

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: P196674

Luminaire Tested: **NAV-AF-06-D-UNV-SL4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196674  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)  
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-SL4-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33236.6 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

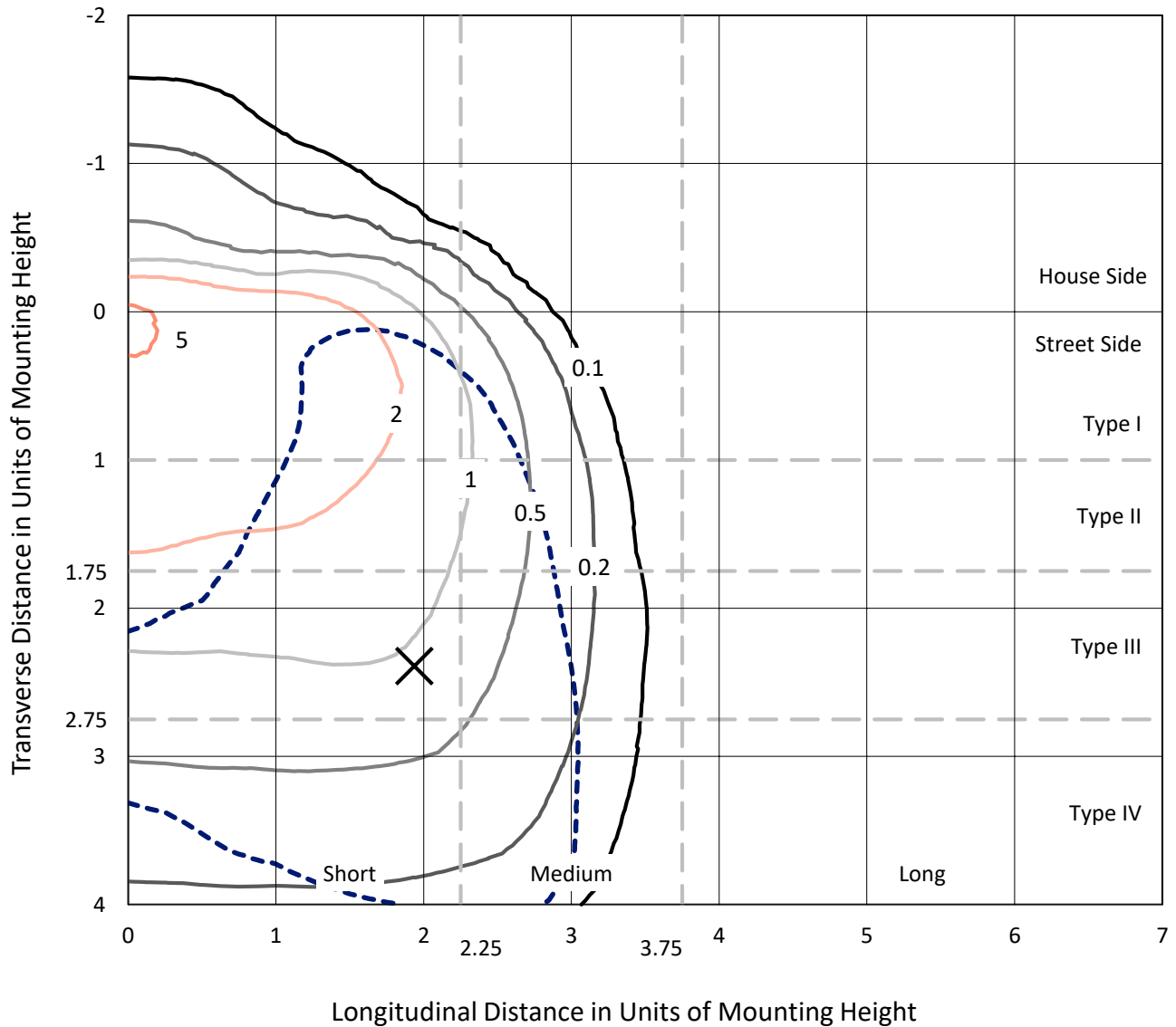
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

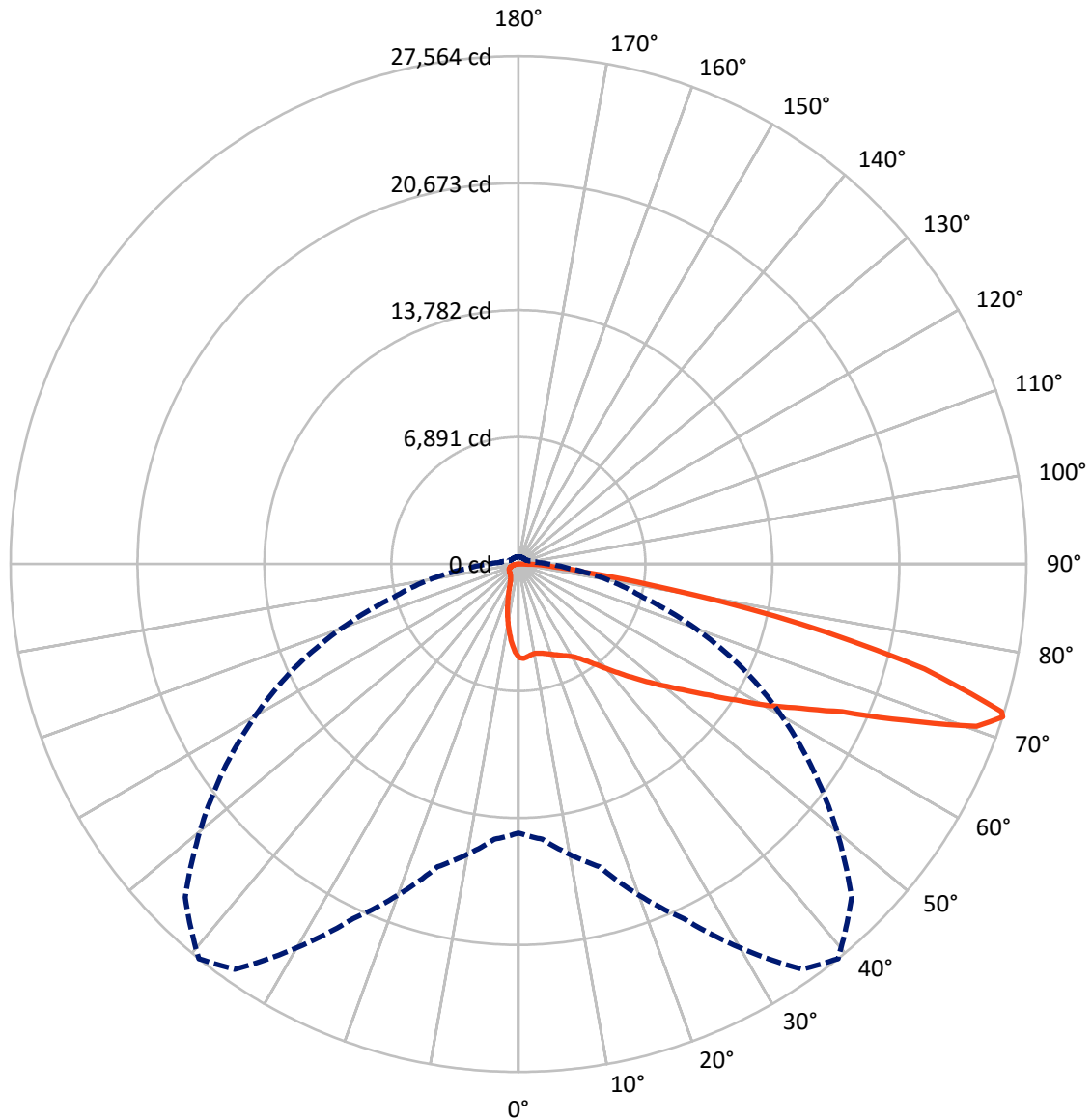
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3811.0	0.0	3811.0
	% Fixture	11.5	0.0	11.5
<b>Street Side</b>	Lumens	29425.6	0.0	29425.6
	% Fixture	88.5	0.0	88.5
<b>Total</b>	Lumens	33236.6	0.0	33236.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	436.2	1.3
10°-20°	1096.1	3.3
20°-30°	1708.1	5.1
30°-40°	2630.0	7.9
40°-50°	4287.4	12.9
50°-60°	6662.2	20.0
60°-70°	8917.0	26.8
70°-80°	6412.7	19.3
80°-90°	1087.1	3.3
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°	33236.6	100.0
0°-180°	33236.6	100.0

**Coefficient of Utilization**



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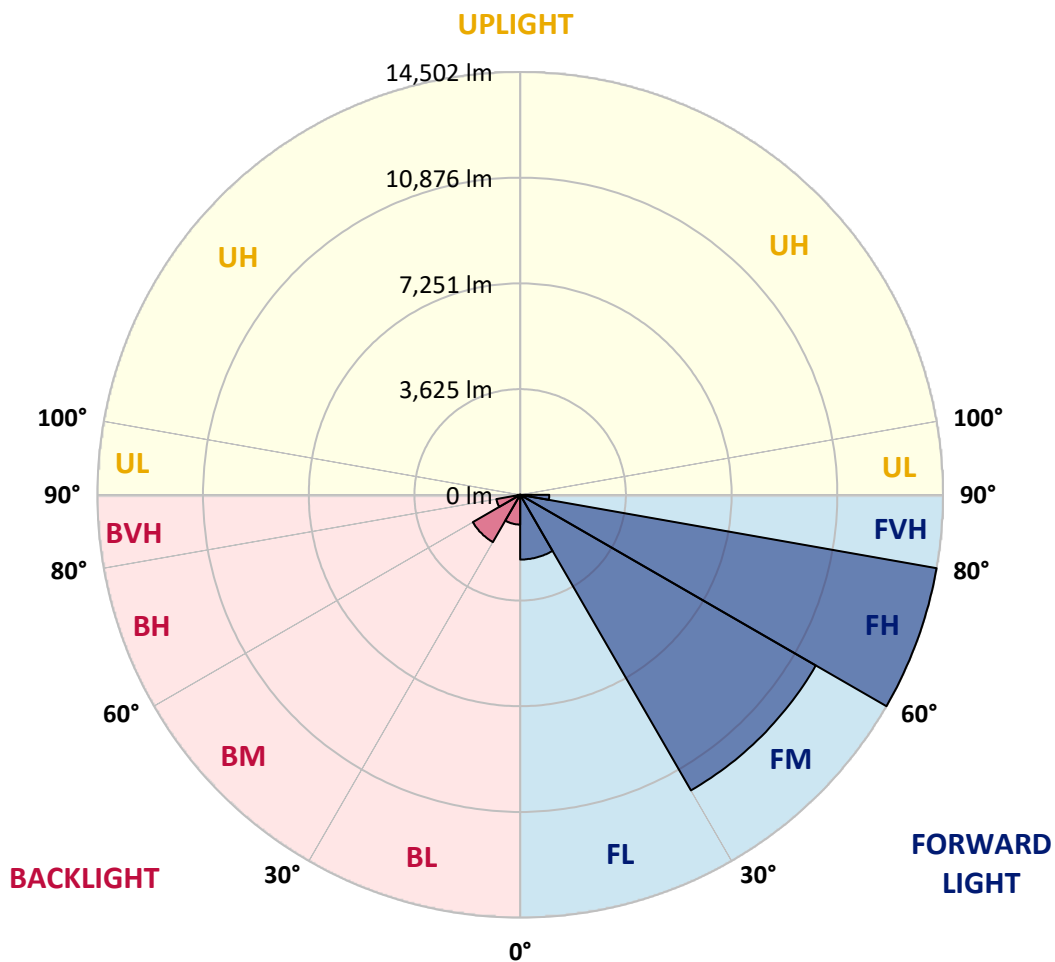
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2220.1	6.7			
FM	(30°-60°)	11706.6	35.2			
FH	(60°-80°)	14501.7	43.6			G5
FVH	(80°-90°)	997.2	3.0			G5
BL	(0°-30°)	1020.2	3.1	B3/2500		
BM	(30°-60°)	1872.9	5.6	B2/2500		
BH	(60°-80°)	828.0	2.5	B2/1000		G2/1000
BVH	(80°-90°)	89.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8
2.5°	5185.1	5187.4	5180.7	5160.7	5142.8	5133.9	5118.2	5091.5	5055.8	5031.2	5011.1
5°	5136.1	5142.8	5138.4	5104.8	5073.6	5055.8	5031.2	4993.2	4946.3	4926.4	4879.5
7.5°	5098.1	5102.6	5089.2	5051.3	4991.1	4968.8	4924.1	4875.0	4832.6	4803.6	4747.9
10°	5071.4	5075.8	5064.7	5026.8	4959.9	4933.0	4879.5	4826.0	4770.2	4734.4	4672.0
12.5°	5033.5	5042.4	5042.4	5024.5	4979.9	4962.0	4908.5	4850.4	4799.2	4761.3	4683.2
15°	5026.8	5038.0	5057.9	5055.8	5042.4	5028.9	4986.6	4928.5	4884.0	4839.3	4743.4
17.5°	5082.5	5107.1	5147.2	5160.7	5151.7	5122.7	5073.6	5020.0	4971.0	4928.5	4810.3
20°	5223.1	5236.5	5296.7	5323.4	5278.9	5236.5	5171.8	5102.6	5057.9	5024.5	4872.9
22.5°	5435.1	5452.9	5502.0	5504.3	5410.5	5359.1	5276.6	5191.9	5149.5	5136.1	4957.6
25°	5774.2	5769.8	5783.1	5727.4	5557.8	5497.5	5397.1	5299.0	5269.9	5296.7	5082.5
27.5°	6180.2	6169.1	6126.7	5981.7	5725.0	5646.9	5526.6	5439.5	5439.5	5502.0	5252.1
30°	6648.8	6637.6	6499.3	6256.0	5923.7	5834.5	5707.2	5615.8	5662.6	5783.1	5481.9
32.5°	7144.1	7103.9	6909.9	6584.1	6207.0	6108.9	5986.1	5892.5	5981.7	6187.0	5812.1
35°	7610.5	7588.0	7349.4	6963.4	6572.9	6490.3	6405.6	6289.6	6432.4	6751.4	6278.4
37.5°	8092.3	8074.5	7782.2	7371.7	7019.2	6963.4	6892.0	6811.7	7041.4	7460.9	6909.9
40°	8630.1	8594.4	8226.2	7815.7	7539.0	7512.2	7474.3	7452.0	7822.4	8447.1	7708.6
42.5°	9239.2	9170.0	8694.8	8304.2	8105.7	8128.1	8107.9	8197.1	8763.9	9585.0	8659.1
45°	9935.3	9796.9	9161.1	8824.1	8732.6	8821.9	8864.3	9091.9	9877.2	10899.0	9721.1
47.5°	10586.7	10408.2	9671.9	9388.6	9439.9	9593.8	9714.4	10116.0	11097.7	12197.6	10805.4
50°	11186.9	10986.1	10218.6	9973.1	10223.1	10441.7	10691.6	11258.3	12396.2	13534.1	11800.4
52.5°	11630.8	11485.9	10765.2	10611.3	11122.3	11412.2	11811.7	12527.8	13708.1	14808.0	12688.5
55°	11974.5	11896.3	11298.5	11343.1	12139.6	12554.7	13038.8	13862.0	15096.0	15950.4	13402.4
57.5°	12371.7	12313.6	11907.6	12226.6	13402.4	13924.5	14495.7	15410.5	16416.8	16956.6	13962.5
60°	12791.1	12791.1	12585.8	13290.9	14982.0	15580.1	16148.9	16860.7	17733.1	17862.5	14190.0
62.5°	13108.0	13190.5	13264.1	14424.3	16481.4	17224.4	17849.1	18531.8	19096.4	18308.7	13654.5
65°	13567.6	13743.8	14158.8	15734.0	18337.7	19310.5	20153.9	20727.2	20200.7	17953.9	11907.6
67.5°	14357.3	14618.5	15501.9	17683.9	21180.1	22637.1	23455.9	22465.4	19984.3	15720.6	9120.9
70°	15069.1	15437.2	16947.8	20158.4	24874.9	26387.6	26010.6	22061.5	17405.1	11523.8	5611.3
72°	14596.1	14997.7	17014.6	21235.9	26849.5	27563.5	25575.5	19551.4	13449.3	7032.6	2766.7
72.5°	14285.9	14703.2	16798.2	21209.2	26903.0	27414.0	24970.8	18554.1	12208.7	6153.5	2237.8
75°	11934.4	12291.3	14444.4	18797.3	23708.0	22770.9	19486.7	12008.0	5611.3	1988.0	1151.3
77.5°	7793.4	8065.5	9959.7	13023.1	16606.4	15704.9	11860.7	5622.5	2104.0	1207.1	865.7
80°	3915.7	4109.8	5330.2	6847.4	8962.4	8246.3	5475.2	2719.8	1407.8	872.3	680.4
82.5°	2724.3	2902.7	3670.2	3496.2	3746.1	3625.6	2574.7	2269.1	1053.1	551.1	356.9
85°	2284.7	2470.0	3036.6	2492.2	2039.3	1858.5	1845.2	2144.1	696.1	272.2	301.2
87.5°	1992.5	2273.5	2505.6	1820.6	1398.9	1233.9	1358.7	1965.7	220.9	149.4	91.4
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°	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8	5075.8
2.5°	4977.7	4971.0	4937.5	4886.2	4848.3	4823.7	4776.9	4774.6	4779.1	4738.9	4754.5
5°	4837.1	4810.3	4723.3	4605.1	4509.1	4417.7	4317.3	4283.7	4254.8	4194.6	4201.2
7.5°	4689.9	4643.0	4491.3	4297.1	4112.0	3942.4	3775.1	3692.5	3630.0	3552.0	3552.0
10°	4602.9	4529.3	4297.1	4013.8	3719.3	3471.6	3221.7	3072.3	2963.0	2862.6	2855.8
12.5°	4598.4	4486.8	4163.4	3772.8	3369.0	3020.9	2679.6	2449.8	2286.9	2168.7	2157.6
15°	4634.1	4477.9	4051.8	3547.5	3038.8	2585.8	2164.2	1871.9	1664.4	1532.8	1519.4
17.5°	4665.3	4466.7	3931.2	3311.0	2717.5	2166.4	1697.9	1394.4	1198.1	1091.1	1079.9
20°	4694.4	4442.2	3777.3	3061.1	2362.7	1773.8	1327.5	1082.1	952.7	892.4	885.8
22.5°	4736.7	4419.9	3616.7	2780.0	2014.7	1443.6	1095.6	919.2	850.0	821.1	816.6
25°	4805.9	4422.2	3460.5	2492.2	1695.7	1202.6	948.3	838.9	801.0	780.8	780.8
27.5°	4906.3	4448.9	3306.5	2199.9	1425.8	1037.5	861.2	796.5	772.0	756.4	751.9
30°	5053.6	4497.9	3143.7	1923.3	1211.4	923.7	809.9	769.7	749.6	736.3	734.0
32.5°	5267.7	4584.9	2971.9	1671.1	1048.7	843.4	772.0	747.5	731.8	720.7	718.4
35°	5586.8	4738.9	2804.5	1457.0	932.6	785.3	740.8	720.7	711.8	707.2	705.0
37.5°	6055.2	4986.6	2646.2	1289.6	856.7	747.5	709.5	698.3	693.9	693.9	693.9
40°	6644.3	5312.3	2503.3	1171.4	814.4	718.4	687.2	678.3	678.3	680.4	680.4
42.5°	7360.5	5720.6	2380.6	1091.1	789.8	698.3	671.6	667.1	664.9	664.9	667.1
45°	8192.7	6202.5	2304.8	1028.5	772.0	687.2	660.4	658.2	649.2	644.8	644.8
47.5°	9029.4	6718.0	2300.4	992.8	749.6	673.8	649.2	649.2	631.4	622.4	624.8
50°	9810.3	7179.8	2349.4	983.9	736.3	653.7	638.1	640.4	615.7	604.6	602.4
52.5°	10439.5	7532.4	2409.6	995.2	736.3	635.9	618.0	629.3	602.4	589.0	586.8
55°	10925.9	7777.7	2431.9	1019.6	745.1	620.3	600.2	618.0	597.9	580.0	580.0
57.5°	11273.9	7855.8	2336.0	1030.8	758.6	618.0	582.4	615.7	604.6	582.4	582.4
60°	11146.7	7402.9	1979.0	988.4	756.4	613.6	568.9	620.3	626.9	602.4	602.4
62.5°	10153.9	6193.7	1588.5	892.4	718.4	597.9	553.3	615.7	642.6	633.6	629.3
65°	8266.3	4542.6	1231.6	778.7	653.7	564.5	519.8	575.7	606.8	615.7	618.0
67.5°	5825.4	2875.9	957.1	662.6	573.4	515.3	482.0	508.7	519.8	524.3	533.3
70°	3186.1	1557.4	760.8	557.8	490.9	466.3	441.7	444.0	439.6	435.1	439.6
72°	1599.8	1017.4	642.6	484.1	435.1	419.4	408.3	401.6	401.6	394.9	397.1
72.5°	1376.5	945.9	620.3	466.3	421.6	408.3	399.4	392.7	390.5	386.0	388.2
75°	917.0	749.6	517.7	390.5	359.3	350.2	354.8	348.1	350.2	345.8	348.1
77.5°	740.8	644.8	439.6	330.2	307.9	294.6	303.4	305.7	310.1	305.7	303.4
80°	620.3	548.8	368.1	272.2	256.5	245.4	249.8	265.5	267.6	254.3	252.2
82.5°	401.6	441.7	290.1	212.0	196.3	191.9	203.0	218.6	223.1	205.3	200.8
85°	336.9	354.8	209.8	145.0	129.4	125.0	147.3	162.9	174.0	156.1	151.8
87.5°	93.8	174.0	102.6	69.2	58.0	58.0	71.3	84.7	100.4	102.6	102.6
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)