

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: P299029

Luminaire Tested: **GLNA-AF-10-LED-E1-T2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299029
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-T2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32978.3 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 323
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

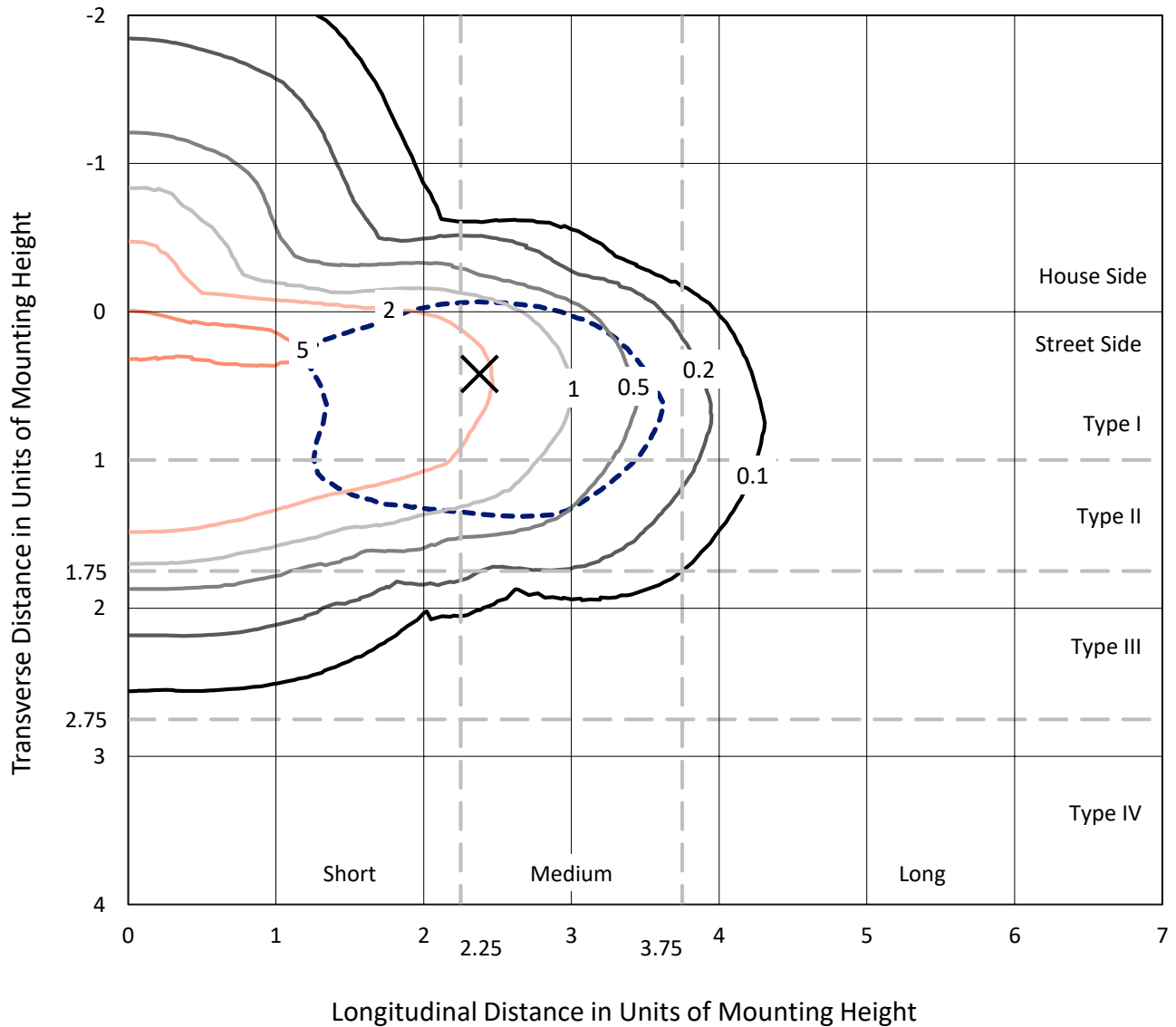


REPORT NUMBER: P299029

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7027-600

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

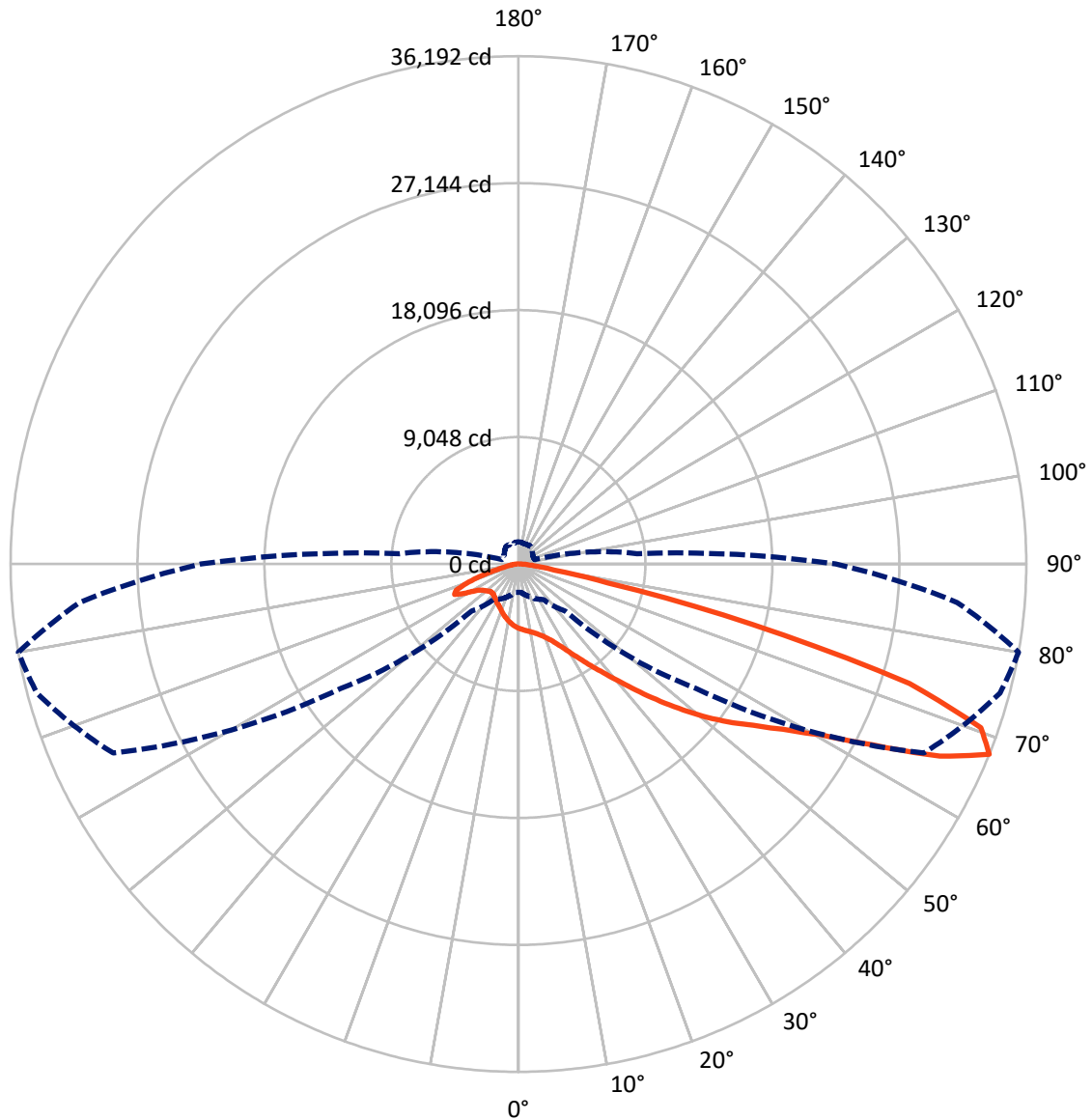


Based on 30 foot mounting height. Maximum calculated value = 6.2 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P299029

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299029

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7027-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6073.4	0.0	6073.4
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	26905.0	0.0	26905.0
	% Fixture	81.6	0.0	81.6
Total	Lumens	32978.3	0.0	32978.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.6	1.3
10°-20°	1217.5	3.7
20°-30°	2015.2	6.1
30°-40°	3296.4	10.0
40°-50°	5322.3	16.1
50°-60°	7683.9	23.3
60°-70°	8479.6	25.7
70°-80°	3908.6	11.9
80°-90°	632.2	1.9
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°	32978.3	100.0
0°-180°	32978.3	100.0



REPORT NUMBER: P299029

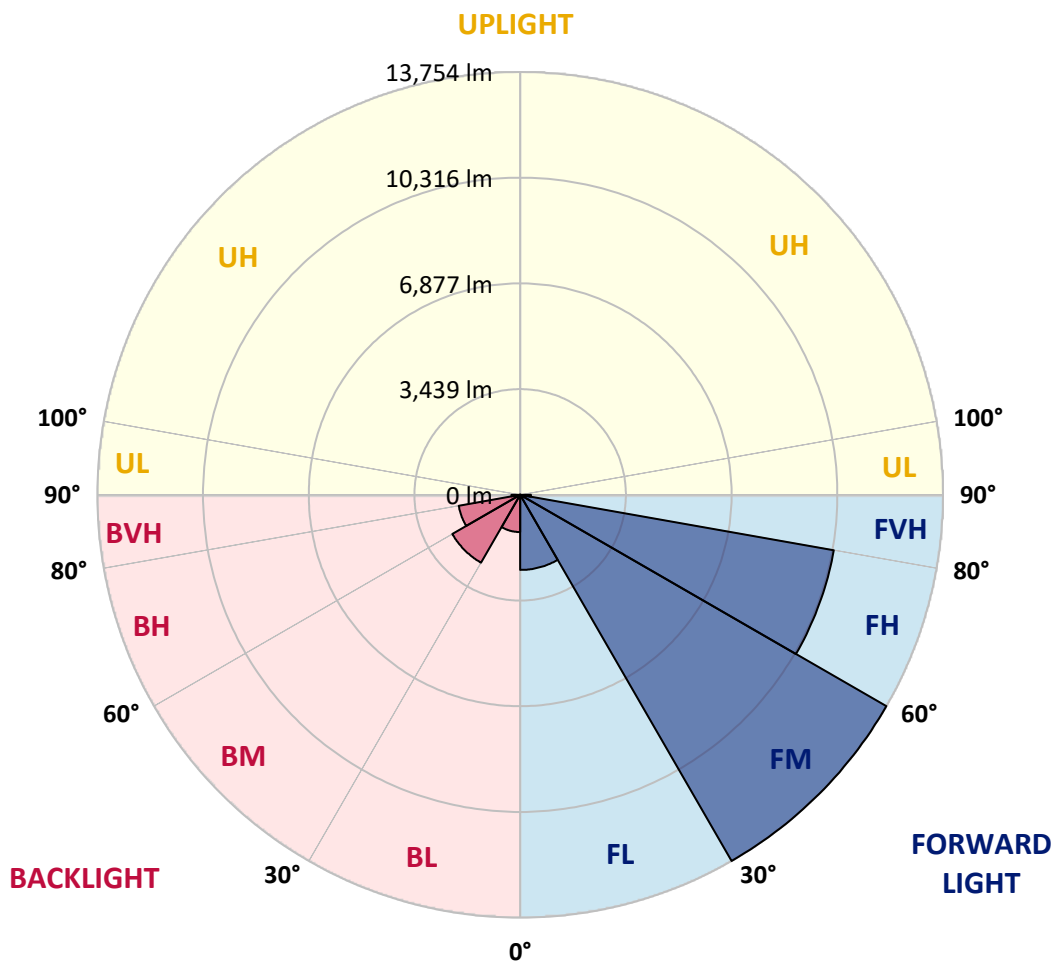
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2443.6	7.4			
FM	(30°-60°)	13754.4	41.7			
FH	(60°-80°)	10359.4	31.4			G4/12000
FVH	(80°-90°)	347.6	1.1			G3/500
BL	(0°-30°)	1211.7	3.7	B3/2500		
BM	(30°-60°)	2548.2	7.7	B3/5000		
BH	(60°-80°)	2028.9	6.2	B3/2500		G3/2500
BVH	(80°-90°)	284.6	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium





REPORT NUMBER: P299029

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7
2.5°	5011.9	4982.7	4987.5	4979.4	4955.1	4912.9	4867.4	4784.6	4698.5	4653.1	4617.4
5°	5430.8	5422.6	5411.3	5385.3	5323.6	5235.9	5127.2	4981.0	4823.6	4740.8	4661.2
7.5°	5744.1	5739.2	5724.6	5708.4	5648.3	5542.8	5378.8	5171.0	4942.1	4828.4	4705.0
10°	5770.1	5778.2	5789.6	5833.4	5841.5	5784.7	5617.5	5365.8	5065.5	4919.3	4761.9
12.5°	5549.3	5567.1	5611.0	5723.0	5841.5	5911.3	5825.3	5570.4	5210.0	5033.0	4833.3
15°	5257.0	5266.8	5320.4	5474.6	5687.3	5903.2	5984.4	5796.1	5396.7	5179.1	4940.5
17.5°	5132.0	5136.9	5174.2	5276.5	5474.6	5783.1	6073.7	6041.2	5625.6	5361.0	5072.0
20°	5068.7	5080.1	5133.7	5234.3	5359.3	5628.8	6086.7	6305.9	5898.3	5588.3	5237.6
22.5°	5248.9	5244.1	5263.5	5313.9	5419.4	5581.8	6076.9	6578.6	6245.8	5880.5	5453.5
25°	5669.4	5687.3	5653.2	5596.4	5630.5	5744.1	6128.9	6874.1	6680.9	6255.5	5736.0
27.5°	6268.5	6250.7	6200.3	6067.2	5997.4	6046.1	6301.0	7192.3	7221.5	6749.1	6109.4
30°	6866.0	6851.4	6802.7	6640.3	6497.4	6456.8	6635.4	7557.6	7866.1	7341.7	6567.3
32.5°	7486.2	7469.9	7424.5	7262.1	7090.0	6995.9	7111.1	7979.7	8625.9	8049.5	7106.3
35°	8250.9	8220.0	8124.2	7898.6	7729.7	7656.7	7710.2	8510.6	9502.6	8887.3	7760.6
37.5°	8970.1	9017.2	8919.8	8608.0	8388.9	8362.9	8423.0	9158.4	10447.5	9824.1	8512.3
40°	9692.6	9700.7	9613.0	9358.1	9132.5	9090.2	9241.2	9944.2	11562.9	10944.3	9426.3
42.5°	10439.4	10455.6	10307.9	10072.5	9906.9	9915.0	10087.1	10864.8	12842.3	12264.3	10478.4
45°	11324.2	11348.6	11186.2	10877.8	10726.8	11030.4	10958.9	11897.4	14245.0	13764.4	11686.3
47.5°	12249.7	12287.0	12163.6	11874.6	11686.3	12103.5	11830.8	13042.0	15754.9	15373.4	13012.7
50°	12754.6	12808.2	12928.3	12907.2	12866.6	12796.8	12803.3	14269.4	17311.9	17048.9	14376.5
52.5°	12483.5	12481.8	12920.2	13452.7	14021.0	14063.2	13988.5	15563.3	18766.6	18687.0	15660.7
55°	11243.1	11327.5	11991.5	13022.5	14574.6	15543.8	15764.6	17045.6	20195.3	20287.9	16964.4
57.5°	9177.9	9247.7	10143.9	11580.8	13827.8	16423.8	18290.9	19200.1	21792.9	22224.7	18700.0
60°	6224.7	6309.1	7258.9	8984.7	11817.8	15933.5	20695.4	23044.6	23705.4	24687.7	21135.3
62.5°	3657.9	3734.2	4508.6	5667.8	8320.7	13655.7	21750.7	28514.4	26743.1	28404.0	24850.0
65°	2518.1	2570.1	2946.7	3528.0	4781.3	9197.4	20442.1	32290.7	31417.3	33008.3	29157.3
67.5°	2026.2	2019.7	2318.4	2714.6	3078.2	4742.4	15457.8	31863.7	35528.1	36192.1	31392.9
70°	1669.0	1662.5	1865.5	2193.4	2459.7	2670.7	8419.7	26889.2	34690.3	34959.9	29334.3
72.5°	1396.3	1402.7	1532.6	1776.2	2018.1	2011.6	3700.1	18916.0	27290.2	29154.0	23384.0
75°	1178.7	1181.9	1268.0	1440.1	1638.2	1620.3	2006.7	10247.8	15863.7	17160.9	12962.4
77.5°	1003.4	1006.6	1061.8	1157.6	1298.8	1292.3	1464.4	4427.4	6617.6	6536.4	4433.9
80°	894.6	894.6	920.6	938.4	1016.3	987.1	1086.2	2126.8	2797.4	2583.1	1769.7
82.5°	701.4	704.6	863.7	857.2	800.4	763.1	763.1	1253.4	1482.3	1370.3	1035.8
85°	394.5	392.9	556.9	672.1	704.6	537.4	532.5	701.4	806.9	711.1	501.7
87.5°	168.8	172.1	258.1	298.7	399.4	334.5	329.6	362.1	410.8	355.6	232.2
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: P299029

CATALOG NUMBER: GLNA-AF-10-LED-E1-T2-7027-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7
2.5°	4583.3	4541.1	4448.5	4333.2	4229.3	4161.2	4099.5	4010.2	4015.0	3953.3	3907.9
5°	4580.0	4492.4	4278.0	4023.2	3778.0	3601.0	3467.9	3347.8	3318.5	3261.7	3227.6
7.5°	4583.3	4440.4	4080.0	3672.5	3368.9	3144.8	3031.2	2967.8	2953.2	2933.8	2935.4
10°	4594.6	4393.3	3862.4	3344.5	3026.3	2878.5	2850.9	2870.4	2893.2	2899.7	2901.3
12.5°	4620.6	4351.1	3623.8	3052.3	2812.0	2766.5	2813.6	2880.2	2924.0	2945.1	2943.5
15°	4679.1	4318.6	3394.8	2823.3	2693.5	2717.8	2805.5	2899.7	2963.0	2992.2	2993.8
17.5°	4742.4	4271.6	3159.4	2648.0	2605.8	2667.5	2776.3	2886.7	2964.6	2997.1	3003.6
20°	4825.2	4213.1	2912.6	2516.5	2523.0	2592.8	2695.1	2805.5	2891.5	2919.1	2932.1
22.5°	4934.0	4149.8	2696.7	2409.3	2428.8	2482.4	2562.0	2657.7	2732.4	2745.4	2756.8
25°	5080.1	4081.6	2524.6	2311.9	2320.0	2350.9	2404.5	2461.3	2513.3	2498.6	2510.0
27.5°	5276.5	4023.2	2396.4	2222.6	2208.0	2214.5	2242.1	2260.0	2287.6	2247.0	2251.9
30°	5507.1	3959.8	2297.3	2144.7	2104.1	2092.8	2099.2	2109.0	2130.1	2074.9	2066.8
32.5°	5775.0	3883.5	2204.8	2076.5	2019.7	1997.0	2000.2	2026.2	2107.4	2073.3	2055.4
35°	6086.7	3797.5	2107.4	2001.8	1962.9	1930.4	1927.2	2008.3	2250.2	2229.1	2212.9
37.5°	6452.0	3711.4	2010.0	1917.4	1920.7	1884.9	1873.6	1966.1	2277.8	2195.0	2183.7
40°	6916.3	3666.0	1927.2	1828.1	1868.7	1863.8	1841.1	1888.2	2096.0	1945.0	1925.5
42.5°	7491.0	3672.5	1865.5	1732.3	1807.0	1859.0	1823.2	1824.9	1899.6	1785.9	1768.0
45°	8200.5	3748.8	1821.6	1656.0	1737.2	1854.1	1816.7	1790.8	1797.3	1737.2	1727.5
47.5°	9028.5	3906.3	1790.8	1592.7	1670.6	1836.2	1815.1	1781.0	1766.4	1733.9	1725.8
50°	9949.1	4135.2	1768.0	1532.6	1610.6	1807.0	1816.7	1771.3	1755.1	1742.1	1737.2
52.5°	10853.4	4396.6	1733.9	1480.7	1563.5	1771.3	1821.6	1761.5	1743.7	1733.9	1729.1
55°	11861.6	4722.9	1682.0	1436.8	1524.5	1725.8	1821.6	1746.9	1727.5	1729.1	1727.5
57.5°	13223.8	5250.6	1620.3	1399.5	1477.4	1670.6	1790.8	1730.7	1706.3	1708.0	1709.6
60°	15352.3	6180.8	1545.6	1362.2	1419.0	1605.7	1748.6	1695.0	1670.6	1677.1	1678.7
62.5°	18482.5	7546.2	1448.2	1307.0	1357.3	1535.9	1690.1	1649.5	1625.2	1641.4	1641.4
65°	21736.1	8750.9	1328.1	1237.1	1292.3	1459.6	1617.1	1592.7	1568.3	1605.7	1604.1
67.5°	22611.1	8481.4	1207.9	1160.8	1227.4	1375.1	1529.4	1516.4	1503.4	1568.3	1565.1
70°	20086.5	6809.2	1097.5	1082.9	1156.0	1284.2	1435.2	1435.2	1427.1	1475.8	1464.4
72.5°	15303.6	4828.4	992.0	1000.1	1074.8	1185.2	1332.9	1344.3	1331.3	1355.7	1345.9
75°	8192.4	2763.3	886.5	909.2	974.1	1084.5	1219.3	1230.6	1222.5	1220.9	1225.8
77.5°	2722.7	1350.8	776.1	811.8	868.6	980.6	1100.8	1118.6	1099.1	1095.9	1094.3
80°	1212.8	849.1	654.3	701.4	751.7	862.1	975.8	990.4	969.3	998.5	961.1
82.5°	779.3	558.5	524.4	576.4	625.1	743.6	850.7	854.0	834.5	969.3	826.4
85°	378.3	345.8	394.5	441.6	483.8	584.5	704.6	706.2	657.5	599.1	578.0
87.5°	188.3	201.3	263.0	305.2	326.3	401.0	513.0	503.3	482.2	438.4	404.3
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)