

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: P270665

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270665  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)  
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-SL2-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 1050mA 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: 30682.1 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

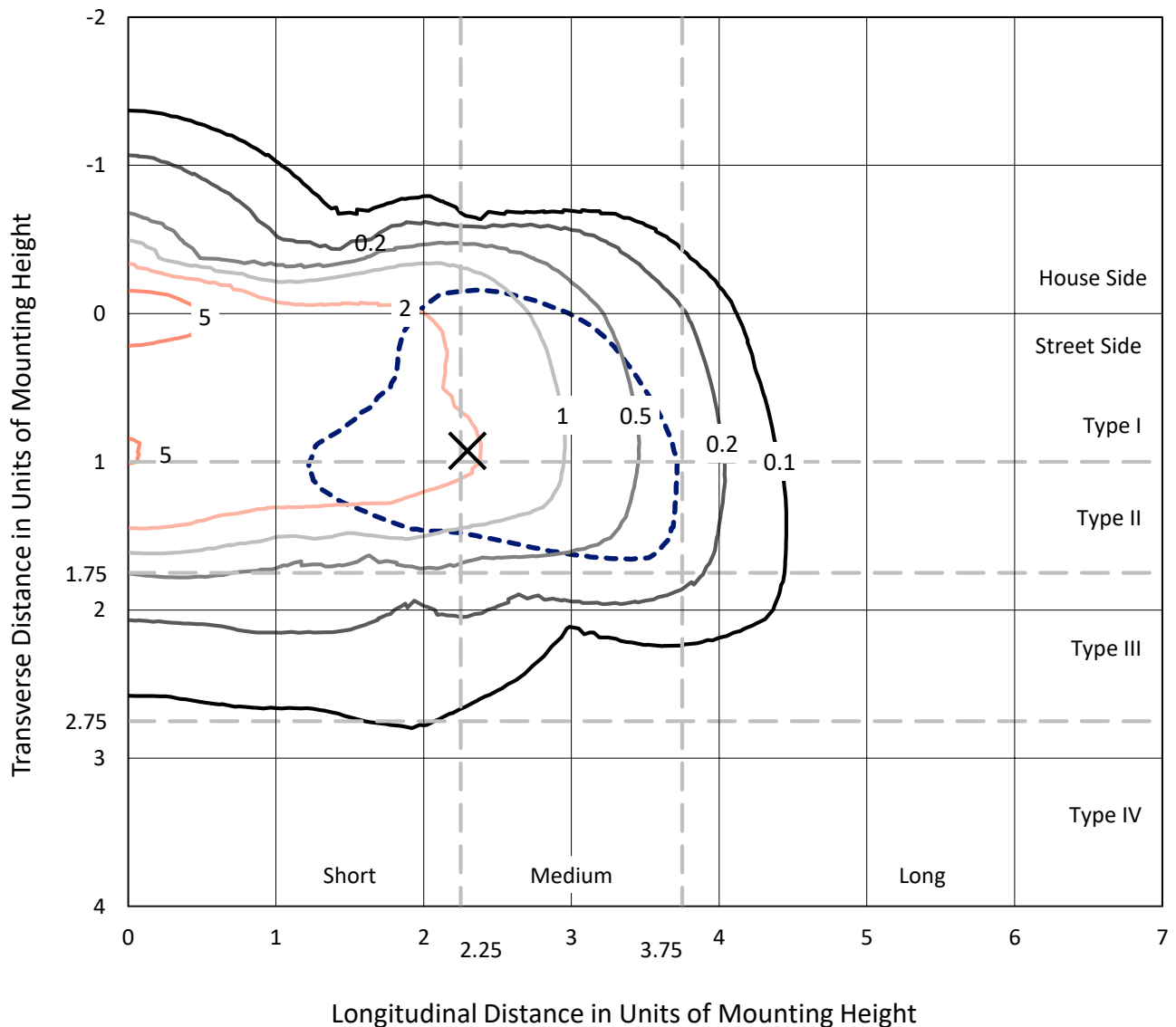
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P270665  
 CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-7027

### Iso-Footcandle Lines of Horizontal Illumination

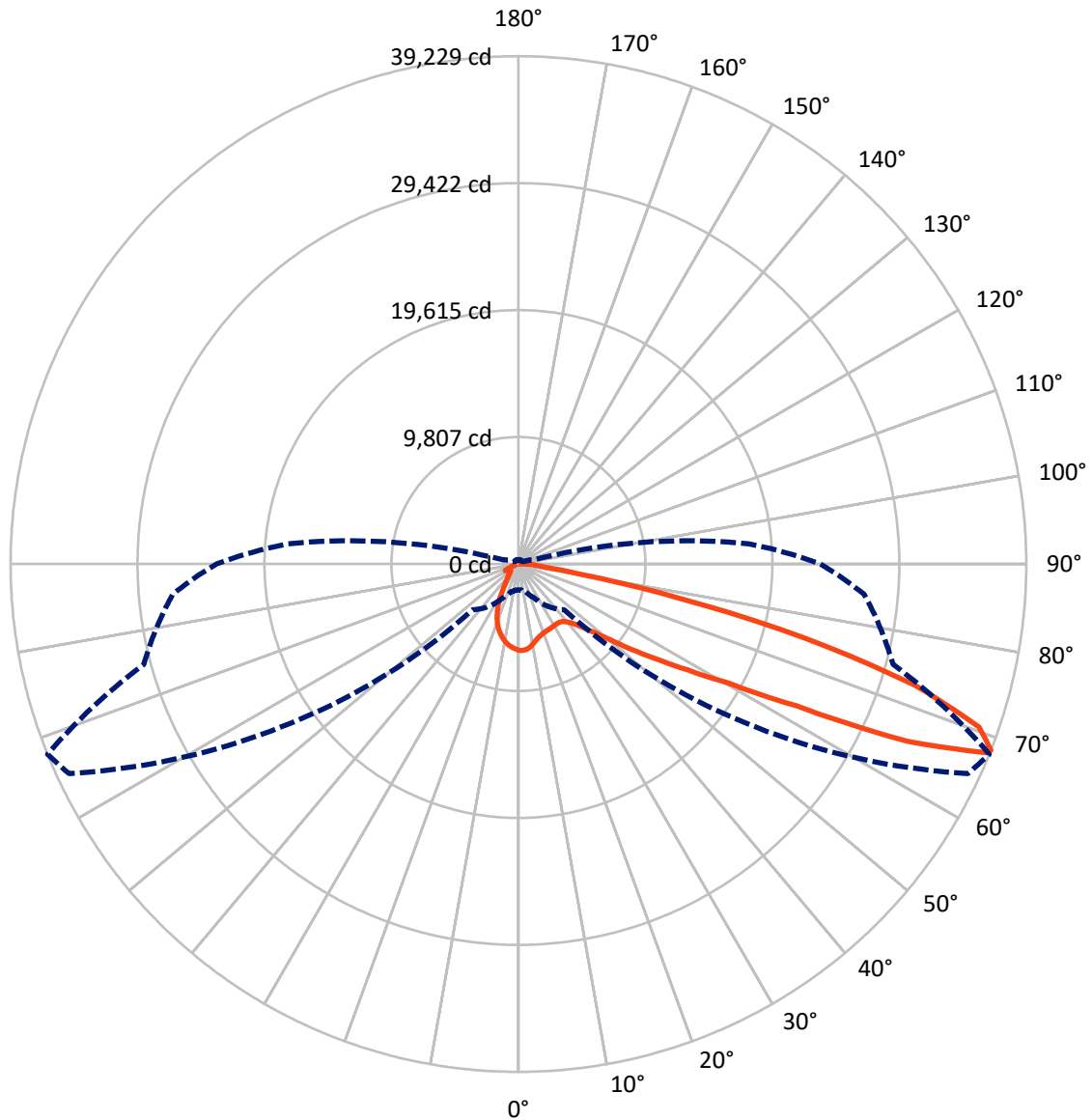
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.4 fc  
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P270665  
CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P270665

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5019.7	0.0	5019.7
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	25662.4	0.0	25662.4
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	30682.1	0.0	30682.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	572.0	1.9
10°-20°	1326.8	4.3
20°-30°	1794.4	5.8
30°-40°	2530.0	8.2
40°-50°	4160.3	13.6
50°-60°	6448.8	21.0
60°-70°	8361.3	27.3
70°-80°	4798.2	15.6
80°-90°	690.4	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°	30682.1	100.0
0°-180°	30682.1	100.0



REPORT NUMBER: P270665

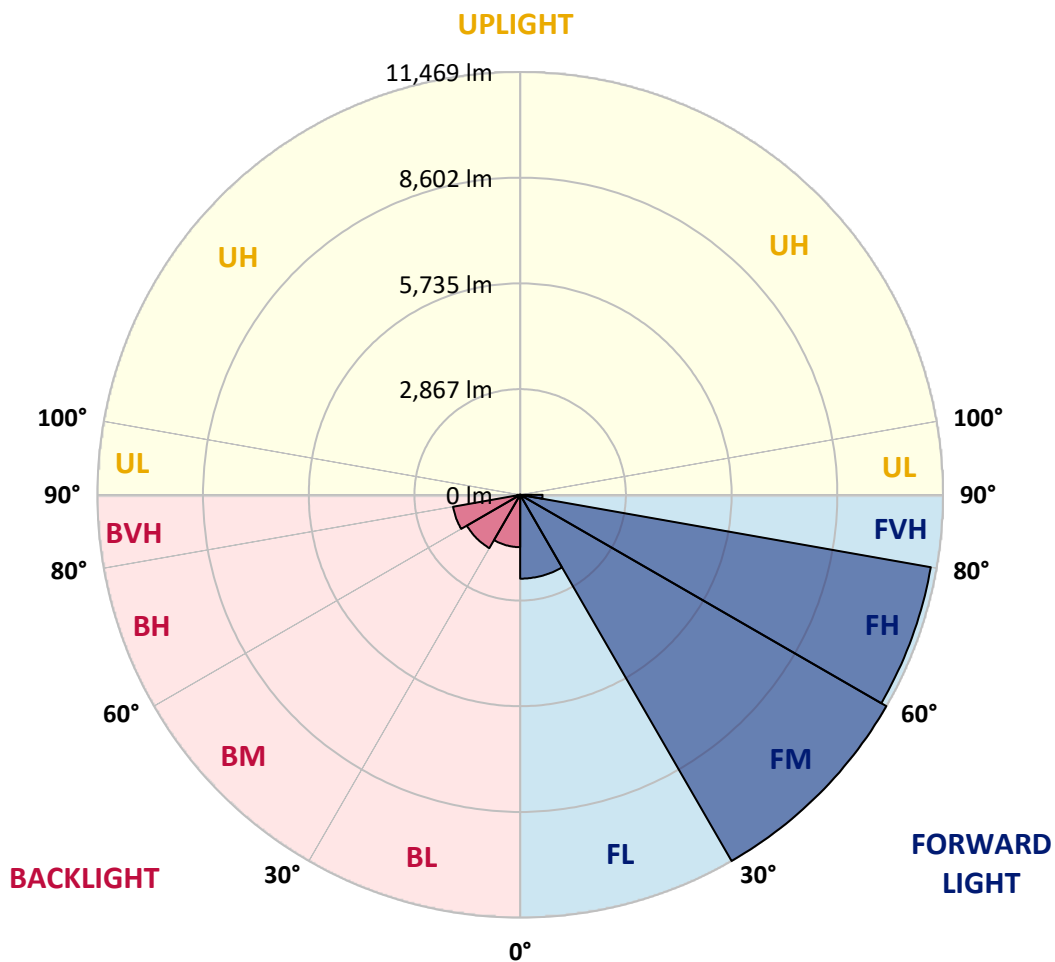
CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-7027

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2274.0	7.4			
FM (30°-60°)	11469.5	37.4			
FH (60°-80°)	11310.8	36.9			G4/12000
FVH (80°-90°)	608.1	2.0			G4/750
BL (0°-30°)	1419.1	4.6	B3/2500		
BM (30°-60°)	1669.6	5.4	B2/2500		
BH (60°-80°)	1848.7	6.0	B3/2500		G3/2500
BVH (80°-90°)	82.3	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-G4**

Type II Medium





REPORT NUMBER: P270665

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2
2.5°	6497.8	6549.9	6549.9	6588.0	6622.0	6650.2	6674.1	6674.1	6674.1	6658.1	6644.0
5°	5814.3	5884.4	5894.5	5990.6	6117.0	6271.2	6443.6	6596.0	6626.1	6682.1	6704.2
7.5°	5339.3	5361.4	5399.4	5465.6	5593.8	5784.2	6054.8	6395.6	6477.8	6654.1	6746.4
10°	5002.7	5020.6	5052.6	5118.8	5235.1	5407.4	5674.1	6117.0	6253.2	6565.9	6748.2
12.5°	4756.0	4770.1	4800.2	4860.3	4978.5	5132.8	5405.5	5866.4	6034.9	6477.8	6776.4
15°	4563.7	4587.7	4611.8	4669.8	4790.1	4938.4	5215.1	5684.0	5866.4	6407.6	6828.5
17.5°	4487.6	4499.5	4503.6	4533.6	4641.8	4792.2	5068.7	5555.7	5744.2	6351.5	6868.6
20°	4535.6	4537.6	4497.5	4477.5	4539.7	4678.0	4946.4	5459.5	5652.0	6301.3	6884.6
22.5°	4746.0	4746.0	4641.8	4553.7	4511.6	4597.7	4864.3	5393.5	5601.9	6263.3	6884.6
25°	5146.8	5128.9	4966.5	4792.2	4605.8	4569.7	4812.2	5351.4	5563.8	6243.2	6858.5
27.5°	5674.1	5658.0	5451.5	5193.0	4856.2	4629.9	4794.2	5317.2	5525.7	6213.1	6802.4
30°	6315.4	6301.3	6066.9	5728.1	5231.1	4820.2	4836.3	5293.3	5495.7	6163.0	6708.3
32.5°	6954.8	6946.8	6760.4	6413.5	5748.2	5142.8	4946.4	5289.2	5479.7	6102.9	6594.0
35°	7598.1	7598.1	7483.9	7191.2	6443.6	5627.9	5177.0	5363.4	5509.7	6070.8	6495.7
37.5°	8548.1	8510.1	8297.6	7994.9	7319.5	6257.2	5549.8	5519.6	5625.9	6125.0	6463.8
40°	10019.2	9909.1	9377.9	8868.7	8275.5	7063.0	6094.9	5822.4	5886.5	6309.3	6539.9
42.5°	11558.5	11384.1	10680.7	9867.0	9263.6	8057.1	6810.4	6313.4	6311.4	6666.1	6782.4
45°	12879.3	12789.1	12027.4	10995.3	10392.0	9175.5	7714.4	7042.9	6970.8	7219.3	7249.3
47.5°	13647.0	13586.9	13127.8	12189.8	11730.8	10496.2	8860.8	8055.1	7918.7	8067.0	8021.0
50°	13434.5	13492.6	13360.3	12881.2	13170.0	12352.1	10321.9	9442.1	9183.5	9331.8	9219.6
52.5°	12316.1	12472.4	12590.6	12682.9	13997.7	14835.5	12157.8	11173.7	10959.2	10933.2	10824.9
55°	10301.9	10550.4	10923.1	11600.6	13775.1	16829.7	15364.6	13268.1	12955.4	12791.1	12833.1
57.5°	7010.8	7387.7	8191.4	9480.2	12618.8	17679.5	20106.7	15973.8	15444.6	14859.6	14995.8
60°	3862.3	4176.8	5132.8	6431.7	9979.1	17553.2	24309.6	20371.1	18705.6	17154.4	17434.9
62.5°	2499.4	2567.4	3279.0	4393.3	6125.0	15496.8	26644.4	27720.7	24191.3	20180.8	20575.6
65°	2008.3	2056.4	2405.1	3543.5	4267.0	9969.1	26748.7	35344.9	33018.0	24293.6	24305.5
67.5°	1962.2	1984.1	2186.7	2980.2	4002.5	5427.5	23120.9	38351.2	38890.4	29147.8	26800.8
68°	1990.3	2016.2	2220.7	2888.1	4000.5	5002.7	21369.3	38305.2	39229.2	29959.6	26800.8
70°	1755.6	1787.7	2264.7	2988.3	3830.2	4301.2	14633.0	36270.9	37758.0	31825.4	25429.8
72.5°	918.0	891.8	1120.4	2358.9	4311.1	4481.6	7730.4	30302.3	32038.0	29474.5	21970.6
75°	715.5	651.5	627.3	932.0	3792.0	4647.8	4489.5	21537.7	22848.4	21247.0	14685.1
77.5°	673.4	595.2	549.1	551.2	1669.5	4836.3	3631.7	12674.8	12674.8	10135.4	4685.9
80°	541.1	468.9	438.9	501.1	805.7	4457.5	3789.9	5776.2	4926.5	2619.5	1290.8
82.5°	356.7	318.7	320.6	406.8	611.2	2976.4	4389.3	2852.1	2142.5	1160.5	759.5
85°	226.6	194.5	216.4	284.7	457.0	1326.7	4345.2	1982.2	1419.1	651.5	378.8
87.5°	114.3	88.3	108.2	148.3	278.6	380.8	3577.6	1769.8	1052.3	270.6	206.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270665

CATALOG NUMBER: NAV-AF-06-D-UNV-SL2-7027

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2	6676.2
2.5°	6644.0	6599.9	6578.0	6541.8	6497.8	6453.7	6423.6	6409.5	6401.6	6405.5	6403.6
5°	6692.3	6634.1	6539.9	6405.5	6267.2	6121.1	6008.8	5922.5	5868.4	5852.4	5848.3
7.5°	6728.2	6644.0	6467.6	6223.2	5986.7	5730.2	5511.7	5337.3	5219.1	5165.0	5163.0
10°	6722.2	6614.0	6335.4	5974.6	5627.9	5251.1	4908.3	4615.9	4403.3	4301.2	4297.1
12.5°	6728.2	6579.9	6173.2	5684.0	5187.1	4647.8	4138.9	3683.8	3367.1	3216.8	3210.8
15°	6752.3	6543.9	6006.7	5359.4	4671.9	3910.3	3182.8	2611.6	2322.9	2224.7	2224.7
17.5°	6750.4	6483.7	5814.3	4982.5	4060.6	3040.5	2172.6	1819.8	1791.8	1881.9	1896.1
20°	6710.2	6387.6	5565.8	4535.6	3343.1	2104.5	1473.1	1423.0	1647.5	1896.1	1924.1
22.5°	6648.0	6263.3	5279.2	4016.5	2507.3	1371.0	1136.4	1212.5	1517.1	1825.8	1869.9
25°	6561.8	6113.0	4950.5	3413.2	1667.6	986.1	948.0	1042.3	1256.6	1463.1	1495.1
27.5°	6435.6	5922.5	4591.7	2759.9	1064.2	811.7	825.7	891.8	984.2	1072.2	1090.4
30°	6277.3	5700.0	4201.0	2036.3	807.8	725.6	749.5	789.7	829.8	885.9	897.9
32.5°	6117.0	5473.6	3794.0	1399.0	705.4	679.5	703.6	725.6	759.5	797.7	805.7
35°	5972.7	5263.2	3375.1	976.1	661.4	649.4	661.4	675.4	709.5	747.6	751.6
37.5°	5868.4	5090.8	2938.3	771.6	635.3	623.3	629.4	635.3	675.4	731.6	737.6
40°	5854.4	4976.5	2495.3	693.5	615.2	599.3	595.2	599.3	651.5	715.5	721.5
42.5°	5990.6	4982.5	2062.4	661.4	599.3	581.3	565.3	573.2	619.3	669.3	673.4
45°	6313.4	5122.9	1687.6	647.4	585.2	571.2	547.2	551.2	573.2	599.3	603.3
47.5°	6882.5	5429.5	1400.9	639.4	573.2	561.3	531.1	519.1	521.0	535.1	535.1
50°	7792.4	5942.6	1226.5	631.4	563.1	541.1	507.1	483.0	477.0	485.1	487.1
52.5°	9149.3	6822.4	1142.5	615.2	545.1	515.1	477.0	452.9	443.0	450.9	450.9
55°	10983.2	8227.4	1102.3	593.3	523.2	483.0	449.0	428.9	420.9	427.0	427.0
57.5°	13073.8	10053.3	1170.5	563.1	495.1	449.0	424.9	410.9	404.9	410.9	413.0
60°	15556.9	12442.3	1639.4	525.1	465.1	418.9	404.9	396.8	392.7	398.8	398.8
62.5°	18857.9	15621.0	2537.4	495.1	433.0	390.9	386.8	382.8	378.8	384.8	384.8
65°	22421.5	18513.2	2611.6	477.0	404.9	366.8	368.8	368.8	364.8	370.8	370.8
67.5°	23556.0	18262.7	1459.0	454.9	370.8	342.8	350.8	350.8	348.7	354.7	352.8
68°	23315.4	17865.9	1270.7	449.0	364.8	336.8	344.7	346.7	344.7	350.8	348.7
70°	21523.6	15685.2	835.8	414.8	338.8	316.7	328.7	330.7	328.7	336.8	334.7
72.5°	17767.7	11764.9	617.3	362.7	306.6	290.6	302.6	304.6	306.6	314.6	312.7
75°	11283.9	6497.8	487.1	308.7	274.6	260.6	272.5	278.6	282.5	294.6	288.6
77.5°	3090.6	1972.1	394.9	262.6	236.6	230.4	238.5	246.6	250.5	264.6	254.5
80°	1082.3	871.9	328.7	222.5	196.4	194.5	202.4	210.5	214.4	226.6	214.4
82.5°	657.4	569.2	262.6	174.5	154.2	152.4	162.4	170.4	174.5	174.5	166.4
85°	342.8	300.7	192.3	122.3	106.2	100.3	118.2	128.3	130.3	128.3	122.3
87.5°	192.3	170.4	102.1	58.1	48.1	50.1	62.2	76.1	82.1	80.2	76.1
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)