

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: P196584

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196584
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-SL2-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1200mA 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: 37468.3 lumens
Efficiency: N/A
Efficacy: 98.1 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 - 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

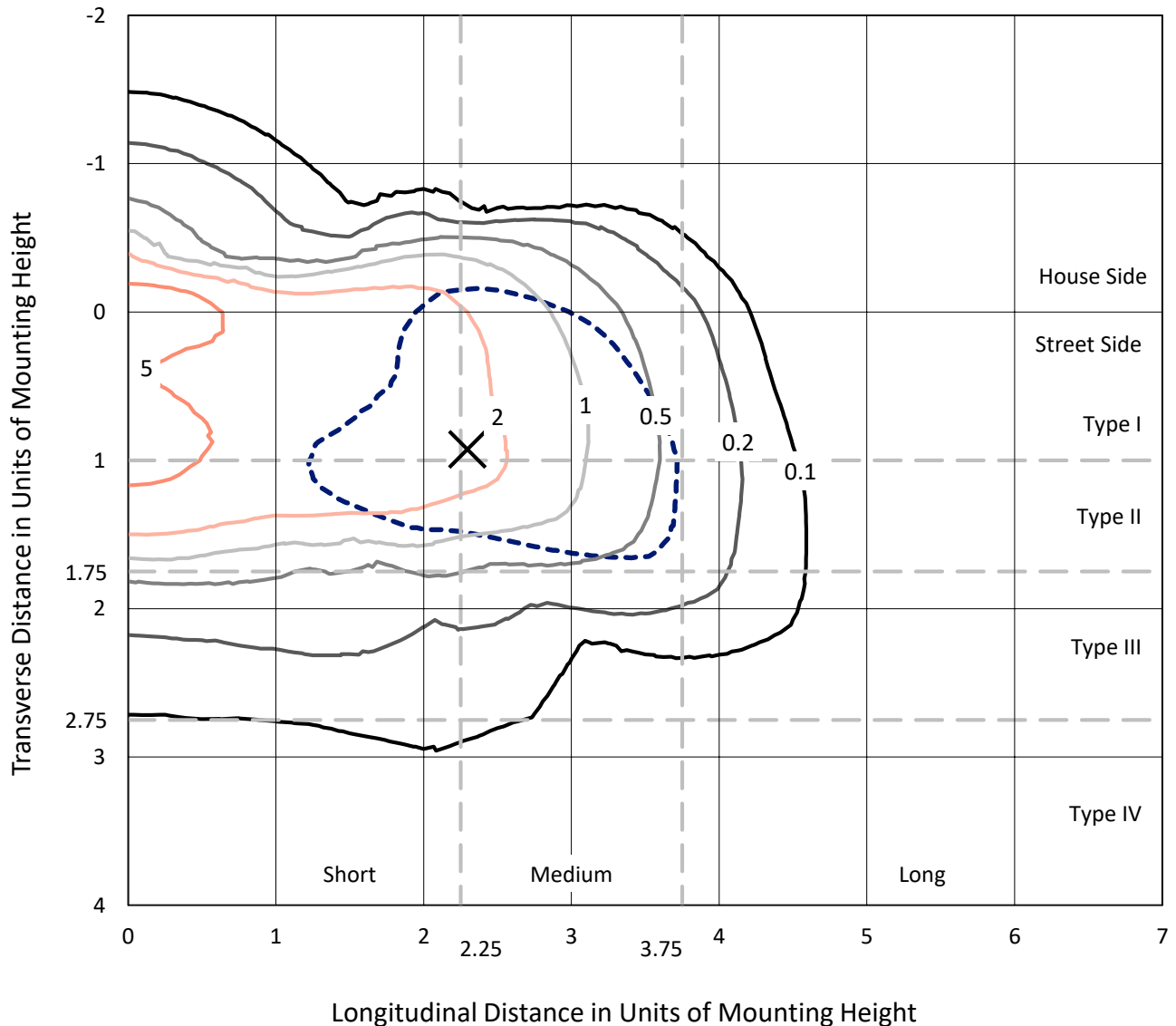


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Iso-Footcandle Lines of Horizontal Illumination

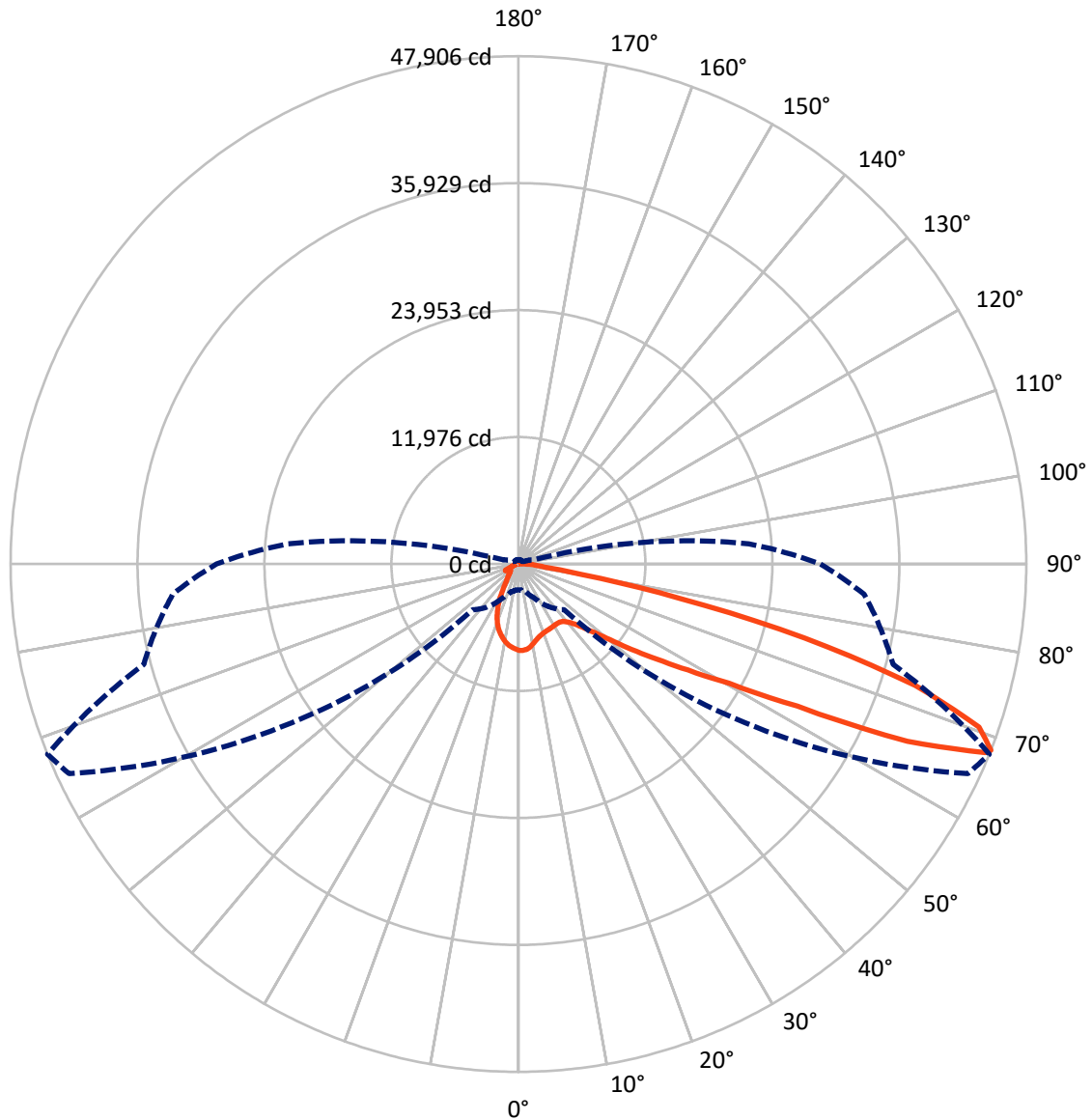
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 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
House Side	Lumens	6129.9	0.0	6129.9
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	31338.4	0.0	31338.4
	% Fixture	83.6	0.0	83.6
Total	Lumens	37468.3	0.0	37468.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	698.5	1.9
10°-20°	1620.2	4.3
20°-30°	2191.3	5.8
30°-40°	3089.6	8.2
40°-50°	5080.4	13.6
50°-60°	7875.1	21.0
60°-70°	10210.7	27.3
70°-80°	5859.4	15.6
80°-90°	843.0	2.2
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°	37468.3	100.0
0°-180°	37468.3	100.0

Coefficient of Utilization



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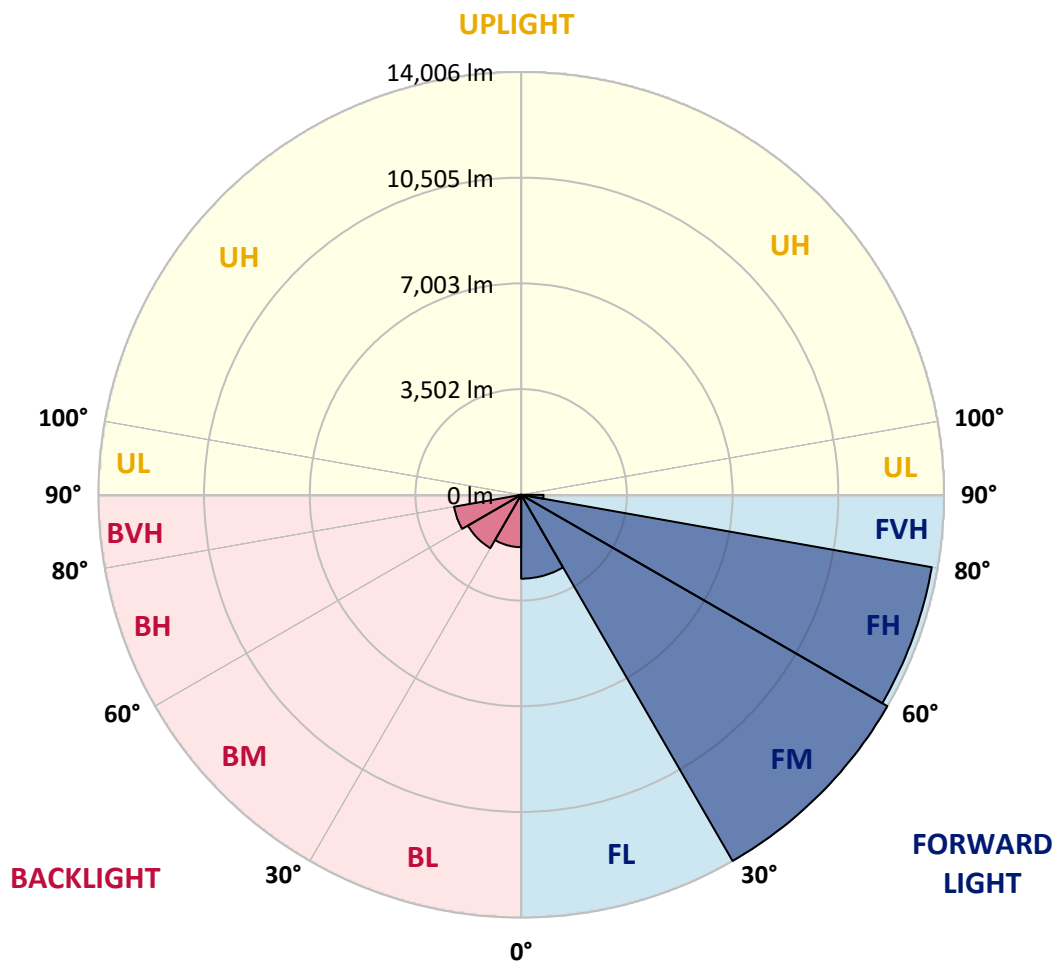
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2777.0	7.4			
FM (30°-60°)	14006.3	37.4			
FH (60°-80°)	13812.5	36.9			G5
FVH (80°-90°)	742.6	2.0			G4/750
BL (0°-30°)	1733.0	4.6	B3/2500		
BM (30°-60°)	2038.9	5.4	B2/2500		
BH (60°-80°)	2257.6	6.0	B3/2500		G3/2500
BVH (80°-90°)	100.5	0.3			G2/225
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°	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8
2.5°	7935.0	7998.6	7998.6	8045.1	8086.8	8120.9	8150.3	8150.3	8150.3	8130.7	8113.6
5°	7100.3	7186.0	7198.2	7315.7	7469.9	7658.3	7868.9	8054.8	8091.5	8160.1	8187.1
7.5°	6520.3	6547.2	6593.7	6674.4	6831.1	7063.6	7394.0	7810.1	7910.5	8125.8	8238.4
10°	6109.0	6131.1	6170.3	6251.0	6393.0	6603.5	6929.0	7469.9	7636.3	8018.1	8240.9
12.5°	5808.0	5825.1	5861.9	5935.3	6079.7	6268.2	6601.0	7163.9	7369.5	7910.5	8275.2
15°	5573.1	5602.4	5631.8	5702.8	5849.6	6030.8	6368.5	6941.2	7163.9	7824.8	8338.7
17.5°	5480.0	5494.7	5499.7	5536.3	5668.5	5852.0	6189.9	6784.6	7014.7	7756.4	8387.8
20°	5538.8	5541.2	5492.3	5467.8	5543.7	5712.5	6040.5	6667.1	6902.0	7695.0	8407.3
22.5°	5795.7	5795.7	5668.5	5560.9	5509.4	5614.7	5940.2	6586.3	6840.8	7648.5	8407.3
25°	6285.2	6263.3	6065.0	5852.0	5624.4	5580.4	5876.5	6534.9	6794.4	7624.1	8375.5
27.5°	6929.0	6909.4	6657.2	6341.6	5930.4	5653.8	5854.5	6493.3	6747.9	7587.4	8307.0
30°	7712.2	7695.0	7408.8	6995.1	6388.1	5886.4	5905.9	6464.0	6711.1	7526.3	8191.9
32.5°	8492.9	8483.2	8255.5	7832.1	7019.6	6280.4	6040.5	6459.1	6691.6	7452.8	8052.4
35°	9278.7	9278.7	9139.1	8781.8	7868.9	6872.7	6322.0	6549.6	6728.3	7413.6	7932.4
37.5°	10438.7	10392.3	10132.8	9763.3	8938.4	7641.3	6777.3	6740.5	6870.2	7479.7	7893.3
40°	12235.3	12100.7	11452.0	10830.4	10105.9	8625.2	7443.0	7110.1	7188.3	7704.9	7986.3
42.5°	14114.9	13902.0	13043.0	12049.2	11312.6	9839.2	8316.7	7709.8	7707.2	8140.6	8282.5
45°	15727.9	15617.7	14687.7	13427.2	12690.5	11204.9	9420.6	8600.7	8512.5	8816.0	8852.7
47.5°	16665.4	16591.9	16031.4	14885.9	14325.4	12817.7	10820.6	9836.7	9670.2	9851.4	9795.1
50°	16405.9	16476.9	16315.3	15730.4	16082.9	15084.3	12604.8	11530.3	11214.6	11395.7	11258.7
52.5°	15040.2	15231.1	15375.5	15488.0	17093.6	18116.8	14846.8	13645.1	13383.1	13351.4	13219.2
55°	12580.3	12883.9	13339.1	14166.3	16822.0	20552.0	18762.9	16202.7	15821.0	15620.2	15671.6
57.5°	8561.5	9021.6	10003.1	11576.9	15409.7	21589.7	24553.8	19506.9	18860.8	18146.1	18312.5
60°	4716.4	5100.7	6268.2	7854.2	12186.3	21435.6	29686.3	24876.8	22843.0	20948.5	21291.2
62.5°	3052.0	3135.3	4004.2	5365.0	7479.7	18924.4	32537.6	33851.9	29541.8	24644.3	25126.5
65°	2452.5	2511.3	2937.0	4327.2	5210.8	12174.1	32664.9	43162.5	40320.8	29666.6	29681.4
67.5°	2396.2	2423.1	2670.3	3639.5	4887.7	6628.0	28234.9	46833.8	47492.2	35594.6	32728.5
68°	2430.4	2462.2	2712.0	3526.9	4885.3	6109.0	26095.7	46777.3	47905.7	36585.9	32728.5
70°	2144.0	2183.2	2765.7	3649.3	4677.3	5252.4	17869.5	44293.1	46109.3	38864.5	31054.4
72.5°	1121.0	1089.2	1368.2	2880.7	5264.6	5472.7	9440.2	37004.4	39124.0	35993.6	26829.9
75°	873.7	795.4	766.1	1138.2	4630.7	5675.8	5482.5	26301.3	27902.0	25946.4	17933.2
77.5°	822.4	726.9	670.7	673.0	2038.8	5905.9	4435.0	15478.2	15478.2	12377.2	5722.4
80°	660.8	572.7	536.0	611.9	983.9	5443.3	4628.3	7053.8	6016.1	3198.9	1576.2
82.5°	435.6	389.2	391.5	496.8	746.5	3634.6	5360.2	3482.8	2616.4	1417.1	927.6
85°	276.5	237.4	264.3	347.6	558.0	1620.4	5306.2	2420.6	1732.9	795.4	462.6
87.5°	139.6	107.7	132.2	181.2	340.3	465.0	4368.8	2161.1	1285.0	330.4	252.1
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°	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8	8152.8
2.5°	8113.6	8059.7	8032.8	7988.8	7935.0	7881.1	7844.4	7827.3	7817.5	7822.3	7819.9
5°	8172.4	8101.3	7986.3	7822.3	7653.5	7474.8	7337.8	7232.5	7166.5	7146.8	7141.9
7.5°	8216.4	8113.6	7898.3	7599.6	7310.7	6997.5	6730.7	6517.8	6373.4	6307.3	6305.0
10°	8209.0	8076.9	7736.6	7296.2	6872.7	6412.5	5994.1	5636.6	5377.3	5252.4	5247.5
12.5°	8216.4	8035.3	7538.5	6941.2	6334.2	5675.8	5054.3	4498.5	4111.9	3928.3	3921.0
15°	8245.8	7991.2	7335.2	6544.7	5705.2	4775.1	3886.7	3189.2	2836.7	2716.7	2716.7
17.5°	8243.3	7917.8	7100.3	6084.5	4958.7	3712.9	2653.2	2222.4	2188.1	2298.3	2315.4
20°	8194.3	7800.3	6796.8	5538.8	4082.5	2569.9	1799.0	1737.8	2011.9	2315.4	2349.6
22.5°	8118.5	7648.5	6446.9	4904.8	3061.9	1674.1	1387.7	1480.8	1852.8	2229.8	2283.5
25°	8013.3	7465.0	6045.5	4168.1	2036.4	1204.1	1157.7	1272.8	1534.6	1786.7	1825.8
27.5°	7859.0	7232.5	5607.3	3370.2	1299.6	991.2	1008.4	1089.2	1201.8	1309.5	1331.5
30°	7665.7	6960.8	5130.0	2486.7	986.4	886.0	915.4	964.3	1013.3	1081.7	1096.5
32.5°	7469.9	6684.3	4633.2	1708.4	861.5	829.8	859.1	886.0	927.6	974.1	983.9
35°	7293.7	6427.2	4121.7	1191.9	807.7	793.0	807.7	824.8	866.4	913.0	917.8
37.5°	7166.5	6216.8	3588.1	942.3	775.8	761.2	768.5	775.8	824.8	893.3	900.8
40°	7149.3	6077.2	3047.2	846.9	751.3	731.8	726.9	731.8	795.4	873.7	881.0
42.5°	7315.7	6084.5	2518.5	807.7	731.8	709.7	690.2	700.1	756.3	817.5	822.4
45°	7709.8	6255.9	2060.8	790.6	714.7	697.5	668.2	673.0	700.1	731.8	736.7
47.5°	8404.9	6630.4	1710.8	780.7	700.1	685.3	648.6	633.9	636.3	653.5	653.5
50°	9516.1	7257.0	1498.0	771.0	687.8	660.8	619.3	589.9	582.5	592.3	594.7
52.5°	11173.1	8331.4	1395.1	751.3	665.7	629.0	582.5	553.2	541.0	550.6	550.6
55°	13412.5	10047.2	1346.2	724.5	638.8	589.9	548.3	523.8	513.9	521.2	521.2
57.5°	15965.3	12276.9	1429.3	687.8	604.5	548.3	518.9	501.7	494.4	501.7	504.2
60°	18997.8	15194.3	2002.0	641.3	567.8	511.6	494.4	484.6	479.7	487.1	487.1
62.5°	23028.9	19076.1	3098.6	604.5	528.7	477.3	472.3	467.5	462.6	470.0	470.0
65°	27380.7	22607.9	3189.2	582.5	494.4	447.9	450.3	450.3	445.4	452.8	452.8
67.5°	28766.0	22302.0	1781.8	555.6	452.8	418.6	428.3	428.3	425.9	433.2	430.8
68°	28472.3	21817.4	1551.7	548.3	445.4	411.2	420.9	423.4	420.9	428.3	425.9
70°	26284.2	19154.5	1020.6	506.6	413.6	386.7	401.4	403.8	401.4	411.2	408.7
72.5°	21697.5	14367.0	753.9	443.0	374.4	354.9	369.7	372.0	374.4	384.3	381.9
75°	13779.7	7935.0	594.7	377.0	335.3	318.2	332.9	340.3	345.2	359.8	352.5
77.5°	3774.2	2408.4	482.2	320.6	288.8	281.5	291.2	301.0	305.9	323.1	310.9
80°	1321.7	1064.7	401.4	271.7	239.9	237.4	247.3	257.0	261.9	276.5	261.9
82.5°	802.8	695.1	320.6	212.9	188.5	186.0	198.2	208.0	212.9	212.9	203.1
85°	418.6	367.1	235.0	149.2	129.7	122.4	144.4	156.7	159.1	156.7	149.2
87.5°	235.0	208.0	124.8	71.0	58.8	61.1	75.8	93.0	100.3	97.9	93.0
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)