

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: P196824

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)
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-T3R-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38872.3 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B3 - U0 - G5

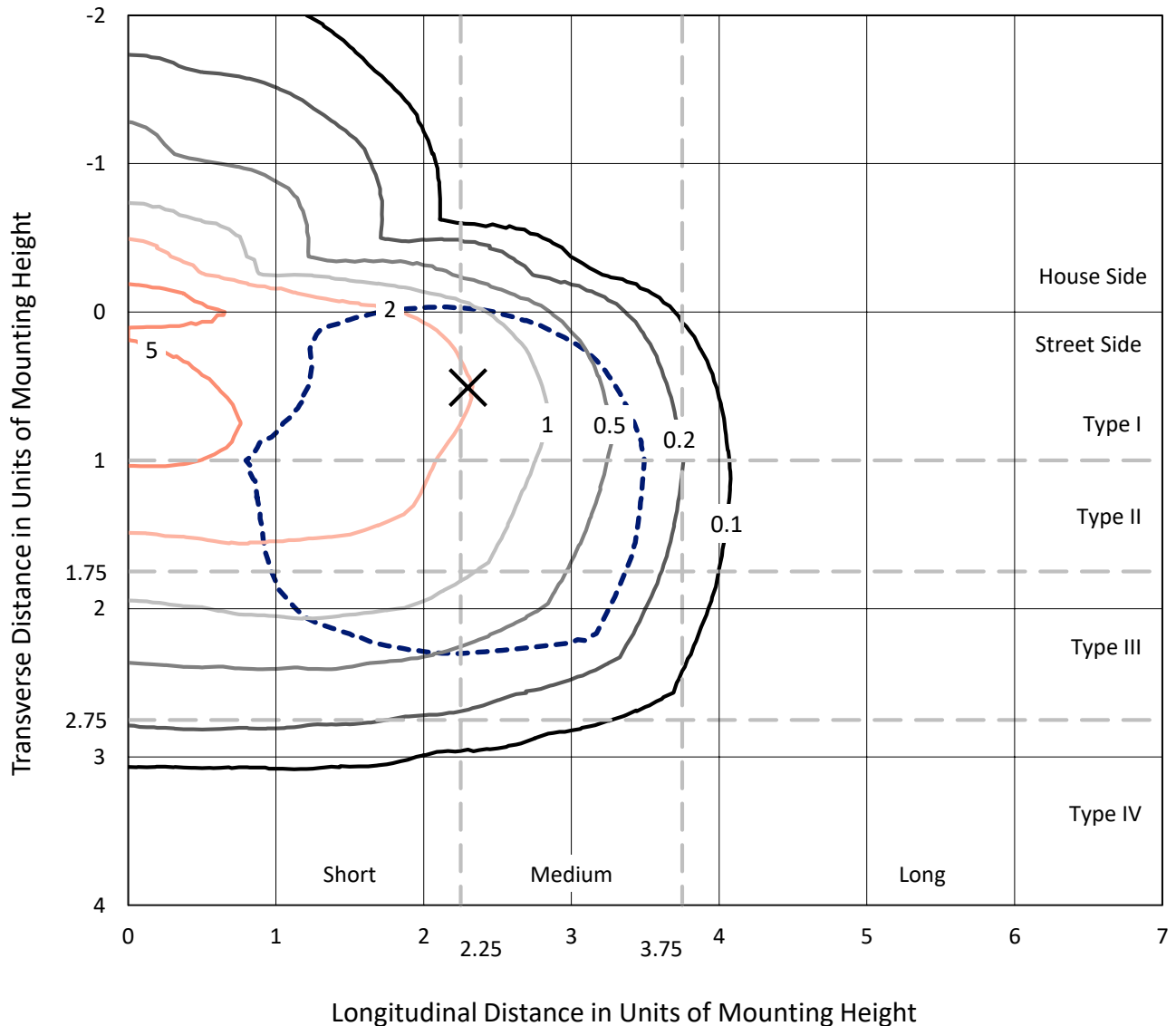
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196824
 CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7030-1200

Iso-Footcandle Lines of Horizontal Illumination

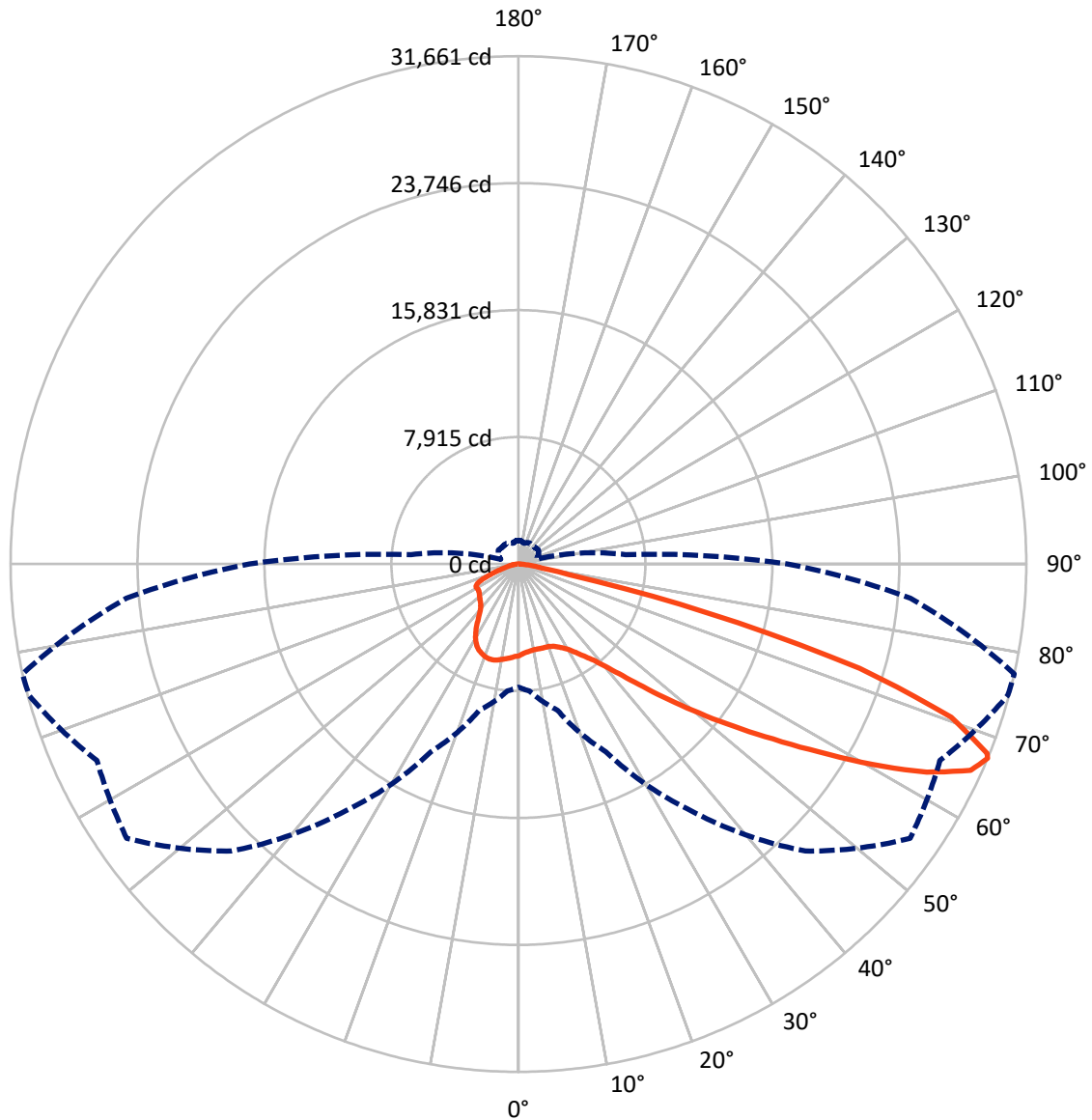
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type III - Medium - Full Cutoff

REPORT NUMBER: P196824
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7030-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P196824

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7030-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6680.2	0.0	6680.2
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	32192.1	0.0	32192.1
	% Fixture	82.8	0.0	82.8
Total	Lumens	38872.3	0.0	38872.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	509.5	1.3
10°-20°	1411.1	3.6
20°-30°	2397.6	6.2
30°-40°	3835.6	9.9
40°-50°	5904.9	15.2
50°-60°	8192.4	21.1
60°-70°	10928.1	28.1
70°-80°	5200.7	13.4
80°-90°	492.4	1.3
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°	38872.3	100.0
0°-180°	38872.3	100.0



REPORT NUMBER: P196824

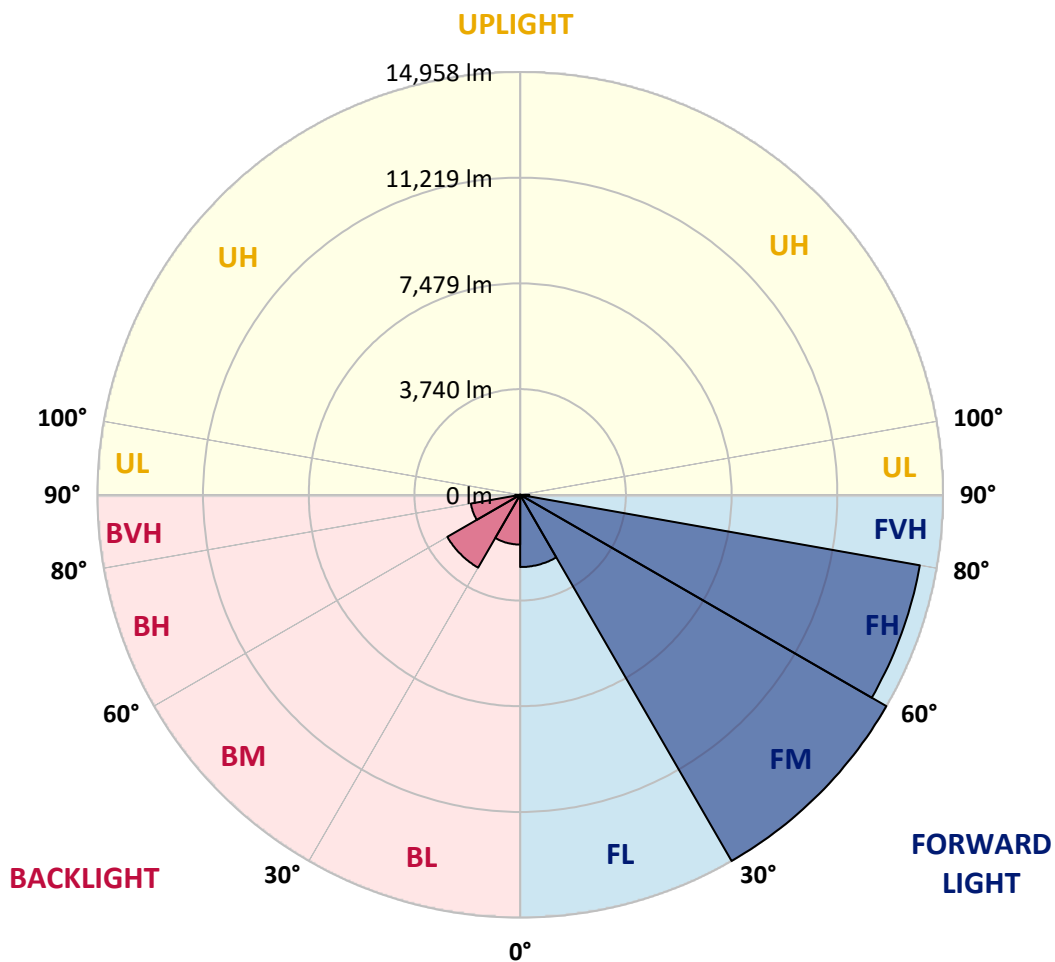
CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7030-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2556.2	6.6			
FM	(30°-60°)	14958.4	38.5			
FH	(60°-80°)	14357.6	36.9			G5
FVH	(80°-90°)	319.8	0.8			G3/500
BL	(0°-30°)	1762.0	4.5	B3/2500		
BM	(30°-60°)	2974.4	7.7	B3/5000		
BH	(60°-80°)	1771.2	4.6	B3/2500		G3/2500
BVH	(80°-90°)	172.6	0.4			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 III Medium





REPORT NUMBER: P196824

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7030-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0
2.5°	5129.9	5154.0	5156.3	5226.0	5257.2	5336.6	5423.1	5499.9	5567.2	5591.3	5634.5
5°	4615.6	4615.6	4622.9	4668.5	4757.4	4884.8	5065.0	5262.0	5468.7	5519.1	5646.5
7.5°	4346.6	4351.4	4356.1	4401.8	4471.6	4584.5	4764.7	5033.8	5377.4	5461.5	5685.0
10°	4370.6	4363.4	4339.3	4329.7	4358.6	4430.7	4586.9	4863.2	5300.5	5430.3	5754.5
12.5°	4747.9	4733.4	4654.1	4538.8	4433.0	4406.7	4514.8	4776.7	5264.4	5430.3	5872.3
15°	5394.2	5403.9	5247.6	5007.4	4731.0	4543.6	4529.3	4745.4	5252.4	5444.6	6009.3
17.5°	6235.2	6240.1	6023.7	5675.4	5216.4	4829.6	4627.6	4745.4	5252.4	5459.0	6141.5
20°	7128.9	7095.4	6850.2	6413.0	5817.1	5226.0	4808.0	4774.3	5266.9	5480.7	6266.4
22.5°	7895.5	7864.3	7607.1	7148.2	6465.9	5694.6	5050.6	4870.4	5346.2	5569.6	6441.8
25°	8565.8	8585.0	8335.2	7818.6	7112.1	6223.2	5413.5	5091.5	5511.9	5730.5	6658.0
27.5°	9380.4	9344.3	9056.0	8563.4	7777.7	6771.1	5867.6	5370.2	5709.1	5925.2	6922.3
30°	10322.3	10305.5	9916.2	9409.2	8510.5	7383.7	6316.9	5670.5	5966.1	6191.9	7253.9
32.5°	11466.0	11463.6	11045.4	10423.3	9334.7	8075.7	6847.9	6081.4	6340.9	6569.1	7693.6
35°	12761.1	12758.6	12326.2	11504.5	10283.8	8842.2	7472.6	6581.1	6804.6	7044.9	8217.5
37.5°	13659.7	13645.3	13419.4	12621.7	11333.8	9733.6	8253.5	7253.9	7330.9	7600.0	8849.4
40°	13832.7	13919.2	14113.8	13642.8	12479.9	10723.6	9036.9	7977.1	8049.2	8395.3	9644.7
42.5°	13645.3	13758.3	14404.5	14536.7	13626.0	11922.5	10017.1	8979.2	9070.3	9500.5	10579.3
45°	13481.9	13580.4	14390.1	15031.7	14757.7	13229.6	11240.1	10202.1	10375.1	10908.6	11646.2
47.5°	13203.2	13294.4	14106.6	15120.6	15404.1	14488.7	12713.0	11672.6	11970.6	12616.9	12862.0
50°	13188.8	13229.6	13719.8	14822.6	15627.6	15445.0	14344.5	13393.0	13849.4	14594.5	14207.5
52.5°	12823.5	13109.5	13553.9	14347.0	15632.4	16002.4	15952.0	15279.2	15983.2	16807.4	15682.8
55°	10589.0	10918.2	13001.3	14113.8	15603.6	16480.5	17420.0	17285.5	18385.9	19253.3	17335.9
57.5°	9887.4	10026.7	11405.9	14183.5	15843.8	17271.0	18888.0	19440.7	21134.7	22081.4	19318.2
60°	9695.1	9841.7	11086.3	14217.2	16495.0	18710.3	20880.0	21874.7	24366.5	25370.8	21569.6
62.5°	9481.3	9671.1	11110.3	14248.4	17638.7	20839.1	23523.1	24515.4	27684.6	28580.8	23679.2
65°	8856.5	9108.8	10665.9	14051.4	18890.5	23511.1	27016.6	27268.9	30426.2	30995.6	24952.6
67°	7671.9	7948.3	9445.3	12912.5	18775.2	25310.7	29811.1	28991.7	31591.5	31661.1	24539.4
67.5°	7297.2	7583.1	9032.0	12439.0	18446.0	25546.1	30306.0	29229.6	31581.9	31505.0	24154.9
70°	4913.6	5235.6	6396.1	9132.9	14796.2	23775.4	30185.9	28496.8	29510.7	28628.8	20752.7
72.5°	2438.7	2448.4	3190.9	5002.6	8964.7	17052.4	25181.0	24378.5	23921.9	22256.7	15228.7
75°	1175.0	1196.6	1506.5	2210.6	3779.5	8803.7	17172.5	16449.3	14005.7	12126.6	7621.6
77.5°	896.3	917.9	1170.1	1439.3	1576.2	2871.4	8505.8	6874.3	4058.2	3241.2	2148.0
80°	692.0	732.8	987.4	1105.2	1042.8	1150.9	2674.2	2104.8	1578.6	1448.9	1064.4
82.5°	540.7	564.7	838.6	838.6	720.8	771.3	1244.7	1215.8	980.3	884.2	571.9
85°	382.1	430.1	675.2	624.8	473.3	478.1	744.8	713.6	504.6	406.1	223.4
87.5°	170.6	218.6	480.5	408.5	252.3	194.6	305.2	261.9	199.4	153.7	103.4
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: P196824

CATALOG NUMBER: NAV-AF-06-D-UNV-T3R-7030-1200

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0	5721.0
2.5°	5682.6	5721.0	5781.0	5817.1	5865.1	5884.3	5903.6	5937.2	5963.7	5956.5	5944.5
5°	5735.3	5800.2	5874.8	5898.8	5898.8	5874.8	5860.3	5862.8	5855.5	5850.8	5836.3
7.5°	5812.3	5901.2	5954.1	5930.0	5855.5	5761.8	5673.0	5620.1	5569.6	5538.4	5547.9
10°	5920.4	6018.9	6021.3	5915.7	5737.8	5533.6	5358.2	5245.2	5137.2	5089.1	5103.5
12.5°	6076.6	6175.2	6090.9	5862.8	5550.4	5230.8	4908.8	4675.8	4466.7	4416.3	4401.8
15°	6244.8	6321.6	6134.3	5749.8	5281.3	4755.1	4214.4	3866.0	3633.0	3592.1	3577.7
17.5°	6391.3	6434.6	6112.6	5547.9	4856.0	4027.1	3397.5	3162.1	3114.0	3138.0	3138.0
20°	6521.1	6506.7	6018.9	5235.6	4185.6	3219.7	2854.5	2852.1	2917.0	2977.0	2981.8
22.5°	6684.5	6571.5	5870.0	4771.9	3385.5	2686.2	2623.9	2686.2	2758.4	2825.7	2832.9
25°	6879.1	6643.6	5670.5	4111.1	2722.3	2438.7	2465.2	2518.1	2563.8	2616.6	2619.1
27.5°	7073.8	6698.9	5389.4	3335.0	2361.9	2280.2	2309.0	2330.7	2342.7	2376.3	2376.3
30°	7299.6	6742.2	4983.4	2671.8	2196.1	2140.8	2124.0	2114.3	2124.0	2169.7	2172.1
32.5°	7583.1	6819.1	4428.3	2292.3	2119.2	2042.4	1955.8	1907.7	1941.4	2023.2	2037.5
35°	7905.1	6910.3	3762.7	2140.8	2092.8	1994.3	1835.7	1761.3	1773.3	1847.7	1859.7
37.5°	8308.7	7028.1	3106.8	2104.8	2119.2	1989.5	1780.5	1674.7	1621.9	1624.2	1621.9
40°	8825.3	7145.8	2587.8	2114.3	2176.9	2001.5	1754.0	1588.2	1477.7	1482.5	1492.2
42.5°	9365.9	7222.7	2258.6	2143.2	2246.6	2018.3	1744.5	1504.2	1408.1	1489.8	1564.1
45°	9997.9	7201.1	2088.1	2169.7	2299.5	2025.5	1708.4	1494.5	1415.2	1660.3	1799.7
47.5°	10723.6	7107.4	1991.9	2181.7	2313.9	2023.2	1681.9	1525.8	1475.3	1900.6	2059.2
50°	11511.7	6960.8	1915.0	2162.5	2306.7	2013.5	1710.8	1564.1	1499.4	1953.4	2076.0
52.5°	12374.2	6826.3	1835.7	2119.2	2270.6	1984.7	1746.8	1547.3	1432.1	1799.7	1893.4
55°	13395.4	6795.1	1746.8	2044.8	2210.6	1953.4	1727.6	1494.5	1357.5	1595.4	1653.1
57.5°	14563.1	6989.7	1631.5	1953.4	2128.8	1891.0	1681.9	1465.7	1331.1	1451.3	1482.5
60°	16045.6	7419.7	1509.0	1857.3	2028.0	1797.4	1641.1	1473.0	1338.3	1429.6	1436.9
62.5°	17203.8	7806.6	1398.4	1739.6	1893.4	1684.3	1597.8	1480.1	1360.0	1458.5	1446.5
65°	17624.3	7616.8	1261.4	1564.1	1703.6	1559.3	1537.8	1485.0	1360.0	1475.3	1448.9
67°	16761.7	6710.9	1131.7	1388.8	1523.4	1448.9	1480.1	1465.7	1335.9	1473.0	1427.3
67.5°	16350.7	6391.3	1098.0	1360.0	1475.3	1415.2	1465.7	1456.1	1328.7	1468.1	1415.2
70°	13484.3	4584.5	927.5	1141.3	1235.0	1247.0	1376.7	1393.6	1271.0	1379.2	1283.0
72.5°	9594.3	2868.9	800.1	884.2	997.1	1066.8	1256.6	1309.5	1194.2	1199.0	1119.7
75°	4747.9	1540.1	713.6	682.5	776.1	889.1	1095.7	1194.2	1081.2	999.5	973.2
77.5°	1602.7	872.2	603.1	550.2	603.1	713.6	908.3	1042.8	954.0	845.7	829.0
80°	829.0	634.4	470.9	442.1	475.8	552.7	711.2	867.4	814.5	819.3	675.2
82.5°	516.6	386.9	338.8	336.4	360.4	422.9	523.8	703.9	699.1	598.3	434.9
85°	240.3	223.4	216.3	223.4	230.6	240.3	341.2	502.1	531.0	322.0	285.9
87.5°	100.9	98.6	86.6	93.8	103.4	100.9	137.0	213.8	297.9	201.8	184.9
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)