

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: P302846

Luminaire Tested: **GLNA-AF-05-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20666.1 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 210
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

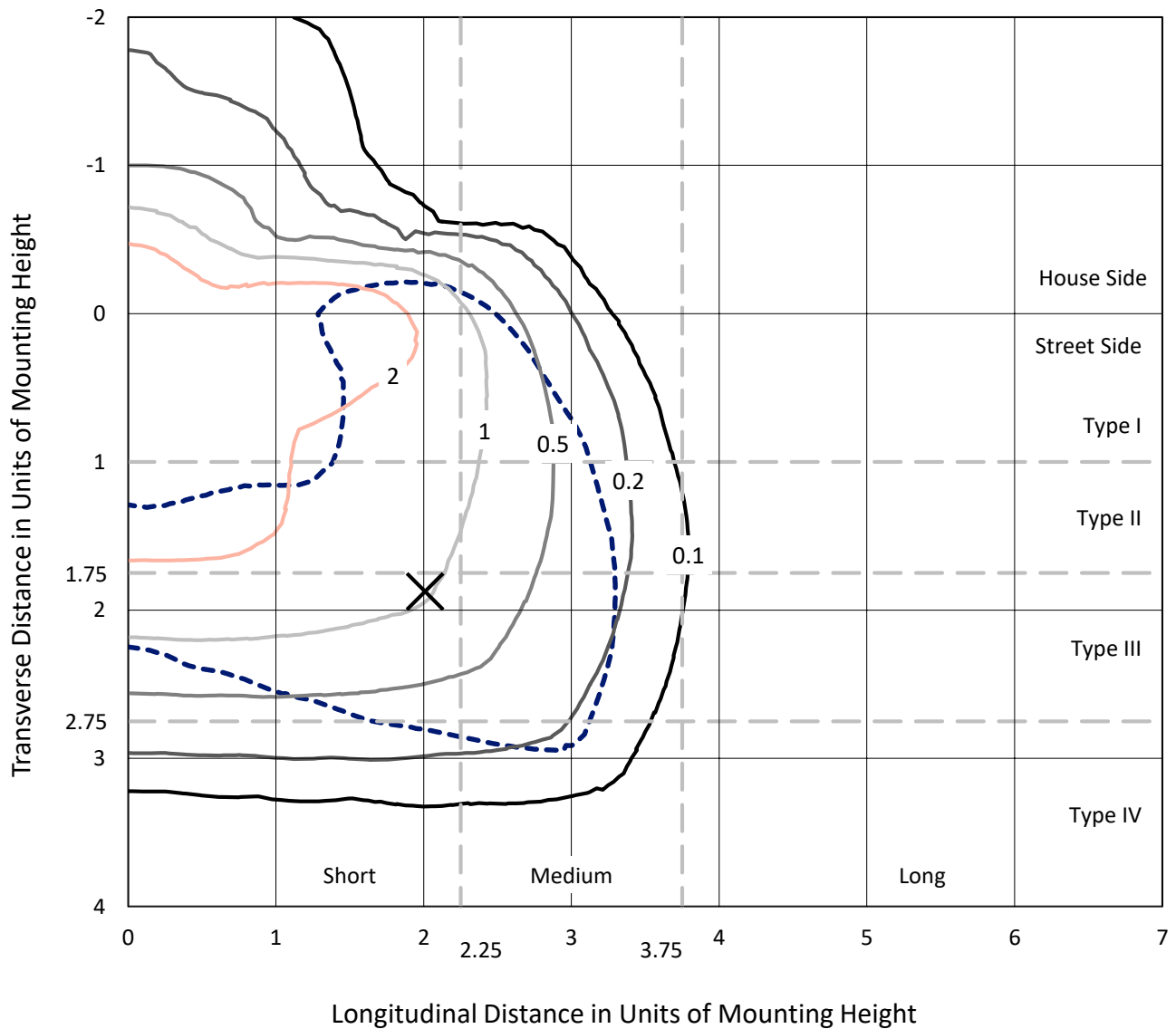


REPORT NUMBER: P302846

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4W-7027-800

Iso-Footcandle Lines of Horizontal Illumination

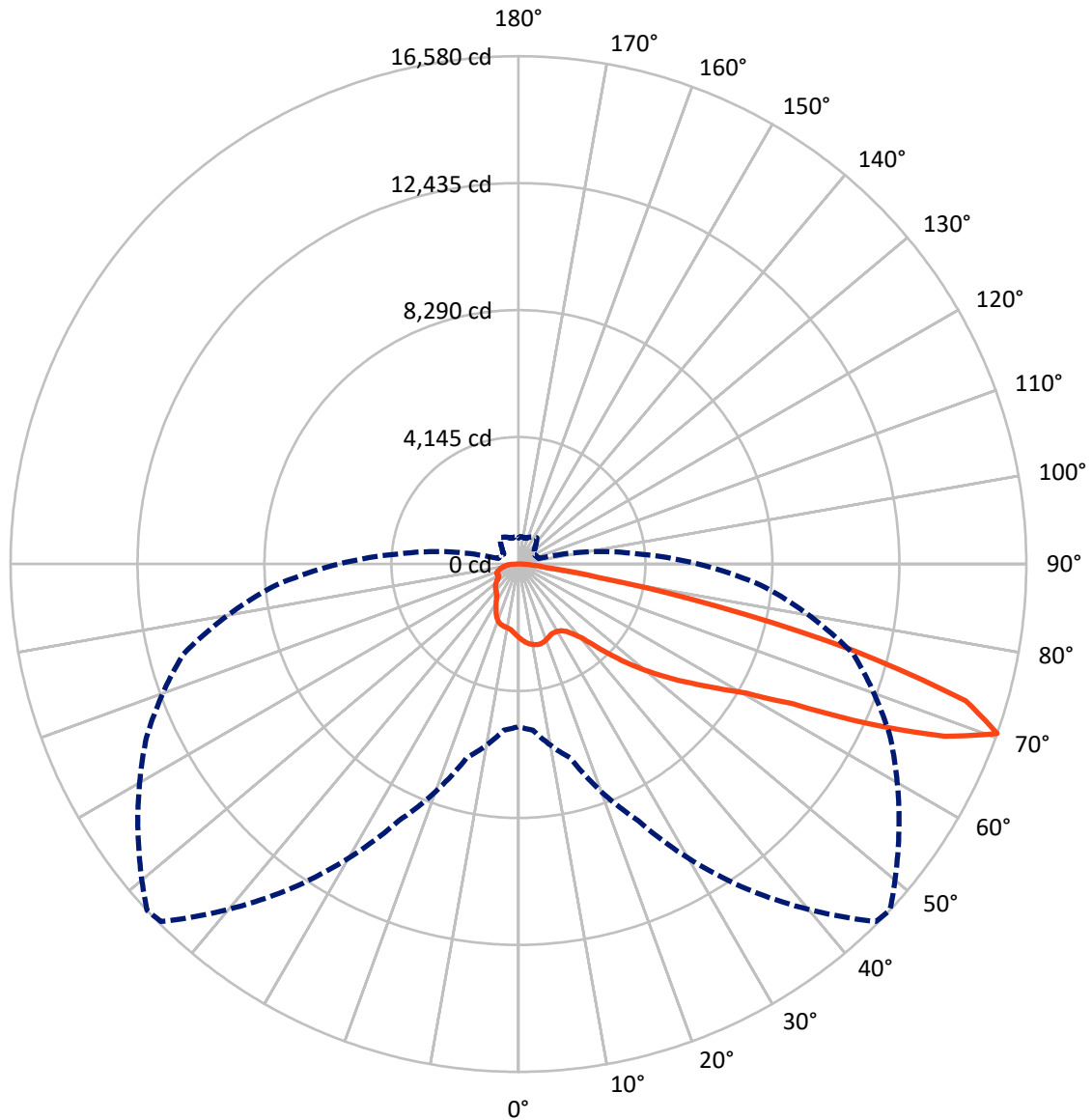
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P302846
CATALOG NUMBER: GLNA-AF-05-LED-E1-T4W-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P302846

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4W-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4311.4	0.0	4311.4
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	16354.7	0.0	16354.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	20666.1	0.0	20666.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.8	1.1
10°-20°	674.1	3.3
20°-30°	995.4	4.8
30°-40°	1446.8	7.0
40°-50°	2603.7	12.6
50°-60°	4510.7	21.8
60°-70°	6438.0	31.2
70°-80°	3304.9	16.0
80°-90°	462.7	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°	20666.1	100.0
0°-180°	20666.1	100.0



REPORT NUMBER: P302846

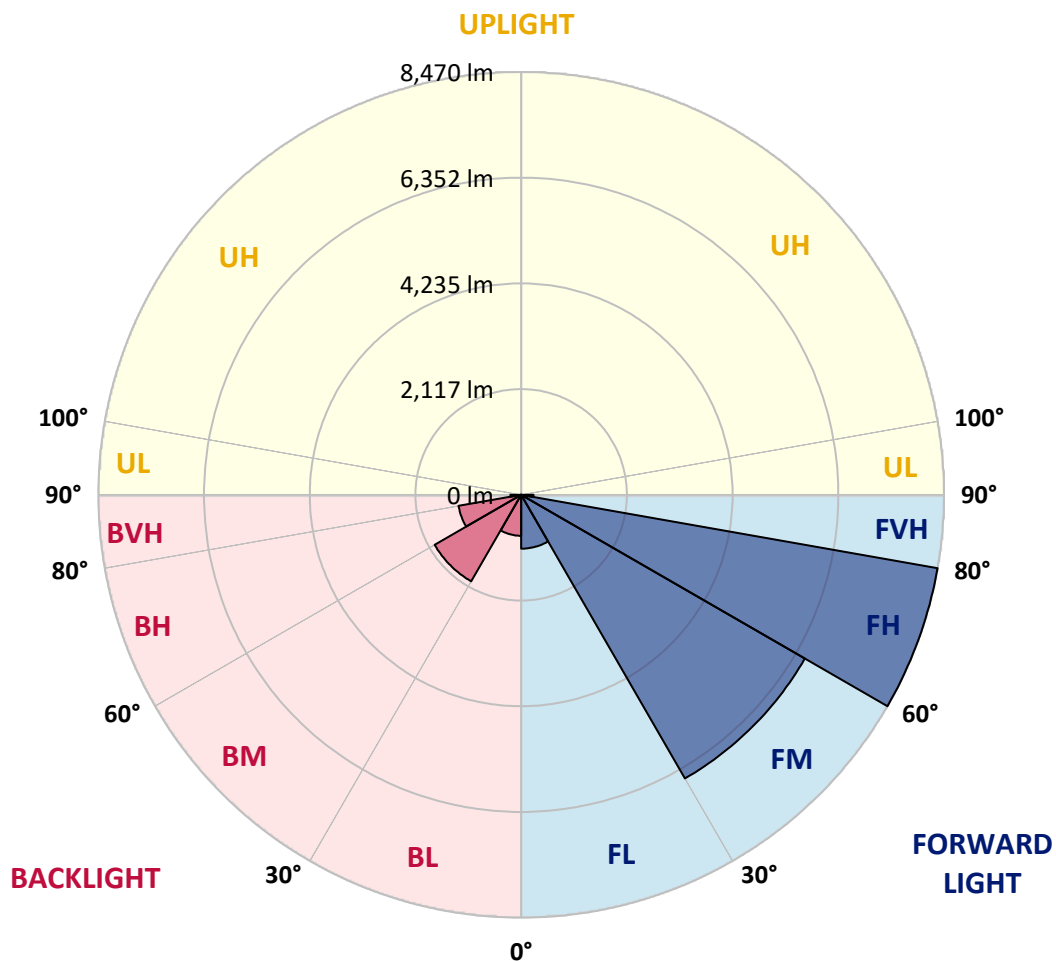
CATALOG NUMBER: GLNA-AF-05-LED-E1-T4W-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1078.3	5.2			
FM	(30°-60°)	6560.0	31.7			
FH	(60°-80°)	8469.5	41.0			G4/12000
FVH	(80°-90°)	246.9	1.2			G3/500
BL	(0°-30°)	820.9	4.0	B2/1000		
BM	(30°-60°)	2001.2	9.7	B2/2500		
BH	(60°-80°)	1273.5	6.2	B3/2500		G3/2500
BVH	(80°-90°)	215.8	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P302846

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4W-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9
2.5°	2538.8	2533.8	2531.8	2527.7	2522.7	2497.4	2492.4	2474.3	2449.3	2422.9	2395.8
5°	2705.7	2704.7	2693.4	2673.3	2641.3	2585.8	2572.8	2528.7	2469.3	2411.9	2354.8
7.5°	2852.3	2843.3	2822.3	2781.9	2725.8	2650.3	2632.3	2570.8	2489.3	2410.9	2333.4
10°	2959.8	2954.8	2908.7	2853.3	2779.9	2696.4	2675.3	2606.9	2517.4	2417.9	2321.4
12.5°	3021.3	3011.3	2957.8	2891.7	2804.2	2722.8	2701.4	2632.3	2531.8	2417.9	2304.4
15°	3017.3	3010.3	2956.8	2884.4	2796.2	2724.8	2705.7	2636.3	2528.7	2407.9	2282.3
17.5°	2936.8	2939.8	2894.7	2823.3	2750.8	2696.4	2679.3	2615.2	2508.4	2387.8	2256.3
20°	2796.2	2810.2	2779.9	2716.7	2676.3	2639.3	2628.3	2573.8	2477.3	2358.8	2227.9
22.5°	2655.3	2668.3	2656.3	2602.9	2596.9	2574.8	2568.8	2529.7	2450.3	2340.8	2210.9
25°	2551.8	2563.8	2561.8	2515.4	2533.8	2532.8	2527.7	2508.4	2444.3	2340.8	2213.9
27.5°	2523.7	2527.7	2523.7	2481.3	2506.4	2526.7	2522.7	2519.4	2462.3	2369.8	2252.3
30°	2620.2	2614.2	2582.8	2497.4	2520.7	2548.8	2544.8	2546.8	2516.4	2446.3	2337.7
32.5°	3005.2	2977.9	2879.4	2639.3	2577.8	2592.9	2594.9	2628.3	2633.3	2563.8	2470.3
35°	3581.3	3551.2	3423.3	3019.3	2755.8	2703.7	2703.7	2753.8	2783.9	2732.8	2676.3
37.5°	4191.6	4158.3	4090.1	3546.2	3129.8	2895.7	2890.7	2925.8	2968.8	2981.2	2995.2
40°	4885.2	4850.1	4869.2	4137.2	3651.7	3228.3	3156.8	3131.8	3248.3	3325.8	3438.7
42.5°	5644.5	5628.2	5635.2	4795.7	4245.7	3726.2	3624.7	3494.8	3635.7	3773.3	4009.7
45°	6347.1	6361.1	6354.1	5500.6	4907.6	4333.2	4225.7	3974.3	4112.2	4348.3	4733.6
47.5°	6962.5	6904.1	6994.5	6270.6	5648.5	5013.1	4880.2	4543.6	4683.2	4974.7	5626.2
50°	7709.5	7701.4	7568.9	7298.4	6544.1	5695.6	5521.6	5131.6	5348.7	5754.0	6751.5
52.5°	8494.8	8348.9	8227.4	8097.5	7494.4	6395.5	6182.1	5717.6	6131.0	6640.6	8122.8
55°	8655.4	8590.3	8740.9	8959.3	8410.3	7122.4	6874.0	6452.6	7011.9	7654.4	9704.3
57.5°	8999.4	8998.4	9310.3	9699.3	9353.3	7893.4	7643.0	7340.5	8002.0	8815.4	11383.2
60°	9231.8	9296.9	9876.2	10631.2	10279.3	8784.3	8553.9	8364.9	9128.3	10113.3	12947.6
62.5°	9353.3	9441.8	10232.2	11009.2	11588.2	10267.3	10037.2	9764.7	10618.2	11537.1	13862.5
65°	8847.8	9021.4	10176.8	11336.1	12734.6	12671.1	12567.6	12089.1	12481.1	12662.1	13532.0
67.5°	7448.0	7626.0	8971.3	11031.3	13553.0	14989.8	15011.9	14194.4	13627.5	12758.6	11377.2
70°	5306.6	5446.2	6559.4	9248.8	12929.6	16504.8	16580.3	15164.5	13399.1	11314.7	7948.9
72.5°	2519.4	2604.9	3658.7	6019.5	10260.2	15122.4	15268.3	13926.0	11393.2	8377.0	4336.2
75°	925.9	952.0	1236.5	2560.8	5951.1	11152.1	11324.1	9982.8	7552.5	4170.6	1651.9
77.5°	555.0	572.0	693.9	1080.9	2340.8	6374.5	6628.6	5429.1	3300.8	1552.4	812.4
80°	388.0	400.0	497.5	672.5	1105.9	2429.2	2655.3	2215.9	1315.0	982.4	591.0
82.5°	262.5	268.5	349.9	454.5	734.9	867.5	936.0	985.4	886.9	730.9	375.0
85°	172.0	178.0	237.4	299.5	467.5	448.4	458.5	580.0	647.5	496.5	208.0
87.5°	98.5	102.5	142.9	159.9	229.4	190.0	192.0	305.5	414.4	334.9	126.6
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: P302846

CATALOG NUMBER: GLNA-AF-05-LED-E1-T4W-7027-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9	2397.9
2.5°	2388.8	2375.8	2346.8	2328.4	2311.4	2307.4	2300.3	2299.3	2298.3	2298.3	2295.3
5°	2335.4	2313.4	2268.3	2242.9	2221.9	2219.9	2218.9	2223.9	2225.9	2227.9	2224.9
7.5°	2301.4	2271.3	2214.9	2178.8	2153.8	2147.4	2157.8	2180.8	2195.8	2201.8	2198.8
10°	2280.3	2242.9	2177.8	2138.4	2117.4	2114.4	2127.4	2154.8	2185.8	2197.8	2196.8
12.5°	2256.3	2213.9	2144.4	2103.3	2091.3	2097.3	2114.4	2139.4	2171.8	2190.8	2191.8
15°	2231.9	2182.8	2111.4	2075.3	2070.3	2078.3	2094.3	2113.4	2138.4	2157.8	2159.8
17.5°	2202.8	2151.4	2080.3	2042.9	2038.9	2042.9	2043.9	2053.9	2070.3	2088.3	2093.3
20°	2171.8	2119.4	2044.9	2007.8	1989.8	1973.8	1955.4	1957.4	1962.4	1980.8	1984.8
22.5°	2149.4	2097.3	2017.9	1966.4	1918.3	1869.9	1833.9	1828.9	1830.9	1845.9	1850.9
25°	2151.4	2096.3	2010.8	1922.4	1816.8	1739.4	1691.0	1682.9	1681.9	1693.0	1700.3
27.5°	2190.8	2135.4	2036.9	1876.9	1706.3	1591.4	1540.4	1534.3	1526.3	1529.3	1537.4
30°	2278.3	2226.9	2100.3	1830.9	1586.4	1446.9	1393.4	1387.4	1376.4	1371.4	1377.4
32.5°	2420.9	2378.8	2192.8	1786.5	1466.9	1323.0	1268.9	1255.9	1248.8	1242.8	1247.8
35°	2658.3	2640.3	2316.4	1738.4	1361.4	1227.5	1178.4	1158.4	1148.3	1159.4	1167.4
37.5°	3030.3	3040.3	2478.3	1662.9	1279.9	1164.4	1123.0	1099.9	1084.9	1093.9	1102.9
40°	3557.2	3564.2	2657.3	1556.4	1209.4	1127.0	1082.9	1061.9	1040.5	1024.5	1023.5
42.5°	4248.7	4177.6	2833.3	1440.8	1128.0	1103.9	1054.8	1028.5	996.4	952.0	943.0
45°	5069.2	4819.1	2966.8	1307.9	1036.5	1075.9	1023.5	987.4	937.0	888.9	883.9
47.5°	6014.5	5507.6	3032.3	1170.4	951.0	1034.5	985.4	928.0	864.5	840.5	837.5
50°	7168.5	6325.0	3063.3	1036.5	876.9	980.4	930.0	862.5	809.4	804.4	801.4
52.5°	8482.8	7308.4	3073.7	927.0	815.4	909.9	884.9	819.4	777.0	781.4	781.4
55°	9858.2	8323.9	2936.8	847.5	759.0	837.5	854.5	802.4	767.0	783.4	789.4
57.5°	11120.7	9223.8	2506.4	786.4	705.9	782.4	843.5	818.4	794.4	859.5	863.5
60°	12090.1	9755.4	1871.9	730.9	666.5	763.0	872.9	879.9	885.9	1041.5	1062.9
62.5°	12293.1	9578.7	1286.9	687.9	648.5	779.4	925.9	927.0	919.9	1028.5	1041.5
65°	11361.2	8459.4	936.0	663.5	633.4	808.4	971.4	950.0	903.9	986.4	962.0
67.5°	9022.4	6373.5	779.4	645.5	611.4	806.4	1019.4	971.4	894.9	966.4	927.0
70°	5856.6	3853.7	693.9	630.4	585.0	768.0	1047.5	969.4	868.5	898.9	852.5
72.5°	2857.3	1723.3	636.4	608.4	558.0	714.9	1046.5	951.0	841.5	839.5	814.4
75°	1118.0	789.4	584.0	575.0	511.9	654.5	1018.4	924.9	809.4	777.0	768.0
77.5°	654.5	563.0	517.9	525.9	456.5	594.0	977.4	879.9	765.0	726.9	716.9
80°	476.5	421.4	441.4	454.5	390.0	533.9	921.9	824.4	715.9	734.9	720.9
82.5°	305.5	271.5	358.0	371.0	324.9	472.5	861.5	766.0	646.5	587.0	573.0
85°	155.9	172.0	266.5	282.5	250.4	388.0	788.4	688.9	568.0	488.5	496.5
87.5°	87.5	117.5	170.0	190.0	177.0	298.5	639.4	568.0	463.5	377.0	331.9
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)