

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: P270716

Luminaire Tested: **NAV-AF-06-D-UNV-T4FT-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270716  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)  
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-T4FT-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 34603.1 lumens  
Efficiency: N/A  
Efficacy: 90.6 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): 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

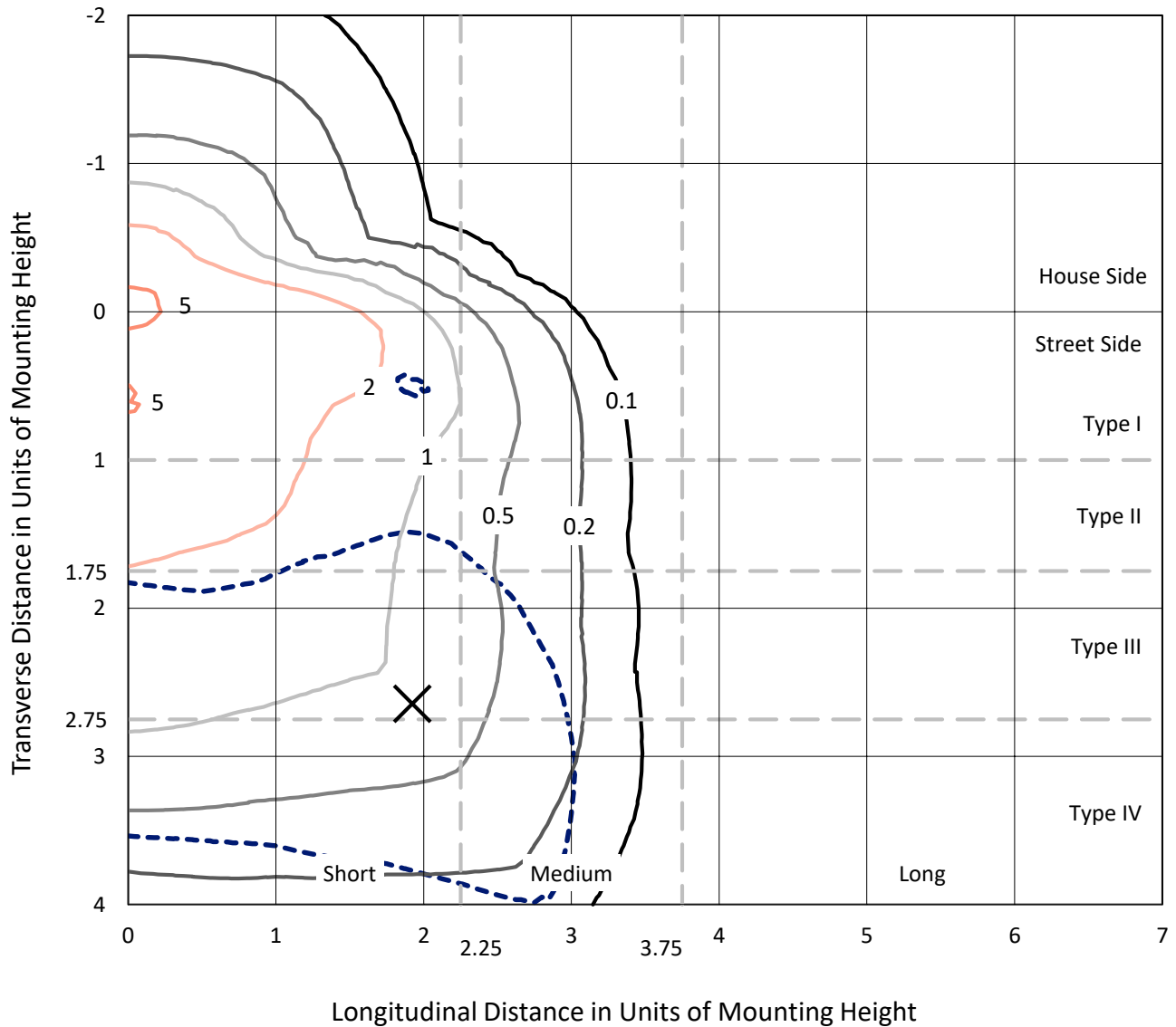


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### Iso-Footcandle Lines of Horizontal Illumination

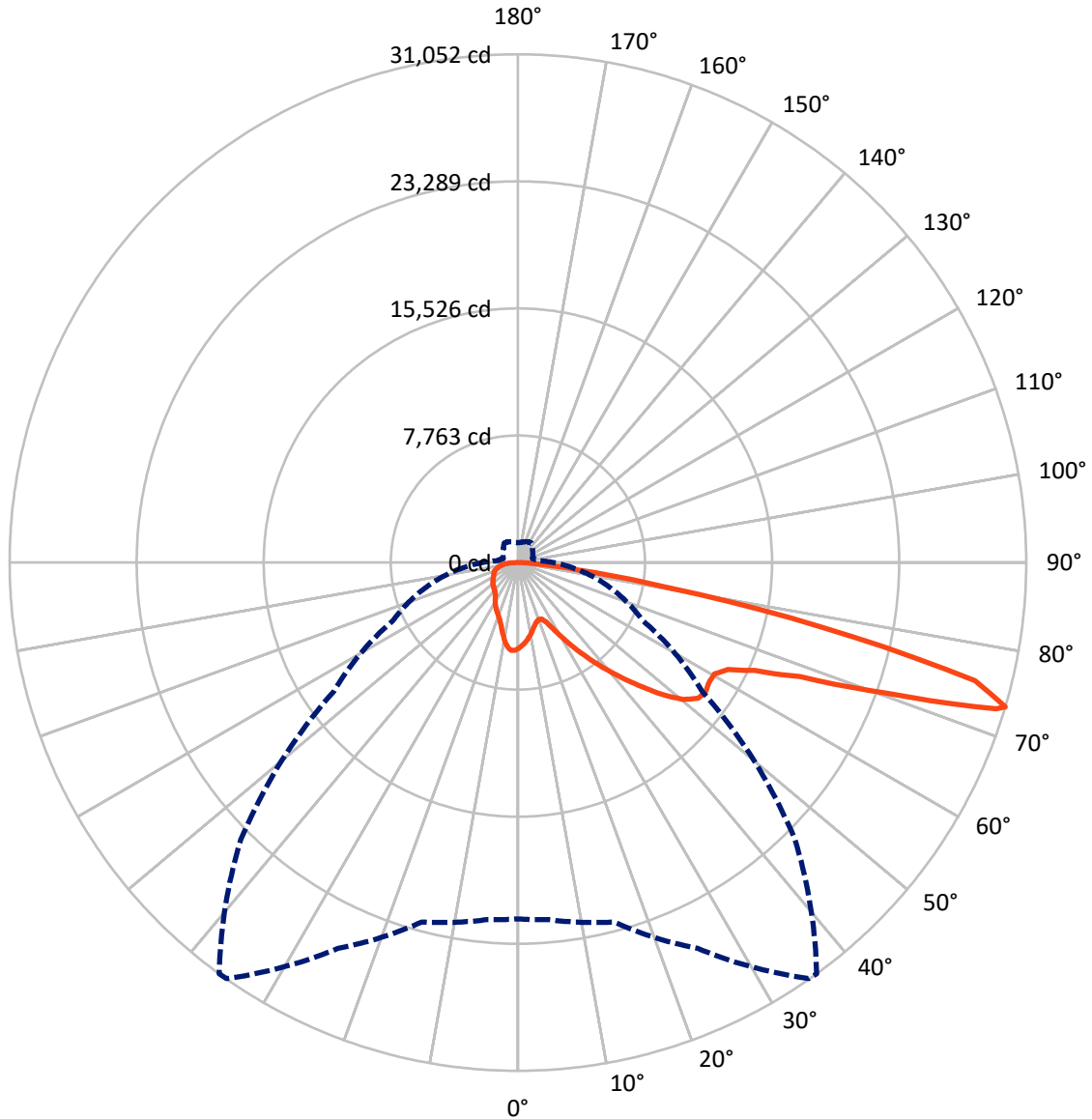
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6672.5	0.0	6672.5
	% Fixture	19.3	0.0	19.3
<b>Street Side</b>	Lumens	27930.6	0.0	27930.6
	% Fixture	80.7	0.0	80.7
<b>Total</b>	Lumens	34603.1	0.0	34603.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	476.1	1.4
10°-20°	1195.7	3.5
20°-30°	1917.0	5.5
30°-40°	3170.8	9.2
40°-50°	4906.5	14.2
50°-60°	6568.3	19.0
60°-70°	8580.2	24.8
70°-80°	7008.6	20.3
80°-90°	780.1	2.3
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°	34603.1	100.0
0°-180°	34603.1	100.0



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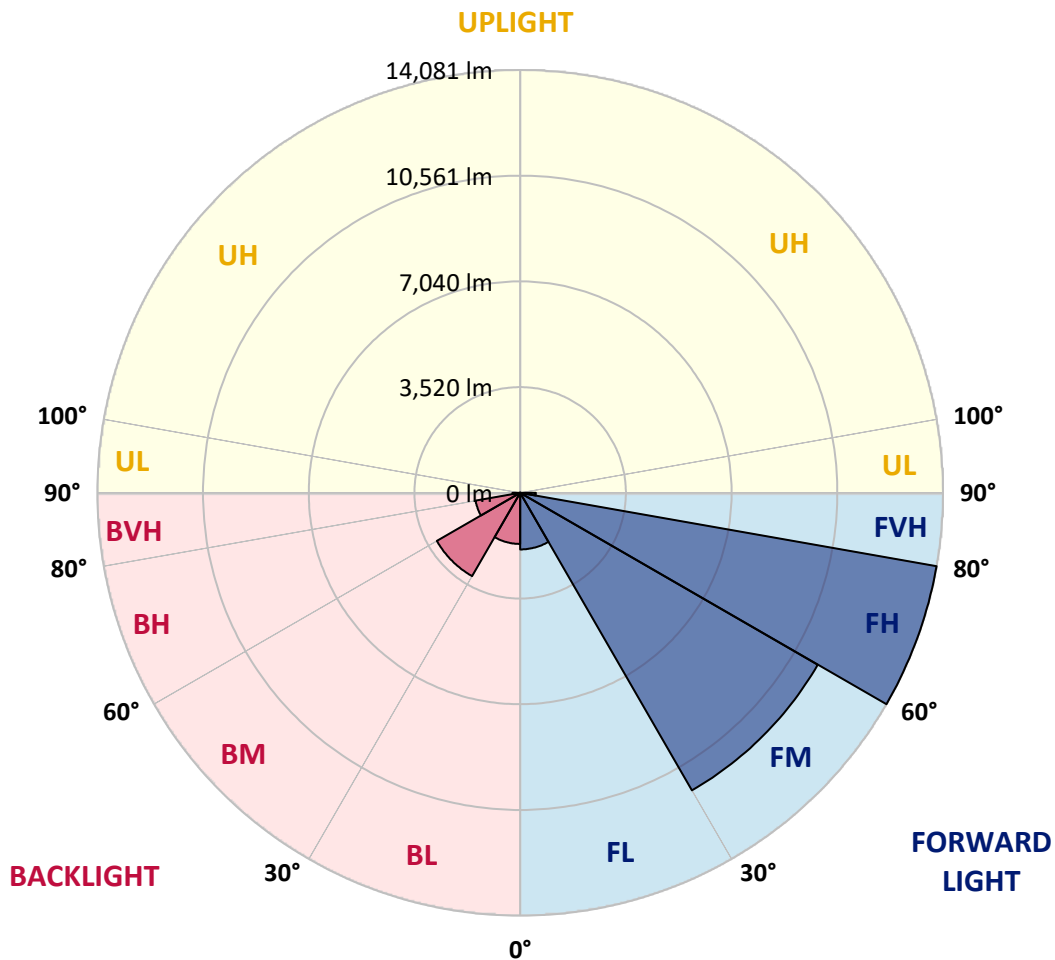
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1885.5	5.4			
FM (30°-60°)	11441.0	33.1			
FH (60°-80°)	14080.9	40.7			G5
FVH (80°-90°)	523.2	1.5			G4/750
BL (0°-30°)	1703.2	4.9	B3/2500		
BM (30°-60°)	3204.5	9.3	B3/5000		
BH (60°-80°)	1507.9	4.4	B3/2500		G3/2500
BVH (80°-90°)	256.9	0.7			G3/500
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°	36°	45°	55°	65°	75°	85°
0°	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4
2.5°	5041.3	5054.6	5056.6	5072.1	5072.1	5069.9	5076.5	5102.8	5116.0	5146.7	5173.2
5°	4792.8	4808.3	4814.8	4841.2	4874.3	4876.4	4900.7	4951.2	4999.5	5067.7	5124.8
7.5°	4513.7	4531.2	4548.7	4603.8	4652.1	4656.5	4702.6	4784.1	4847.9	4931.3	5034.7
10°	4243.2	4247.6	4265.2	4335.6	4399.3	4405.8	4471.9	4564.2	4649.9	4766.4	4882.9
12.5°	4021.2	4034.4	4029.9	4082.7	4137.8	4142.1	4229.9	4346.5	4471.9	4603.8	4742.3
15°	3944.2	3942.0	3895.9	3893.7	3917.9	3922.2	4008.0	4144.3	4284.9	4447.7	4625.7
17.5°	3997.0	3979.4	3858.5	3783.8	3768.3	3772.7	3836.5	3986.0	4135.4	4322.4	4535.6
20°	4287.3	4219.0	3935.5	3755.2	3704.6	3704.6	3742.0	3862.9	4027.8	4245.4	4513.7
22.5°	4975.4	4869.8	4265.2	3944.2	3766.1	3748.5	3720.1	3812.2	3994.9	4256.3	4603.8
25°	5841.6	5791.1	4869.8	4447.7	4080.6	4023.4	3834.2	3867.3	4062.9	4375.1	4849.9
27.5°	6644.0	6556.1	5663.5	5179.7	4660.9	4573.0	4172.8	4038.8	4225.6	4595.0	5206.1
30°	7112.3	7053.0	6479.1	6017.4	5399.6	5287.6	4713.6	4377.4	4515.8	4957.7	5711.9
32.5°	7622.4	7587.3	7297.0	6877.1	6199.9	6070.2	5412.8	4929.2	4959.9	5439.2	6320.8
35°	8117.1	8163.3	7998.4	7690.6	7061.8	6940.8	6351.6	5650.2	5507.4	5980.0	6971.7
37.5°	8710.7	8721.6	8618.3	8418.2	7967.5	7868.7	7382.8	6419.7	6103.3	6556.1	7600.4
40°	9895.6	9722.0	9317.5	9159.2	8891.0	8829.4	8275.4	7125.5	6657.2	7147.5	8194.0
42.5°	11177.5	10907.0	10273.8	10014.5	9906.7	9849.6	9018.4	7596.0	7176.1	7738.9	8776.6
45°	12210.8	11990.9	11370.9	11050.0	11063.2	10970.8	9667.1	8015.9	7738.9	8332.6	9427.4
47.5°	13228.7	12861.6	12166.9	12120.7	12274.6	12138.3	10287.1	8435.9	8325.9	8978.9	10078.2
50°	13294.6	12960.4	12679.0	13048.4	13312.3	13143.0	10849.9	8985.4	8934.9	9761.6	10918.0
52.5°	12492.2	12443.9	12872.5	13494.8	13932.3	13780.5	11309.4	9550.5	9557.2	10740.0	11940.5
55°	12199.8	12138.3	12652.6	13417.9	14009.2	13919.1	11652.4	10188.1	10247.4	11927.2	13037.5
57.5°	12692.3	12538.5	12639.5	13272.6	13829.0	13776.1	12008.5	10896.0	11003.8	13294.6	14051.0
60°	14220.3	13905.9	13369.5	13488.2	13835.5	13804.8	12518.6	11685.3	11865.6	14719.4	14692.9
62.5°	16509.1	16152.9	15060.2	14532.5	14455.5	14396.1	13360.6	12655.0	12745.1	15748.2	14319.3
65°	19019.8	18637.1	17337.8	16473.7	16020.9	15893.4	14719.4	13824.6	13259.5	15746.1	12863.8
67.5°	21838.2	21433.7	20138.8	19314.4	18824.1	18606.5	16924.4	14769.9	13092.3	14413.8	10293.7
70°	24724.9	24340.2	23746.7	24034.6	24250.1	23918.1	20398.3	15084.2	11892.0	11300.6	6912.3
72.5°	23192.6	23161.8	23612.5	26343.2	30496.2	30562.1	23867.5	14196.0	9187.8	6716.5	3684.8
73°	21770.2	21899.9	22735.4	26002.3	31030.4	31052.4	23935.7	13736.6	8435.9	5786.6	3236.2
75°	11278.6	12158.0	15258.0	21084.2	28732.9	28836.3	21099.6	10399.1	5028.2	3214.2	2180.9
77.5°	3020.8	2981.2	4916.0	10271.7	19156.0	19019.8	13332.0	5034.7	2409.7	2016.1	1530.3
80°	1035.6	1048.7	1673.2	3757.3	8941.5	9260.4	5786.6	2196.4	1585.1	1404.9	1083.8
82.5°	527.7	545.2	874.9	1598.4	3739.7	3660.7	1862.1	1292.8	1061.8	853.0	606.9
85°	281.3	290.2	481.5	828.9	1371.9	1387.3	655.1	690.3	674.9	483.6	299.0
87.5°	138.5	142.9	230.9	364.9	507.8	490.3	228.7	299.0	332.0	272.6	164.8
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°	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4	5241.4
2.5°	5206.1	5206.1	5234.8	5283.1	5318.3	5351.4	5373.3	5408.4	5428.3	5426.0	5423.8
5°	5171.1	5193.0	5250.1	5309.5	5349.0	5375.5	5375.5	5390.9	5390.9	5384.4	5375.5
7.5°	5089.6	5127.0	5210.6	5263.3	5274.4	5245.7	5188.6	5144.7	5089.6	5061.1	5050.1
10°	4959.9	5008.3	5113.8	5138.0	5080.9	4979.8	4841.2	4722.5	4617.0	4568.6	4553.1
12.5°	4832.4	4896.2	4995.1	4957.7	4821.5	4623.5	4410.3	4247.6	4128.9	4082.7	4067.3
15°	4726.9	4803.9	4880.9	4764.3	4526.7	4251.9	4016.9	3865.0	3774.9	3739.7	3731.0
17.5°	4656.5	4746.6	4773.1	4555.5	4225.6	3917.9	3708.9	3610.0	3570.5	3555.0	3550.7
20°	4660.9	4762.1	4698.3	4353.1	3935.5	3625.4	3487.0	3458.4	3458.4	3458.4	3456.0
22.5°	4781.9	4869.8	4667.6	4164.1	3656.2	3379.2	3319.9	3344.0	3361.5	3361.5	3359.4
25°	5032.6	5080.9	4689.5	3981.6	3394.5	3165.9	3168.1	3214.2	3229.6	3229.6	3225.3
27.5°	5415.1	5375.5	4729.0	3779.3	3137.3	2972.4	3003.3	3045.1	3056.0	3049.3	3047.2
30°	5894.4	5736.0	4762.1	3541.8	2895.4	2792.2	2818.5	2842.7	2834.0	2818.5	2816.4
32.5°	6430.7	6103.3	4742.3	3275.8	2682.2	2605.3	2620.6	2633.9	2620.6	2583.3	2583.3
35°	6962.9	6435.2	4634.5	2985.6	2513.0	2425.1	2422.8	2464.6	2462.3	2418.3	2420.7
37.5°	7429.0	6696.9	4425.7	2719.6	2367.8	2293.2	2301.8	2328.2	2341.4	2282.1	2275.4
40°	7835.6	6877.1	4131.0	2493.2	2251.3	2255.7	2231.5	2189.8	2174.3	2147.9	2143.5
42.5°	8218.2	7002.4	3819.0	2304.2	2192.0	2242.4	2161.2	2062.2	2020.5	2044.6	2060.1
45°	8594.2	7143.1	3517.8	2147.9	2117.2	2203.0	2090.8	1980.9	1932.6	1943.6	1958.9
47.5°	9053.7	7338.9	3154.9	1980.9	2003.0	2130.4	2046.9	1928.1	1855.5	1811.6	1798.4
50°	9658.2	7622.4	2684.4	1800.7	1881.9	2051.3	2009.5	1851.1	1772.0	1684.1	1662.1
52.5°	10414.6	7890.6	2209.6	1655.5	1783.0	1983.1	1948.0	1785.2	1688.5	1583.0	1565.3
55°	11168.6	7928.0	1800.7	1530.3	1670.8	1890.8	1873.1	1732.6	1596.2	1510.4	1492.9
57.5°	11696.3	7574.0	1525.9	1424.6	1563.2	1776.5	1805.1	1668.7	1519.3	1453.3	1442.3
60°	11705.2	6727.5	1358.6	1354.4	1481.8	1677.6	1734.6	1594.0	1470.9	1426.9	1418.1
62.5°	10775.1	5421.6	1251.0	1301.6	1422.5	1596.2	1681.8	1552.2	1459.8	1442.3	1433.4
65°	9031.6	4005.8	1165.2	1253.1	1367.5	1527.9	1637.9	1538.9	1455.4	1448.8	1442.3
67.5°	6668.2	2745.9	1092.7	1191.6	1306.0	1457.6	1596.2	1519.3	1429.1	1455.4	1446.6
70°	4194.8	1833.6	1024.5	1121.3	1224.6	1376.4	1541.2	1484.0	1396.1	1380.7	1352.0
72.5°	2367.8	1325.7	943.2	1031.2	1119.1	1268.5	1466.5	1424.6	1321.3	1259.8	1231.1
73°	2139.3	1255.4	923.4	1009.2	1094.9	1246.6	1448.8	1407.0	1299.4	1231.1	1204.7
75°	1565.3	1026.8	833.3	919.0	993.7	1145.5	1365.3	1319.2	1202.7	1121.3	1103.7
77.5°	1134.5	791.4	716.8	793.7	859.7	1004.8	1240.0	1187.2	1072.8	1028.9	1011.3
80°	817.8	600.2	593.6	668.3	725.6	872.9	1105.9	1050.8	941.0	1070.7	1042.2
82.5°	488.0	384.7	435.3	518.9	578.1	732.1	960.7	897.0	791.4	800.3	681.5
85°	233.0	217.7	270.4	340.7	382.6	501.3	800.3	749.7	633.1	518.9	507.8
87.5°	103.3	99.0	129.7	151.8	204.5	301.2	547.4	485.9	459.6	274.8	215.5
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)