

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: P299240

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18895.9 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - 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

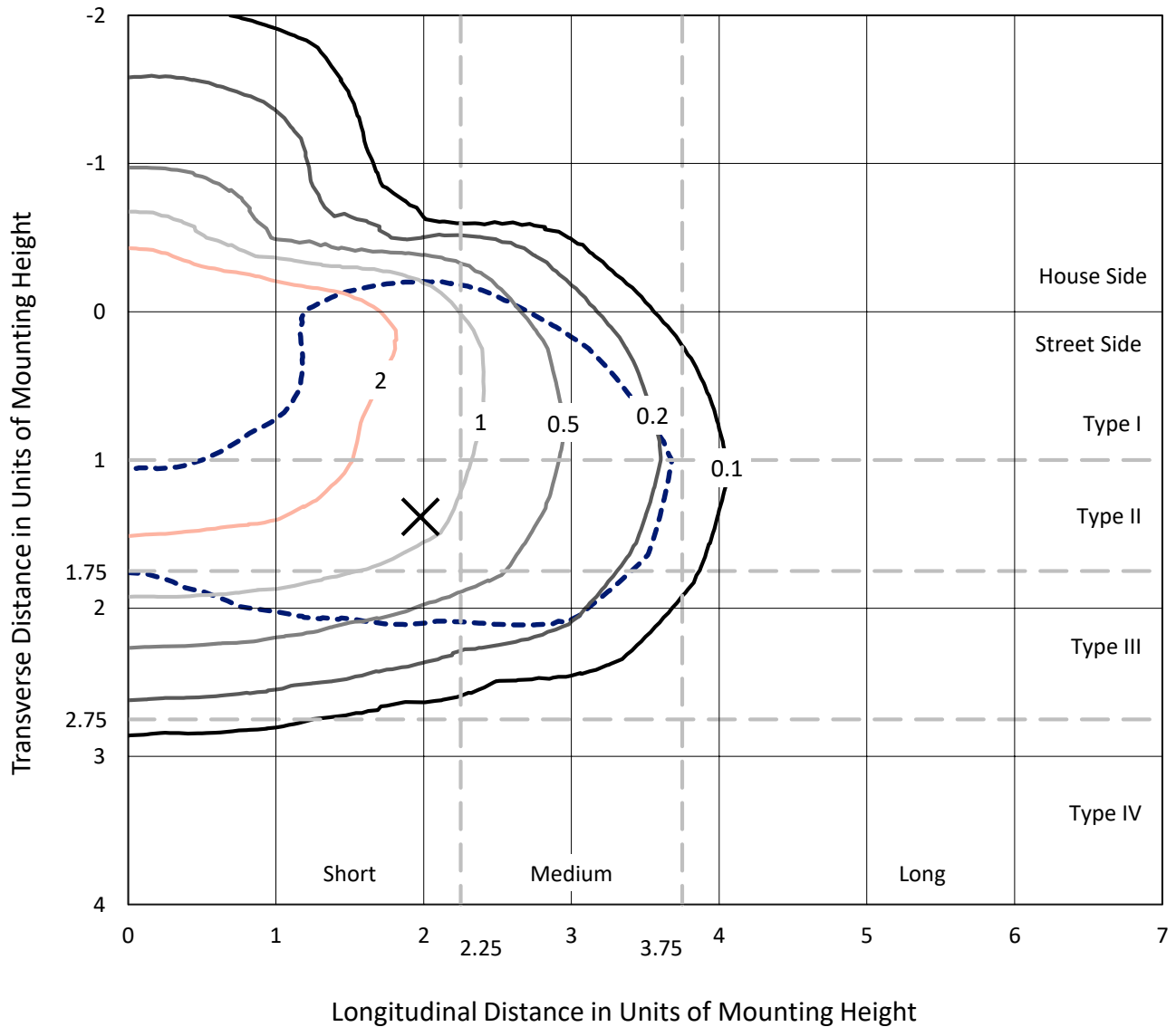


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Iso-Footcandle Lines of Horizontal Illumination

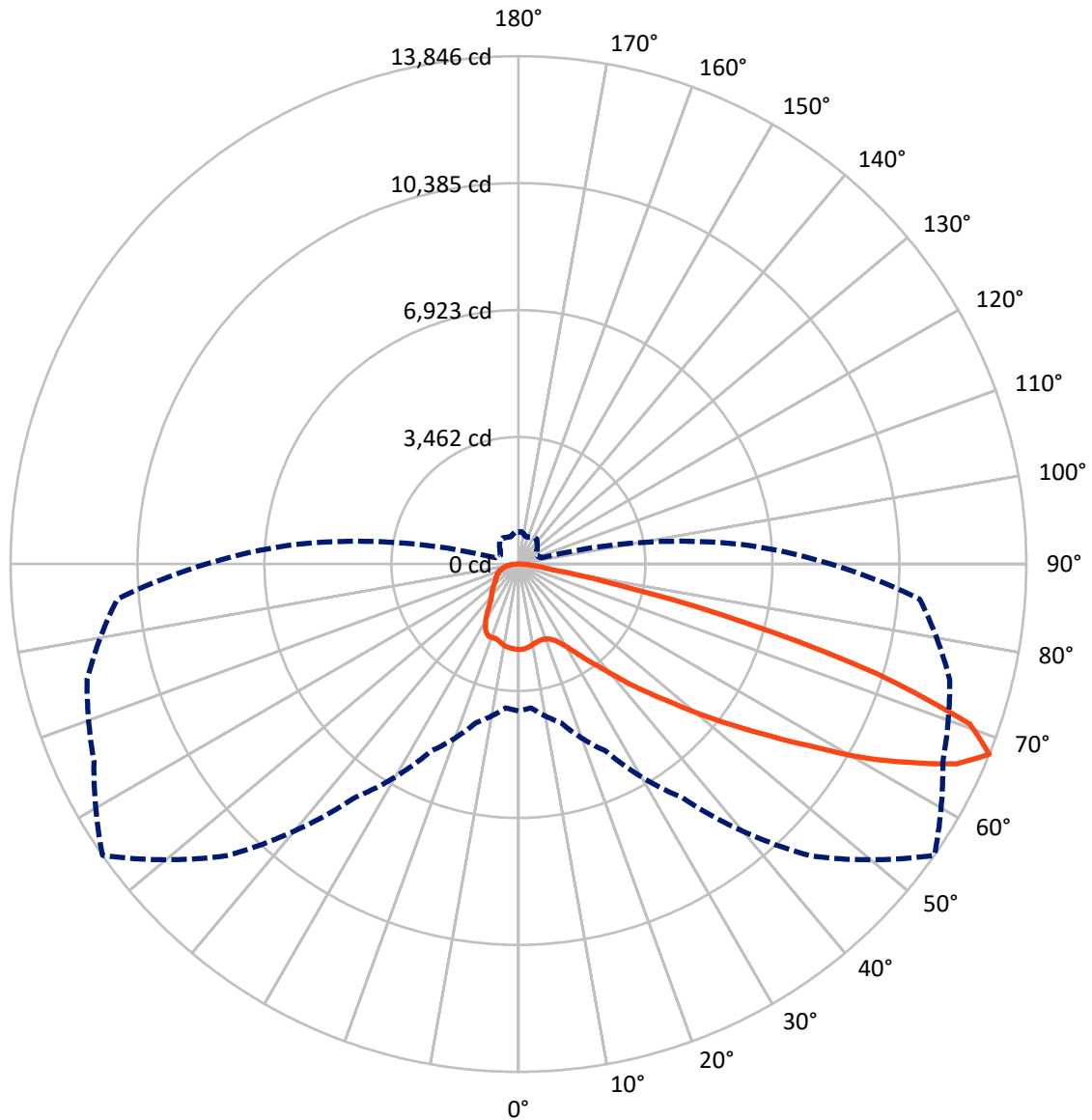
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4081.9	0.0	4081.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	14814.0	0.0	14814.0
	% Fixture	78.4	0.0	78.4
Total	Lumens	18895.9	0.0	18895.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.5	1.2
10°-20°	616.0	3.3
20°-30°	1031.8	5.5
30°-40°	1696.7	9.0
40°-50°	2856.1	15.1
50°-60°	4495.3	23.8
60°-70°	5364.7	28.4
70°-80°	2303.7	12.2
80°-90°	314.1	1.7
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°	18895.9	100.0
0°-180°	18895.9	100.0

Coefficient of Utilization



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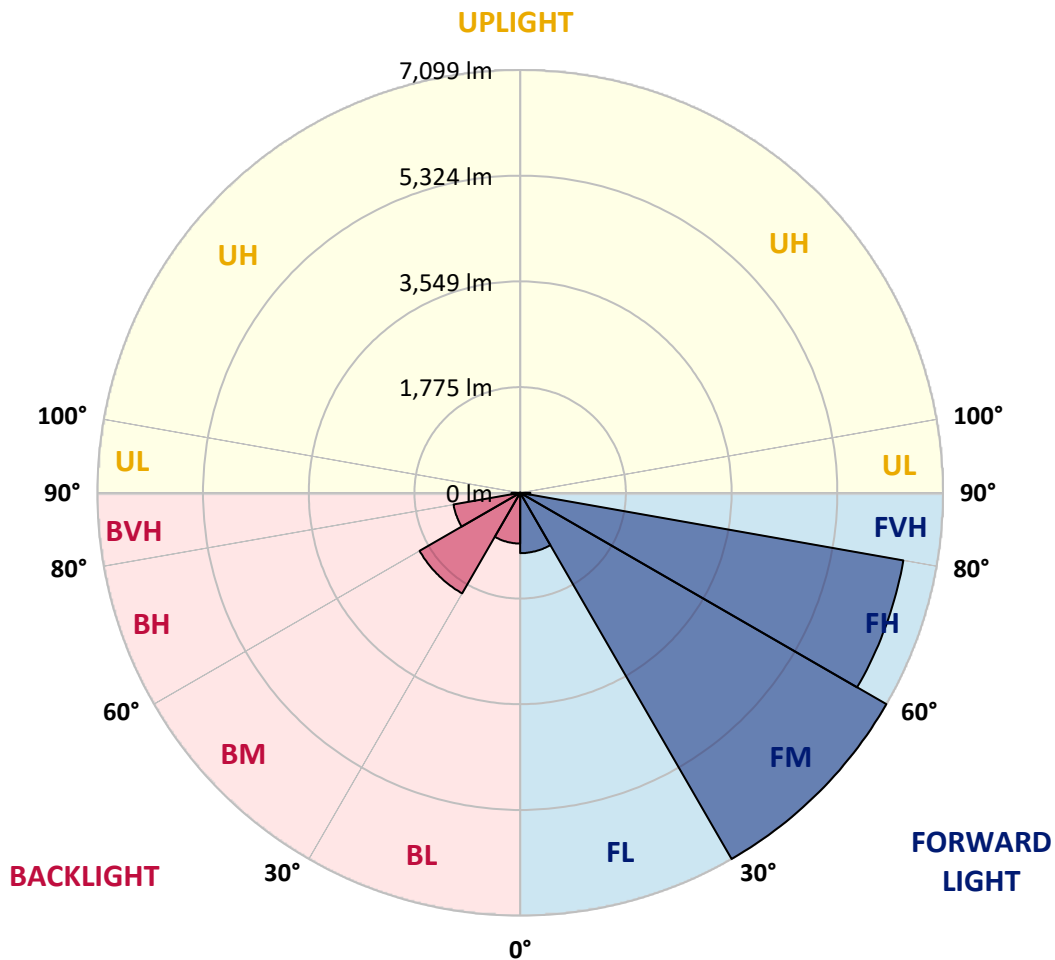
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1012.9	5.4			
FM (30°-60°)	7098.7	37.6			
FH (60°-80°)	6532.4	34.6			G3/7500
FVH (80°-90°)	170.0	0.9			G2/225
BL (0°-30°)	852.4	4.5	B2/1000		
BM (30°-60°)	1949.5	10.3	B2/2500		
BH (60°-80°)	1136.0	6.0	B3/2500		G3/2500
BVH (80°-90°)	144.1	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1
2.5°	2310.0	2310.9	2312.7	2320.0	2326.4	2324.6	2325.5	2321.9	2320.9	2315.5	2320.9
5°	2280.8	2283.5	2284.4	2296.3	2303.6	2305.4	2302.7	2298.1	2292.7	2287.2	2289.9
7.5°	2214.2	2221.5	2222.4	2238.8	2250.7	2266.2	2267.1	2268.0	2265.3	2261.6	2267.1
10°	2172.2	2174.0	2173.1	2185.0	2194.1	2211.4	2221.5	2238.8	2246.1	2247.9	2251.6
12.5°	2169.4	2167.6	2164.9	2164.9	2162.1	2169.4	2187.7	2212.3	2229.7	2235.2	2239.7
15°	2198.6	2197.7	2188.6	2174.9	2157.6	2152.1	2167.6	2195.0	2217.8	2229.7	2234.2
17.5°	2264.4	2258.9	2244.3	2213.3	2175.8	2161.2	2163.1	2185.9	2212.3	2227.9	2232.4
20°	2384.8	2384.8	2353.8	2295.4	2228.8	2194.1	2177.7	2191.3	2216.9	2237.9	2244.3
22.5°	2592.9	2594.8	2542.7	2446.9	2334.6	2260.7	2219.6	2216.9	2247.0	2270.8	2278.1
25°	2887.7	2880.4	2807.4	2670.5	2499.8	2377.5	2306.3	2289.9	2315.5	2341.9	2351.1
27.5°	3230.9	3204.4	3117.7	2952.5	2731.7	2552.8	2443.2	2416.8	2441.4	2471.5	2480.7
30°	3570.4	3543.0	3439.9	3259.2	3013.7	2787.3	2630.3	2587.5	2622.1	2665.0	2670.5
32.5°	3909.9	3909.9	3794.9	3584.1	3316.7	3067.5	2879.5	2828.4	2885.9	2937.9	2949.8
35°	4316.1	4317.9	4206.5	3952.8	3665.3	3401.6	3194.4	3157.0	3243.7	3280.2	3308.5
37.5°	4815.3	4825.3	4682.1	4375.4	4060.5	3783.1	3536.6	3485.5	3572.2	3671.7	3763.0
40°	5354.7	5367.5	5209.6	4831.7	4516.9	4226.6	3960.1	3867.9	4012.1	4202.0	4319.7
42.5°	5869.5	5935.2	5782.7	5393.9	5055.3	4755.1	4484.9	4350.7	4531.5	4818.0	4920.3
45°	6613.3	6660.7	6395.2	6042.9	5724.3	5388.5	5030.7	4889.2	5142.0	5503.5	5524.5
47.5°	7108.9	7073.3	6938.2	6719.2	6517.5	6203.5	5665.0	5509.9	5845.7	6271.0	6153.3
50°	7372.6	7383.6	7365.3	7378.1	7385.4	7188.3	6442.6	6230.0	6630.6	7144.5	6873.4
52.5°	7619.1	7546.0	7606.3	7905.6	8267.1	8194.0	7288.7	7066.9	7472.1	8113.7	7634.6
55°	7613.6	7502.2	7698.5	8226.9	9010.9	9094.9	8238.8	7983.2	8362.0	9153.3	8441.4
57.5°	7344.3	7349.8	7651.9	8343.7	9529.3	9941.8	9341.3	8958.0	9305.7	10206.5	9177.9
60°	6973.8	7024.0	7459.3	8324.6	9944.6	10636.4	10693.9	10008.5	10230.2	11163.9	9787.6
62.5°	6376.0	6428.9	7029.5	8125.6	9881.6	11305.4	11916.9	11200.4	11196.8	11744.4	9966.5
65°	5433.2	5417.7	6048.3	7381.8	9353.2	11800.1	13131.7	12230.8	11925.1	11753.5	9606.9
67.5°	4006.7	3937.3	4478.5	5622.1	7774.2	11246.1	13846.3	12767.5	12173.3	10980.5	8508.0
70°	2079.1	2009.7	2447.8	3282.9	5112.8	8777.3	13055.0	12490.0	11624.8	9204.4	6665.3
72.5°	889.0	877.1	1055.1	1440.2	2473.4	5062.6	10236.6	10810.7	9974.7	6857.9	4582.6
75°	597.8	594.2	660.8	784.9	1112.6	2054.4	6406.1	7673.8	7297.8	4252.2	2577.4
77.5°	469.1	464.6	503.8	564.0	721.0	810.5	2843.0	4119.8	3813.2	1850.9	1128.1
80°	366.9	363.2	387.9	420.7	518.4	511.1	935.5	1639.2	1268.6	709.2	548.5
82.5°	289.3	289.3	309.4	310.3	367.8	348.6	488.3	721.9	633.4	413.4	335.9
85°	264.7	264.7	285.7	231.8	240.0	220.0	303.0	428.0	401.6	169.8	146.0
87.5°	133.3	129.6	240.0	205.4	130.5	116.8	147.9	207.2	222.7	94.0	73.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1	2330.1
2.5°	2319.1	2318.2	2320.0	2320.9	2328.2	2338.3	2342.9	2349.2	2352.9	2351.1
5°	2291.7	2293.6	2300.9	2306.3	2319.1	2335.6	2344.7	2352.0	2358.4	2355.6
7.5°	2268.9	2273.5	2284.4	2289.0	2296.3	2300.9	2300.0	2302.7	2308.2	2301.8
10°	2256.1	2261.6	2269.8	2263.4	2246.1	2221.5	2198.6	2186.8	2190.4	2185.9
12.5°	2243.4	2250.7	2244.3	2214.2	2165.8	2133.8	2116.5	2118.3	2126.5	2128.4
15°	2236.1	2238.8	2211.4	2154.8	2105.6	2101.0	2110.1	2108.3	2109.2	2109.2
17.5°	2236.1	2228.8	2177.7	2121.1	2100.1	2091.9	2063.6	2028.0	2012.5	2007.0
20°	2247.9	2228.8	2166.7	2129.3	2083.7	2013.4	1938.5	1872.8	1843.6	1835.4
22.5°	2283.5	2250.7	2197.7	2132.9	2003.3	1885.6	1767.0	1688.5	1635.5	1626.4
25°	2355.6	2319.1	2258.9	2084.6	1875.6	1707.6	1572.5	1484.9	1432.0	1424.7
27.5°	2481.6	2457.8	2291.7	1977.8	1705.8	1526.0	1401.0	1333.4	1294.2	1291.4
30°	2671.4	2659.6	2275.3	1819.9	1496.8	1349.9	1289.6	1250.4	1221.2	1220.3
32.5°	2974.4	2878.6	2221.5	1627.3	1306.0	1224.8	1200.2	1176.4	1153.6	1153.6
35°	3364.1	3055.7	2119.2	1421.0	1190.1	1155.5	1124.4	1087.0	1056.9	1055.1
37.5°	3822.3	3165.2	1935.8	1254.9	1135.4	1108.9	1063.3	1007.6	954.7	945.5
40°	4285.0	3198.0	1677.5	1152.7	1100.7	1062.4	1006.7	941.0	889.9	887.1
42.5°	4709.4	3135.1	1403.7	1082.4	1066.0	1014.9	956.5	898.1	857.9	857.0
45°	5065.4	2971.7	1173.7	1015.8	1029.5	972.0	920.0	872.5	841.5	835.1
47.5°	5400.3	2740.8	1012.2	945.5	993.0	948.3	904.5	859.7	829.6	825.1
50°	5789.1	2491.6	899.0	877.1	961.1	940.1	917.2	870.7	820.5	815.0
52.5°	6260.1	2276.2	810.5	816.8	936.4	951.0	950.1	901.7	814.1	806.8
55°	6785.8	2037.1	743.8	767.6	926.4	971.1	958.3	930.9	819.6	808.6
57.5°	7303.3	1757.8	697.3	730.1	911.8	969.3	919.1	879.8	832.4	816.8
60°	7691.2	1382.7	661.7	697.3	879.8	939.1	876.2	824.2	829.6	817.8
62.5°	7716.7	1068.7	618.8	669.0	831.5	909.0	847.9	799.5	841.5	830.5
65°	7263.1	807.7	577.7	635.2	779.4	889.9	820.5	785.8	866.1	854.3
67.5°	6115.0	649.8	543.0	600.5	727.4	849.7	795.9	773.0	888.0	867.0
70°	4414.6	554.0	509.3	558.6	680.9	804.1	774.0	750.2	828.7	795.9
72.5°	2718.0	480.1	470.9	502.9	645.3	756.6	741.1	707.3	746.6	720.1
75°	1357.2	416.2	428.0	448.1	595.1	702.8	686.3	652.6	658.0	652.6
77.5°	649.8	355.9	377.8	393.4	530.3	641.6	624.3	589.6	583.2	584.1
80°	411.6	297.5	318.5	329.5	473.7	570.4	553.1	518.4	591.4	548.5
82.5°	257.4	241.9	247.3	267.4	412.5	496.5	473.7	442.7	533.0	421.7
85°	142.4	168.8	176.1	193.5	317.6	415.3	392.5	353.2	316.7	311.2
87.5°	84.9	100.4	103.1	115.9	213.6	300.3	265.6	251.9	209.0	208.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)