

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: P299861

Luminaire Tested: **GLNA-AF-08-LED-E1-SL3-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299861  
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-SL3-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47543.6 lumens  
Efficiency: N/A  
Efficacy: 106.8 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

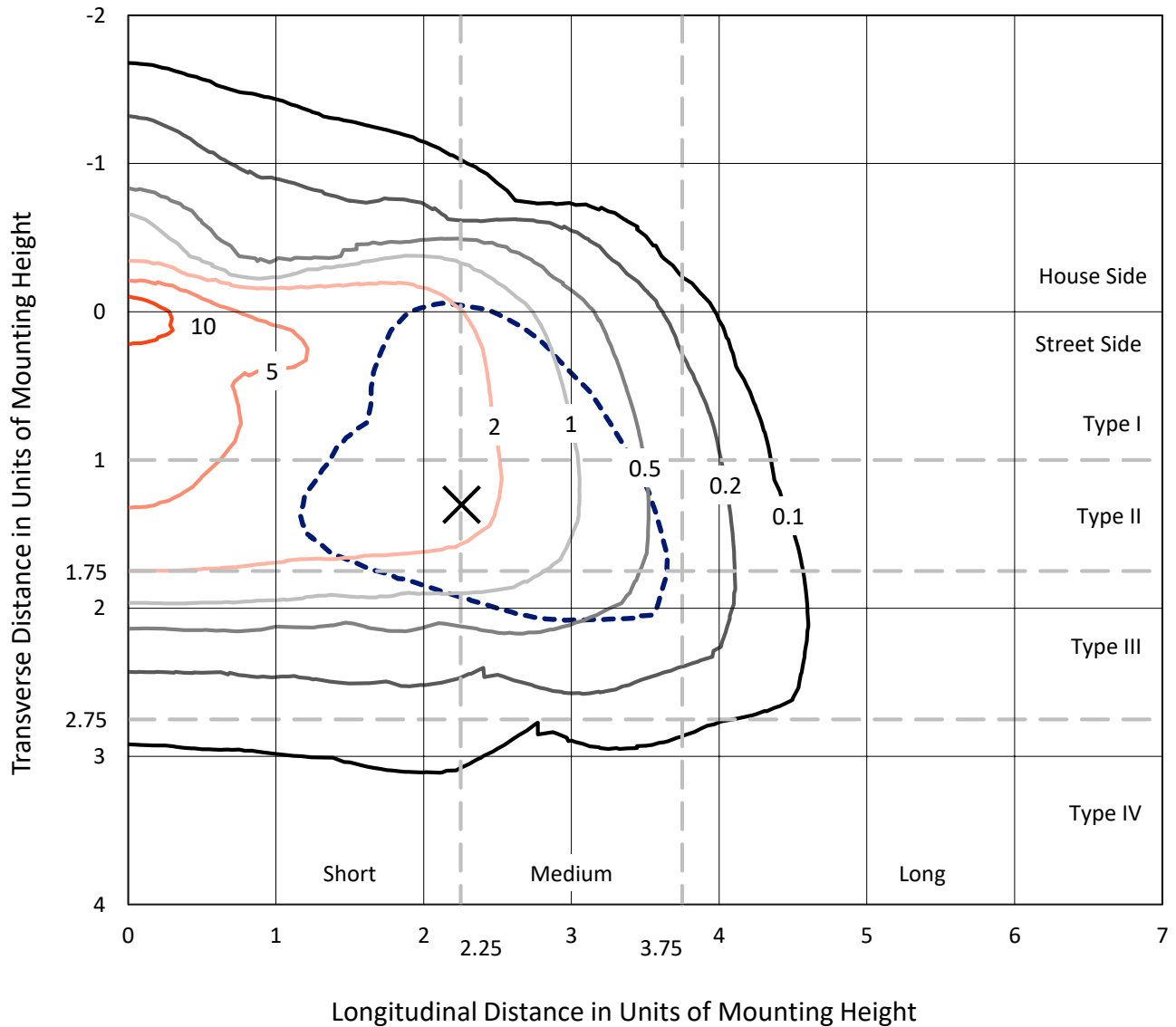
Input Watts (W): 445  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

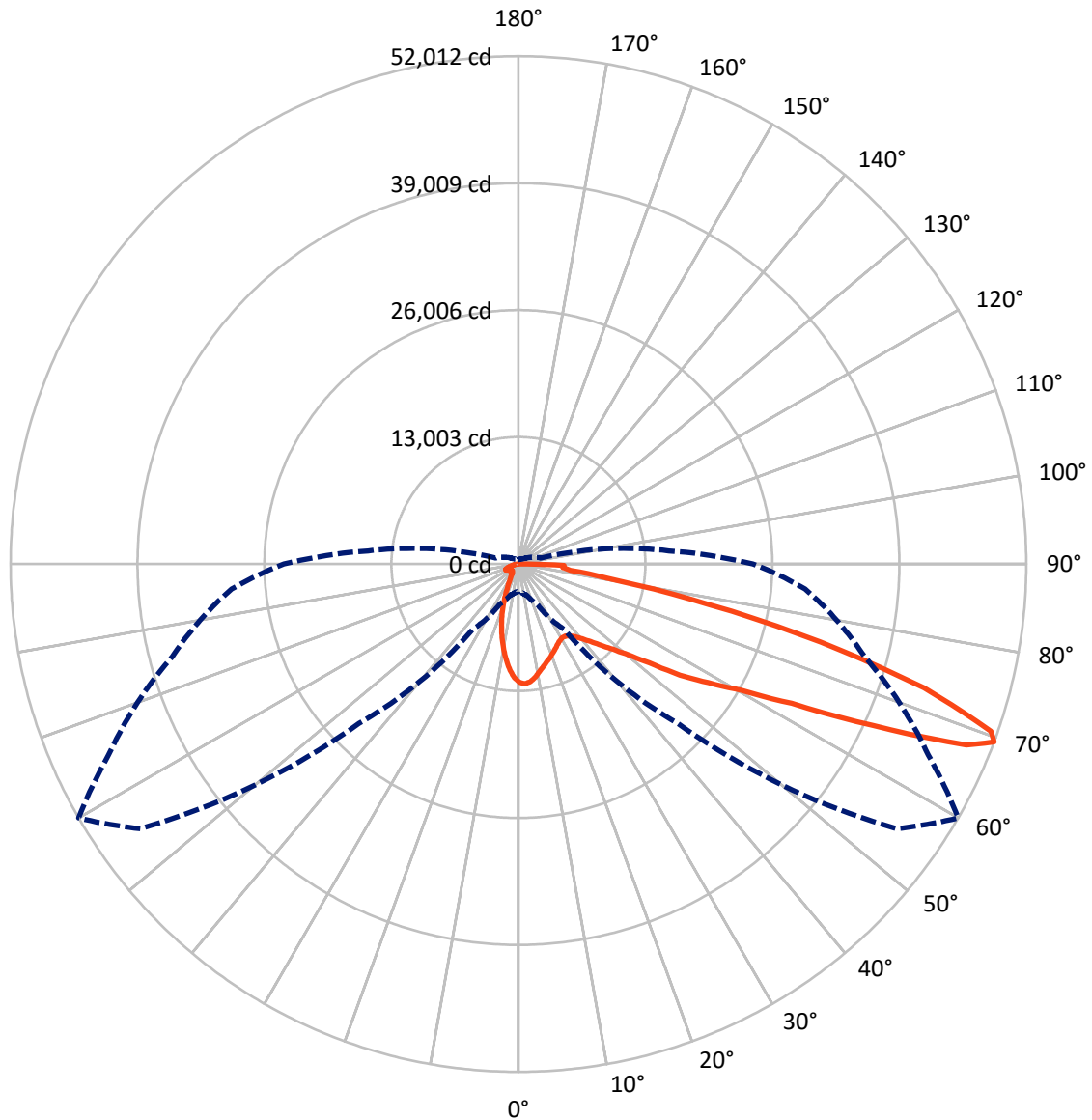
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.5 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	6764.0	0.0	6764.0
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	40779.6	0.0	40779.6
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	47543.6	0.0	47543.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1024.3	2.2
10°-20°	2182.5	4.6
20°-30°	2780.8	5.8
30°-40°	3822.9	8.0
40°-50°	6203.1	13.0
50°-60°	9948.2	20.9
60°-70°	13240.2	27.8
70°-80°	7148.7	15.0
80°-90°	1192.8	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°	47543.6	100.0
0°-180°	47543.6	100.0

**Coefficient of Utilization**



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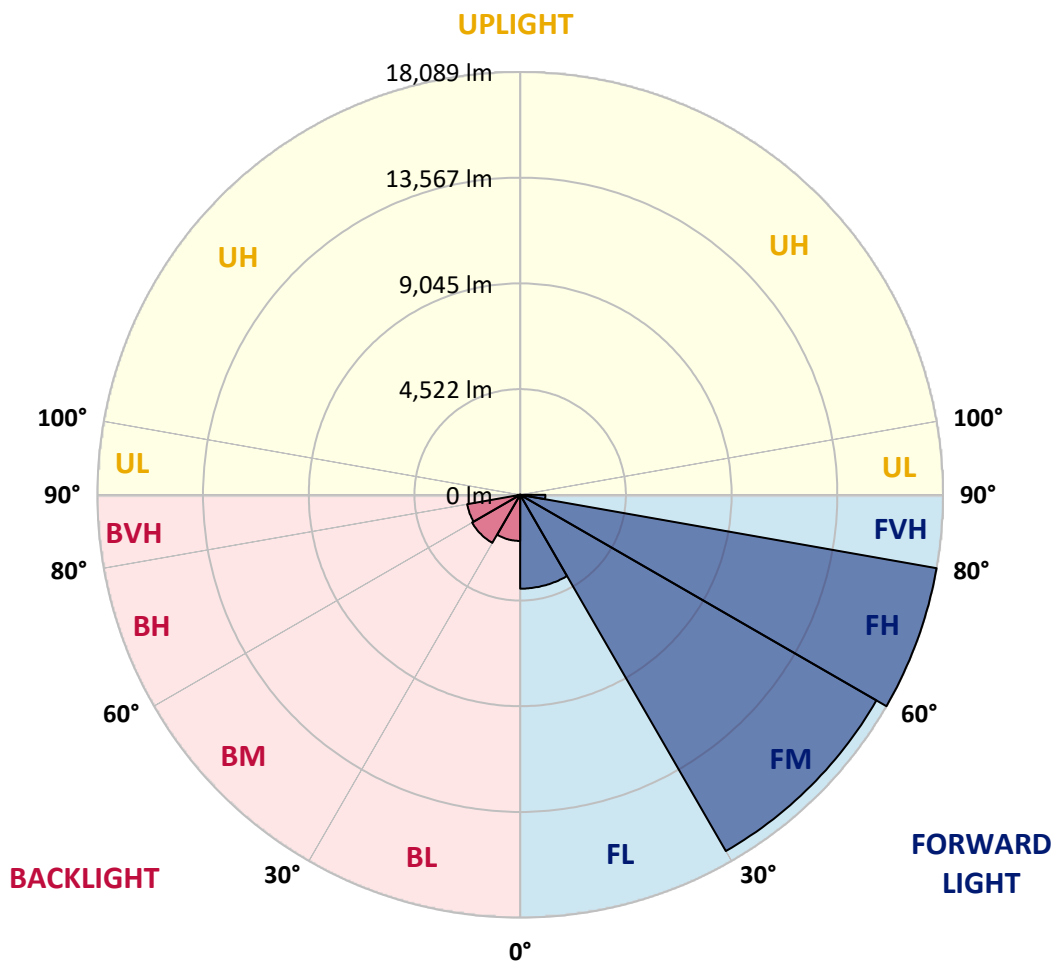
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4014.4	8.4			
FM	(30°-60°)	17597.9	37.0			
FH	(60°-80°)	18089.4	38.0			G5
FVH	(80°-90°)	1077.9	2.3			G5
BL	(0°-30°)	1973.3	4.2	B3/2500		
BM	(30°-60°)	2376.3	5.0	B2/2500		
BH	(60°-80°)	2299.5	4.8	B3/2500		G3/2500
BVH	(80°-90°)	114.9	0.2			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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8
2.5°	12362.9	12390.4	12378.9	12372.0	12392.7	12360.6	12294.0	12273.3	12241.1	12165.3	12036.7
5°	11898.9	11981.6	11977.0	12039.0	12142.4	12169.9	12140.1	12144.7	12085.0	11990.8	11777.2
7.5°	11097.4	11131.9	11150.2	11285.7	11474.1	11625.6	11754.2	11795.6	11768.0	11687.6	11412.0
10°	10270.6	10298.2	10341.8	10500.3	10739.1	10948.1	11191.6	11331.7	11391.4	11377.6	11069.8
12.5°	9560.9	9588.5	9645.9	9825.1	10109.8	10367.1	10720.8	10895.3	11037.7	11122.7	10792.0
15°	8924.8	8984.5	9039.6	9246.3	9565.5	9903.1	10302.8	10523.2	10743.7	10934.3	10546.2
17.5°	8428.7	8488.4	8520.6	8708.9	9048.8	9462.2	9930.7	10190.2	10465.8	10778.2	10302.8
20°	8141.6	8169.2	8155.4	8261.0	8566.5	9005.2	9560.9	9861.8	10194.8	10631.2	10059.3
22.5°	8061.2	8063.5	8013.0	8001.5	8199.0	8568.8	9165.9	9531.1	9939.9	10534.7	9850.3
25°	8256.5	8249.6	8111.8	7999.2	8019.9	8235.8	8784.7	9209.6	9726.3	10514.1	9689.6
27.5°	8690.5	8711.2	8506.8	8295.5	8086.5	8079.6	8495.3	8943.1	9551.8	10608.2	9620.7
30°	9299.1	9333.6	9115.4	8846.7	8454.0	8130.1	8382.8	8784.7	9443.8	10803.4	9609.2
32.5°	9965.2	10001.9	9836.5	9554.1	9039.6	8442.5	8460.9	8798.5	9439.2	11076.7	9687.3
35°	10674.8	10716.2	10631.2	10392.3	9820.5	9018.9	8759.4	9021.2	9588.5	11494.7	9896.3
37.5°	11467.2	11531.5	11554.4	11327.1	10716.2	9779.1	9248.6	9443.8	9926.1	12075.8	10279.8
40°	12608.6	12698.2	12691.3	12365.2	11742.8	10805.7	10004.2	10054.7	10452.0	12852.0	10893.0
42.5°	14795.0	14813.4	14241.5	13531.9	12872.7	11885.2	10895.3	10854.0	11177.8	13835.0	11795.6
45°	17576.3	17500.5	16228.1	14857.0	14053.2	13125.3	12055.1	11853.0	12098.7	15033.9	12925.5
47.5°	19884.4	19709.8	18102.2	16209.7	15302.6	14473.5	13417.0	13063.3	13198.8	16393.5	14386.2
50°	20685.9	20555.0	19222.9	17335.1	16485.3	16117.9	15093.6	14592.9	14629.7	18014.9	16097.2
52.5°	20513.7	20495.3	19606.5	18076.9	17592.3	17845.0	17468.3	16790.8	16432.5	19815.5	17943.7
55°	20107.2	20146.2	19824.7	18940.5	18857.8	19512.3	20571.1	20070.4	18956.5	21632.1	19852.2
57.5°	18694.7	18795.8	19503.1	20026.8	20894.9	21868.7	23069.8	22927.4	21673.5	23595.8	22121.3
60°	15061.4	15295.7	17192.7	19815.5	22991.7	26037.1	26574.5	26243.8	24475.4	26032.5	25118.4
62.5°	10553.1	10796.5	13051.9	17156.0	22647.3	30745.2	32839.8	31413.6	28499.1	29622.2	28997.5
65°	5649.8	5766.9	7489.4	11903.5	19119.6	31716.7	41996.5	39826.2	34870.0	34047.8	32316.1
67.5°	3116.6	3180.9	3840.0	6010.3	12245.7	27929.5	47830.0	49469.8	42832.5	36994.4	31712.1
69°	2818.0	2877.7	3309.5	4552.0	8194.4	23092.8	47260.4	52012.2	46323.4	36702.7	29479.8
70°	2756.0	2811.1	3199.2	4196.0	6632.7	19034.6	45351.9	51362.2	47154.8	35657.8	27532.2
72.5°	2480.4	2540.1	2916.7	3768.8	5668.1	9489.8	35924.2	43427.3	42811.8	30917.5	20883.4
75°	2312.7	2367.8	3006.3	3690.7	5427.0	6005.7	23683.0	32006.1	31471.0	21627.5	11260.5
77.5°	989.9	985.3	1394.1	3123.4	5507.4	5815.1	12725.7	19994.6	18242.3	9244.0	3233.7
80°	661.4	650.0	661.4	918.7	5050.3	5847.3	6667.2	10148.9	7666.2	2356.4	1593.9
82.5°	569.6	560.4	581.1	560.4	1775.3	6674.1	5668.1	5397.1	3644.8	1338.9	790.0
85°	383.5	367.5	500.7	503.0	838.3	5929.9	6384.7	4558.8	2948.9	794.6	390.4
87.5°	183.7	179.1	291.7	356.0	491.5	2409.2	7163.2	4671.4	2974.2	406.5	186.0
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°	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8	12114.8
2.5°	11997.7	11903.5	11811.7	11701.4	11586.6	11458.0	11393.7	11329.4	11313.3	11294.9	11230.6
5°	11667.0	11533.8	11304.1	11051.5	10785.1	10525.5	10328.0	10204.0	10109.8	10061.6	9976.6
7.5°	11239.8	11044.6	10642.7	10206.3	9758.5	9349.7	8996.0	8773.2	8561.9	8463.2	8350.6
10°	10833.3	10541.6	9916.9	9273.9	8630.8	8013.0	7432.0	7020.9	6655.7	6451.3	6306.6
12.5°	10484.2	10084.6	9218.7	8348.3	7466.4	6586.8	5716.4	5032.0	4460.1	4159.2	4005.4
15°	10144.3	9662.0	8555.0	7450.3	6318.1	5121.5	3977.8	3201.5	2728.4	2540.1	2475.8
17.5°	9836.5	9218.7	7889.0	6545.4	5133.0	3686.1	2673.3	2246.1	2064.7	2002.7	1982.0
20°	9503.5	8770.9	7197.7	5599.2	3897.4	2576.8	2087.7	1899.3	1825.8	1807.5	1798.3
22.5°	9182.0	8329.9	6536.3	4586.4	2799.6	1988.9	1793.7	1715.6	1704.1	1720.2	1720.2
25°	8908.7	7934.9	5822.0	3527.7	2055.5	1674.3	1605.4	1587.0	1630.6	1690.3	1701.8
27.5°	8704.3	7611.1	5061.8	2604.4	1637.5	1456.1	1453.8	1483.6	1591.6	1706.4	1729.4
30°	8564.2	7303.3	4248.8	1878.7	1373.4	1281.5	1318.3	1382.6	1541.1	1704.1	1747.7
32.5°	8493.0	7076.0	3401.3	1453.8	1175.9	1125.4	1187.4	1265.5	1421.6	1573.2	1630.6
35°	8548.1	6908.3	2602.1	1212.6	1038.1	999.0	1063.3	1139.1	1231.0	1295.3	1338.9
37.5°	8754.8	6841.7	1963.6	1086.3	943.9	907.2	957.7	1001.3	1038.1	1056.5	1077.1
40°	9200.4	6912.9	1573.2	1022.0	891.1	845.2	865.8	881.9	904.9	923.3	932.4
42.5°	9857.2	7126.5	1410.1	996.7	863.5	796.9	792.3	799.2	829.1	863.5	870.4
45°	10775.9	7503.2	1398.7	1012.8	849.8	757.9	737.2	746.4	792.3	845.2	854.4
47.5°	11949.5	8077.3	1490.5	1061.1	861.2	737.2	702.8	714.3	771.7	842.9	854.4
50°	13371.1	8878.8	1644.4	1132.2	911.8	741.8	691.3	698.2	757.9	836.0	847.5
52.5°	15049.9	10015.7	1812.1	1201.1	964.6	771.7	700.5	684.4	739.5	808.4	822.2
55°	16917.1	11474.1	1984.3	1263.2	992.2	808.4	718.9	666.0	705.1	762.5	774.0
57.5°	19209.2	13513.5	2282.9	1322.9	1010.5	833.7	737.2	647.7	661.4	702.8	712.0
60°	22311.9	16398.1	2808.8	1421.6	1051.9	842.9	734.9	631.6	617.8	640.8	645.4
62.5°	26030.2	19530.7	3247.5	1545.6	1120.8	849.8	721.1	620.1	581.1	581.1	585.6
65°	28237.3	20369.0	3004.0	1649.0	1178.2	842.9	705.1	608.6	553.5	528.2	530.5
67.5°	26365.5	17913.9	2574.5	1669.7	1175.9	810.7	679.8	587.9	525.9	486.9	484.6
69°	24020.6	15456.4	2381.6	1614.5	1120.8	769.4	647.7	565.0	505.3	463.9	461.6
70°	22130.5	13956.7	2255.3	1554.8	1061.1	739.5	622.4	544.3	489.2	450.1	445.5
72.5°	16090.3	9145.3	1926.9	1336.6	875.0	620.1	537.4	477.7	436.4	413.4	408.8
75°	8040.6	4361.3	1564.0	1084.0	670.6	496.1	441.0	399.6	378.9	374.4	372.1
77.5°	2641.1	1998.1	1118.5	808.4	498.4	388.1	356.0	326.1	321.5	335.3	330.7
80°	1451.5	1162.1	709.7	535.1	339.9	284.8	280.2	264.1	271.0	294.0	289.4
82.5°	739.5	604.0	438.7	321.5	229.7	204.4	222.8	213.6	222.8	243.4	241.1
85°	365.2	330.7	277.9	195.2	151.6	130.9	158.5	165.4	170.0	186.0	186.0
87.5°	211.3	195.2	147.0	91.9	75.8	68.9	91.9	89.6	105.6	114.8	112.5
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)