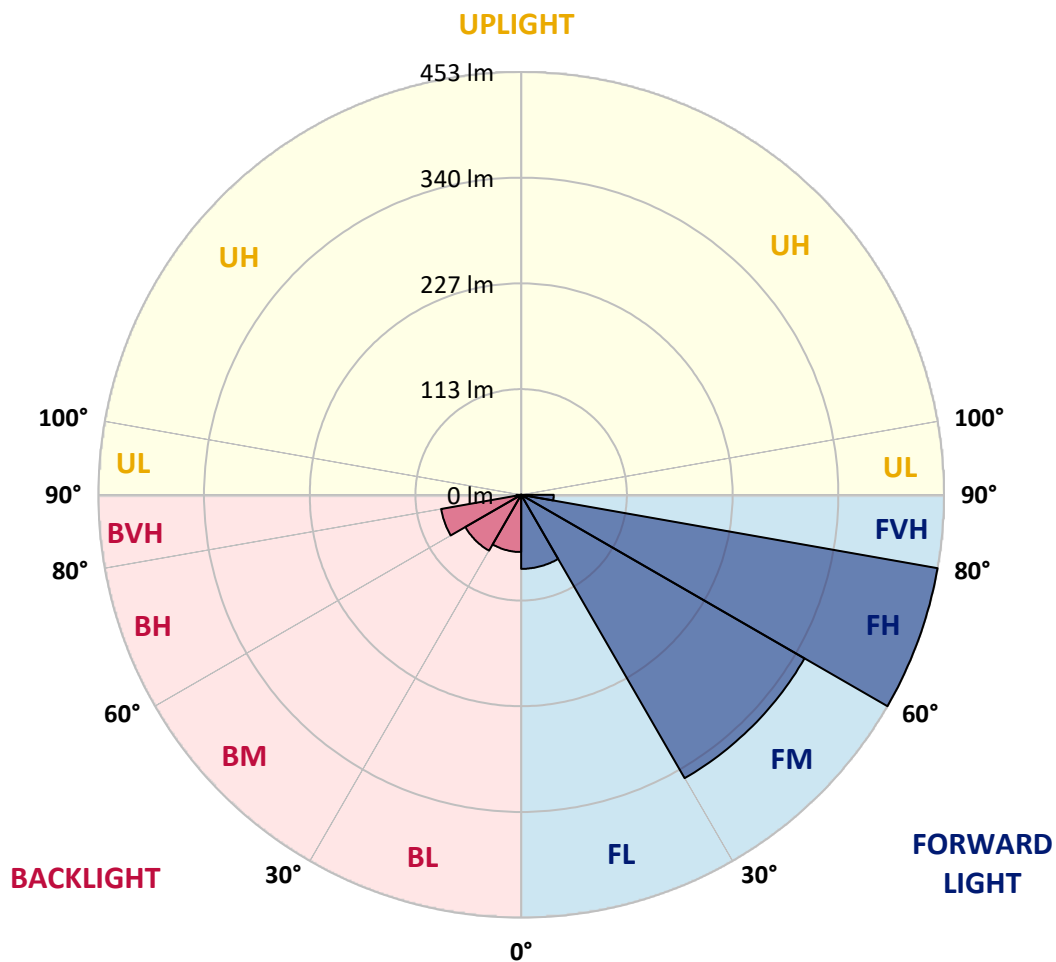
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	79.4	7.0			
FM	(30°-60°)	350.8	30.7			
FH	(60°-80°)	453.3	39.7			G0/660
FVH	(80°-90°)	34.9	3.1			G1/100
BL	(0°-30°)	61.4	5.4	B0/110		
BM	(30°-60°)	69.1	6.1	B0/220		
BH	(60°-80°)	87.2	7.6	B0/110		G0/110
BVH	(80°-90°)	5.0	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1
2.5°	217.5	217.5	218.9	218.9	220.9	221.4	223.3	224.3	225.3	226.7	229.7
5°	201.8	201.3	202.8	205.2	207.7	210.1	213.5	217.0	218.4	220.9	225.8
7.5°	190.1	190.1	191.1	192.5	196.0	198.9	204.3	208.2	211.6	215.0	221.9
10°	181.3	181.3	182.3	183.7	187.2	189.6	194.5	201.3	204.3	209.2	217.9
12.5°	173.0	174.0	174.5	176.4	178.9	182.3	187.2	194.5	199.4	205.2	217.0
15°	169.1	169.1	169.6	171.0	173.5	176.9	182.8	190.6	196.0	202.8	217.5
17.5°	168.1	167.6	167.1	167.6	170.1	173.5	179.3	188.1	194.0	201.8	219.9
20°	168.6	168.1	167.6	166.6	167.6	171.0	178.4	187.2	193.0	201.3	223.8
22.5°	171.0	171.0	170.1	168.1	167.6	170.1	177.9	187.2	193.5	201.8	227.7
25°	177.9	177.4	176.4	172.5	169.6	170.5	177.9	188.1	194.5	202.8	231.1
27.5°	185.2	185.2	184.2	180.8	174.9	172.5	178.9	189.6	196.0	203.8	235.1
30°	196.9	196.4	195.5	191.6	184.2	176.4	180.8	191.1	196.9	204.3	238.5
32.5°	211.1	211.1	211.6	206.7	196.0	183.3	182.8	192.0	197.4	204.8	242.4
35°	227.7	228.2	229.7	225.8	212.6	193.5	187.6	194.5	198.4	205.2	246.3
37.5°	239.9	240.4	245.8	246.8	231.1	207.2	195.5	199.4	200.4	206.2	250.2
40°	254.1	254.1	261.9	267.8	257.5	226.3	206.2	205.2	204.8	210.1	255.1
42.5°	269.7	271.7	278.5	288.3	283.9	248.2	221.4	215.5	213.1	217.0	262.9
45°	284.4	285.4	298.1	309.3	309.8	278.1	242.9	231.6	224.8	229.2	277.1
47.5°	300.5	302.0	317.6	335.7	339.1	309.8	267.3	251.7	242.9	247.3	297.6
50°	324.0	326.4	339.6	361.6	370.9	347.4	298.6	279.5	269.7	271.7	326.4
52.5°	361.6	361.1	367.5	389.0	411.5	389.0	340.6	313.7	300.5	303.5	363.6
55°	384.1	383.6	392.4	415.9	456.9	441.3	387.0	354.3	342.1	340.6	406.6
57.5°	364.1	365.0	380.2	416.8	487.7	522.9	437.8	403.6	382.6	385.1	458.9
60°	304.4	298.6	315.7	365.5	478.4	614.3	510.2	463.3	441.3	436.9	524.8
62.5°	205.2	207.2	218.4	250.7	409.5	639.2	694.9	537.5	507.2	499.4	586.9
65°	154.4	153.9	154.4	159.8	221.9	615.7	886.0	636.2	588.8	562.9	652.4
67.5°	129.0	127.5	127.1	139.3	138.3	387.5	949.5	860.5	689.0	634.3	715.9
70°	109.5	106.5	105.6	125.1	128.5	137.3	942.2	1277.9	885.0	734.0	800.0
72.5°	83.1	82.6	84.5	106.5	126.6	120.2	567.3	1460.6	1360.9	926.5	973.4
75°	59.1	58.6	64.0	86.5	128.5	122.2	177.4	1451.8	1561.8	1214.3	1089.2
77.5°	39.1	38.6	43.5	62.1	120.7	122.7	115.8	1051.1	1214.3	1137.6	892.8
80°	25.9	24.9	28.3	43.0	96.8	131.5	113.4	520.4	619.1	526.8	296.6
82.5°	15.1	14.7	18.1	29.8	63.5	130.0	114.3	163.7	133.9	68.4	37.1
85°	7.8	8.3	11.7	18.1	41.0	114.8	122.2	84.1	39.1	27.9	18.6
87.5°	2.4	3.4	6.4	9.8	23.0	79.2	108.5	65.0	28.3	18.1	10.3
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°	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1	232.1
2.5°	230.7	232.1	235.1	238.5	241.9	243.4	245.3	245.8	246.8	247.3	246.8
5°	229.2	232.6	239.0	243.4	246.3	245.8	245.3	243.8	243.4	242.9	241.9
7.5°	226.3	232.1	241.4	245.3	243.4	237.5	232.6	226.7	224.8	222.3	221.9
10°	224.8	233.1	242.4	241.9	234.1	222.8	213.1	203.8	197.4	193.5	191.6
12.5°	226.3	236.5	244.3	235.5	221.9	204.8	187.6	173.5	159.3	154.4	152.0
15°	230.7	241.9	244.3	227.2	206.2	181.8	155.9	133.4	116.8	108.5	107.0
17.5°	236.0	246.3	240.9	217.0	188.1	153.0	122.2	93.3	80.6	77.2	76.7
20°	242.4	251.7	235.5	204.3	164.7	123.1	83.1	68.4	66.9	67.4	67.9
22.5°	247.8	254.1	226.7	187.2	136.8	82.6	58.2	55.2	58.2	62.1	63.0
25°	251.7	252.6	217.0	165.7	105.1	52.8	45.9	45.4	49.8	56.7	58.6
27.5°	254.1	247.8	203.8	142.7	64.5	41.0	37.6	39.1	42.5	47.4	48.4
30°	255.6	242.9	191.1	118.7	41.0	34.7	34.2	35.2	36.7	39.1	39.6
32.5°	256.1	238.0	177.4	88.4	34.7	31.8	31.8	32.7	33.2	34.7	34.7
35°	255.1	232.1	163.7	55.7	31.8	30.8	30.3	30.3	30.3	30.8	30.8
37.5°	252.6	226.3	147.6	37.1	30.3	29.3	28.8	28.8	28.3	28.3	28.3
40°	251.2	221.4	132.4	32.3	28.8	28.3	27.9	26.9	26.4	26.4	26.4
42.5°	252.6	218.9	113.9	30.8	27.9	27.4	26.4	25.4	25.4	25.4	25.4
45°	259.0	219.4	90.4	29.8	27.4	26.4	24.9	23.9	23.9	24.4	24.4
47.5°	271.2	223.8	69.9	28.8	26.4	25.4	23.5	23.0	23.0	23.0	23.0
50°	289.8	232.6	55.2	27.9	25.9	24.4	23.0	22.0	22.0	22.0	21.5
52.5°	316.2	248.7	43.5	27.4	25.4	23.9	22.0	21.0	20.5	20.5	20.0
55°	352.8	274.1	40.1	27.4	24.4	23.0	21.0	19.5	19.1	18.6	18.6
57.5°	401.7	310.3	39.6	26.9	23.0	21.5	19.5	18.1	17.6	17.6	17.1
60°	461.3	358.7	40.1	25.9	22.0	20.0	18.1	17.1	16.1	16.1	16.1
62.5°	528.3	411.5	40.1	25.4	21.5	19.1	17.1	15.6	15.1	14.7	14.7
65°	596.2	476.0	43.0	24.9	20.5	17.1	15.6	14.7	13.7	13.7	13.7
67.5°	670.9	554.6	58.6	24.9	19.5	15.6	14.2	13.2	12.7	12.7	12.7
70°	767.7	684.6	88.9	31.3	20.0	14.7	12.7	12.2	11.7	11.7	11.7
72.5°	966.6	834.6	70.9	43.5	23.5	13.2	11.2	10.8	10.8	10.3	10.3
75°	967.6	740.3	67.4	46.4	25.4	12.2	10.3	9.8	9.3	9.3	9.3
77.5°	715.4	483.3	57.7	36.2	22.0	10.8	9.3	8.8	8.3	8.3	8.3
80°	211.1	124.6	36.2	26.4	14.2	8.8	7.8	7.3	6.8	6.8	6.8
82.5°	36.2	32.7	16.6	14.2	8.8	6.8	6.4	5.9	5.4	5.4	5.4
85°	17.6	17.1	9.3	7.8	5.9	4.9	4.9	4.4	3.9	3.9	3.9
87.5°	10.8	9.8	6.8	4.4	3.4	2.4	2.9	2.4	2.4	2.0	2.0
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)