

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: P196488

Luminaire Tested: **NAV-AF-06-D-UNV-AFL-7030-1200-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196488  
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-7030-1200-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 1200mA 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: 32078.5 lumens  
Efficiency: N/A  
Efficacy: 84.0 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): 382  
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

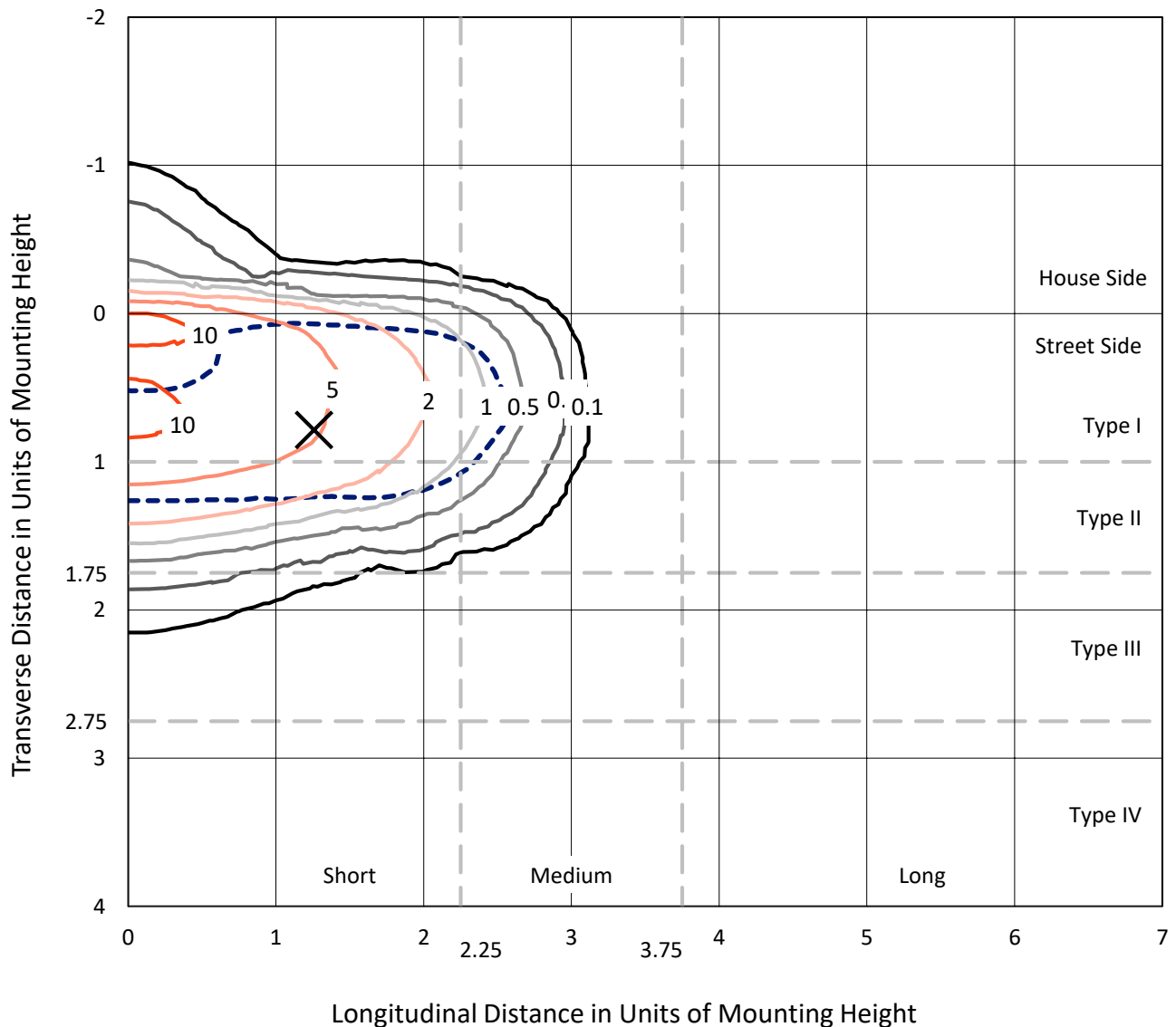


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

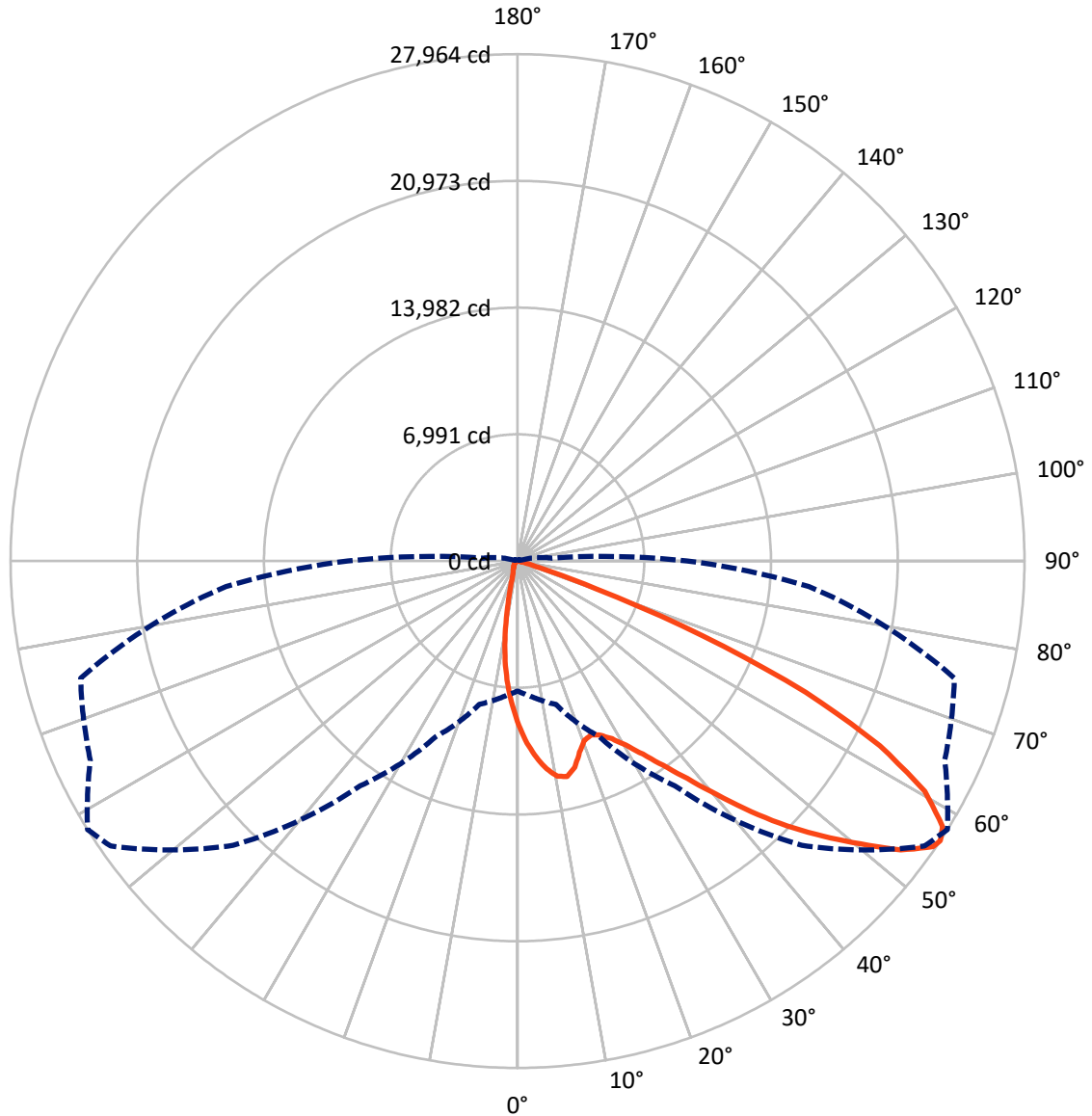


Based on 30 foot mounting height. Maximum calculated value = 12.5 fc  
 Type II - Short - Full Cutoff

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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
<b>House Side</b>	Lumens	2002.3	0.0	2002.3
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	30076.2	0.0	30076.2
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	32078.5	0.0	32078.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	774.8	2.4
10°-20°	1802.8	5.6
20°-30°	3033.5	9.5
30°-40°	5194.6	16.2
40°-50°	7838.7	24.4
50°-60°	8148.1	25.4
60°-70°	4574.2	14.3
70°-80°	626.9	2.0
80°-90°	84.9	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°	32078.5	100.0
0°-180°	32078.5	100.0



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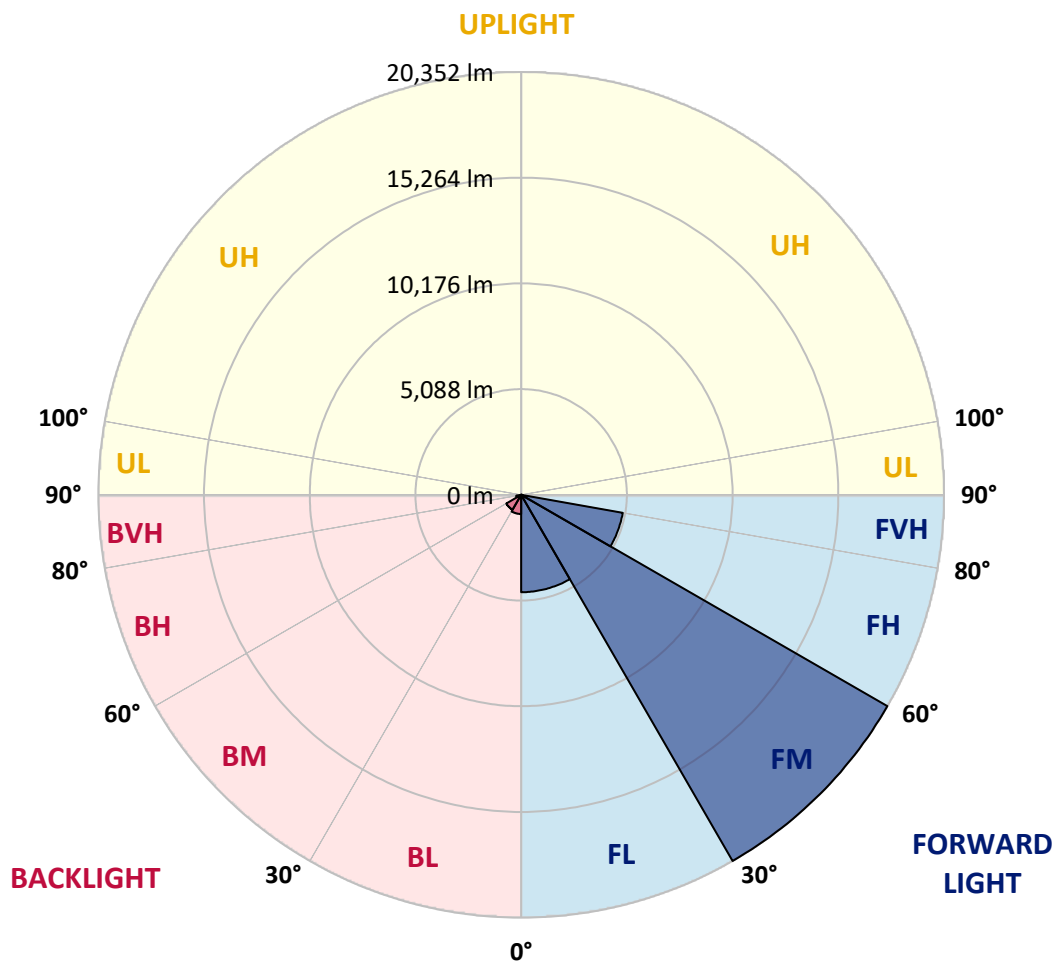
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4687.4	14.6			
FM	(30°-60°)	20351.9	63.4			
FH	(60°-80°)	4963.6	15.5			G2/5000
FVH	(80°-90°)	73.2	0.2			G1/100
BL	(0°-30°)	923.7	2.9	B2/1000		
BM	(30°-60°)	829.4	2.6	B1/1000		
BH	(60°-80°)	237.5	0.7	B1/500		G1/500
BVH	(80°-90°)	11.7	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°	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4
2.5°	10927.8	10861.7	10793.1	10665.9	10548.4	10367.3	10117.6	10056.4	9860.6	9537.6	9236.6
5°	11870.0	11857.8	11811.3	11708.4	11581.3	11361.0	11079.6	10891.1	10587.6	10078.5	9498.5
7.5°	11312.0	11414.8	11583.6	11823.5	11985.0	11963.1	11747.7	11583.6	11282.6	10587.6	9755.4
10°	9535.2	9554.7	9787.2	10291.4	11089.3	11833.4	12114.7	12070.8	11794.1	11033.0	9980.7
12.5°	8908.7	8920.9	8974.7	9136.3	9655.1	10692.7	11967.9	12197.9	12176.0	11458.9	10220.4
15°	8957.6	8964.9	8979.6	9031.1	9177.9	9699.2	11223.8	11808.8	12420.7	11862.8	10455.4
17.5°	9344.3	9339.4	9292.8	9243.9	9290.5	9461.8	10465.2	11081.9	12369.2	12202.8	10648.7
20°	10098.1	10122.6	9966.0	9748.1	9635.5	9642.9	10090.7	10553.4	12080.5	12467.1	10793.1
22.5°	11157.8	11174.9	10917.9	10541.2	10210.8	10044.2	10169.1	10413.8	11747.7	12711.9	10910.6
25°	12423.1	12423.1	12063.4	11527.4	11015.8	10651.2	10543.5	10636.5	11620.4	12988.5	11028.1
27.5°	13788.8	13837.8	13367.9	12665.5	11989.9	11456.4	11118.7	11101.5	11718.3	13336.0	11160.3
30°	15274.3	15318.4	14760.4	13901.4	13101.1	12418.2	11899.4	11786.8	12092.7	13803.5	11353.5
32.5°	16752.6	16789.4	16172.5	15296.4	14364.0	13561.1	12878.4	12699.6	12765.8	14486.3	11637.5
35°	18632.3	18639.6	17858.9	16816.3	15820.2	14878.0	14013.9	13837.8	13764.4	15347.7	12046.3
37.5°	20127.6	20068.8	19574.6	18588.2	17445.2	16461.4	15445.7	15215.7	15039.4	16559.4	12680.1
40°	20480.1	20480.1	20406.7	20110.5	19202.6	18255.4	17271.4	16928.8	16539.6	17986.1	13531.9
42.5°	19562.4	19621.0	20105.6	20749.3	20756.6	20149.7	19187.8	18899.0	18213.7	19611.3	14461.9
45°	17508.9	17526.1	18688.6	20426.2	21605.9	21953.5	21243.6	20844.7	19895.1	21300.0	15313.6
47.5°	16769.7	16823.6	17318.0	19442.3	21669.5	23414.5	23216.3	22668.0	21451.8	22841.8	16108.9
50°	15634.1	15700.2	16304.8	17993.5	21096.8	24351.9	25103.3	24515.9	22868.7	24126.7	16502.9
52.5°	12917.5	13020.3	13874.5	16077.2	19665.0	24391.0	26831.2	26478.7	24320.1	24814.4	16456.5
55°	8889.0	8964.9	9961.0	12550.4	16777.1	23194.2	27575.2	27817.4	25614.7	24968.7	16231.3
56°	7171.0	7454.9	8184.2	10692.7	15132.4	22176.2	27403.9	27964.3	25999.0	24944.2	16133.4
57.5°	4740.6	4794.6	5589.9	7748.5	12151.5	19966.1	26630.5	27651.0	26493.4	24819.4	16062.4
60°	2229.7	2254.1	2540.4	3575.7	6576.2	14549.9	24116.9	25810.6	26674.4	24557.4	16060.0
62.5°	1453.8	1458.7	1492.9	1705.9	2689.8	7924.8	19993.1	22430.7	25174.2	24528.1	16013.5
65°	1196.8	1209.1	1167.4	1194.3	1407.3	2988.3	14102.1	17486.8	21652.4	23837.9	15489.8
67.5°	1054.8	1057.3	1001.1	969.1	1030.4	1311.7	7104.9	11030.6	16194.6	20254.9	12758.4
70°	961.8	959.4	895.7	822.2	824.8	871.3	2315.3	4581.6	8960.1	12026.6	7325.2
72.5°	854.2	859.0	822.2	719.6	685.3	616.8	871.3	1235.9	3049.5	3862.0	1931.0
75°	748.9	739.1	702.4	636.3	572.7	413.6	438.1	526.2	795.4	788.1	416.1
77.5°	567.8	558.0	575.1	543.3	447.9	288.8	239.9	274.1	359.8	335.3	169.0
80°	433.2	428.3	391.5	465.0	408.7	217.9	164.0	169.0	195.8	178.6	83.2
82.5°	313.2	310.9	296.1	286.4	259.4	159.1	124.8	132.2	146.9	124.8	61.1
85°	119.9	119.9	232.5	195.8	178.6	107.7	88.1	95.5	112.5	90.5	41.6
87.5°	19.5	19.5	156.7	129.7	80.8	53.9	56.3	61.1	66.1	53.9	31.8
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°	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4	9082.4
2.5°	9057.9	8893.9	8534.1	8186.7	7883.2	7550.4	7381.4	7185.7	7112.2	6965.4	6980.0
5°	9150.9	8808.3	8086.3	7325.2	6627.6	5917.9	5413.7	4938.9	4674.5	4412.8	4412.8
7.5°	9246.4	8722.6	7606.6	6390.2	5215.5	3999.1	3137.6	2447.4	2063.2	1806.2	1798.9
10°	9312.5	8612.5	7060.8	5306.0	3573.3	2060.7	1243.3	979.0	883.5	842.0	839.4
12.5°	9398.2	8502.3	6439.2	4028.5	1984.9	979.0	775.8	734.2	717.1	707.4	707.4
15°	9471.5	8345.8	5685.5	2709.3	1042.6	734.2	668.1	653.5	650.9	648.6	650.9
17.5°	9488.6	8123.0	4782.3	1585.9	756.3	641.3	611.9	599.7	599.7	597.2	597.2
20°	9449.5	7829.3	3783.7	979.0	653.5	589.8	558.0	543.3	540.9	540.9	540.9
22.5°	9368.8	7454.9	2797.4	741.6	594.7	543.3	501.7	487.1	487.1	489.5	491.8
25°	9268.4	7011.8	1921.3	638.7	550.6	494.4	452.8	438.1	442.9	447.9	450.3
27.5°	9141.1	6483.2	1258.0	553.1	491.8	445.4	408.7	398.9	408.7	418.5	423.4
30°	9013.9	5903.2	851.6	479.6	425.9	391.5	369.6	367.1	381.8	403.8	406.2
32.5°	8930.7	5308.5	643.6	430.7	374.4	345.0	335.3	340.3	362.2	386.7	391.5
35°	8923.3	4728.4	548.3	391.5	340.3	313.2	308.3	323.1	347.6	367.1	372.0
37.5°	9038.4	4185.0	496.8	362.2	313.2	286.4	279.0	305.9	328.0	347.6	352.5
40°	9270.8	3698.1	462.6	335.3	291.2	259.4	254.6	276.5	298.6	320.5	328.0
42.5°	9562.1	3242.9	423.4	308.3	266.8	230.1	225.2	242.3	264.3	296.1	301.0
45°	9814.2	2819.4	381.8	279.0	239.9	198.2	195.8	215.3	232.5	261.9	266.8
47.5°	10027.2	2467.0	342.6	247.2	205.6	176.2	173.7	183.5	193.4	220.2	225.2
50°	9914.5	2168.5	303.5	203.1	166.4	151.8	149.2	149.2	161.4	188.5	193.4
52.5°	9638.0	1982.4	266.8	169.0	137.0	129.7	122.4	124.8	137.0	149.2	151.8
55°	9415.2	1894.3	234.9	149.2	115.0	107.7	100.3	97.9	100.3	95.5	90.5
56°	9361.5	1884.5	227.6	144.4	110.2	100.3	90.5	85.7	83.2	73.4	71.0
57.5°	9337.0	1884.5	215.3	134.6	102.8	90.5	78.3	68.5	58.8	51.4	51.4
60°	9317.3	1896.7	200.7	117.5	88.1	73.4	56.3	41.6	34.3	34.3	34.3
62.5°	9275.8	1891.9	183.5	97.9	75.8	56.3	34.3	26.9	24.5	26.9	29.4
65°	8808.3	1757.2	161.4	78.3	58.8	39.2	19.5	19.5	22.1	26.9	29.4
67.5°	7097.6	1331.5	132.2	61.1	41.6	29.4	17.2	17.2	22.1	26.9	29.4
70°	3898.7	702.4	112.5	44.0	31.8	24.5	17.2	14.6	22.1	26.9	29.4
72.5°	952.0	293.7	102.8	34.3	29.4	22.1	14.6	14.6	22.1	26.9	29.4
75°	234.9	220.2	83.2	26.9	24.5	19.5	14.6	14.6	22.1	26.9	29.4
77.5°	110.2	291.2	56.3	24.5	22.1	17.2	14.6	14.6	22.1	26.9	26.9
80°	66.1	220.2	34.3	22.1	19.5	17.2	14.6	14.6	22.1	26.9	29.4
82.5°	39.2	63.6	24.5	22.1	19.5	14.6	14.6	14.6	22.1	26.9	29.4
85°	34.3	31.8	24.5	22.1	19.5	17.2	14.6	14.6	24.5	29.4	29.4
87.5°	26.9	24.5	22.1	19.5	19.5	17.2	14.6	14.6	22.1	26.9	29.4
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)