

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: P302780

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302780
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-04-LED-E1-T4W-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20645.8 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

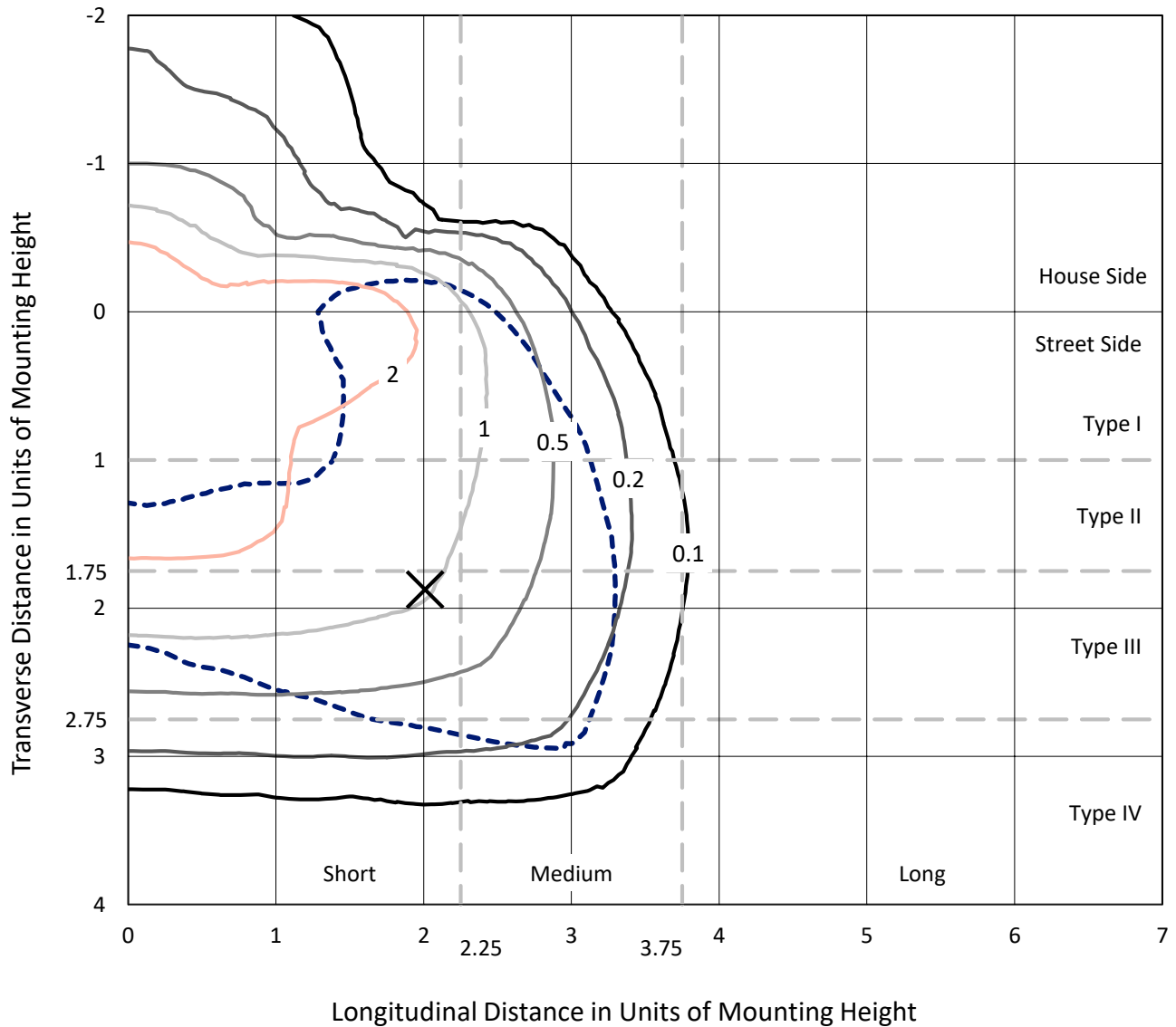
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P302780
 CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-7027

Iso-Footcandle Lines of Horizontal Illumination

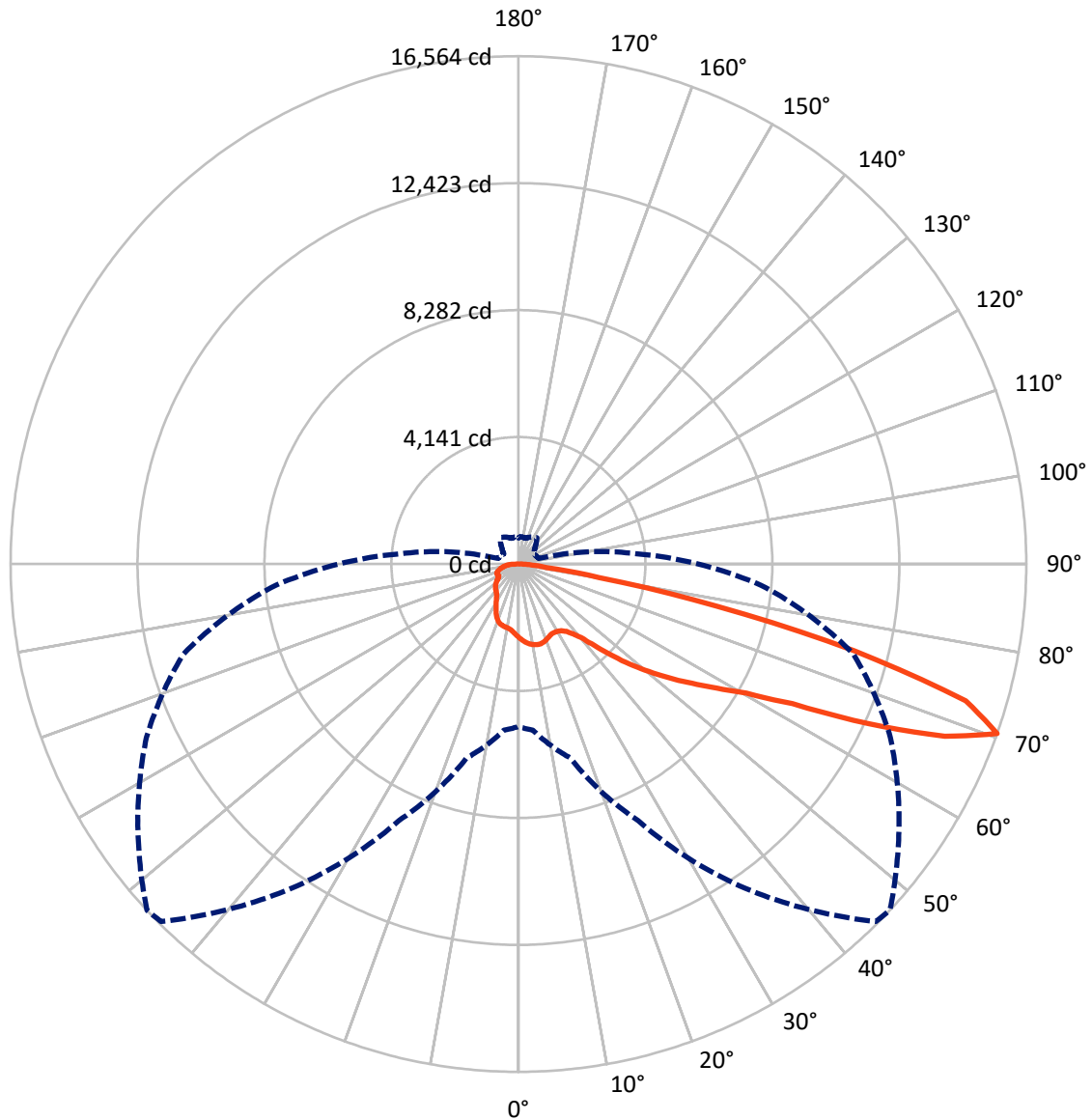
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P302780
CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-7027

Luminous Intensity Polar Plot



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

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CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4307.1	0.0	4307.1
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	16338.7	0.0	16338.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	20645.8	0.0	20645.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.5	1.1
10°-20°	673.4	3.3
20°-30°	994.4	4.8
30°-40°	1445.4	7.0
40°-50°	2601.2	12.6
50°-60°	4506.3	21.8
60°-70°	6431.7	31.2
70°-80°	3301.7	16.0
80°-90°	462.2	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°	20645.8	100.0
0°-180°	20645.8	100.0



REPORT NUMBER: P302780

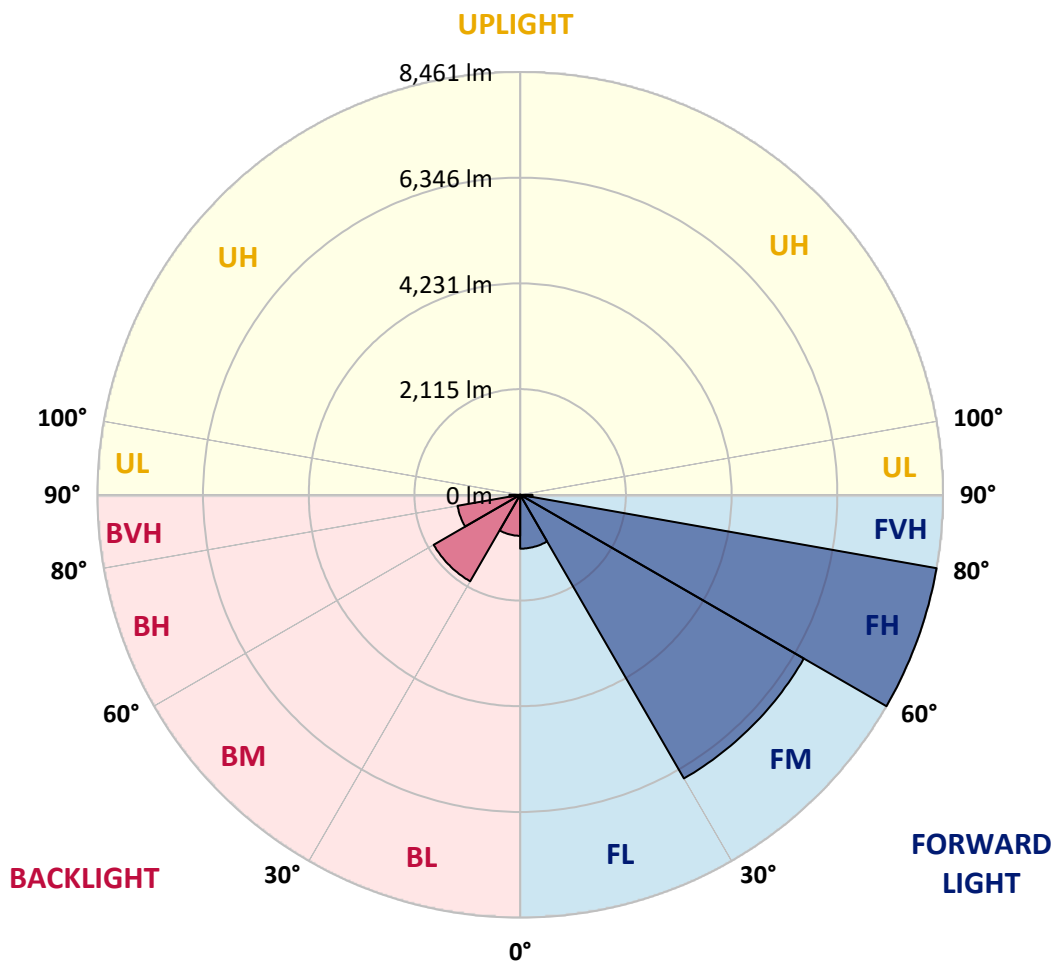
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1077.3	5.2			
FM	(30°-60°)	6553.6	31.7			
FH	(60°-80°)	8461.2	41.0			G4/12000
FVH	(80°-90°)	246.7	1.2			G3/500
BL	(0°-30°)	820.1	4.0	B2/1000		
BM	(30°-60°)	1999.2	9.7	B2/2500		
BH	(60°-80°)	1272.2	6.2	B3/2500		G3/2500
BVH	(80°-90°)	215.6	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: P302780

CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5
2.5°	2536.3	2531.3	2529.3	2525.3	2520.3	2494.9	2489.9	2471.9	2446.9	2420.5	2393.5
5°	2703.1	2702.1	2690.7	2670.7	2638.7	2583.3	2570.3	2526.3	2466.9	2409.5	2352.5
7.5°	2849.5	2840.5	2819.5	2779.1	2723.1	2647.7	2629.7	2568.3	2486.9	2408.5	2331.1
10°	2956.9	2951.9	2905.9	2850.5	2777.1	2693.7	2672.7	2604.3	2514.9	2415.5	2319.1
12.5°	3018.3	3008.3	2954.9	2888.9	2801.5	2720.1	2698.7	2629.7	2529.3	2415.5	2302.1
15°	3014.3	3007.3	2953.9	2881.5	2793.5	2722.1	2703.1	2633.7	2526.3	2405.5	2280.1
17.5°	2933.9	2936.9	2891.9	2820.5	2748.1	2693.7	2676.7	2612.7	2505.9	2385.5	2254.1
20°	2793.5	2807.5	2777.1	2714.1	2673.7	2636.7	2625.7	2571.3	2474.9	2356.5	2225.7
22.5°	2652.7	2665.7	2653.7	2600.3	2594.3	2572.3	2566.3	2527.3	2447.9	2338.5	2208.7
25°	2549.3	2561.3	2559.3	2512.9	2531.3	2530.3	2525.3	2505.9	2441.9	2338.5	2211.7
27.5°	2521.3	2525.3	2521.3	2478.9	2503.9	2524.3	2520.3	2516.9	2459.9	2367.5	2250.1
30°	2617.7	2611.7	2580.3	2494.9	2518.3	2546.3	2542.3	2544.3	2513.9	2443.9	2335.5
32.5°	3002.3	2974.9	2876.5	2636.7	2575.3	2590.3	2592.3	2625.7	2630.7	2561.3	2467.9
35°	3577.7	3547.7	3420.0	3016.3	2753.1	2701.1	2701.1	2751.1	2781.1	2730.1	2673.7
37.5°	4187.5	4154.2	4086.1	3542.7	3126.7	2892.9	2887.9	2922.9	2965.9	2978.3	2992.3
40°	4880.4	4845.4	4864.4	4133.2	3648.1	3225.1	3153.8	3128.7	3245.2	3322.5	3435.3
42.5°	5639.0	5622.6	5629.7	4791.0	4241.6	3722.5	3621.1	3491.3	3632.1	3769.6	4005.7
45°	6340.9	6354.9	6347.9	5495.2	4902.8	4329.0	4221.6	3970.4	4108.2	4344.0	4729.0
47.5°	6955.7	6897.3	6987.7	6264.5	5643.0	5008.2	4875.4	4539.2	4678.6	4969.8	5620.6
50°	7701.9	7693.9	7561.5	7291.3	6537.7	5690.0	5516.2	5126.6	5343.4	5748.4	6744.8
52.5°	8486.5	8340.7	8219.3	8089.5	7487.1	6389.2	6176.1	5712.1	6125.0	6634.1	8114.9
55°	8647.0	8581.9	8732.4	8950.5	8402.1	7115.5	6867.3	6446.3	7005.0	7646.9	9694.8
57.5°	8990.6	8989.6	9301.1	9689.8	9344.2	7885.7	7635.5	7333.3	7994.1	8806.8	11372.1
60°	9222.7	9287.8	9866.6	10620.8	10269.2	8775.7	8545.6	8356.7	9119.3	10103.4	12934.9
62.5°	9344.2	9432.6	10222.2	10998.4	11576.9	10257.2	10027.4	9755.2	10607.8	11525.8	13849.0
65°	8839.1	9012.6	10166.8	11325.0	12722.1	12658.7	12555.3	12077.3	12468.9	12649.7	13518.7
67.5°	7440.7	7618.5	8962.5	11020.5	13539.7	14975.2	14997.2	14180.5	13614.1	12746.1	11366.1
70°	5301.4	5440.8	6553.0	9239.8	12916.9	16488.7	16564.0	15149.6	13385.9	11303.7	7941.1
72.5°	2516.9	2602.3	3655.1	6013.6	10250.2	15107.6	15253.4	13912.3	11382.1	8368.8	4332.0
75°	925.0	951.1	1235.3	2558.3	5945.2	11141.2	11313.0	9973.0	7545.1	4166.5	1650.3
77.5°	554.4	571.4	693.2	1079.8	2338.5	6368.2	6622.1	5423.8	3297.5	1550.9	811.6
80°	387.6	399.6	497.0	671.8	1104.8	2426.9	2652.7	2213.7	1313.7	981.4	590.5
82.5°	262.2	268.2	349.6	454.0	734.2	866.7	935.1	984.4	886.0	730.2	374.6
85°	171.8	177.8	237.2	299.2	467.0	448.0	458.0	579.4	646.8	496.0	207.8
87.5°	98.4	102.4	142.8	159.8	229.2	189.8	191.8	305.2	414.0	334.6	126.4
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: P302780

CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-7027

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5	2395.5
2.5°	2386.5	2373.5	2344.5	2326.1	2309.1	2305.1	2298.1	2297.1	2296.1	2296.1	2293.1
5°	2333.1	2311.1	2266.1	2240.7	2219.7	2217.7	2216.7	2221.7	2223.7	2225.7	2222.7
7.5°	2299.1	2269.1	2212.7	2176.7	2151.7	2145.3	2155.7	2178.7	2193.7	2199.7	2196.7
10°	2278.1	2240.7	2175.7	2136.3	2115.3	2112.3	2125.3	2152.7	2183.7	2195.7	2194.7
12.5°	2254.1	2211.7	2142.3	2101.3	2089.3	2095.3	2112.3	2137.3	2169.7	2188.7	2189.7
15°	2229.7	2180.7	2109.3	2073.3	2068.3	2076.3	2092.3	2111.3	2136.3	2155.7	2157.7
17.5°	2200.7	2149.3	2078.3	2040.9	2036.9	2040.9	2041.9	2051.9	2068.3	2086.3	2091.3
20°	2169.7	2117.3	2042.9	2005.9	1987.9	1971.8	1953.5	1955.5	1960.5	1978.9	1982.9
22.5°	2147.3	2095.3	2015.9	1964.5	1916.5	1868.1	1832.1	1827.1	1829.1	1844.1	1849.1
25°	2149.3	2094.3	2008.9	1920.5	1815.1	1737.7	1689.3	1681.3	1680.3	1691.3	1698.6
27.5°	2188.7	2133.3	2034.9	1875.1	1704.6	1589.9	1538.8	1532.8	1524.8	1527.8	1535.8
30°	2276.1	2224.7	2098.3	1829.1	1584.9	1445.4	1392.1	1386.1	1375.1	1370.1	1376.1
32.5°	2418.5	2376.5	2190.7	1784.7	1465.5	1321.7	1267.6	1254.6	1247.6	1241.6	1246.6
35°	2655.7	2637.7	2314.1	1736.7	1360.0	1226.3	1177.2	1157.2	1147.2	1158.2	1166.2
37.5°	3027.3	3037.3	2475.9	1661.3	1278.6	1163.2	1121.9	1098.8	1083.8	1092.8	1101.8
40°	3553.7	3560.7	2654.7	1554.9	1208.3	1125.9	1081.8	1060.8	1039.5	1023.5	1022.5
42.5°	4244.6	4173.5	2830.5	1439.4	1126.9	1102.8	1053.8	1027.5	995.4	951.1	942.1
45°	5064.2	4814.4	2963.9	1306.7	1035.5	1074.8	1022.5	986.4	936.1	888.0	883.0
47.5°	6008.6	5502.2	3029.3	1169.2	950.1	1033.5	984.4	927.0	863.7	839.6	836.6
50°	7161.5	6318.8	3060.3	1035.5	876.0	979.4	929.0	861.7	808.6	803.6	800.6
52.5°	8474.5	7301.3	3070.7	926.0	814.6	909.0	884.0	818.6	776.3	780.6	780.6
55°	9848.6	8315.7	2933.9	846.6	758.2	836.6	853.7	801.6	766.3	782.6	788.6
57.5°	11109.9	9214.7	2503.9	785.6	705.2	781.6	842.6	817.6	793.6	858.7	862.7
60°	12078.3	9745.8	1870.1	730.2	665.8	762.3	872.0	879.0	885.0	1040.5	1061.8
62.5°	12281.1	9569.3	1285.7	687.2	647.8	778.6	925.0	926.0	919.0	1027.5	1040.5
65°	11350.0	8451.2	935.1	662.8	632.8	807.6	970.4	949.1	903.0	985.4	961.1
67.5°	9013.6	6367.2	778.6	644.8	610.8	805.6	1018.4	970.4	894.0	965.4	926.0
70°	5850.8	3850.0	693.2	629.8	584.4	767.3	1046.5	968.4	867.7	898.0	851.7
72.5°	2854.5	1721.7	635.8	607.8	557.4	714.2	1045.5	950.1	840.6	838.6	813.6
75°	1116.9	788.6	583.4	574.4	511.4	653.8	1017.4	924.0	808.6	776.3	767.3
77.5°	653.8	562.4	517.4	525.4	456.0	593.5	976.4	879.0	764.3	726.2	716.2
80°	476.0	421.0	441.0	454.0	389.6	533.4	921.0	823.6	715.2	734.2	720.2
82.5°	305.2	271.2	357.6	370.6	324.6	472.0	860.7	765.3	645.8	586.5	572.4
85°	155.8	171.8	266.2	282.2	250.2	387.6	787.6	688.2	567.4	488.0	496.0
87.5°	87.4	117.4	169.8	189.8	176.8	298.2	638.8	567.4	463.0	376.6	331.6
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)