

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: P299174

Luminaire Tested: **GLNA-AF-04-LED-E1-T3-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299174
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-04-LED-E1-T3-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18702.9 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 171
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

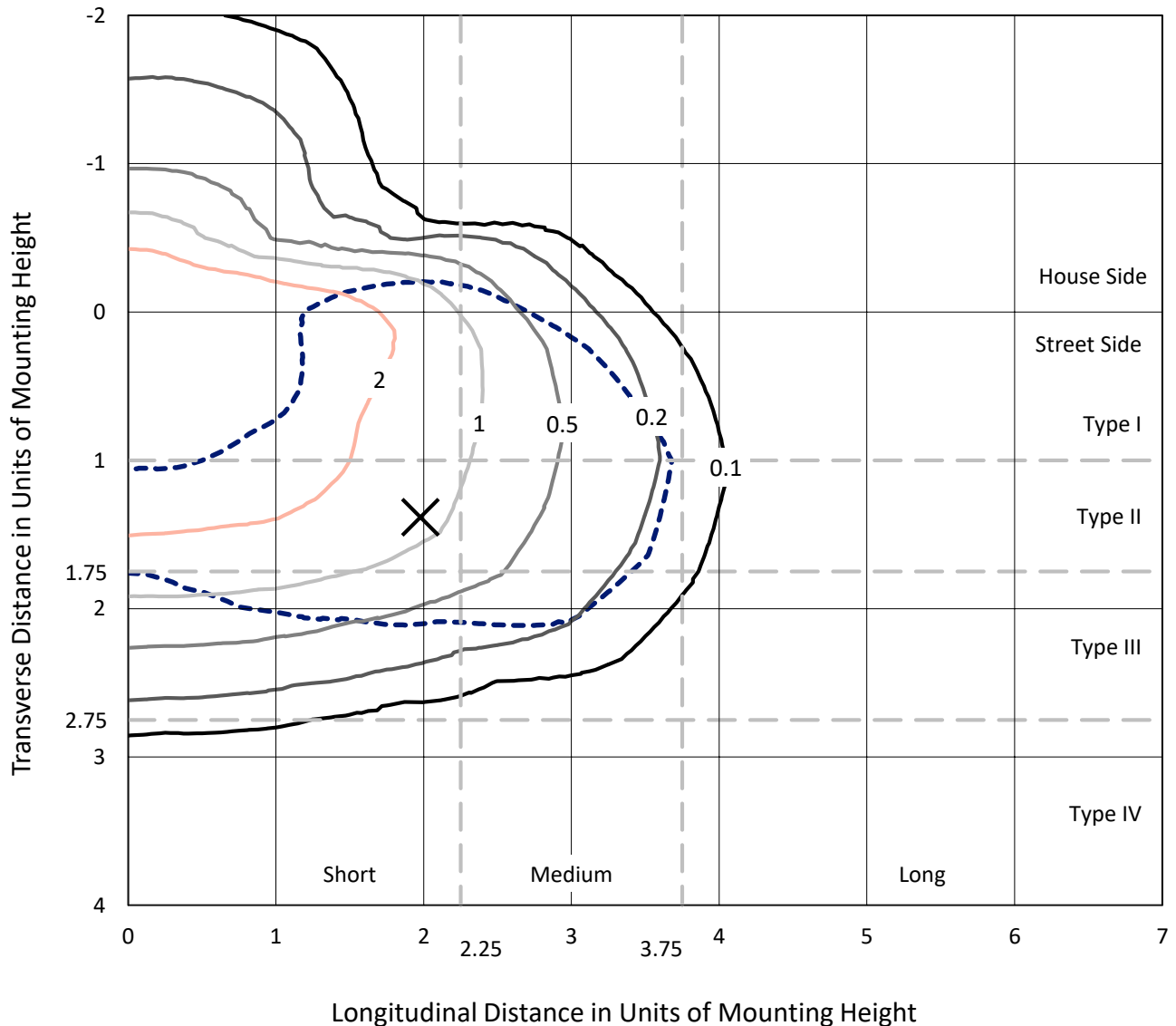


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Iso-Footcandle Lines of Horizontal Illumination

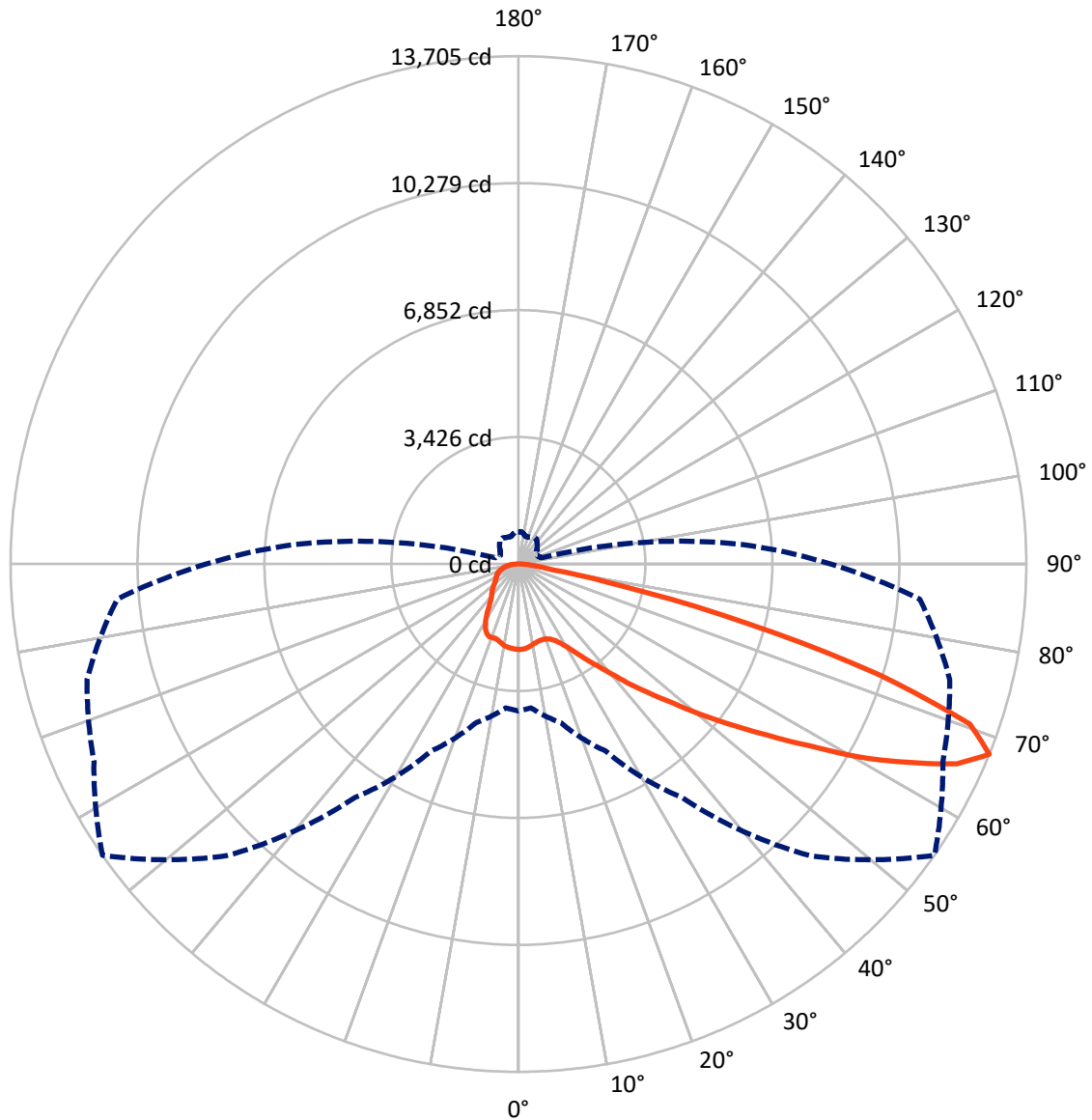
× Max cd
 - - - 1/2 Max cd



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	4040.2	0.0	4040.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	14662.6	0.0	14662.6
	% Fixture	78.4	0.0	78.4
Total	Lumens	18702.9	0.0	18702.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.3	1.2
10°-20°	609.7	3.3
20°-30°	1021.3	5.5
30°-40°	1679.4	9.0
40°-50°	2826.9	15.1
50°-60°	4449.4	23.8
60°-70°	5309.9	28.4
70°-80°	2280.2	12.2
80°-90°	310.9	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°	18702.9	100.0
0°-180°	18702.9	100.0



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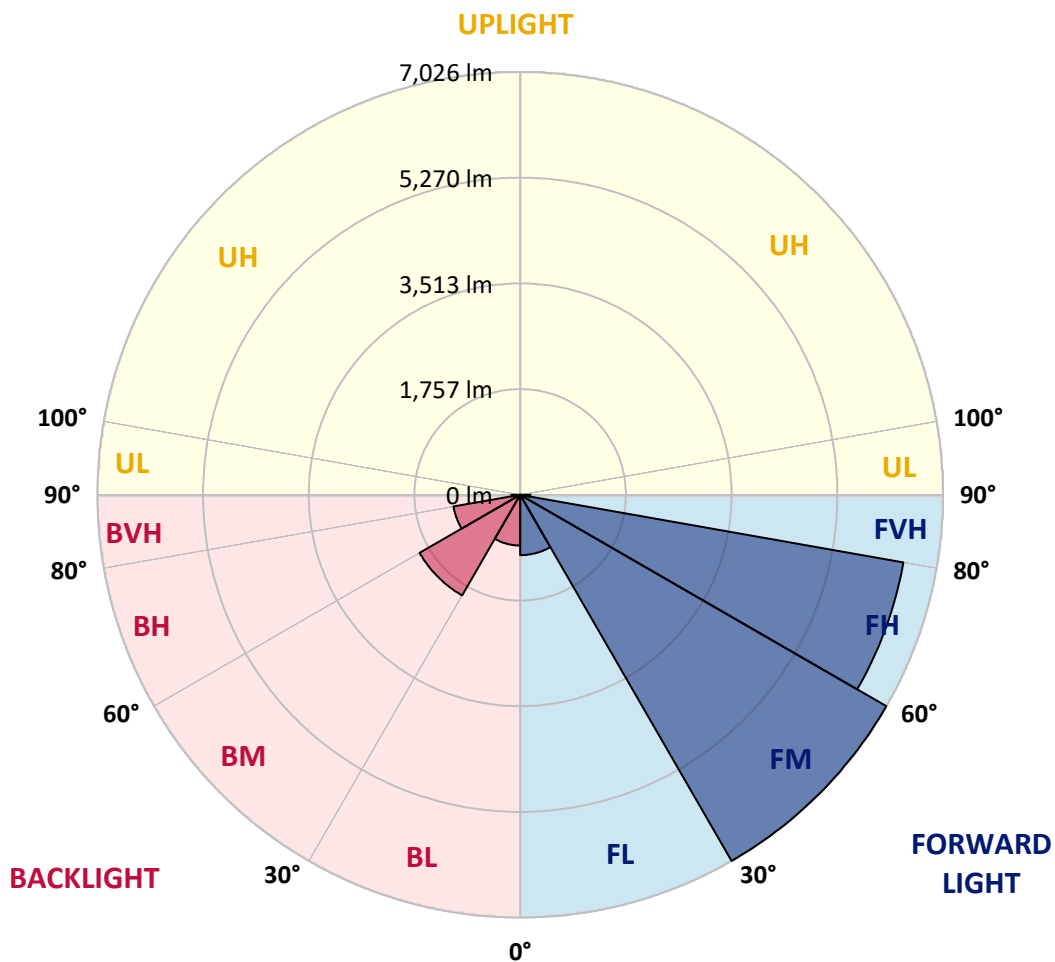
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1002.5	5.4			
FM	(30°-60°)	7026.2	37.6			
FH	(60°-80°)	6465.7	34.6			G3/7500
FVH	(80°-90°)	168.3	0.9			G2/225
BL	(0°-30°)	843.7	4.5	B2/1000		
BM	(30°-60°)	1929.6	10.3	B2/2500		
BH	(60°-80°)	1124.4	6.0	B3/2500		G3/2500
BVH	(80°-90°)	142.6	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°	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3
2.5°	2286.4	2287.3	2289.1	2296.3	2302.7	2300.8	2301.7	2298.1	2297.2	2291.8	2297.2
5°	2257.5	2260.2	2261.1	2272.8	2280.1	2281.9	2279.2	2274.6	2269.2	2263.8	2266.5
7.5°	2191.5	2198.8	2199.7	2215.9	2227.7	2243.0	2243.9	2244.8	2242.1	2238.5	2243.9
10°	2150.0	2151.8	2150.9	2162.6	2171.7	2188.8	2198.8	2215.9	2223.2	2225.0	2228.6
12.5°	2147.3	2145.5	2142.8	2142.8	2140.0	2147.3	2165.3	2189.7	2206.9	2212.3	2216.8
15°	2176.2	2175.3	2166.2	2152.7	2135.5	2130.1	2145.5	2172.6	2195.2	2206.9	2211.4
17.5°	2241.2	2235.8	2221.4	2190.6	2153.6	2139.1	2141.0	2163.5	2189.7	2205.1	2209.6
20°	2360.5	2360.5	2329.8	2271.9	2206.0	2171.7	2155.4	2169.0	2194.3	2215.0	2221.4
22.5°	2566.4	2568.2	2516.7	2421.9	2310.8	2237.6	2197.0	2194.3	2224.1	2247.5	2254.8
25°	2858.2	2851.0	2778.7	2643.2	2474.3	2353.2	2282.8	2266.5	2291.8	2318.0	2327.0
27.5°	3197.9	3171.7	3085.9	2922.4	2703.7	2526.7	2418.3	2392.1	2416.5	2446.3	2455.3
30°	3533.9	3506.8	3404.7	3225.9	2982.9	2758.8	2603.5	2561.0	2595.3	2637.8	2643.2
32.5°	3870.0	3870.0	3756.2	3547.5	3282.8	3036.2	2850.1	2799.5	2856.4	2907.9	2919.6
35°	4272.0	4273.8	4163.6	3912.4	3627.9	3366.8	3161.7	3124.7	3210.5	3246.7	3274.7
37.5°	4766.1	4776.0	4634.2	4330.7	4019.0	3744.4	3500.5	3449.9	3535.7	3634.2	3724.5
40°	5300.0	5312.6	5156.4	4782.4	4470.7	4183.4	3919.7	3828.4	3971.2	4159.0	4275.6
42.5°	5809.5	5874.5	5723.7	5338.8	5003.7	4706.5	4439.1	4306.3	4485.2	4768.8	4870.0
45°	6545.7	6592.7	6329.8	5981.1	5665.8	5333.4	4979.3	4839.3	5089.5	5447.2	5468.0
47.5°	7036.2	7001.0	6867.3	6650.5	6450.9	6140.1	5607.1	5453.6	5786.0	6207.0	6090.4
50°	7297.3	7308.1	7290.1	7302.7	7310.0	7114.8	6376.8	6166.3	6562.9	7071.5	6803.2
52.5°	7541.2	7468.9	7528.6	7824.9	8182.6	8110.3	7214.2	6994.7	7395.8	8030.8	7556.6
55°	7535.8	7425.6	7619.8	8142.8	8918.8	9001.9	8154.6	7901.6	8276.5	9059.8	8355.1
57.5°	7269.3	7274.7	7573.7	8258.5	9431.9	9840.3	9245.8	8866.4	9210.6	10102.2	9084.1
60°	6902.5	6952.2	7383.1	8239.5	9843.0	10527.7	10584.6	9906.2	10125.7	11049.8	9687.6
62.5°	6310.8	6363.2	6957.6	8042.6	9780.6	11189.9	11795.1	11086.0	11082.4	11624.4	9864.6
65°	5377.7	5362.3	5986.5	7306.3	9257.6	11679.5	12997.5	12105.9	11803.2	11633.4	9508.7
67.5°	3965.7	3897.1	4432.8	5564.7	7694.8	11131.1	13704.8	12637.0	12049.0	10868.3	8421.1
70°	2057.8	1989.2	2422.8	3249.4	5060.6	8687.6	12921.6	12362.4	11506.0	9110.3	6597.2
72.5°	879.9	868.1	1044.3	1425.5	2448.1	5010.9	10132.0	10700.2	9872.8	6787.8	4535.7
75°	591.7	588.1	654.0	776.9	1101.2	2033.5	6340.7	7595.4	7223.2	4208.7	2551.1
77.5°	464.3	459.8	498.7	558.3	713.7	802.2	2814.0	4077.7	3774.2	1832.0	1116.5
80°	363.1	359.5	383.9	416.4	513.1	505.9	925.9	1622.4	1255.7	701.9	542.9
82.5°	286.4	286.4	306.2	307.1	364.1	345.1	483.3	714.6	626.9	409.2	332.4
85°	262.0	262.0	282.8	229.5	237.6	217.7	299.9	423.7	397.5	168.0	144.5
87.5°	131.9	128.3	237.6	203.3	129.2	115.6	146.3	205.1	220.4	93.0	72.3
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°	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3	2306.3
2.5°	2295.4	2294.5	2296.3	2297.2	2304.5	2314.4	2318.9	2325.2	2328.9	2327.0
5°	2268.3	2270.1	2277.4	2282.8	2295.4	2311.7	2320.7	2327.9	2334.3	2331.6
7.5°	2245.7	2250.3	2261.1	2265.6	2272.8	2277.4	2276.5	2279.2	2284.6	2278.3
10°	2233.1	2238.5	2246.6	2240.3	2223.2	2198.8	2176.2	2164.4	2168.1	2163.5
12.5°	2220.4	2227.7	2221.4	2191.5	2143.7	2112.0	2094.9	2096.7	2104.8	2106.6
15°	2213.2	2215.9	2188.8	2132.8	2084.0	2079.5	2088.6	2086.8	2087.7	2087.7
17.5°	2213.2	2206.0	2155.4	2099.4	2078.6	2070.5	2042.5	2007.3	1991.9	1986.5
20°	2225.0	2206.0	2144.6	2107.5	2062.4	1992.8	1918.7	1853.7	1824.8	1816.6
22.5°	2260.2	2227.7	2175.3	2111.1	1982.9	1866.3	1748.9	1671.2	1618.8	1609.8
25°	2331.6	2295.4	2235.8	2063.3	1856.4	1690.2	1556.5	1469.8	1417.4	1410.1
27.5°	2456.2	2432.7	2268.3	1957.6	1688.4	1510.4	1386.7	1319.8	1281.0	1278.2
30°	2644.1	2632.4	2252.1	1801.3	1481.5	1336.1	1276.4	1237.6	1208.7	1207.8
32.5°	2944.0	2849.2	2198.8	1610.7	1292.7	1212.3	1187.9	1164.4	1141.8	1141.8
35°	3329.8	3024.4	2097.6	1406.5	1178.0	1143.6	1112.9	1075.9	1046.1	1044.3
37.5°	3783.3	3132.8	1916.0	1242.1	1123.8	1097.6	1052.4	997.3	944.9	935.9
40°	4241.3	3165.4	1660.4	1140.9	1089.4	1051.5	996.4	931.4	880.8	878.1
42.5°	4661.3	3103.0	1389.4	1071.4	1055.1	1004.5	946.7	888.9	849.2	848.3
45°	5013.6	2941.3	1161.7	1005.4	1019.0	962.1	910.6	863.6	832.9	826.6
47.5°	5345.2	2712.8	1001.8	935.9	982.9	938.6	895.2	851.0	821.2	816.6
50°	5730.0	2466.2	889.8	868.1	951.2	930.5	907.9	861.8	812.1	806.7
52.5°	6196.1	2253.0	802.2	808.5	926.8	941.3	940.4	892.5	805.8	798.6
55°	6716.4	2016.3	736.2	759.7	916.9	961.2	948.5	921.4	811.2	800.4
57.5°	7228.6	1739.9	690.2	722.7	902.5	959.4	909.7	870.8	823.9	808.5
60°	7612.6	1368.6	654.9	690.2	870.8	929.6	867.2	815.7	821.2	809.4
62.5°	7637.9	1057.8	612.5	662.2	823.0	899.7	839.2	791.3	832.9	822.1
65°	7188.9	799.5	571.8	628.7	771.5	880.8	812.1	777.8	857.3	845.5
67.5°	6052.5	643.2	537.5	594.4	720.0	841.0	787.7	765.1	879.0	858.2
70°	4369.5	548.3	504.1	552.9	673.9	795.9	766.0	742.6	820.2	787.7
72.5°	2690.2	475.2	466.1	497.7	638.7	748.9	733.5	700.1	738.9	712.7
75°	1343.3	411.9	423.7	443.5	589.0	695.6	679.3	645.9	651.3	645.9
77.5°	643.2	352.3	374.0	389.3	524.8	635.1	617.9	583.6	577.2	578.1
80°	407.4	294.5	315.3	326.1	468.8	564.6	547.4	513.1	585.4	542.9
82.5°	254.7	239.4	244.8	264.7	408.3	491.4	468.8	438.1	527.6	417.4
85°	140.9	167.1	174.3	191.5	314.4	411.0	388.4	349.6	313.5	308.0
87.5°	84.0	99.4	102.1	114.7	211.4	297.2	262.9	249.3	206.9	206.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)