

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: McGRAW-EDISON

Report Number: P299920

Luminaire Tested: **GLNA-AF-08-LED-E1-SL3-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299920  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-SL3-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 38409.5 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G5

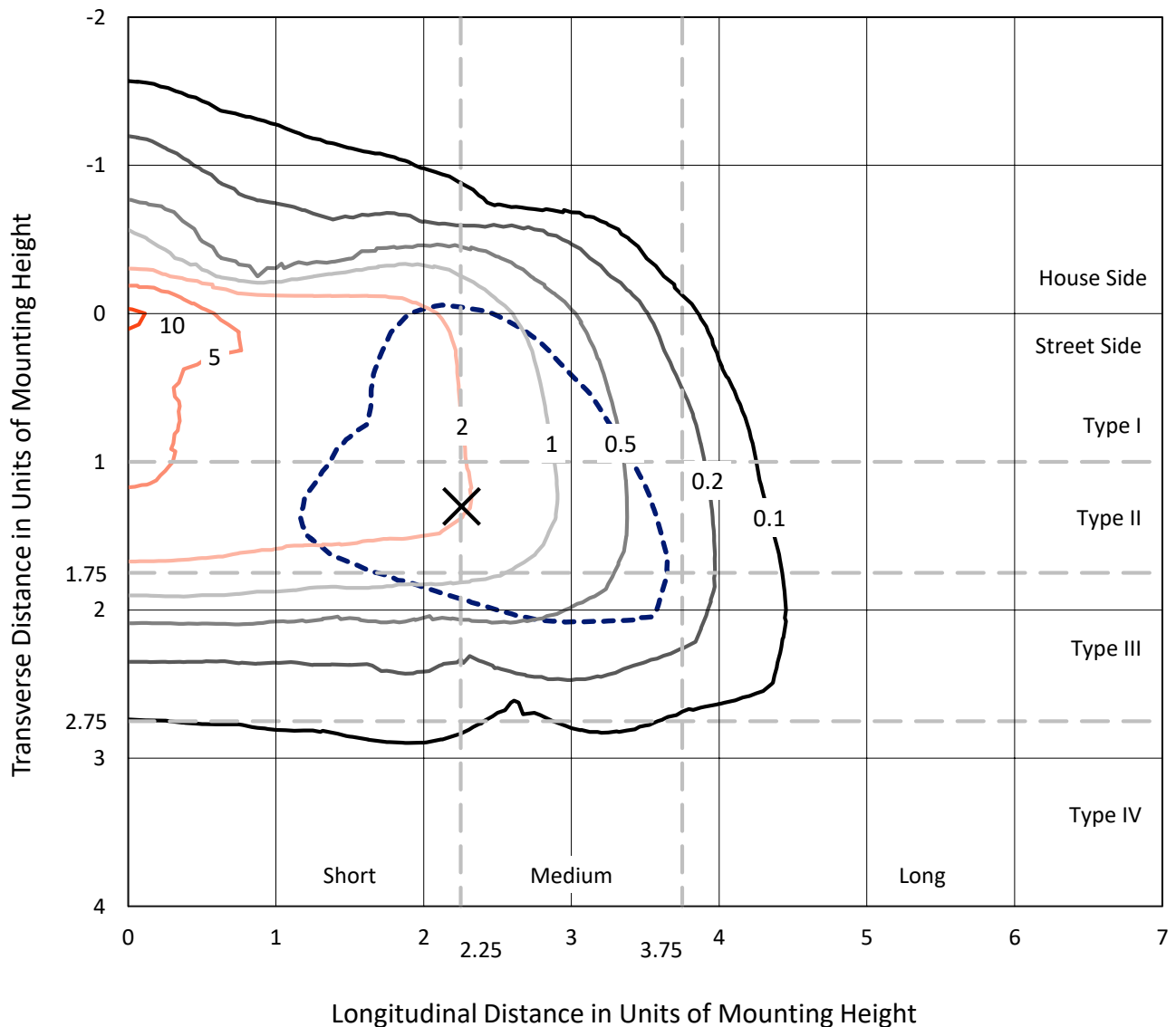
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

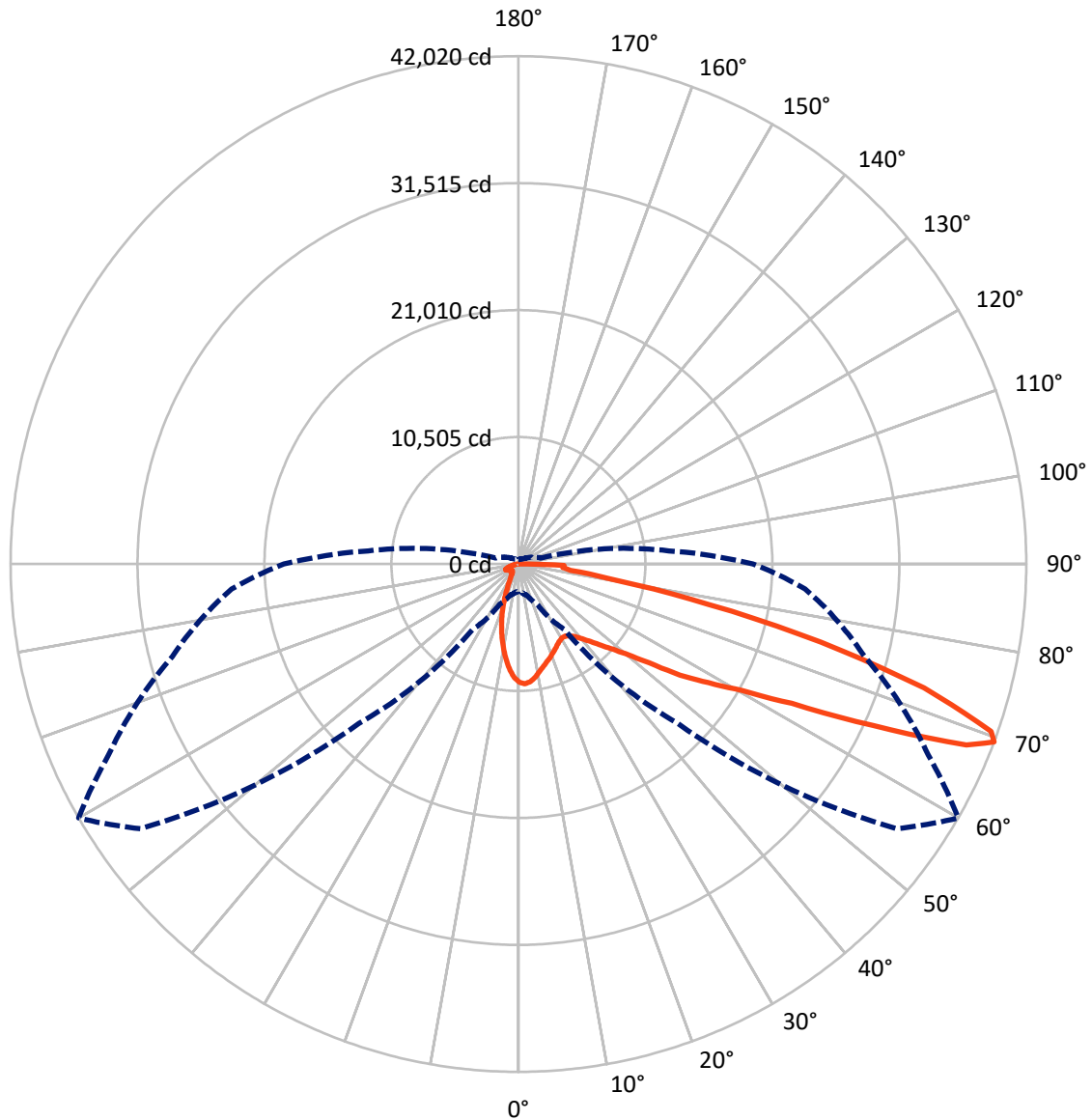
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.9 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5464.5	0.0	5464.5
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	32945.1	0.0	32945.1
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	38409.5	0.0	38409.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	827.6	2.2
10°-20°	1763.2	4.6
20°-30°	2246.6	5.8
30°-40°	3088.5	8.0
40°-50°	5011.3	13.0
50°-60°	8036.9	20.9
60°-70°	10696.5	27.8
70°-80°	5775.3	15.0
80°-90°	963.7	2.5
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°	38409.5	100.0
0°-180°	38409.5	100.0

**Coefficient of Utilization**



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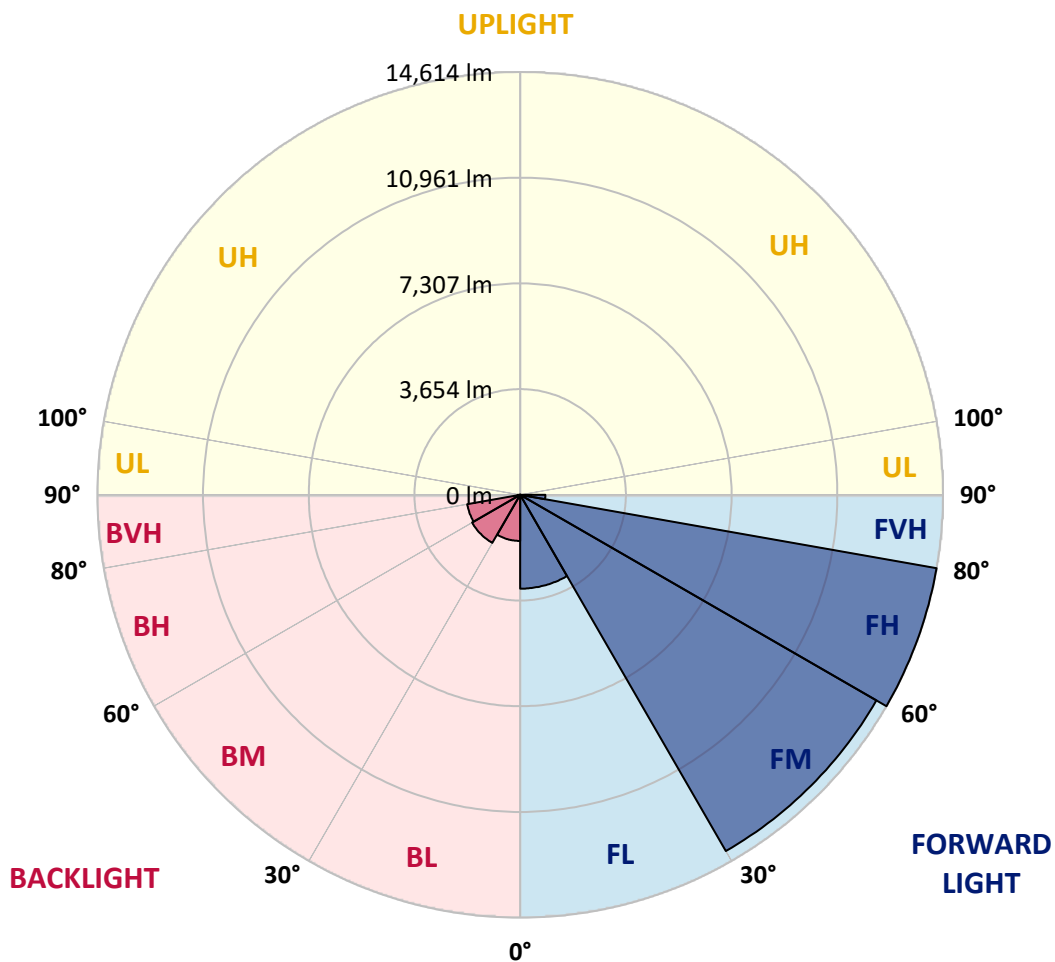
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3243.1	8.4			
FM	(30°-60°)	14217.0	37.0			
FH	(60°-80°)	14614.1	38.0			G5
FVH	(80°-90°)	870.9	2.3			G5
BL	(0°-30°)	1594.2	4.2	B3/2500		
BM	(30°-60°)	1919.8	5.0	B2/2500		
BH	(60°-80°)	1857.7	4.8	B3/2500		G3/2500
BVH	(80°-90°)	92.8	0.2			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3
2.5°	9987.7	10010.0	10000.7	9995.1	10011.8	9985.9	9932.1	9915.4	9889.4	9828.2	9724.2
5°	9612.9	9679.7	9676.0	9726.1	9809.6	9831.9	9807.7	9811.5	9763.2	9687.1	9514.6
7.5°	8965.4	8993.2	9008.1	9117.5	9269.7	9392.1	9496.0	9529.4	9507.2	9442.2	9219.6
10°	8297.4	8319.7	8355.0	8483.0	8675.9	8844.8	9041.5	9154.6	9202.9	9191.7	8943.1
12.5°	7724.1	7746.4	7792.8	7937.5	8167.6	8375.4	8661.1	8802.1	8917.1	8985.8	8718.6
15°	7210.2	7258.4	7302.9	7469.9	7727.8	8000.6	8323.4	8501.5	8679.6	8833.6	8520.1
17.5°	6809.4	6857.6	6883.6	7035.7	7310.3	7644.3	8022.8	8232.5	8455.1	8707.5	8323.4
20°	6577.5	6599.7	6588.6	6673.9	6920.7	7275.1	7724.1	7967.2	8236.2	8588.7	8126.7
22.5°	6512.5	6514.4	6473.6	6464.3	6623.8	6922.6	7405.0	7700.0	8030.3	8510.8	7957.9
25°	6670.2	6664.7	6553.3	6462.4	6479.1	6653.5	7097.0	7440.2	7857.7	8494.1	7828.0
27.5°	7020.9	7037.6	6872.5	6701.8	6532.9	6527.4	6863.2	7225.0	7716.7	8570.2	7772.3
30°	7512.6	7540.4	7364.2	7147.1	6829.8	6568.2	6772.3	7097.0	7629.5	8727.9	7763.1
32.5°	8050.7	8080.3	7946.8	7718.5	7302.9	6820.5	6835.4	7108.1	7625.8	8948.7	7826.2
35°	8624.0	8657.4	8588.7	8395.8	7933.8	7286.2	7076.6	7288.1	7746.4	9286.4	7995.0
37.5°	9264.1	9316.1	9334.6	9150.9	8657.4	7900.4	7471.8	7629.5	8019.1	9755.8	8304.9
40°	10186.2	10258.6	10253.0	9989.6	9486.8	8729.7	8082.2	8123.0	8444.0	10382.9	8800.3
42.5°	11952.6	11967.5	11505.5	10932.1	10399.6	9601.8	8802.1	8768.7	9030.3	11177.0	9529.4
45°	14199.5	14138.3	13110.4	12002.7	11353.3	10603.7	9739.1	9575.8	9774.3	12145.6	10442.3
47.5°	16064.2	15923.2	14624.4	13095.5	12362.7	11692.8	10839.4	10553.6	10663.1	13244.0	11622.3
50°	16711.8	16606.0	15529.9	14004.7	13318.2	13021.3	12193.8	11789.3	11819.0	14553.9	13004.6
52.5°	16572.6	16557.8	15839.7	14604.0	14212.5	14416.6	14112.3	13565.0	13275.5	16008.6	14496.4
55°	16244.2	16275.7	16016.0	15301.6	15234.8	15763.6	16619.0	16214.5	15314.6	17476.2	16038.2
57.5°	15103.1	15184.7	15756.2	16179.3	16880.6	17667.3	18637.7	18522.6	17509.6	19062.6	17871.4
60°	12167.8	12357.1	13889.7	16008.6	18574.6	21034.9	21469.0	21201.9	19773.2	21031.2	20292.7
62.5°	8525.6	8722.3	10544.3	13860.0	18296.3	24838.5	26530.6	25378.4	23023.9	23931.2	23426.5
65°	4564.3	4659.0	6050.5	9616.6	15446.4	25623.3	33928.2	32174.8	28170.8	27506.6	26107.6
67.5°	2517.8	2569.8	3102.3	4855.6	9893.1	22563.7	38641.0	39965.7	34603.6	29887.1	25619.6
69°	2276.6	2324.8	2673.7	3677.4	6620.1	18656.2	38180.8	42019.7	37423.8	29651.4	23816.2
70°	2226.5	2271.0	2584.6	3389.8	5358.4	15377.7	36639.0	41494.6	38095.5	28807.2	22242.8
72.5°	2003.9	2052.1	2356.4	3044.7	4579.2	7666.6	29022.5	35084.1	34586.9	24977.6	16871.3
75°	1868.4	1912.9	2428.7	2981.7	4384.4	4851.9	19133.1	25857.1	25424.8	17472.5	9097.1
77.5°	799.7	796.0	1126.2	2523.4	4449.3	4697.9	10280.9	16153.3	14737.6	7468.1	2612.4
80°	534.4	525.1	534.4	742.2	4080.1	4723.9	5386.3	8199.1	6193.4	1903.7	1287.7
82.5°	460.1	452.7	469.4	452.7	1434.2	5391.8	4579.2	4360.2	2944.5	1081.7	638.3
85°	309.9	296.9	404.5	406.3	677.2	4790.7	5158.1	3683.0	2382.4	642.0	315.4
87.5°	148.4	144.7	235.6	287.6	397.1	1946.3	5787.1	3773.9	2402.8	328.4	150.3
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°	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3	9787.3
2.5°	9692.7	9616.6	9542.4	9453.4	9360.6	9256.7	9204.7	9152.8	9139.8	9124.9	9073.0
5°	9425.5	9317.9	9132.4	8928.3	8713.0	8503.4	8343.8	8243.6	8167.6	8128.6	8059.9
7.5°	9080.4	8922.7	8598.0	8245.5	7883.7	7553.4	7267.7	7087.7	6917.0	6837.2	6746.3
10°	8752.0	8516.4	8011.7	7492.2	6972.7	6473.6	6004.1	5672.0	5377.0	5211.9	5095.0
12.5°	8470.0	8147.1	7447.7	6744.4	6032.0	5321.3	4618.1	4065.2	3603.2	3360.2	3235.9
15°	8195.4	7805.7	6911.4	6019.0	5104.3	4137.6	3213.6	2586.5	2204.2	2052.1	2000.1
17.5°	7946.8	7447.7	6373.4	5287.9	4146.9	2977.9	2159.7	1814.6	1668.0	1617.9	1601.2
20°	7677.7	7085.8	5814.9	4523.5	3148.6	2081.8	1686.6	1534.4	1475.1	1460.2	1452.8
22.5°	7418.0	6729.6	5280.5	3705.3	2261.8	1606.8	1449.1	1386.0	1376.7	1389.7	1389.7
25°	7197.2	6410.5	4703.5	2849.9	1660.6	1352.6	1296.9	1282.1	1317.3	1365.6	1374.9
27.5°	7032.0	6148.9	4089.3	2104.0	1322.9	1176.3	1174.5	1198.6	1285.8	1378.6	1397.1
30°	6918.9	5900.2	3432.5	1517.7	1109.5	1035.3	1065.0	1117.0	1245.0	1376.7	1412.0
32.5°	6861.3	5716.5	2747.9	1174.5	950.0	909.2	959.3	1022.3	1148.5	1271.0	1317.3
35°	6905.9	5581.1	2102.2	979.7	838.6	807.1	859.1	920.3	994.5	1046.5	1081.7
37.5°	7072.9	5527.3	1586.4	877.6	762.6	732.9	773.7	809.0	838.6	853.5	870.2
40°	7432.8	5584.8	1271.0	825.7	719.9	682.8	699.5	712.5	731.0	745.9	753.3
42.5°	7963.5	5757.4	1139.2	805.3	697.6	643.8	640.1	645.7	669.8	697.6	703.2
45°	8705.6	6061.7	1129.9	818.2	686.5	612.3	595.6	603.0	640.1	682.8	690.2
47.5°	9653.7	6525.5	1204.2	857.2	695.8	595.6	567.8	577.0	623.4	680.9	690.2
50°	10802.2	7173.0	1328.5	914.7	736.6	599.3	558.5	564.0	612.3	675.4	684.6
52.5°	12158.6	8091.5	1463.9	970.4	779.3	623.4	565.9	552.9	597.4	653.1	664.2
55°	13667.0	9269.7	1603.1	1020.5	801.5	653.1	580.7	538.1	569.6	616.0	625.3
57.5°	15518.7	10917.3	1844.3	1068.7	816.4	673.5	595.6	523.2	534.4	567.8	575.2
60°	18025.4	13247.7	2269.2	1148.5	849.8	680.9	593.7	510.2	499.1	517.7	521.4
62.5°	21029.3	15778.5	2623.6	1248.7	905.4	686.5	582.6	501.0	469.4	469.4	473.1
65°	22812.4	16455.7	2426.9	1332.2	951.8	680.9	569.6	491.7	447.2	426.7	428.6
67.5°	21300.2	14472.3	2079.9	1348.9	950.0	655.0	549.2	475.0	424.9	393.3	391.5
69°	19405.8	12487.0	1924.1	1304.4	905.4	621.6	523.2	456.4	408.2	374.8	372.9
70°	17878.8	11275.4	1822.0	1256.1	857.2	597.4	502.8	439.7	395.2	363.7	360.0
72.5°	12999.1	7388.3	1556.7	1079.9	706.9	501.0	434.2	385.9	352.5	334.0	330.3
75°	6495.8	3523.4	1263.5	875.8	541.8	400.8	356.2	322.8	306.1	302.4	300.6
77.5°	2133.7	1614.2	903.6	653.1	402.6	313.6	287.6	263.5	259.8	270.9	267.2
80°	1172.6	938.8	573.3	432.3	274.6	230.1	226.4	213.4	218.9	237.5	233.8
82.5°	597.4	488.0	354.4	259.8	185.5	165.1	180.0	172.6	180.0	196.7	194.8
85°	295.0	267.2	224.5	157.7	122.5	105.8	128.0	133.6	137.3	150.3	150.3
87.5°	170.7	157.7	118.7	74.2	61.2	55.7	74.2	72.4	85.3	92.8	90.9
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)