

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: P196812

Luminaire Tested: **NAV-AF-06-D-UNV-T3R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196812
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-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28630.3 lumens
Efficiency: N/A
Efficacy: 115.0 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 - 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

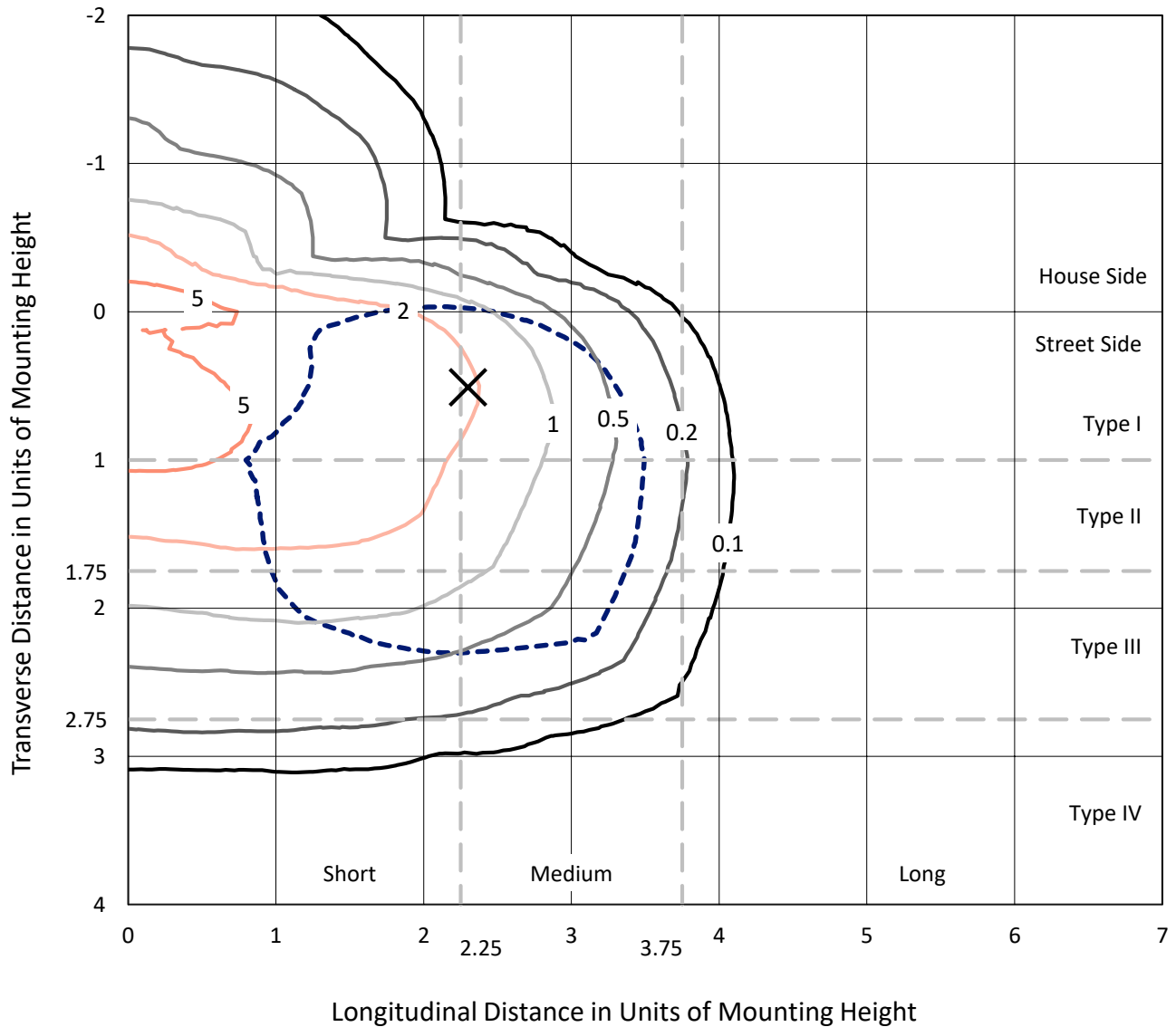


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

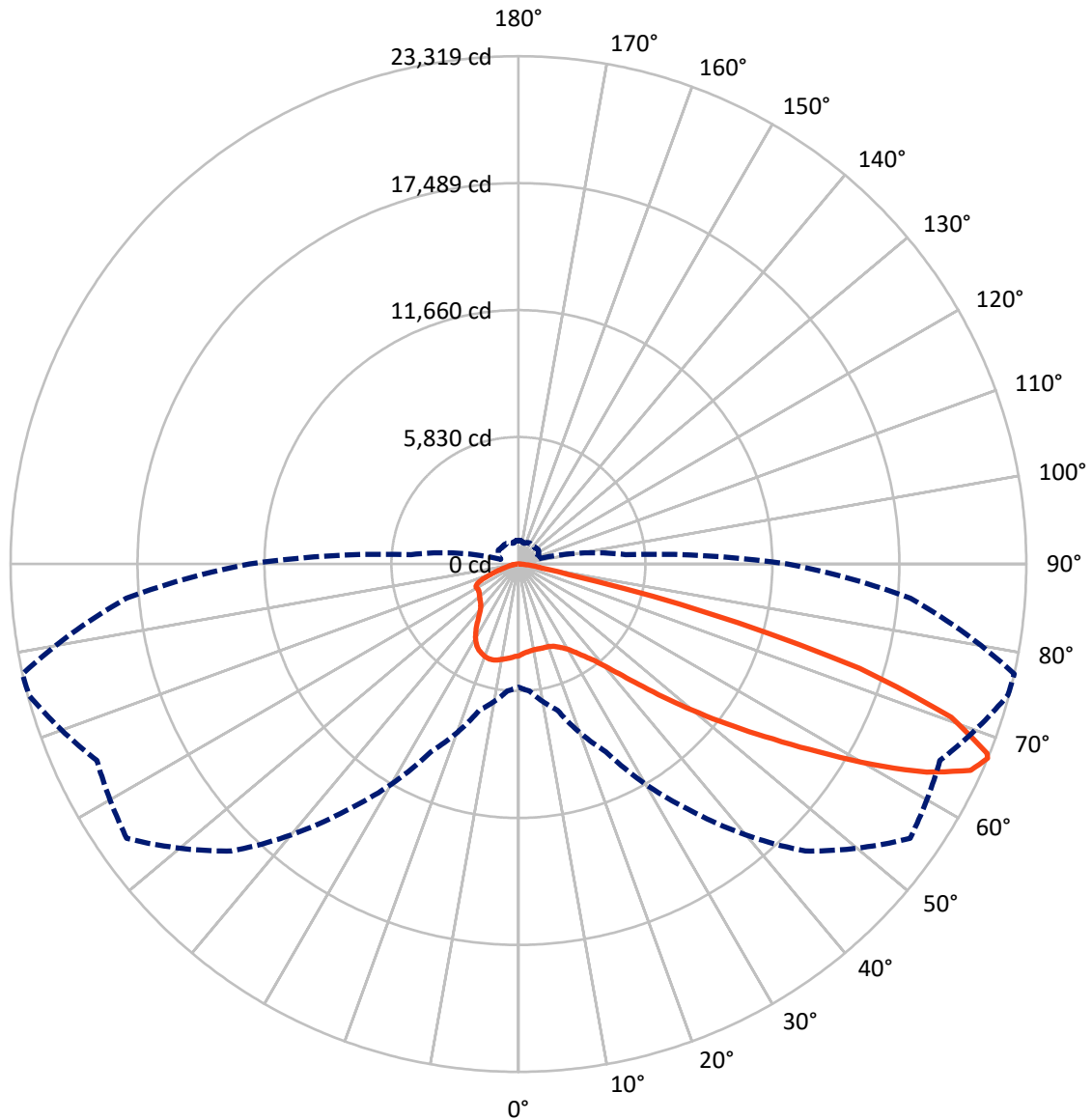


Based on 25 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4920.1	0.0	4920.1
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	23710.2	0.0	23710.2
	% Fixture	82.8	0.0	82.8
Total	Lumens	28630.3	0.0	28630.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	375.3	1.3
10°-20°	1039.3	3.6
20°-30°	1765.9	6.2
30°-40°	2825.0	9.9
40°-50°	4349.1	15.2
50°-60°	6033.9	21.1
60°-70°	8048.8	28.1
70°-80°	3830.4	13.4
80°-90°	362.7	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°	28630.3	100.0
0°-180°	28630.3	100.0



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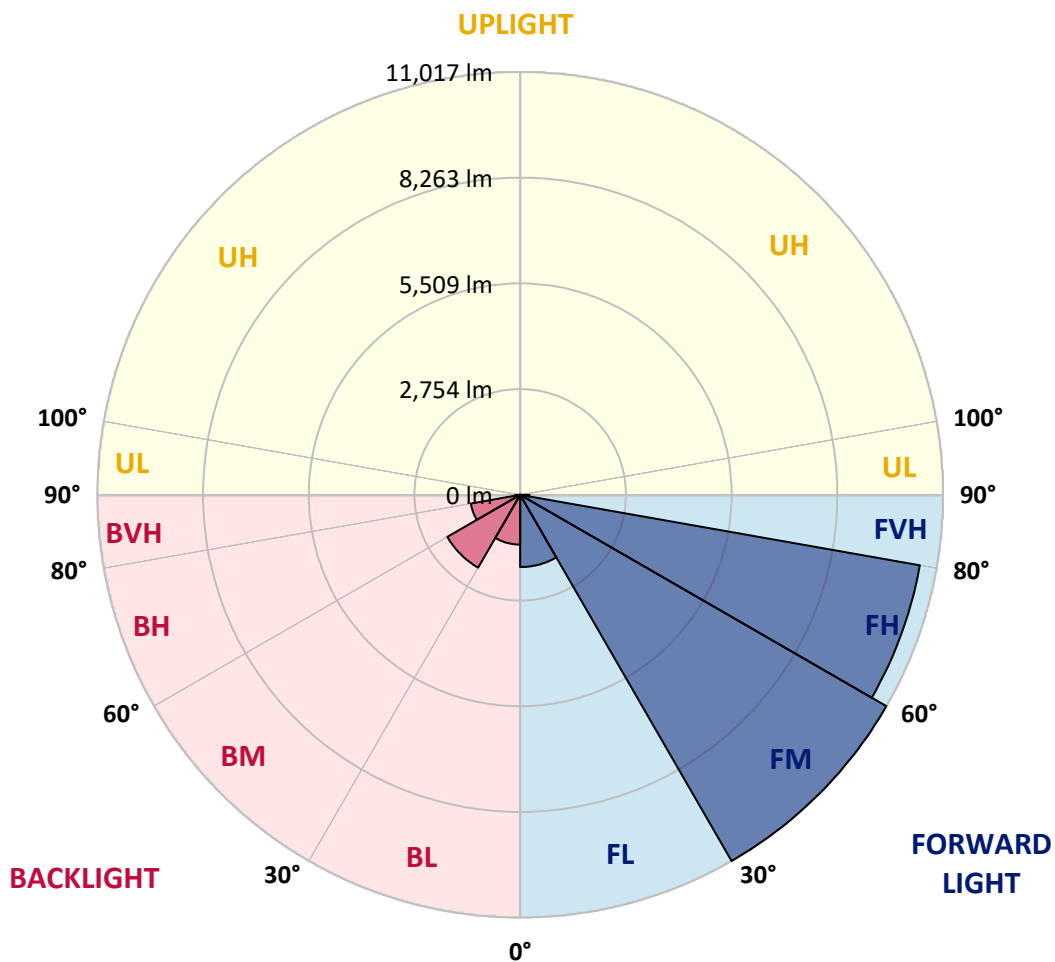
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1882.7	6.6			
FM	(30°-60°)	11017.2	38.5			
FH	(60°-80°)	10574.7	36.9			G4/12000
FVH	(80°-90°)	235.6	0.8			G3/500
BL	(0°-30°)	1297.7	4.5	B3/2500		
BM	(30°-60°)	2190.7	7.7	B2/2500		
BH	(60°-80°)	1304.5	4.6	B3/2500		G3/2500
BVH	(80°-90°)	127.1	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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6
2.5°	3778.3	3796.0	3797.8	3849.1	3872.0	3930.5	3994.2	4050.8	4100.4	4118.1	4149.8
5°	3399.6	3399.6	3404.8	3438.5	3504.0	3597.8	3730.5	3875.7	4027.9	4065.0	4158.7
7.5°	3201.4	3204.9	3208.4	3242.0	3293.4	3376.5	3509.3	3707.5	3960.5	4022.5	4187.1
10°	3219.1	3213.8	3196.1	3189.0	3210.2	3263.3	3378.3	3581.8	3904.0	3999.6	4238.3
12.5°	3497.0	3486.3	3427.9	3342.9	3265.1	3245.6	3325.2	3518.1	3877.4	3999.6	4325.1
15°	3973.0	3980.0	3865.0	3688.0	3484.5	3346.5	3335.9	3495.1	3868.6	4010.2	4426.0
17.5°	4592.3	4595.9	4436.6	4180.0	3842.0	3557.1	3408.5	3495.1	3868.6	4020.7	4523.4
20°	5250.7	5225.9	5045.4	4723.3	4284.4	3849.1	3541.1	3516.4	3879.1	4036.7	4615.3
22.5°	5815.3	5792.2	5602.9	5264.8	4762.3	4194.1	3719.8	3587.2	3937.6	4102.1	4744.6
25°	6308.9	6323.1	6139.1	5758.6	5238.3	4583.5	3987.1	3750.0	4059.6	4220.6	4903.8
27.5°	6908.9	6882.4	6669.9	6307.2	5728.5	4987.0	4321.5	3955.3	4204.8	4364.1	5098.5
30°	7602.6	7590.2	7303.6	6930.1	6268.2	5438.3	4652.5	4176.4	4394.2	4560.5	5342.7
32.5°	8444.9	8443.2	8135.2	7676.9	6875.2	5948.0	5043.6	4479.1	4670.2	4838.3	5666.5
35°	9398.8	9397.1	9078.5	8473.3	7574.3	6512.4	5503.7	4847.2	5011.7	5188.7	6052.3
37.5°	10060.7	10050.1	9883.7	9296.3	8347.6	7169.0	6078.8	5342.7	5399.3	5597.6	6517.8
40°	10188.1	10251.8	10395.2	10048.2	9191.8	7898.2	6655.7	5875.4	5928.4	6183.3	7103.5
42.5°	10050.1	10133.2	10609.3	10706.7	10035.9	8781.1	7377.8	6613.4	6680.5	6997.4	7792.0
45°	9929.7	10002.2	10598.7	11071.1	10869.4	9743.8	8278.6	7514.1	7641.5	8034.4	8577.7
47.5°	9724.4	9791.7	10389.8	11136.7	11345.5	10671.3	9363.4	8597.2	8816.5	9292.6	9473.1
50°	9713.8	9743.8	10105.0	10917.1	11510.0	11375.5	10565.1	9864.3	10200.5	10749.0	10464.2
52.5°	9444.8	9655.5	9982.8	10566.8	11513.6	11786.2	11748.9	11253.4	11771.9	12379.0	11550.8
55°	7799.0	8041.5	9575.8	10395.2	11492.3	12138.2	12830.2	12731.1	13541.7	14180.5	12768.2
57.5°	7282.2	7385.0	8400.7	10446.5	11669.3	12720.5	13911.6	14318.5	15566.1	16263.5	14228.3
60°	7140.6	7248.7	8165.4	10471.3	12148.9	13780.6	15378.6	16111.3	17946.4	18686.2	15886.6
62.5°	6983.2	7123.0	8183.1	10494.3	12991.3	15348.5	17325.2	18056.0	20390.4	21050.4	17440.3
65°	6523.1	6708.8	7855.6	10349.1	13913.3	17316.4	19898.4	20084.1	22409.5	22828.9	18378.2
67°	5650.6	5854.1	6956.6	9510.3	13828.3	18642.0	21956.5	21353.1	23267.9	23319.2	18073.7
67.5°	5374.6	5585.2	6652.2	9161.7	13585.9	18815.3	22321.1	21528.2	23260.8	23204.2	17790.6
70°	3619.0	3856.2	4710.9	6726.5	10897.7	17511.1	22232.6	20988.4	21735.3	21085.8	15284.9
72.5°	1796.2	1803.4	2350.1	3684.4	6602.7	12559.5	18546.3	17955.2	17619.0	16392.6	11216.3
75°	865.4	881.2	1109.6	1628.1	2783.7	6484.1	12648.0	12115.3	10315.5	8931.6	5613.4
77.5°	660.2	676.0	861.8	1060.1	1160.9	2114.8	6264.7	5063.1	2989.0	2387.4	1582.1
80°	509.7	539.7	727.3	814.1	768.1	847.7	1969.6	1550.3	1162.7	1067.1	783.9
82.5°	398.1	415.8	617.7	617.7	530.9	568.0	916.6	895.5	721.9	651.3	421.2
85°	281.4	316.8	497.2	460.1	348.6	352.2	548.6	525.6	371.6	299.1	164.6
87.5°	125.6	161.0	353.9	300.9	185.8	143.3	224.7	192.9	146.9	113.3	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6	4213.6
2.5°	4185.2	4213.6	4257.9	4284.4	4319.8	4334.0	4348.1	4372.9	4392.3	4387.1	4378.2
5°	4224.3	4272.0	4326.8	4344.5	4344.5	4326.8	4316.3	4318.0	4312.7	4309.1	4298.6
7.5°	4280.9	4346.4	4385.3	4367.6	4312.7	4243.7	4178.2	4139.3	4102.1	4079.0	4086.2
10°	4360.5	4433.0	4434.9	4356.9	4226.0	4075.6	3946.5	3863.2	3783.5	3748.2	3758.8
12.5°	4475.6	4548.1	4486.1	4318.0	4087.9	3852.6	3615.5	3443.9	3289.8	3252.6	3242.0
15°	4599.4	4656.1	4518.0	4234.9	3889.7	3502.2	3104.0	2847.4	2675.8	2645.7	2635.2
17.5°	4707.3	4739.2	4502.1	4086.2	3576.5	2966.0	2502.4	2328.9	2293.6	2311.2	2311.2
20°	4802.9	4792.3	4433.0	3856.2	3082.7	2371.4	2102.3	2100.6	2148.4	2192.7	2196.2
22.5°	4923.2	4840.0	4323.4	3514.7	2493.6	1978.4	1932.5	1978.4	2031.5	2081.2	2086.5
25°	5066.6	4893.1	4176.4	3027.9	2005.0	1796.2	1815.7	1854.6	1888.2	1927.3	1929.0
27.5°	5209.9	4933.9	3969.4	2456.3	1739.6	1679.5	1700.6	1716.6	1725.4	1750.3	1750.3
30°	5376.3	4965.8	3670.3	1967.9	1617.5	1576.8	1564.4	1557.3	1564.4	1598.0	1599.8
32.5°	5585.2	5022.3	3261.5	1688.3	1560.9	1504.3	1440.5	1405.2	1429.8	1490.1	1500.6
35°	5822.3	5089.7	2771.4	1576.8	1541.4	1468.9	1352.1	1297.2	1305.9	1361.0	1369.8
37.5°	6119.6	5176.3	2288.2	1550.3	1560.9	1465.2	1311.3	1233.4	1194.5	1196.3	1194.5
40°	6500.1	5263.0	1905.9	1557.3	1603.4	1474.1	1291.9	1169.7	1088.3	1091.9	1098.9
42.5°	6898.2	5319.8	1663.5	1578.6	1654.6	1486.6	1284.8	1107.8	1037.1	1097.2	1152.0
45°	7363.6	5303.8	1537.9	1598.0	1693.6	1491.8	1258.2	1100.8	1042.4	1222.8	1325.6
47.5°	7898.2	5234.7	1467.1	1606.8	1704.2	1490.1	1238.8	1123.7	1086.6	1399.8	1516.6
50°	8478.6	5126.8	1410.4	1592.7	1698.9	1482.9	1260.0	1152.0	1104.3	1438.7	1529.0
52.5°	9113.9	5027.7	1352.1	1560.9	1672.3	1461.8	1286.5	1139.7	1054.7	1325.6	1394.4
55°	9866.0	5004.7	1286.5	1506.0	1628.1	1438.7	1272.5	1100.8	999.8	1175.1	1217.5
57.5°	10726.1	5148.0	1201.7	1438.7	1568.0	1392.7	1238.8	1079.5	980.4	1068.9	1091.9
60°	11818.0	5464.8	1111.3	1367.9	1493.6	1323.6	1208.7	1084.8	985.7	1052.9	1058.2
62.5°	12671.1	5749.8	1030.0	1281.3	1394.4	1240.5	1176.8	1090.1	1001.7	1074.2	1065.4
65°	12980.6	5609.9	929.1	1152.0	1254.8	1148.6	1132.6	1093.6	1001.7	1086.6	1067.1
67°	12345.3	4942.8	833.5	1022.8	1122.0	1067.1	1090.1	1079.5	984.0	1084.8	1051.2
67.5°	12042.8	4707.3	808.7	1001.7	1086.6	1042.4	1079.5	1072.4	978.6	1081.2	1042.4
70°	9931.4	3376.5	683.1	840.6	909.6	918.5	1014.0	1026.4	936.2	1015.8	945.0
72.5°	7066.4	2113.0	589.4	651.3	734.4	785.8	925.5	964.4	879.5	883.1	824.7
75°	3497.0	1134.3	525.6	502.6	571.7	654.8	807.0	879.5	796.4	736.2	716.7
77.5°	1180.3	642.5	444.1	405.3	444.1	525.6	669.0	768.1	702.5	622.9	610.5
80°	610.5	467.2	346.9	325.6	350.4	407.0	523.8	638.8	600.0	603.4	497.2
82.5°	380.4	284.9	249.5	247.8	265.5	311.5	385.8	518.6	514.9	440.7	320.3
85°	177.0	164.6	159.3	164.6	169.9	177.0	251.3	369.9	391.1	237.1	210.6
87.5°	74.3	72.5	63.7	69.1	76.1	74.3	100.8	157.6	219.4	148.7	136.2
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)