

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: P191497

Luminaire Tested: **GLEON-AF-09-LED-E1-T3R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P40129)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-09-LED-E1-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55657.7 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 501
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

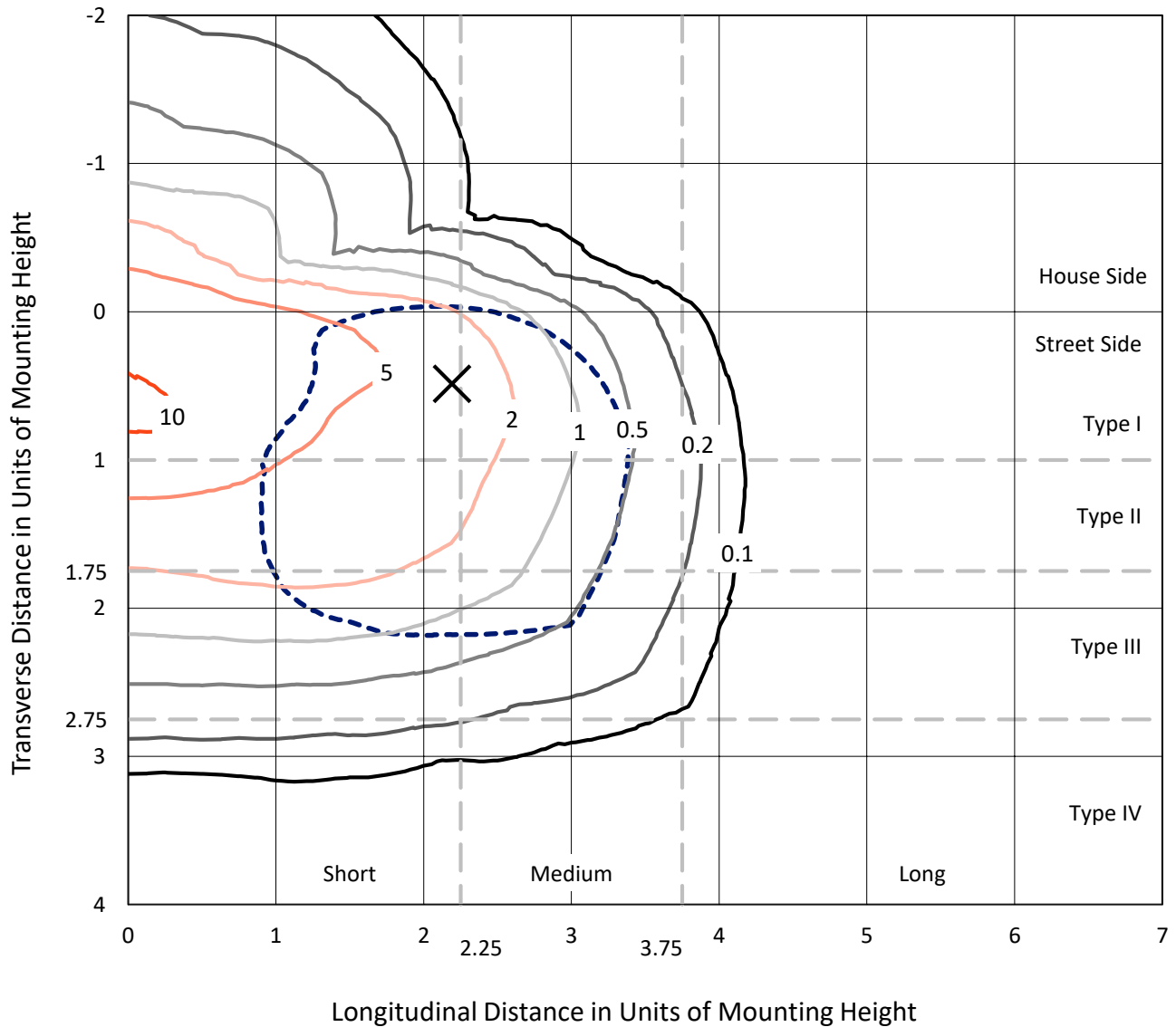


REPORT NUMBER: P191497

CATALOG NUMBER: GLEON-AF-09-LED-E1-T3R

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

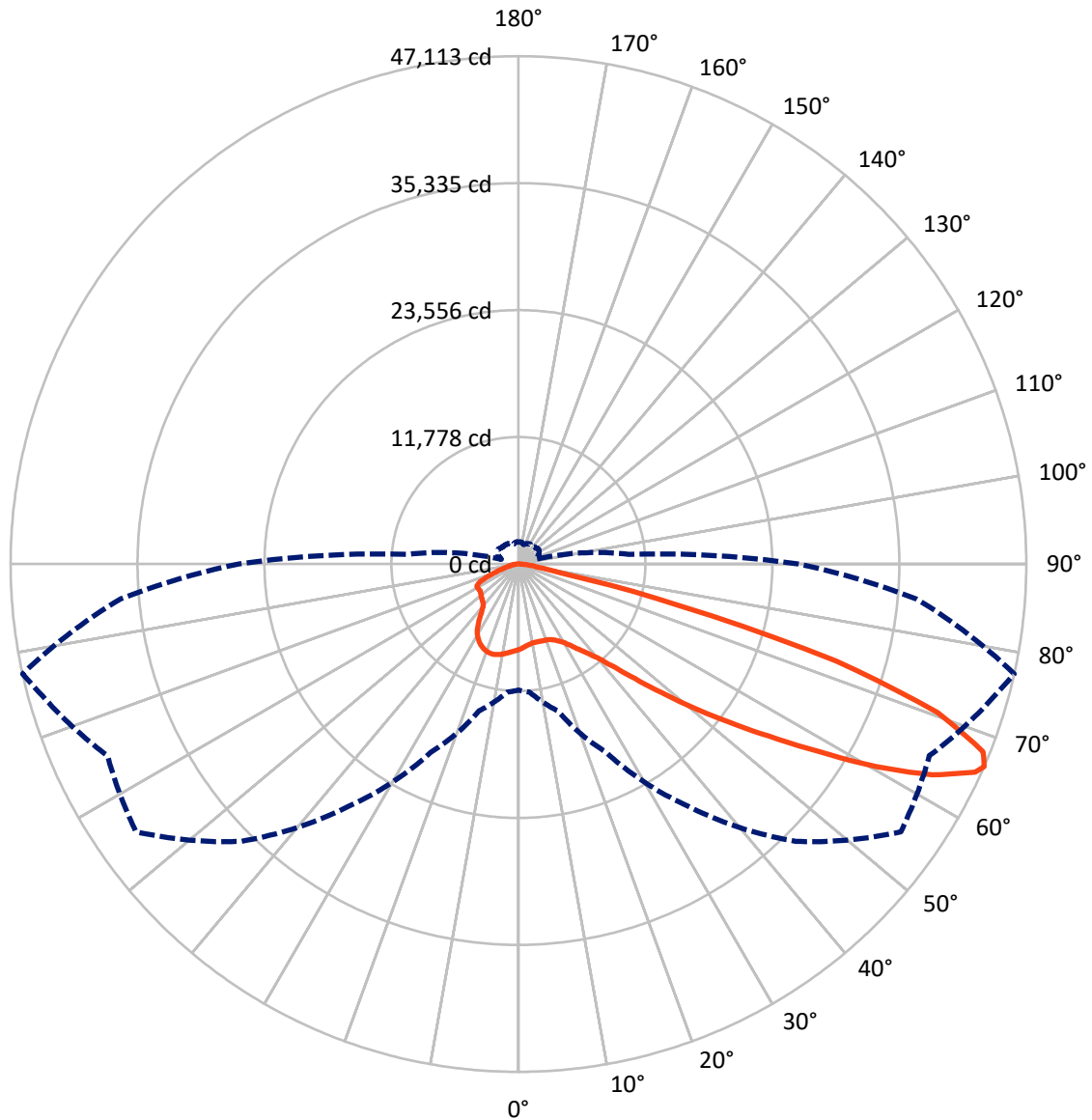


Based on 30 foot mounting height. Maximum calculated value = 10.9 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P191497

CATALOG NUMBER: GLEON-AF-09-LED-E1-T3R

Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P191497

CATALOG NUMBER: GLEON-AF-09-LED-E1-T3R

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9508.8	0.0	9508.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	46148.9	0.0	46148.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	55657.7	0.0	55657.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	708.6	1.3
10°-20°	1999.1	3.6
20°-30°	3411.8	6.1
30°-40°	5461.7	9.8
40°-50°	8437.8	15.2
50°-60°	11967.7	21.5
60°-70°	16009.5	28.8
70°-80°	6952.6	12.5
80°-90°	708.9	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°	55657.7	100.0
0°-180°	55657.7	100.0



REPORT NUMBER: P191497

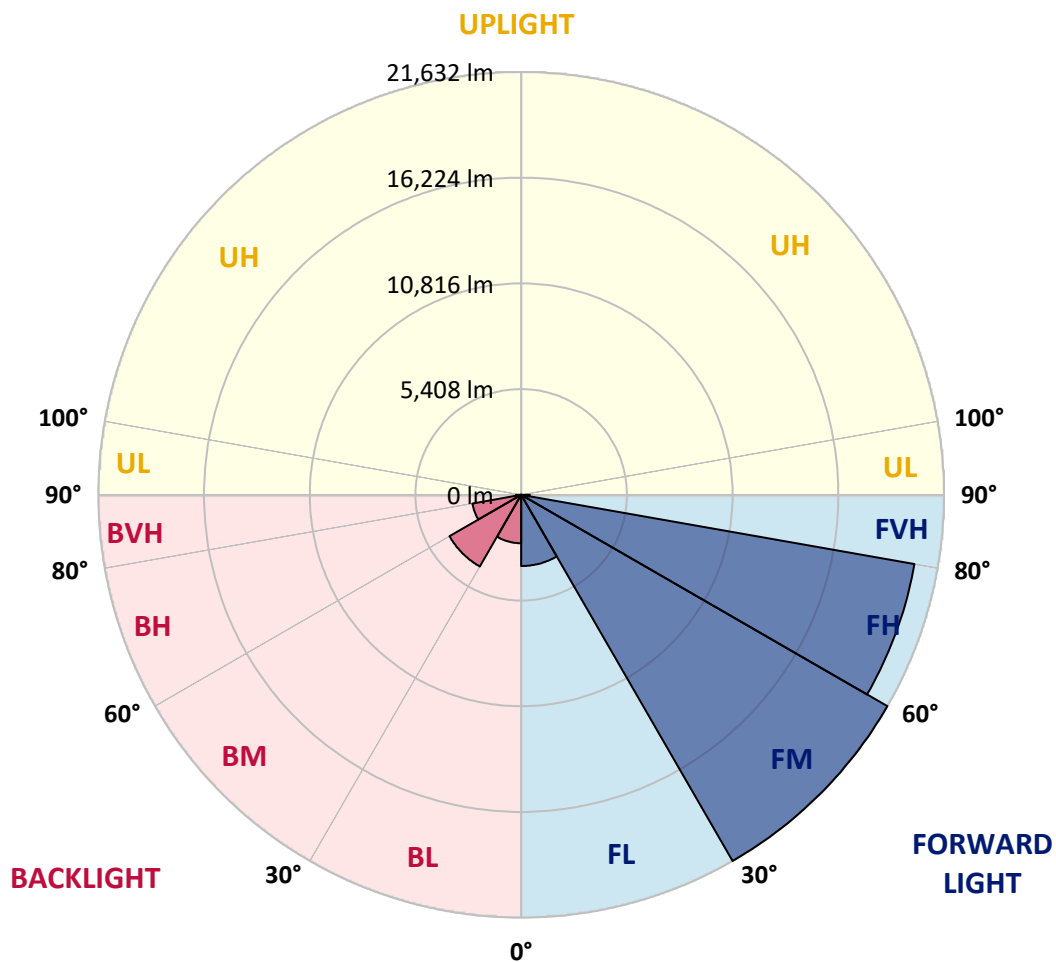
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3643.0	6.5			
FM (30°-60°)	21631.5	38.9			
FH (60°-80°)	20429.8	36.7			G5
FVH (80°-90°)	444.6	0.8			G3/500
BL (0°-30°)	2476.5	4.4	B3/2500		
BM (30°-60°)	4235.6	7.6	B3/5000		
BH (60°-80°)	2532.4	4.5	B4/5000		G4/5000
BVH (80°-90°)	264.3	0.5			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





REPORT NUMBER: P191497

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4
2.5°	7016.3	7063.7	7103.1	7139.9	7213.5	7334.6	7473.9	7587.0	7750.1	7781.6	7868.3
5°	6372.1	6372.1	6403.6	6458.8	6558.8	6740.2	6929.6	7182.0	7537.0	7621.2	7852.6
7.5°	6059.0	6061.7	6080.1	6127.5	6214.2	6379.9	6587.7	6884.9	7366.1	7505.5	7899.9
10°	6174.7	6148.4	6109.1	6085.3	6098.5	6195.8	6393.0	6724.4	7260.9	7439.7	8005.1
12.5°	6821.8	6771.7	6635.0	6453.5	6280.0	6209.0	6324.7	6648.2	7216.2	7424.0	8144.5
15°	7878.9	7857.9	7602.8	7226.7	6805.9	6453.5	6374.6	6619.2	7221.4	7442.4	8310.1
17.5°	9204.3	9175.4	8838.8	8291.7	7605.4	6919.0	6550.9	6642.8	7239.8	7473.9	8470.6
20°	10542.8	10453.4	10090.6	9438.4	8557.4	7552.8	6842.7	6703.4	7263.6	7508.0	8638.9
22.5°	11542.3	11468.6	11142.5	10508.7	9493.6	8286.5	7234.6	6808.6	7339.8	7608.0	8846.7
25°	12420.6	12425.8	12102.3	11489.6	10440.3	9065.0	7739.5	7090.0	7534.3	7813.2	9130.7
27.5°	13506.6	13443.5	13141.1	12533.6	11376.5	9851.2	8349.6	7476.5	7823.6	8105.0	9504.1
30°	14805.8	14761.1	14411.3	13722.3	12415.3	10695.5	9046.6	7926.2	8197.1	8489.1	9993.3
32.5°	16333.8	16312.7	15949.7	15063.6	13614.5	11689.5	9864.4	8520.6	8754.6	9057.0	10695.5
35°	18127.2	18129.9	17701.2	16636.1	14926.8	12846.6	10792.7	9285.8	9433.1	9748.7	11531.7
37.5°	19231.8	19365.9	19205.5	18119.3	16412.6	14140.5	11997.2	10300.9	10206.3	10524.5	12428.4
40°	19468.5	19631.4	20139.0	19586.7	18074.6	15565.8	13064.8	11276.6	11158.2	11547.5	13582.9
42.5°	19137.1	19363.2	20436.2	20825.4	19839.2	17322.5	14500.7	12725.6	12575.7	13099.1	15018.9
45°	18939.8	19108.2	20349.5	21469.7	21369.7	19308.0	16328.4	14545.4	14490.2	15176.6	16675.6
47.5°	18598.0	18750.5	19944.5	21619.7	22269.2	21127.8	18524.3	16770.3	16878.1	17777.5	18545.4
50°	18782.1	18845.2	19492.1	21238.3	22529.6	22461.1	20978.0	19347.5	19715.6	20838.5	20662.4
52.5°	18755.8	18918.9	19439.5	20612.5	22563.7	23284.3	23394.8	22221.9	22997.7	24286.3	23010.8
55°	15163.4	15463.2	18821.5	20454.6	22684.7	24091.6	25545.9	25251.3	26697.8	28199.4	25661.6
57.5°	14479.7	14669.0	16531.0	20786.0	23326.3	25632.7	27939.0	28586.0	31005.4	32749.0	28891.0
60°	14345.6	14579.6	16507.3	21190.9	24628.2	28144.1	31486.6	32622.7	36246.6	38155.9	32635.9
62.5°	13927.5	14179.9	16352.2	21138.4	26476.8	31618.2	36028.3	36914.6	41216.9	43073.6	35768.0
65°	12602.0	12838.7	15087.2	20288.9	27723.4	35326.2	41403.6	40848.8	45140.6	46537.0	37330.0
66°	11694.8	11926.2	14090.5	19289.6	27434.1	36378.1	43307.6	42066.4	46019.0	47112.9	37025.0
67.5°	10035.4	10216.8	12155.0	17051.7	25895.7	36672.6	44909.2	42981.5	46111.0	46497.6	35281.5
70°	6340.5	6393.0	7899.9	11771.0	19602.6	31804.9	42471.4	40709.4	42308.3	41261.6	29577.4
72.5°	2750.8	2732.4	3792.2	5988.0	11097.8	21340.9	34355.8	33590.5	33188.1	30800.2	20704.4
75°	1530.5	1551.6	1969.7	2779.7	4510.1	10482.4	22474.3	21506.5	18158.8	15494.8	9388.4
77.5°	1228.2	1257.0	1633.1	1972.4	2024.9	3655.4	10516.5	8557.4	5151.8	4134.1	2608.7
80°	970.4	1023.0	1425.4	1535.8	1364.8	1506.9	3397.7	2716.5	2038.1	1869.7	1351.7
82.5°	767.9	804.8	1222.8	1162.4	954.6	1015.1	1627.8	1585.8	1325.4	1207.1	781.0
85°	552.3	620.6	1004.5	875.7	625.9	683.7	1080.8	1036.1	760.1	620.6	344.5
87.5°	226.2	294.5	710.0	581.1	349.7	318.2	539.1	507.6	360.3	263.0	170.9
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: P191497

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4	7931.4
2.5°	7923.6	7986.7	8068.2	8118.2	8144.5	8162.9	8191.9	8189.2	8197.1	8199.8	8210.2
5°	7976.2	8081.4	8199.8	8231.3	8231.3	8202.3	8173.5	8126.1	8107.7	8102.4	8107.7
7.5°	8112.9	8228.6	8331.2	8294.4	8215.5	8099.8	7949.9	7818.4	7747.4	7723.7	7718.5
10°	8286.5	8425.9	8468.0	8328.6	8097.2	7818.4	7521.2	7305.6	7182.0	7147.8	7137.3
12.5°	8496.9	8628.4	8570.5	8276.0	7847.4	7397.7	6987.4	6642.8	6385.2	6303.6	6298.4
15°	8728.3	8830.9	8628.4	8112.9	7473.9	6811.2	6080.1	5485.8	5165.0	5062.4	5054.5
17.5°	8944.0	8996.5	8594.2	7828.9	6924.3	5851.3	4880.9	4423.3	4312.9	4339.2	4344.5
20°	9128.1	9128.1	8478.5	7421.3	6059.0	4586.4	3973.7	3965.8	4044.6	4123.5	4139.3
22.5°	9330.5	9209.6	8276.0	6845.4	4833.5	3752.7	3663.3	3736.9	3826.3	3913.2	3926.3
25°	9580.3	9275.3	7994.6	5972.3	3800.1	3408.3	3442.4	3502.9	3547.6	3602.8	3610.7
27.5°	9859.1	9359.5	7623.8	4770.4	3297.8	3192.6	3218.9	3239.9	3234.7	3255.7	3261.0
30°	10193.1	9456.8	7116.3	3729.1	3090.0	3008.5	2961.1	2942.7	2942.7	2976.9	2990.1
32.5°	10640.2	9601.4	6387.8	3195.2	2990.1	2877.0	2724.5	2656.1	2682.4	2798.1	2824.4
35°	11132.0	9756.6	5401.6	3013.7	2969.0	2816.5	2579.9	2453.6	2456.2	2564.0	2598.3
37.5°	11668.5	9953.8	4320.7	2979.5	3016.4	2819.2	2503.6	2330.0	2259.0	2259.0	2272.2
40°	12354.8	10156.3	3497.7	3003.3	3116.3	2850.8	2464.1	2232.7	2032.8	2038.1	2048.7
42.5°	13249.0	10329.9	3055.9	3053.2	3237.3	2892.8	2461.5	2103.8	1930.3	2048.7	2156.5
45°	14243.1	10416.6	2861.2	3097.9	3334.6	2919.1	2419.4	2082.8	1943.4	2295.8	2500.9
47.5°	15387.0	10366.7	2753.4	3113.7	3358.2	2919.1	2372.1	2132.8	2035.5	2658.8	2898.0
50°	16641.4	10222.0	2648.2	3082.2	3350.4	2913.8	2416.8	2182.8	2069.6	2721.9	2887.5
52.5°	18116.8	10101.1	2537.7	3013.7	3295.1	2884.9	2469.4	2161.7	1961.8	2474.6	2590.3
55°	19799.8	10135.3	2414.2	2916.4	3208.4	2829.7	2451.0	2077.5	1848.8	2180.1	2251.1
57.5°	21951.0	10542.8	2266.9	2792.9	3090.0	2737.6	2385.2	2038.1	1814.6	1977.6	2019.7
60°	24352.0	11253.0	2082.8	2669.3	2942.7	2590.3	2335.3	2056.5	1830.4	1961.8	1982.9
62.5°	26114.0	11665.8	1925.0	2487.8	2742.8	2427.4	2272.2	2080.2	1872.4	2017.1	2011.8
65°	26592.6	10987.3	1727.8	2222.2	2472.1	2256.3	2193.2	2106.5	1890.8	2061.8	2038.1
66°	25922.0	10256.2	1641.0	2098.6	2335.3	2172.2	2153.8	2103.8	1882.9	2067.1	2027.6
67.5°	24294.2	8757.3	1491.1	1917.1	2117.0	2046.0	2090.7	2080.2	1861.9	2061.8	2006.5
70°	19812.9	5975.0	1275.4	1596.3	1761.9	1801.4	1969.7	1996.0	1793.5	1969.7	1848.8
72.5°	13843.3	3639.7	1128.2	1238.6	1425.4	1535.8	1804.1	1880.3	1701.5	1719.9	1604.2
75°	6690.2	1932.9	1023.0	959.8	1107.1	1283.4	1604.2	1722.5	1556.8	1438.5	1396.4
77.5°	2085.4	1180.8	867.9	773.1	867.9	1036.1	1341.2	1509.5	1385.9	1204.4	1188.7
80°	1120.3	867.9	668.0	620.6	686.4	812.6	1054.6	1259.7	1191.3	1080.8	965.2
82.5°	739.0	562.8	494.4	481.3	523.3	620.6	783.7	1044.0	1044.0	925.7	673.2
85°	381.4	344.5	339.2	339.2	365.5	412.9	533.9	804.8	857.3	489.2	405.0
87.5°	189.3	197.2	184.1	192.0	205.1	202.5	255.1	405.0	483.9	297.2	247.2
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)