

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: P300442

Luminaire Tested: **GLNA-AF-05-LED-E1-T4FT-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T4FT-8030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16035.4 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 162
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



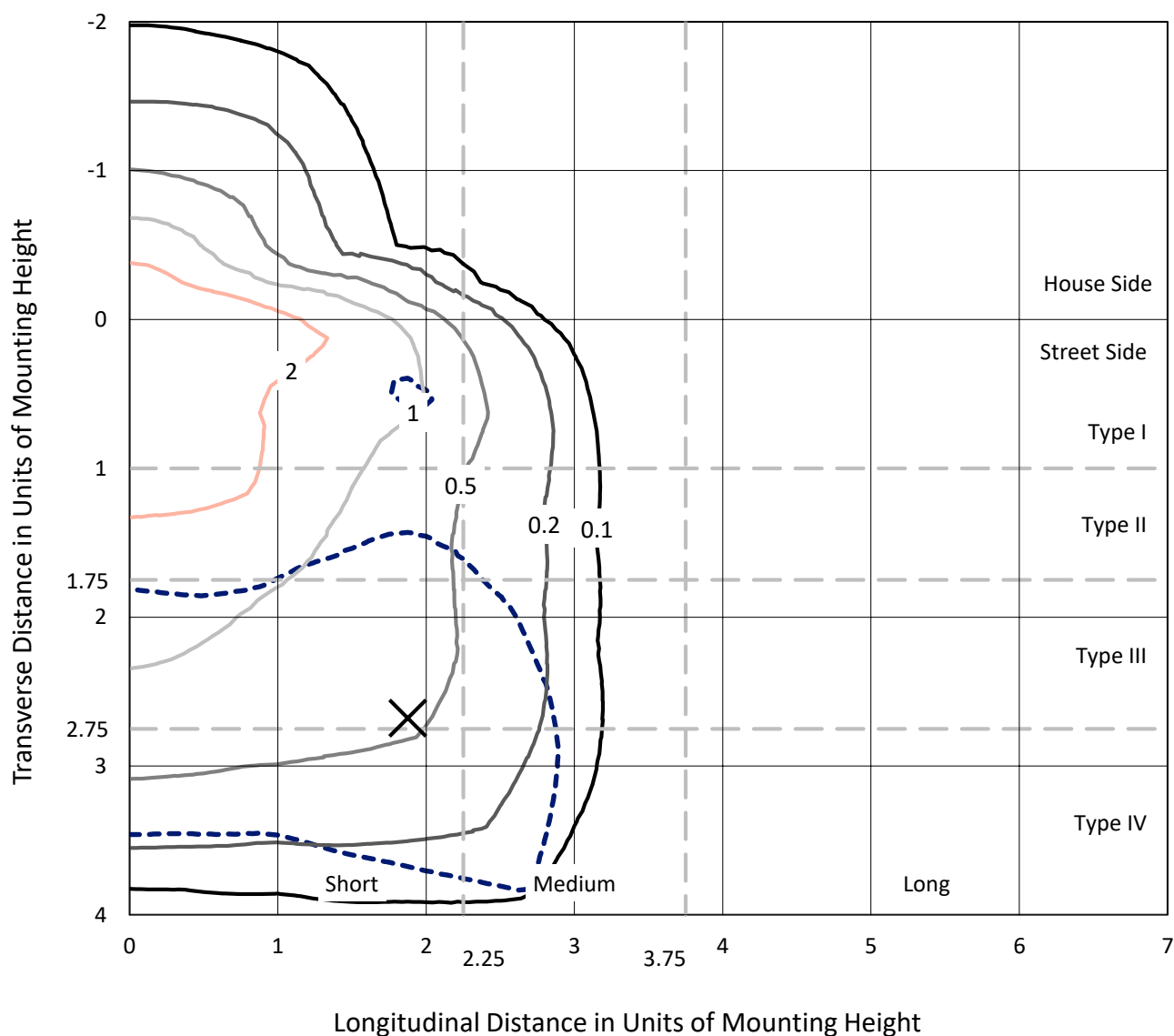
REPORT NUMBER: P300442

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4FT-8030-600

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

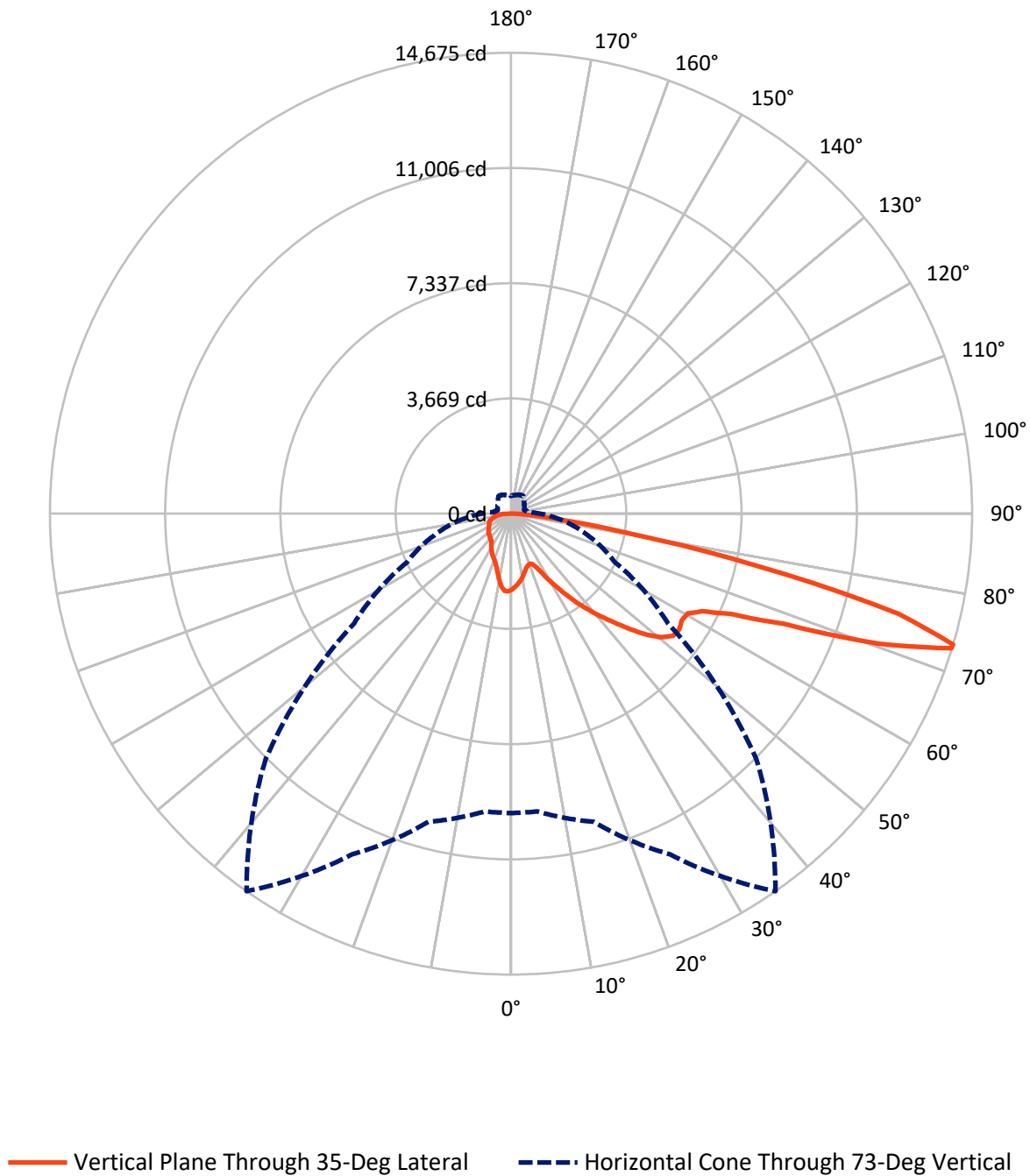


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P300442

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4FT-8030-600

Luminous Intensity Polar Plot



REPORT NUMBER: P300442

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3058.4	0.0	3058.4
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	12977.0	0.0	12977.0
	% Fixture	80.9	0.0	80.9
Total	Lumens	16035.4	0.0	16035.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.1	1.4
10°-20°	546.8	3.4
20°-30°	884.1	5.5
30°-40°	1482.4	9.2
40°-50°	2285.1	14.3
50°-60°	3065.7	19.1
60°-70°	4084.1	25.5
70°-80°	3115.0	19.4
80°-90°	353.1	2.2
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°	16035.4	100.0
0°-180°	16035.4	100.0

Coefficient of Utilization



REPORT NUMBER: P300442

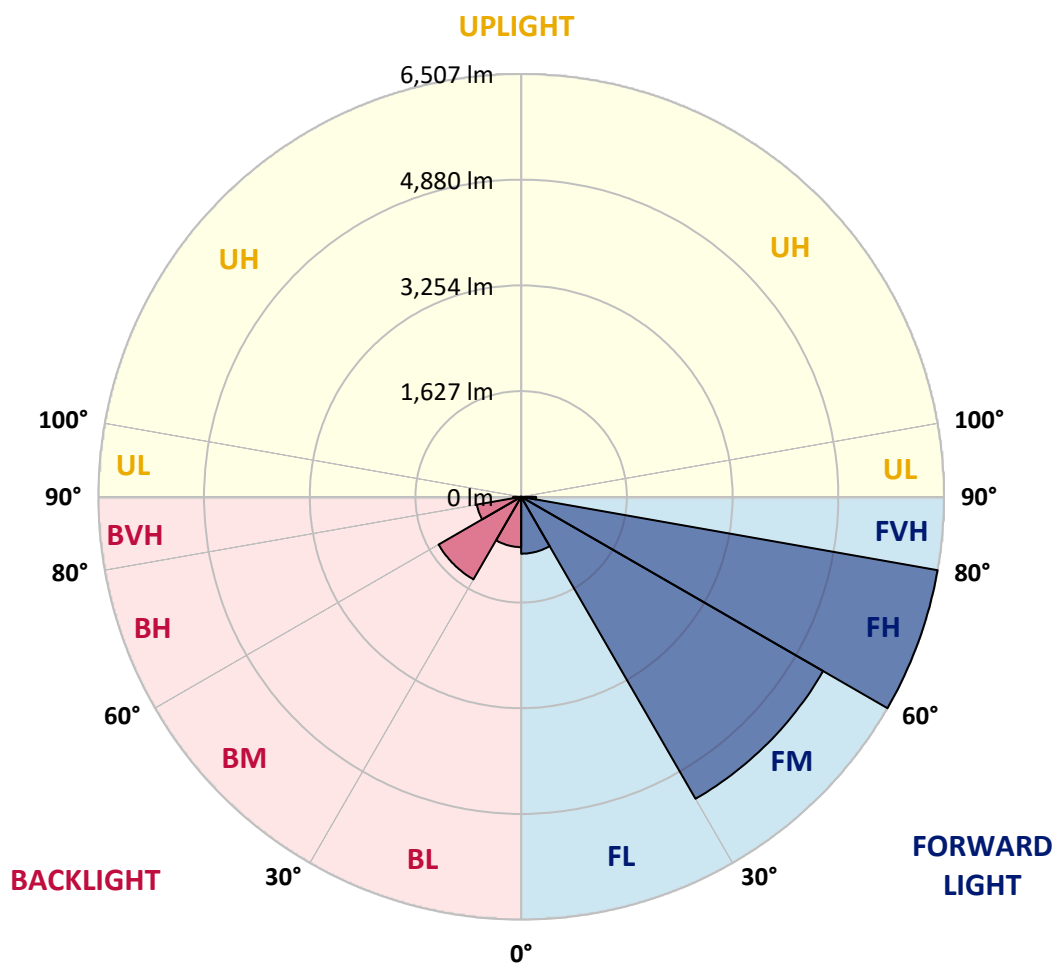
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	876.1	5.5			
FM	(30°-60°)	5365.6	33.5			
FH	(60°-80°)	6507.2	40.6			G3/7500
FVH	(80°-90°)	228.2	1.4			G3/500
BL	(0°-30°)	773.9	4.8	B2/1000		
BM	(30°-60°)	1467.7	9.2	B2/2500		
BH	(60°-80°)	691.9	4.3	B2/1000		G2/1000
BVH	(80°-90°)	124.8	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short



REPORT NUMBER: P300442

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4FT-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2
2.5°	2324.8	2329.4	2324.0	2330.9	2342.5	2354.8	2363.3	2375.6	2389.4	2408.7	2413.3
5°	2215.4	2222.3	2222.3	2234.7	2257.0	2277.0	2295.5	2315.5	2344.8	2377.9	2391.0
7.5°	2095.3	2099.1	2106.1	2124.5	2156.9	2185.4	2211.6	2243.9	2283.9	2327.8	2350.9
10°	1950.5	1955.9	1966.7	1992.9	2036.8	2076.0	2113.8	2158.4	2209.3	2263.9	2293.2
12.5°	1848.1	1846.6	1851.2	1870.4	1908.9	1956.7	2011.4	2068.3	2130.7	2194.6	2230.0
15°	1813.5	1805.0	1787.3	1782.6	1803.4	1851.2	1914.3	1984.4	2059.1	2136.1	2180.0
17.5°	1835.0	1820.4	1771.9	1736.4	1733.4	1769.6	1836.6	1915.1	2001.3	2095.3	2150.0
20°	1970.5	1935.9	1816.5	1734.1	1705.6	1723.4	1781.9	1865.0	1966.7	2091.4	2161.5
22.5°	2294.7	2243.9	1990.6	1837.3	1741.1	1719.5	1763.4	1852.0	1970.5	2139.2	2228.5
25°	2766.8	2694.4	2289.3	2094.5	1895.8	1781.1	1791.1	1882.0	2025.2	2250.1	2357.9
27.5°	3139.5	3092.5	2679.7	2457.2	2177.7	1947.4	1881.2	1957.4	2136.9	2431.8	2541.9
30°	3361.2	3332.7	3097.1	2868.4	2537.3	2212.3	2053.7	2099.1	2311.7	2683.6	2774.5
32.5°	3618.4	3601.5	3486.0	3275.8	2925.4	2560.4	2327.1	2310.9	2545.8	2986.2	3027.8
35°	3884.9	3879.5	3811.7	3660.8	3342.0	3019.3	2689.8	2580.4	2800.6	3300.4	3274.2
37.5°	4132.8	4123.6	4084.3	3996.5	3777.8	3512.2	3059.4	2856.9	3075.6	3600.7	3484.4
40°	4589.5	4517.1	4382.3	4316.1	4218.3	3927.2	3352.8	3114.8	3360.5	3887.2	3666.2
42.5°	5146.2	5028.4	4777.3	4686.5	4672.6	4254.5	3553.0	3365.1	3647.7	4171.3	3844.8
45°	5584.4	5473.5	5257.1	5142.3	5193.2	4551.0	3754.0	3632.3	3943.4	4469.3	4028.9
47.5°	6051.8	5877.7	5591.3	5625.9	5736.8	4831.3	3958.8	3919.5	4267.6	4802.8	4257.6
50°	6068.7	5935.5	5810.0	6017.1	6189.6	5089.2	4215.2	4220.6	4664.2	5222.4	4561.7
52.5°	5716.8	5688.3	5887.7	6213.5	6462.2	5293.3	4507.1	4531.7	5171.6	5704.5	4895.9
55°	5593.6	5561.3	5791.5	6144.9	6499.2	5461.9	4823.5	4868.2	5785.3	6212.7	5221.7
57.5°	5893.9	5822.3	5837.7	6112.6	6409.1	5646.7	5168.5	5258.6	6452.2	6657.0	5431.1
60°	6733.3	6580.0	6288.9	6282.0	6457.6	5923.9	5567.4	5677.5	7145.2	6869.6	5349.5
62.5°	7910.7	7757.4	7212.2	6857.2	6831.1	6381.3	6057.2	6086.4	7545.7	6581.6	4851.3
65°	9185.1	9048.0	8438.9	7937.6	7695.8	7139.1	6626.2	6268.9	7414.7	5789.2	3979.6
67.5°	10732.1	10585.0	10061.4	9598.6	9366.0	8361.9	7025.9	6094.1	6583.9	4484.7	2860.7
70°	11814.0	11663.8	11457.5	11832.5	12401.5	10126.1	7077.5	5383.4	4917.5	2980.8	1721.8
72.5°	10402.5	10332.4	10709.0	12288.3	14658.5	11196.4	6397.5	3919.5	2856.1	1582.4	996.4
73°	9530.8	9515.4	10157.6	11968.8	14674.7	11031.6	6099.5	3643.1	2449.5	1399.9	911.0
75°	4303.8	4427.7	5835.4	9142.0	12749.6	9090.4	4293.0	2089.9	1383.8	967.2	687.6
77.5°	1034.2	1077.3	1825.8	4341.5	8051.6	5417.3	1945.1	1033.4	884.8	683.0	502.1
80°	440.5	455.1	703.0	1604.0	3790.9	2181.5	896.3	692.3	612.2	476.7	351.9
82.5°	244.9	260.3	398.9	727.7	1530.1	743.9	546.7	482.0	402.7	287.2	228.7
85°	138.6	147.1	233.3	406.6	648.4	298.8	327.3	320.3	227.2	147.8	112.4
87.5°	65.5	70.8	112.4	188.7	254.1	117.0	166.3	183.3	142.5	90.1	58.5
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: P300442

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4FT-8030-600

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2	2420.2
2.5°	2418.7	2432.6	2448.7	2457.2	2464.9	2474.1	2483.4	2483.4	2484.9	2485.7
5°	2401.8	2430.3	2455.7	2466.4	2468.8	2468.8	2466.4	2454.1	2443.3	2448.0
7.5°	2366.3	2407.9	2429.5	2425.6	2396.4	2362.5	2334.0	2299.3	2281.6	2278.6
10°	2315.5	2363.3	2367.1	2328.6	2256.2	2183.8	2123.8	2065.3	2037.5	2030.6
12.5°	2259.3	2303.2	2278.6	2199.2	2083.0	1977.5	1901.2	1841.9	1815.8	1808.8
15°	2213.9	2243.9	2181.5	2056.8	1910.5	1798.8	1735.7	1691.8	1673.3	1667.9
17.5°	2190.0	2196.2	2082.2	1913.6	1758.0	1664.8	1625.6	1604.8	1597.8	1594.0
20°	2201.6	2158.4	1987.5	1780.3	1633.3	1567.8	1558.6	1553.2	1551.6	1549.3
22.5°	2259.3	2146.9	1900.5	1654.1	1523.9	1495.4	1503.1	1502.4	1500.8	1499.3
25°	2362.5	2156.9	1815.8	1533.9	1432.3	1426.1	1440.0	1440.0	1433.8	1433.8
27.5°	2498.8	2177.7	1721.0	1420.0	1349.1	1349.9	1360.7	1357.6	1350.7	1346.0
30°	2665.1	2190.8	1610.2	1317.5	1271.3	1268.3	1271.3	1258.3	1237.5	1235.9
32.5°	2835.3	2174.6	1481.6	1226.7	1188.9	1182.0	1179.7	1161.2	1137.4	1130.4
35°	2989.3	2115.3	1350.7	1154.3	1110.4	1095.0	1105.8	1099.6	1078.1	1072.7
37.5°	3101.7	2005.2	1232.8	1090.4	1054.2	1050.3	1057.3	1059.6	1034.2	1028.8
40°	3177.2	1855.8	1132.0	1036.5	1043.4	1028.8	1005.7	989.5	981.8	979.5
42.5°	3238.0	1700.3	1047.3	1011.1	1045.7	1003.4	953.3	927.1	941.0	947.2
45°	3308.1	1548.6	976.4	979.5	1034.2	974.1	917.1	891.7	897.1	898.6
47.5°	3404.4	1363.7	900.2	928.7	995.7	954.1	894.8	858.6	833.2	821.6
50°	3537.6	1145.1	820.9	871.7	957.9	939.5	860.1	821.6	774.7	763.9
52.5°	3630.0	941.0	755.4	823.9	924.1	910.2	832.4	782.4	733.1	723.8
55°	3579.9	781.6	698.4	770.8	879.4	874.0	809.3	742.3	703.8	696.1
57.5°	3329.7	680.7	654.5	720.8	824.7	843.2	778.5	708.4	680.7	675.3
60°	2852.2	617.6	626.8	686.9	780.1	812.4	747.7	690.0	671.5	667.6
62.5°	2213.1	575.2	606.0	662.2	745.4	790.8	730.8	687.6	680.7	676.1
65°	1585.5	541.3	583.7	637.6	713.8	770.8	724.6	684.6	686.1	682.3
67.5°	1077.3	511.3	556.7	609.9	683.0	753.1	716.1	673.8	693.0	688.4
70°	753.9	482.0	525.2	574.5	644.5	728.5	700.7	657.6	656.1	637.6
72.5°	588.3	443.5	482.0	525.2	595.2	693.8	669.9	621.4	596.0	576.8
73°	561.4	434.3	471.3	514.4	584.5	685.3	661.5	611.4	582.9	565.2
75°	464.3	394.3	428.1	466.6	538.3	645.3	619.9	566.0	529.8	519.0
77.5°	365.0	337.3	369.6	404.3	474.3	586.8	558.3	506.7	486.7	477.4
80°	270.3	279.5	308.0	338.8	411.2	524.4	499.0	447.4	536.7	514.4
82.5°	190.2	211.8	237.9	265.7	345.0	463.6	432.8	379.6	392.7	326.5
85°	112.4	138.6	163.2	187.1	248.7	384.3	357.3	302.6	248.0	236.4
87.5°	65.5	77.0	83.9	108.6	170.9	289.5	251.8	224.1	128.6	87.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)