

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: P196578

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196578  
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-SL2-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 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: 34155.5 lumens  
Efficiency: N/A  
Efficacy: 102.6 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 - G5

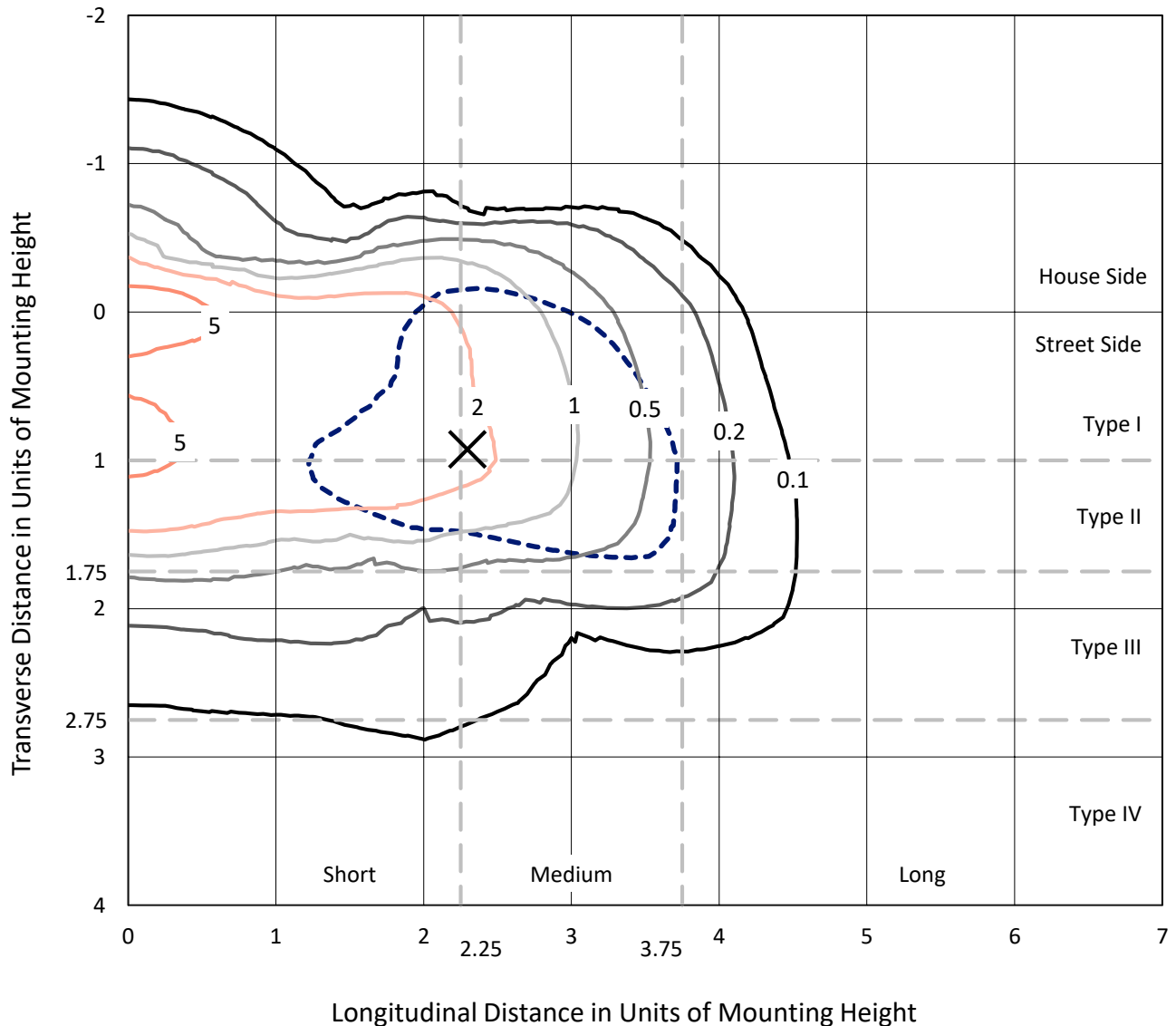
Input Watts (W): 333  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

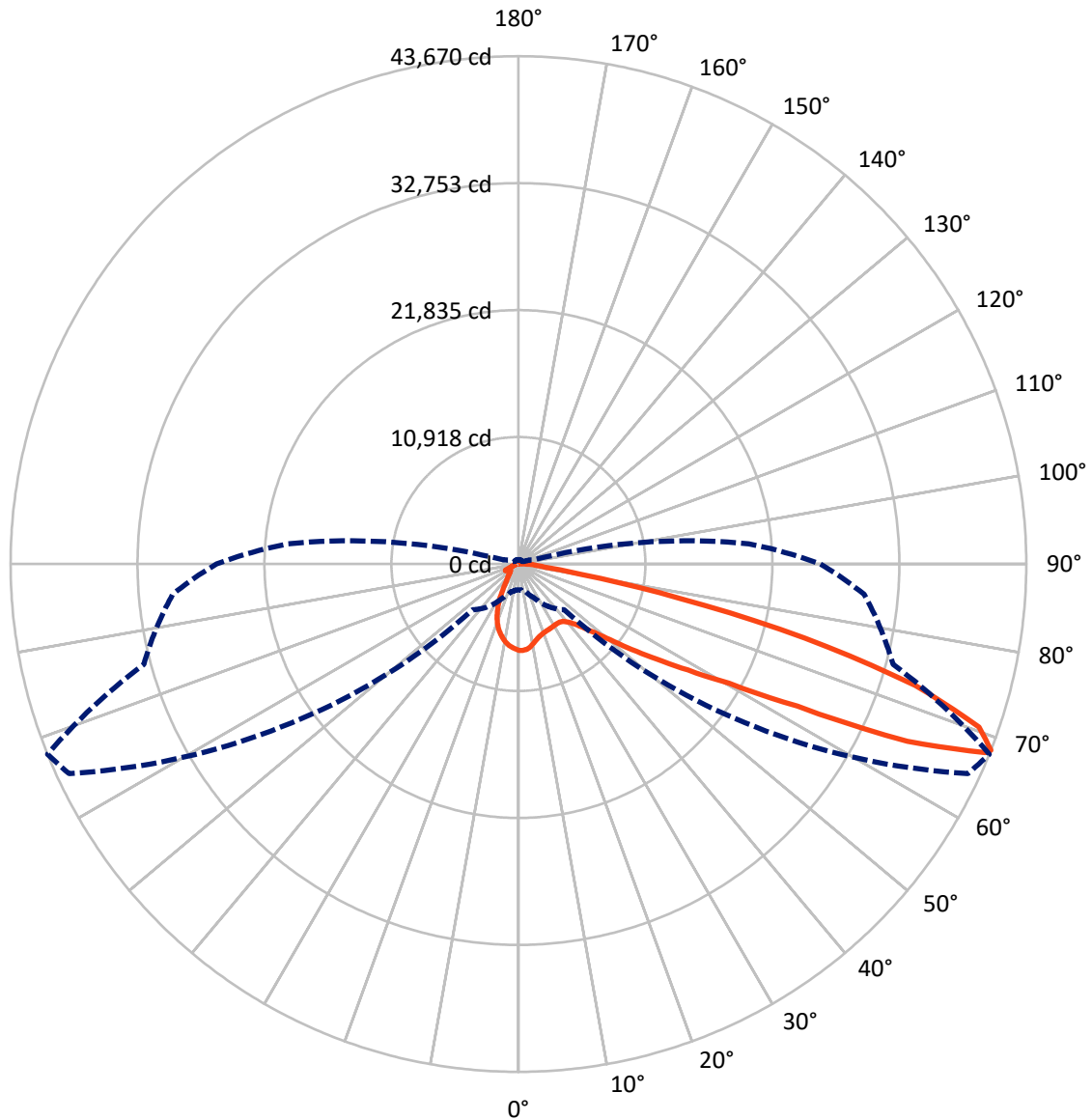
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5587.9	0.0	5587.9
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	28567.6	0.0	28567.6
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	34155.5	0.0	34155.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	636.8	1.9
10°-20°	1477.0	4.3
20°-30°	1997.5	5.8
30°-40°	2816.4	8.2
40°-50°	4631.3	13.6
50°-60°	7178.8	21.0
60°-70°	9307.9	27.3
70°-80°	5341.4	15.6
80°-90°	768.5	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°	34155.5	100.0
0°-180°	34155.5	100.0



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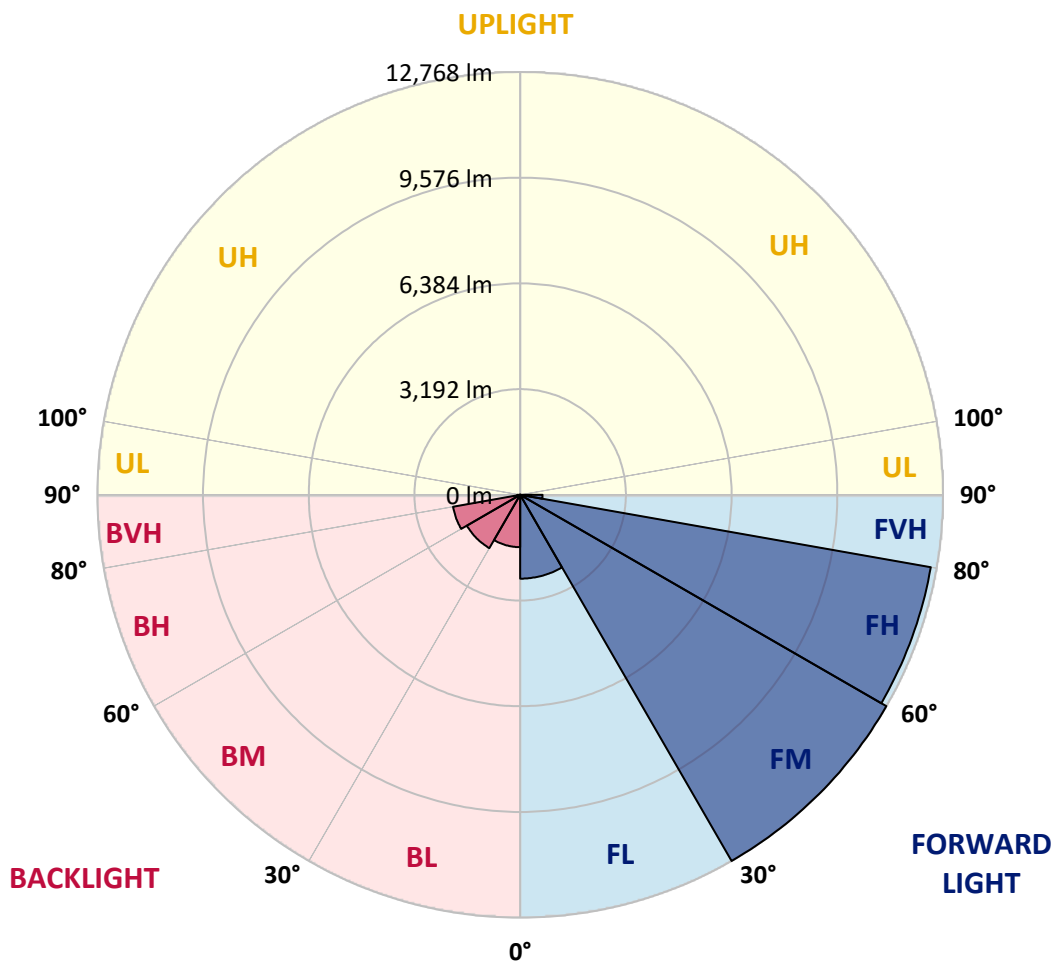
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2531.5	7.4			
FM	(30°-60°)	12767.9	37.4			
FH	(60°-80°)	12591.3	36.9			G5
FVH	(80°-90°)	676.9	2.0			G4/750
BL	(0°-30°)	1579.8	4.6	B3/2500		
BM	(30°-60°)	1858.6	5.4	B2/2500		
BH	(60°-80°)	2058.0	6.0	B3/2500		G3/2500
BVH	(80°-90°)	91.6	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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0
2.5°	7233.4	7291.4	7291.4	7333.8	7371.7	7403.0	7429.7	7429.7	7429.7	7411.8	7396.2
5°	6472.5	6550.6	6561.8	6668.8	6809.5	6981.2	7173.1	7342.7	7376.2	7438.6	7463.2
7.5°	5943.8	5968.3	6010.7	6084.3	6227.1	6439.0	6740.3	7119.6	7211.1	7407.4	7510.1
10°	5569.0	5589.0	5624.6	5698.3	5827.8	6019.6	6316.4	6809.5	6961.1	7309.2	7512.2
12.5°	5294.4	5310.1	5343.6	5410.5	5542.1	5713.9	6017.4	6530.5	6718.1	7211.1	7543.5
15°	5080.3	5107.1	5133.9	5198.5	5332.4	5497.5	5805.5	6327.5	6530.5	7133.0	7601.5
17.5°	4995.6	5008.9	5013.4	5046.8	5167.3	5334.7	5642.5	6184.7	6394.5	7070.5	7646.2
20°	5049.1	5051.3	5006.7	4984.4	5053.6	5207.6	5506.4	6077.6	6291.8	7014.7	7664.0
22.5°	5283.3	5283.3	5167.3	5069.2	5022.3	5118.2	5415.0	6004.1	6236.1	6972.3	7664.0
25°	5729.5	5709.5	5528.7	5334.7	5127.2	5087.0	5357.0	5957.2	6193.7	6950.0	7634.9
27.5°	6316.4	6298.5	6068.7	5780.9	5406.0	5154.0	5336.9	5919.2	6151.3	6916.5	7572.5
30°	7030.3	7014.7	6753.7	6376.6	5823.3	5365.9	5383.8	5892.5	6117.8	6860.7	7467.7
32.5°	7742.1	7733.2	7525.7	7139.6	6398.9	5725.0	5506.4	5888.0	6100.0	6793.8	7340.5
35°	8458.3	8458.3	8331.1	8005.3	7173.1	6265.0	5763.1	5970.6	6133.4	6758.1	7231.1
37.5°	9515.8	9473.5	9236.9	8900.0	8148.1	6965.6	6178.1	6144.5	6262.8	6818.4	7195.5
40°	11153.5	11030.9	10439.5	9872.7	9212.4	7862.6	6784.9	6481.5	6552.9	7023.6	7280.3
42.5°	12867.0	12672.9	11889.8	10984.0	10312.3	8969.2	7581.4	7028.1	7025.9	7420.8	7550.2
45°	14337.3	14236.9	13389.0	12240.1	11568.5	10214.2	8587.7	7840.2	7759.9	8036.6	8070.0
47.5°	15191.9	15125.0	14614.0	13569.8	13058.8	11684.5	9863.9	8967.0	8815.2	8980.3	8929.0
50°	14955.4	15020.1	14872.8	14339.5	14660.9	13750.5	11490.4	10511.0	10223.1	10388.2	10263.3
52.5°	13710.4	13884.4	14016.0	14118.7	15582.3	16515.0	13534.2	12438.6	12199.9	12170.9	12050.4
55°	11468.1	11744.8	12159.7	12913.9	15334.6	18734.9	17104.0	14770.2	14422.1	14239.2	14285.9
57.5°	7804.5	8224.0	9118.7	10553.4	14047.3	19680.9	22382.9	17782.2	17193.1	16541.8	16693.4
60°	4299.5	4649.7	5713.9	7159.8	11108.8	19540.4	27061.6	22677.3	20823.2	19096.4	19408.7
62.5°	2782.3	2858.1	3650.2	4890.7	6818.4	17251.2	29660.8	30858.9	26929.9	22465.4	22904.9
65°	2235.6	2289.2	2677.4	3944.7	4750.1	11097.7	29776.9	39346.2	36755.9	27043.8	27057.1
67.5°	2184.3	2208.7	2434.2	3317.6	4455.6	6041.9	25738.4	42692.9	43293.1	32447.5	29834.9
68°	2215.6	2244.5	2472.1	3215.1	4453.4	5569.0	23788.5	42641.6	43670.2	33351.2	29834.9
70°	1954.4	1990.1	2521.1	3326.6	4263.8	4788.1	16289.6	40377.0	42032.5	35428.3	28308.7
72.5°	1021.9	992.8	1247.2	2626.0	4799.2	4988.9	8605.5	33732.7	35664.9	32811.2	24457.8
75°	796.5	725.2	698.3	1037.5	4221.3	5174.0	4997.7	23975.9	25435.0	23652.3	16347.6
77.5°	749.6	662.6	611.3	613.6	1858.5	5383.8	4042.8	14109.7	14109.7	11282.8	5216.4
80°	602.4	522.0	488.6	557.8	896.9	4962.1	4219.0	6430.1	5484.2	2916.1	1436.9
82.5°	397.1	354.8	356.9	452.9	680.4	3313.3	4886.2	3175.0	2385.1	1291.9	845.5
85°	252.2	216.5	240.9	316.9	508.7	1476.9	4837.1	2206.6	1579.7	725.2	421.7
87.5°	127.2	98.3	120.5	165.1	310.1	423.9	3982.6	1970.1	1171.4	301.2	229.8
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°	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0	7432.0
2.5°	7396.2	7347.1	7322.7	7282.4	7233.4	7184.3	7150.8	7135.1	7126.3	7130.7	7128.5
5°	7449.9	7385.1	7280.3	7130.7	6976.7	6814.0	6689.0	6593.0	6532.8	6514.9	6510.4
7.5°	7489.9	7396.2	7199.8	6927.7	6664.4	6378.9	6135.7	5941.5	5809.9	5749.7	5747.5
10°	7483.2	7362.8	7052.6	6651.0	6265.0	5845.6	5464.0	5138.4	4901.8	4788.1	4783.6
12.5°	7489.9	7324.8	6872.0	6327.5	5774.3	5174.0	4607.4	4100.8	3748.3	3581.0	3574.3
15°	7516.7	7284.7	6686.7	5966.1	5200.8	4353.0	3543.1	2907.2	2585.9	2476.6	2476.6
17.5°	7514.6	7217.7	6472.5	5546.6	4520.3	3384.7	2418.6	2025.8	1994.6	2095.0	2110.7
20°	7469.8	7110.7	6195.9	5049.1	3721.6	2342.7	1639.9	1584.1	1834.0	2110.7	2141.9
22.5°	7400.6	6972.3	5876.8	4471.2	2791.1	1526.2	1265.1	1349.8	1688.9	2032.5	2081.6
25°	7304.7	6805.0	5510.9	3799.6	1856.4	1097.7	1055.3	1160.3	1398.9	1628.7	1664.4
27.5°	7164.2	6593.0	5111.5	3072.3	1184.7	903.6	919.2	992.8	1095.6	1193.6	1213.8
30°	6987.9	6345.3	4676.6	2266.8	899.2	807.7	834.4	879.1	923.7	986.2	999.5
32.5°	6809.5	6093.3	4223.5	1557.4	785.3	756.4	783.2	807.7	845.5	888.0	896.9
35°	6648.9	5859.0	3757.2	1086.6	736.3	722.9	736.3	751.9	789.8	832.2	836.7
37.5°	6532.8	5667.1	3270.9	859.0	707.2	693.9	700.6	707.2	751.9	814.4	821.1
40°	6517.2	5539.9	2777.8	772.0	684.9	667.1	662.6	667.1	725.2	796.5	803.2
42.5°	6668.8	5546.6	2295.9	736.3	667.1	647.1	629.3	638.1	689.4	745.1	749.6
45°	7028.1	5702.8	1878.6	720.7	651.5	635.9	609.1	613.6	638.1	667.1	671.6
47.5°	7661.7	6044.2	1559.5	711.8	638.1	624.8	591.2	577.9	580.0	595.7	595.7
50°	8674.6	6615.3	1365.4	702.9	626.9	602.4	564.5	537.7	531.0	540.0	542.2
52.5°	10185.1	7594.8	1271.8	684.9	606.8	573.4	531.0	504.2	493.1	502.0	502.0
55°	12226.6	9158.8	1227.1	660.5	582.4	537.7	499.8	477.5	468.5	475.3	475.3
57.5°	14553.8	11191.4	1303.0	626.9	551.1	499.8	473.0	457.4	450.7	457.4	459.7
60°	17318.1	13850.9	1825.0	584.5	517.7	466.3	450.7	441.7	437.2	444.0	444.0
62.5°	20992.8	17389.4	2824.7	551.1	482.0	435.1	430.6	426.1	421.7	428.4	428.4
65°	24959.8	20609.0	2907.2	531.0	450.7	408.3	410.5	410.5	406.1	412.8	412.8
67.5°	26222.7	20330.2	1624.2	506.4	412.8	381.6	390.5	390.5	388.2	394.9	392.7
68°	25954.9	19888.5	1414.6	499.8	406.1	374.9	383.7	386.0	383.7	390.5	388.2
70°	23960.2	17460.9	930.4	461.8	377.1	352.5	365.9	368.1	365.9	374.9	372.6
72.5°	19779.1	13096.8	687.2	403.8	341.3	323.5	336.9	339.1	341.3	350.2	348.1
75°	12561.3	7233.4	542.2	343.6	305.7	290.1	303.4	310.1	314.5	328.0	321.3
77.5°	3440.5	2195.4	439.6	292.3	263.4	256.5	265.5	274.5	278.9	294.6	283.3
80°	1204.8	970.6	365.9	247.7	218.6	216.5	225.3	234.3	238.7	252.2	238.7
82.5°	731.8	633.6	292.3	194.2	171.7	169.6	180.8	189.7	194.2	194.2	185.2
85°	381.6	334.7	214.1	136.1	118.2	111.6	131.6	142.8	145.0	142.8	136.1
87.5°	214.1	189.7	113.7	64.7	53.5	55.8	69.2	84.7	91.4	89.3	84.7
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)