

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: P196308

Luminaire Tested: **NAV-AF-06-D-UNV-T3-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196308  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
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-T3-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29780.1 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

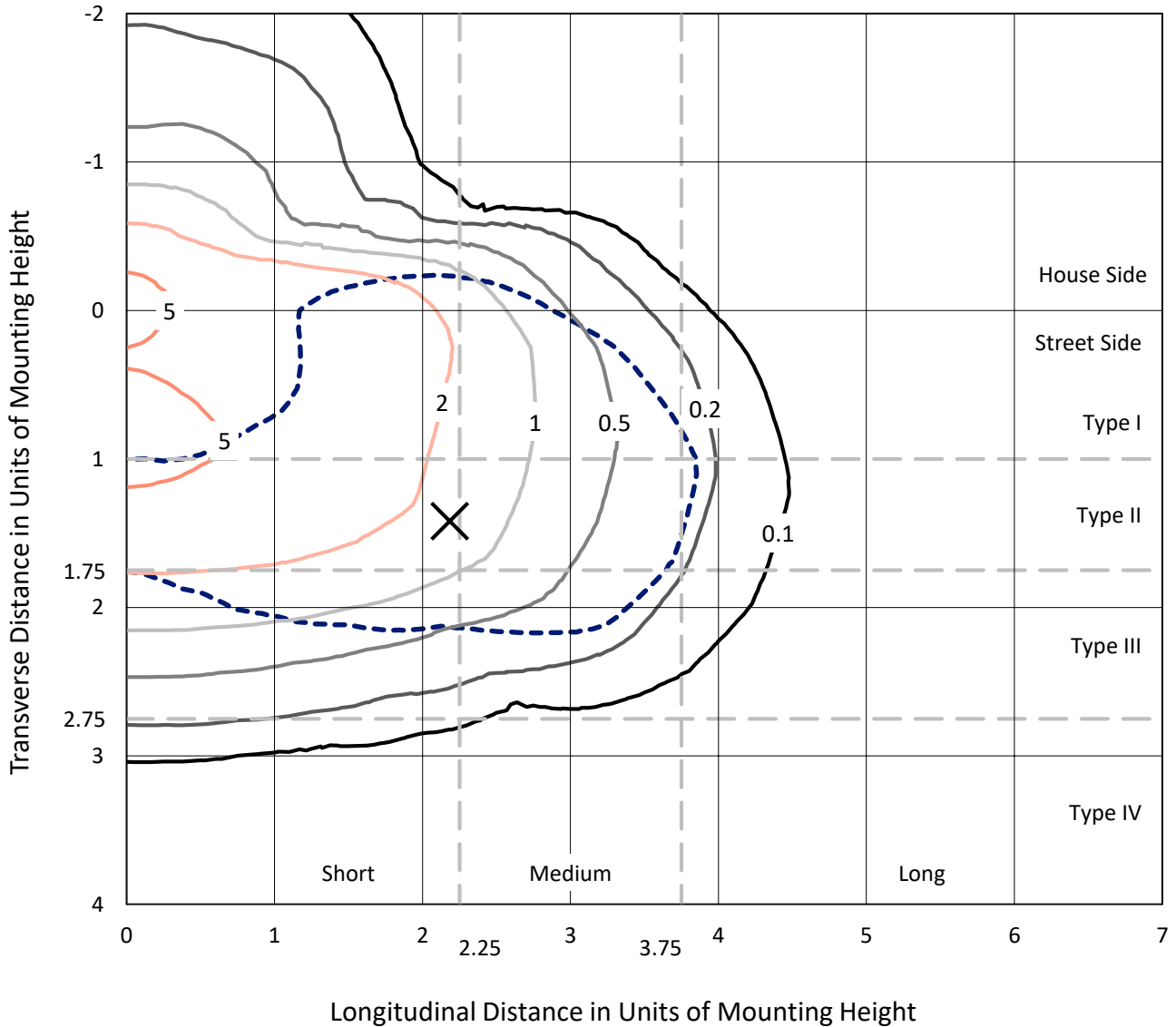
Input Watts (W): 249  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

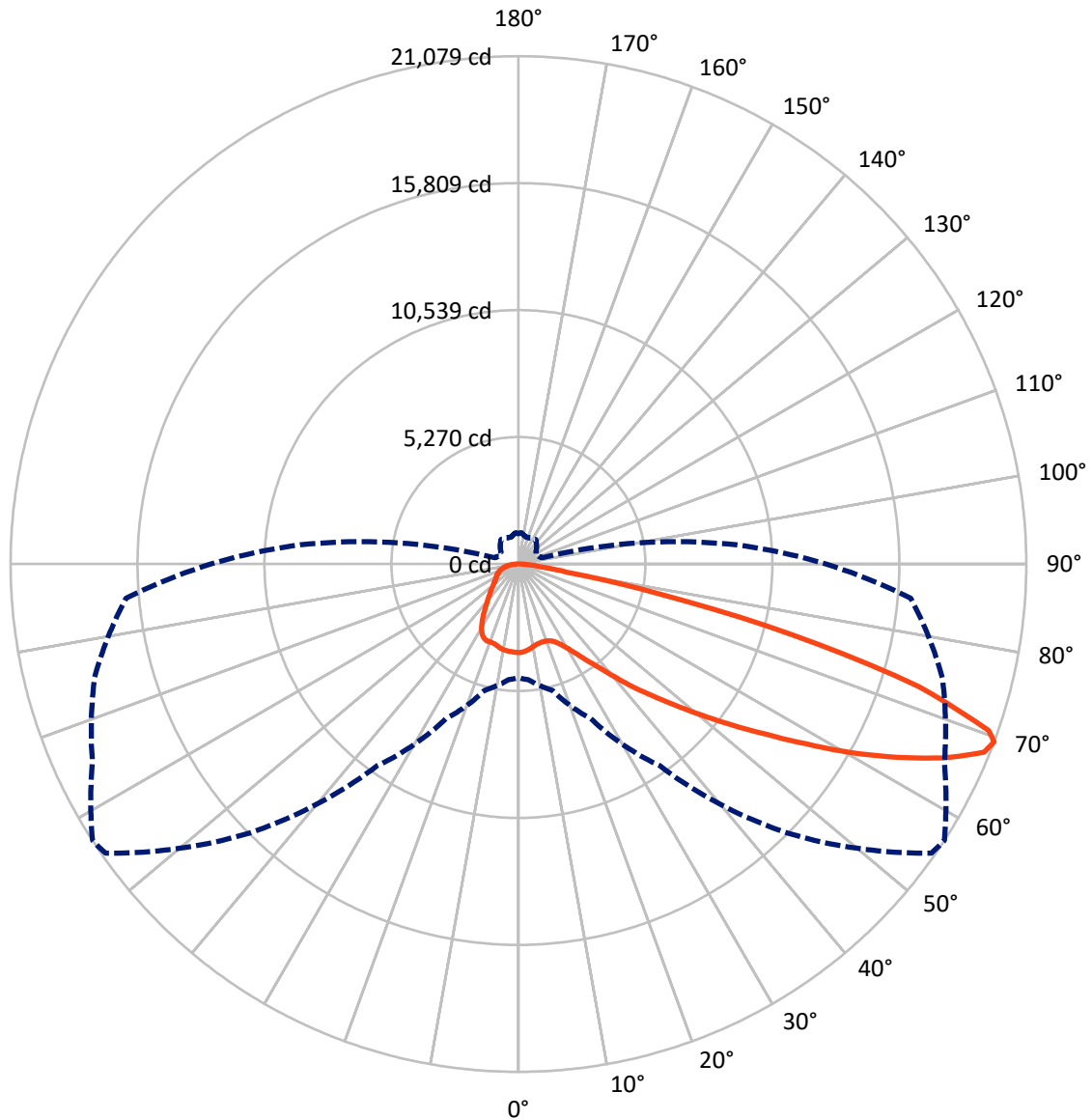
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6571.4	0.0	6571.4
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	23208.7	0.0	23208.7
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	29780.1	0.0	29780.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	344.5	1.2
10°-20°	979.5	3.3
20°-30°	1629.3	5.5
30°-40°	2660.6	8.9
40°-50°	4490.5	15.1
50°-60°	6985.3	23.5
60°-70°	8321.0	27.9
70°-80°	3876.4	13.0
80°-90°	493.0	1.7
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°	29780.1	100.0
0°-180°	29780.1	100.0



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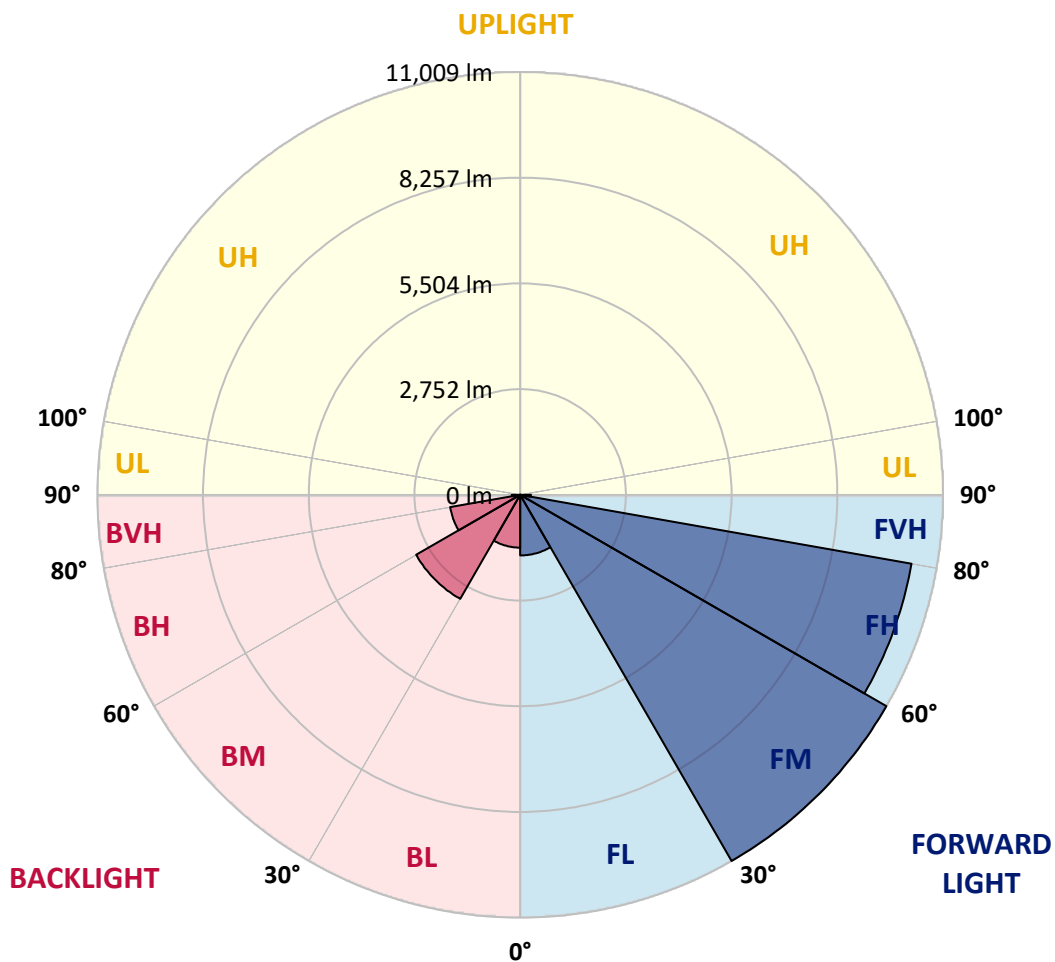
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1577.1	5.3			
FM	(30°-60°)	11008.8	37.0			
FH	(60°-80°)	10345.7	34.7			G4/12000
FVH	(80°-90°)	277.1	0.9			G3/500
BL	(0°-30°)	1376.2	4.6	B3/2500		
BM	(30°-60°)	3127.6	10.5	B3/5000		
BH	(60°-80°)	1851.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	215.9	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7
2.5°	3658.7	3658.7	3668.2	3668.2	3668.2	3664.4	3653.0	3656.7	3649.2	3643.4	3633.8
5°	3584.3	3588.1	3599.6	3603.3	3609.1	3611.0	3611.0	3609.1	3611.0	3611.0	3605.3
7.5°	3481.3	3485.2	3498.5	3506.2	3523.2	3538.6	3546.2	3546.2	3555.7	3563.3	3565.2
10°	3418.4	3418.4	3426.1	3426.1	3439.4	3447.0	3471.8	3470.0	3496.5	3521.4	3532.9
12.5°	3410.8	3410.8	3407.0	3393.6	3386.1	3384.1	3408.9	3412.7	3452.8	3496.5	3517.6
15°	3435.6	3435.6	3424.1	3397.4	3368.9	3355.5	3380.3	3387.9	3431.8	3483.2	3515.7
17.5°	3515.7	3513.7	3489.0	3435.6	3386.1	3365.0	3372.7	3380.3	3420.3	3479.5	3519.5
20°	3693.0	3693.0	3639.6	3542.4	3456.6	3407.0	3395.6	3401.3	3429.9	3485.2	3536.6
22.5°	4003.7	4009.5	3914.1	3754.0	3607.1	3502.3	3456.6	3462.3	3475.6	3529.0	3586.2
25°	4461.3	4446.1	4310.7	4083.8	3855.0	3675.8	3582.4	3588.1	3588.1	3637.7	3696.7
27.5°	4945.6	4949.3	4754.9	4510.9	4209.6	3942.8	3794.0	3792.1	3790.2	3837.9	3900.8
30°	5492.7	5494.7	5269.7	4987.5	4642.5	4301.2	4078.1	4076.2	4059.1	4118.1	4200.1
32.5°	6091.4	6089.5	5828.3	5509.9	5126.7	4739.6	4449.8	4448.0	4434.6	4514.7	4613.8
35°	6754.9	6754.9	6495.6	6102.8	5689.1	5258.3	4922.6	4920.8	4928.4	5037.1	5130.5
37.5°	7553.7	7570.9	7258.2	6781.6	6329.7	5870.2	5479.4	5468.0	5410.8	5593.8	5748.3
40°	8386.9	8434.5	8110.5	7553.7	7065.6	6590.9	6160.0	6152.4	6102.8	6297.3	6547.1
42.5°	9288.7	9397.3	9037.1	8468.9	7937.0	7424.1	6991.3	6970.3	6779.7	7082.8	7473.7
45°	10470.7	10541.3	10018.9	9504.1	9002.7	8417.4	7902.6	7790.2	7599.5	7988.4	8495.5
47.5°	11275.3	11241.0	10915.0	10569.8	10247.7	9687.1	8895.9	8753.0	8520.4	9035.1	9593.7
50°	11774.8	11799.6	11616.5	11599.4	11582.3	11191.4	10016.9	9845.4	9576.6	10186.6	10838.7
52.5°	12104.7	11992.2	12024.6	12413.5	12884.4	12697.6	11284.8	11094.2	10817.7	11427.8	12163.7
55°	11967.4	11818.7	12118.0	12884.4	13992.1	14034.1	12676.6	12480.2	12243.8	12747.2	13757.6
57.5°	11399.3	11473.6	11946.4	13012.1	14749.0	15231.3	14276.2	14076.0	13610.8	14121.7	15271.4
60°	10600.3	10751.0	11473.6	12810.1	15279.0	16163.6	16032.1	15898.7	15097.9	15460.2	16861.5
62.5°	9742.5	9891.1	10779.5	12465.0	15040.8	16989.2	17755.7	17673.6	16739.5	16749.0	17870.0
65°	8474.5	8535.6	9443.1	11523.1	14379.1	17734.7	19481.1	19408.7	18308.6	17849.1	18152.2
67.5°	6400.3	6476.5	7222.0	9096.1	12365.8	17330.4	20859.5	20848.0	19252.2	18257.0	17481.1
69°	4726.3	4819.7	5427.9	7061.8	10224.8	15790.0	20924.3	21078.7	19507.8	18215.1	16346.7
70°	3458.5	3565.2	4127.7	5605.3	8516.5	14089.3	20369.5	20701.3	19410.5	17950.1	15462.1
72.5°	1470.0	1506.2	1782.6	2530.0	4320.2	8495.5	16684.1	17382.0	17530.6	16083.5	12079.8
75°	920.9	932.3	1041.0	1298.3	1921.8	3513.7	10804.4	11755.8	13088.5	12478.4	8087.6
77.5°	694.0	703.5	766.4	894.2	1193.5	1311.7	5012.3	5977.0	7496.5	7340.2	4024.7
80°	531.9	537.7	579.6	650.1	840.8	821.7	1626.3	2043.9	3128.6	2760.6	1424.2
82.5°	417.6	419.4	455.6	469.0	587.2	552.9	816.0	909.4	1264.1	1050.5	695.9
85°	369.9	375.6	411.8	343.2	375.6	333.7	448.1	486.2	671.1	633.0	263.1
87.5°	188.7	198.2	345.0	293.6	188.7	158.3	196.4	211.6	272.6	295.5	127.8
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°	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7	3679.7
2.5°	3635.8	3637.7	3643.4	3653.0	3668.2	3687.2	3710.1	3733.1	3746.4	3755.9	3752.1
5°	3605.3	3607.1	3618.6	3635.8	3654.8	3683.4	3721.6	3750.1	3771.1	3784.5	3782.6
7.5°	3567.1	3572.9	3595.8	3614.8	3641.5	3664.4	3694.9	3721.6	3742.6	3755.9	3754.0
10°	3538.6	3544.2	3572.9	3597.6	3620.5	3624.3	3618.6	3611.0	3609.1	3618.6	3614.8
12.5°	3525.2	3536.6	3563.3	3580.5	3570.9	3534.7	3492.8	3475.6	3470.0	3489.0	3490.9
15°	3529.0	3538.6	3561.4	3549.9	3498.5	3437.5	3414.6	3428.0	3439.4	3450.8	3452.8
17.5°	3538.6	3544.2	3549.9	3508.0	3435.6	3395.6	3387.9	3374.6	3340.2	3321.2	3319.3
20°	3555.7	3563.3	3553.8	3487.0	3422.3	3368.9	3277.3	3195.4	3117.2	3075.3	3058.1
22.5°	3614.8	3620.5	3591.9	3527.1	3428.0	3254.5	3069.6	2928.4	2808.3	2743.6	2718.7
25°	3731.1	3740.6	3700.6	3618.6	3359.4	3056.2	2795.0	2604.3	2453.8	2375.6	2354.6
27.5°	3935.1	3944.6	3900.8	3687.2	3199.2	2791.2	2474.7	2286.0	2156.3	2089.6	2080.1
30°	4240.1	4253.5	4213.4	3685.4	2955.1	2453.8	2162.0	2051.4	1977.1	1931.3	1929.4
32.5°	4663.4	4712.9	4549.0	3620.5	2653.9	2112.5	1925.6	1887.4	1851.2	1820.8	1820.8
35°	5201.1	5317.3	4880.7	3485.2	2322.2	1879.9	1794.1	1757.8	1712.1	1679.7	1675.9
37.5°	5843.5	6024.7	5117.2	3244.9	2036.2	1767.4	1714.0	1654.9	1582.4	1519.5	1504.2
40°	6726.3	6768.3	5233.4	2854.1	1822.7	1706.4	1639.6	1565.3	1473.8	1403.2	1395.6
42.5°	7612.8	7475.5	5210.6	2434.6	1700.7	1651.0	1563.4	1481.3	1399.4	1340.3	1340.3
45°	8621.4	8093.3	5037.1	2013.3	1590.1	1588.1	1492.8	1414.6	1351.7	1307.8	1298.3
47.5°	9586.1	8648.0	4737.8	1702.5	1475.7	1525.2	1447.1	1384.2	1327.0	1285.0	1277.4
50°	10756.7	9290.5	4419.4	1485.2	1365.1	1470.0	1428.0	1395.6	1340.3	1267.8	1260.3
52.5°	11919.7	10041.8	4173.4	1321.2	1267.8	1426.1	1439.4	1443.3	1391.8	1250.7	1241.1
55°	13168.4	10844.4	3914.1	1193.5	1187.7	1405.1	1466.1	1462.3	1437.6	1254.5	1239.2
57.5°	14356.3	11650.9	3527.1	1103.9	1124.8	1384.2	1471.8	1410.9	1367.0	1273.6	1248.8
60°	15340.1	12318.2	2959.0	1041.0	1071.4	1342.2	1433.8	1342.2	1267.8	1269.8	1246.9
62.5°	15818.6	12505.1	2263.1	968.5	1027.7	1273.6	1378.4	1290.8	1222.1	1277.4	1264.1
65°	15454.4	11973.1	1612.9	901.8	974.3	1193.5	1346.0	1246.9	1199.2	1315.5	1300.3
67.5°	14146.6	10524.1	1170.7	842.7	922.8	1111.5	1285.0	1206.9	1176.3	1344.2	1309.8
69°	12756.7	9086.6	1014.3	808.3	886.6	1067.7	1244.9	1185.9	1159.2	1304.1	1254.5
70°	11601.3	7978.9	936.1	787.4	856.0	1042.9	1214.4	1172.5	1142.0	1256.4	1197.3
72.5°	8318.2	5157.2	787.4	724.5	776.0	987.6	1147.8	1123.0	1077.2	1134.4	1096.3
75°	5025.7	2692.0	669.2	659.7	692.0	911.3	1069.6	1039.1	993.3	999.0	980.0
77.5°	2308.8	1243.1	560.5	583.4	604.4	816.0	974.3	939.9	897.9	882.7	884.6
80°	1012.4	726.4	469.0	497.6	509.0	734.1	871.2	833.2	787.4	869.4	806.5
82.5°	547.2	421.4	366.0	385.1	417.6	638.7	756.9	707.4	663.5	772.1	623.5
85°	221.2	215.4	247.9	266.9	289.8	459.5	633.0	581.4	528.1	472.8	461.4
87.5°	95.3	102.9	122.0	129.6	154.5	286.0	425.1	371.7	373.7	320.3	314.6
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)