

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: P300314

Luminaire Tested: **GLNA-AF-04-LED-E1-T4FT-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300314
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-04-LED-E1-T4FT-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20916.4 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

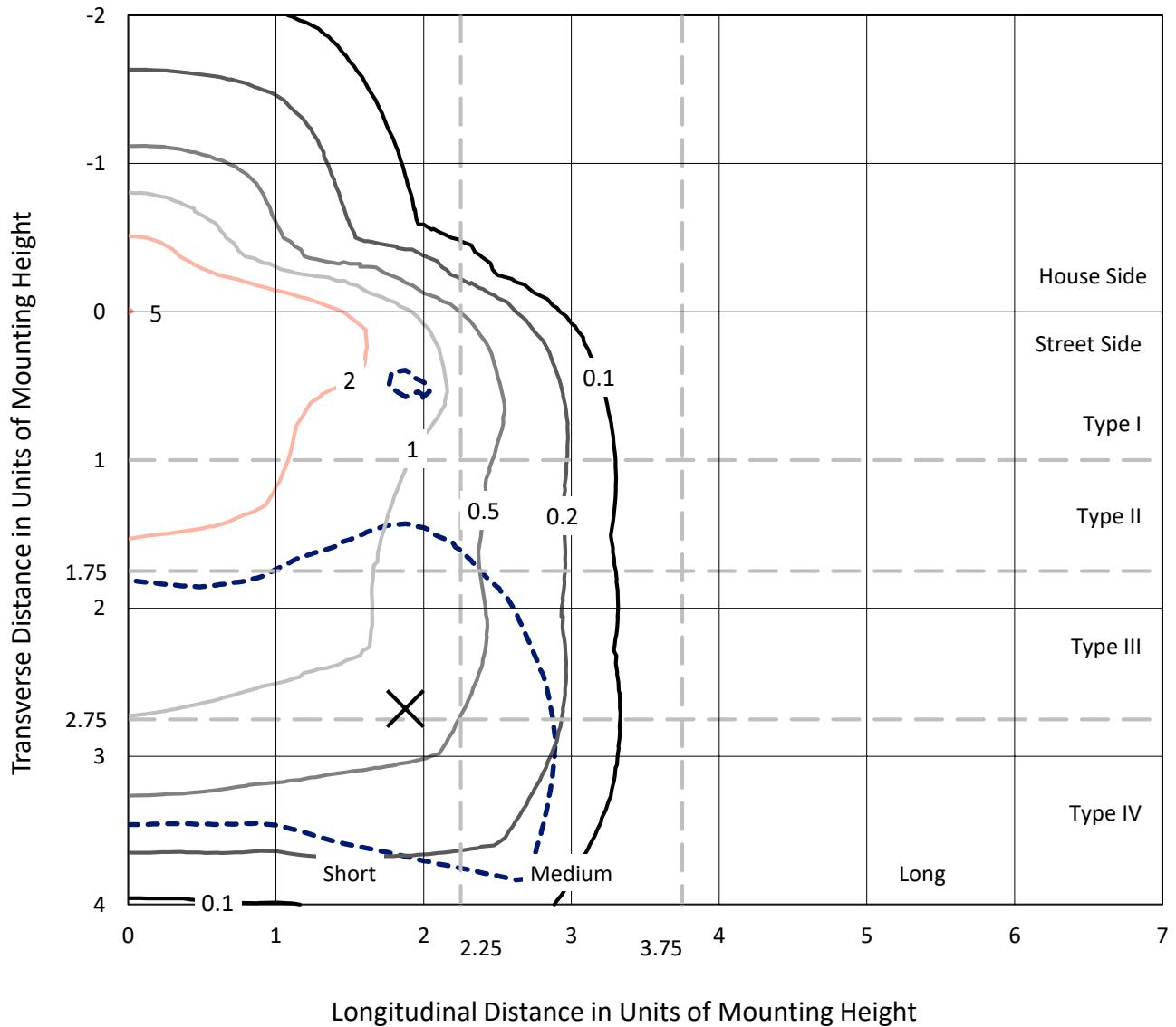
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

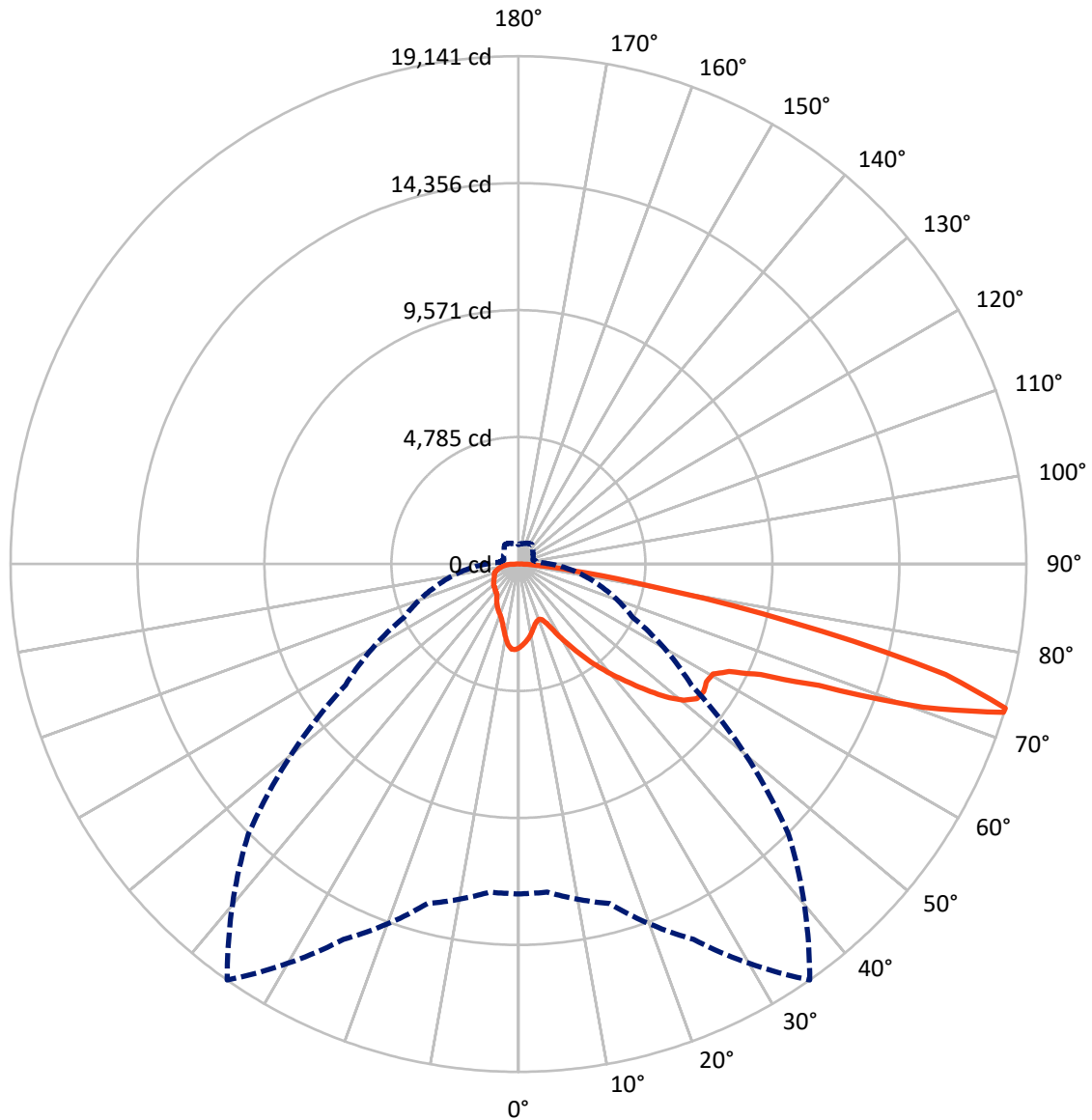
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3989.3	0.0	3989.3
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	16927.0	0.0	16927.0
	% Fixture	80.9	0.0	80.9
Total	Lumens	20916.4	0.0	20916.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.8	1.4
10°-20°	713.3	3.4
20°-30°	1153.1	5.5
30°-40°	1933.7	9.2
40°-50°	2980.6	14.3
50°-60°	3998.9	19.1
60°-70°	5327.3	25.5
70°-80°	4063.1	19.4
80°-90°	460.5	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°	20916.4	100.0
0°-180°	20916.4	100.0

Coefficient of Utilization



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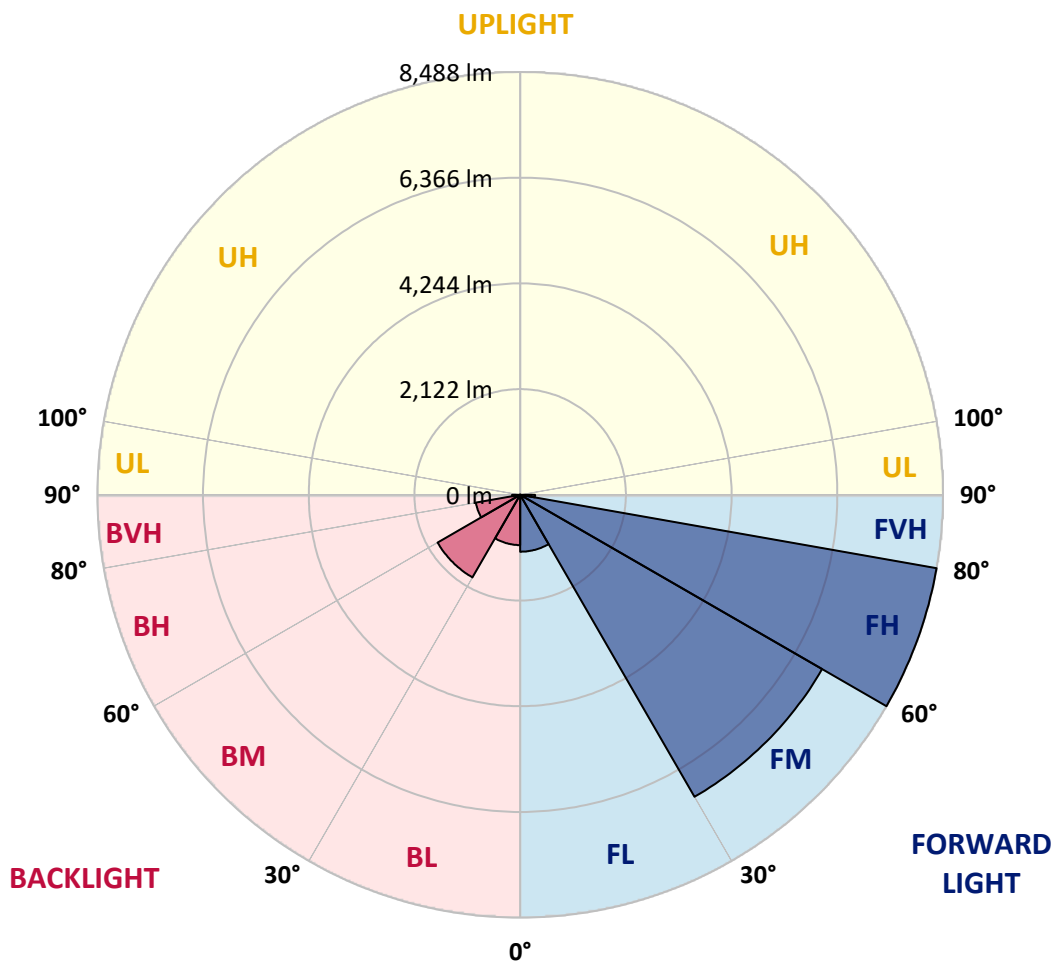
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1142.7	5.5			
FM	(30°-60°)	6998.7	33.5			
FH	(60°-80°)	8487.9	40.6			G4/12000
FVH	(80°-90°)	297.7	1.4			G3/500
BL	(0°-30°)	1009.5	4.8	B3/2500		
BM	(30°-60°)	1914.4	9.2	B2/2500		
BH	(60°-80°)	902.6	4.3	B2/1000		G2/1000
BVH	(80°-90°)	162.8	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9
2.5°	3032.4	3038.4	3031.4	3040.4	3055.5	3071.6	3082.6	3098.7	3116.7	3141.9	3147.9
5°	2889.7	2898.8	2898.8	2914.9	2944.0	2970.1	2994.2	3020.3	3058.5	3101.7	3118.8
7.5°	2733.1	2738.1	2747.1	2771.2	2813.4	2850.6	2884.7	2926.9	2979.1	3036.4	3066.5
10°	2544.2	2551.3	2565.3	2599.5	2656.7	2707.9	2757.2	2815.4	2881.7	2953.0	2991.2
12.5°	2410.6	2408.6	2414.7	2439.8	2490.0	2552.3	2623.6	2697.9	2779.3	2862.6	2908.8
15°	2365.4	2354.4	2331.3	2325.3	2352.4	2414.7	2497.0	2588.4	2685.8	2786.3	2843.5
17.5°	2393.6	2374.5	2311.2	2265.0	2261.0	2308.2	2395.6	2498.0	2610.5	2733.1	2804.4
20°	2570.3	2525.1	2369.5	2262.0	2224.8	2247.9	2324.3	2432.7	2565.3	2728.0	2819.4
22.5°	2993.2	2926.9	2596.5	2396.6	2271.0	2242.9	2300.1	2415.7	2570.3	2790.3	2906.8
25°	3608.9	3514.5	2986.2	2732.1	2472.9	2323.2	2336.3	2454.8	2641.7	2934.9	3075.6
27.5°	4095.1	4033.8	3495.4	3205.1	2840.5	2540.2	2453.8	2553.3	2787.3	3172.0	3315.6
30°	4384.3	4347.2	4039.8	3741.5	3309.6	2885.7	2678.8	2738.1	3015.3	3500.4	3619.0
32.5°	4719.8	4697.7	4547.1	4272.9	3815.8	3339.7	3035.4	3014.3	3320.6	3895.2	3949.4
35°	5067.4	5060.3	4971.9	4775.1	4359.2	3938.4	3508.5	3365.8	3653.1	4305.0	4270.8
37.5°	5390.8	5378.7	5327.5	5213.0	4927.7	4581.2	3990.6	3726.4	4011.7	4696.7	4545.1
40°	5986.4	5892.0	5716.2	5629.8	5502.3	5122.6	4373.3	4062.9	4383.3	5070.4	4782.1
42.5°	6712.6	6558.9	6231.5	6113.0	6094.9	5549.5	4634.4	4389.4	4758.0	5441.0	5015.1
45°	7284.1	7139.5	6857.3	6707.6	6773.9	5936.2	4896.6	4737.9	5143.7	5829.7	5255.2
47.5°	7893.8	7666.8	7293.2	7338.4	7483.0	6301.8	5163.8	5112.6	5566.6	6264.6	5553.5
50°	7915.9	7742.2	7578.4	7848.6	8073.6	6638.3	5498.3	5505.3	6083.8	6812.1	5950.3
52.5°	7456.9	7419.7	7679.9	8104.8	8429.2	6904.5	5878.9	5911.1	6745.8	7440.8	6386.2
55°	7296.2	7254.0	7554.3	8015.4	8477.4	7124.4	6291.8	6350.0	7546.3	8103.8	6811.0
57.5°	7687.9	7594.5	7614.6	7973.2	8359.9	7365.5	6741.7	6859.3	8416.1	8683.3	7084.3
60°	8782.7	8582.9	8203.2	8194.1	8423.2	7727.1	7262.0	7405.7	9320.1	8960.5	6977.8
62.5°	10318.5	10118.6	9407.5	8944.5	8910.3	8323.7	7900.9	7939.0	9842.4	8584.9	6327.9
65°	11980.9	11802.1	11007.6	10353.7	10038.3	9312.1	8643.1	8177.1	9671.7	7551.3	5190.9
67.5°	13998.8	13806.9	13123.9	12520.2	12216.9	10907.1	9164.4	7949.1	8587.9	5849.8	3731.5
70°	15410.0	15214.1	14944.9	15434.1	16176.4	13208.3	9231.7	7022.0	6414.3	3888.2	2245.9
72.5°	13568.9	13477.5	13968.6	16028.7	19120.4	14604.4	8344.8	5112.6	3725.4	2064.1	1299.7
73°	12431.8	12411.8	13249.5	15611.9	19141.4	14389.5	7956.1	4752.0	3195.1	1826.1	1188.2
75°	5613.8	5775.5	7611.6	11924.6	16630.4	11857.3	5599.7	2726.0	1805.0	1261.6	897.0
77.5°	1349.0	1405.2	2381.5	5663.0	10502.3	7066.2	2537.2	1347.9	1154.1	890.9	654.9
80°	574.5	593.6	917.0	2092.2	4944.8	2845.6	1169.2	903.0	798.5	621.7	459.0
82.5°	319.4	339.5	520.3	949.2	1995.8	970.3	713.1	628.8	525.3	374.7	298.3
85°	180.8	191.8	304.3	530.3	845.7	389.7	426.9	417.8	296.3	192.9	146.6
87.5°	85.4	92.4	146.6	246.1	331.5	152.7	217.0	239.1	185.8	117.5	76.3
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°	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9	3156.9
2.5°	3154.9	3173.0	3194.1	3205.1	3215.2	3227.2	3239.3	3239.3	3241.3	3242.3
5°	3132.8	3170.0	3203.1	3217.2	3220.2	3220.2	3217.2	3201.1	3187.1	3193.1
7.5°	3086.6	3140.9	3169.0	3164.0	3125.8	3081.6	3044.4	2999.2	2976.1	2972.1
10°	3020.3	3082.6	3087.6	3037.4	2943.0	2848.6	2770.2	2693.9	2657.7	2648.7
12.5°	2947.0	3004.3	2972.1	2868.7	2717.0	2579.4	2479.9	2402.6	2368.4	2359.4
15°	2887.7	2926.9	2845.6	2682.8	2492.0	2346.4	2264.0	2206.7	2182.6	2175.6
17.5°	2856.6	2864.6	2716.0	2496.0	2293.1	2171.6	2120.4	2093.2	2084.2	2079.2
20°	2871.7	2815.4	2592.4	2322.2	2130.4	2045.0	2033.0	2025.9	2023.9	2020.9
22.5°	2947.0	2800.4	2478.9	2157.5	1987.8	1950.6	1960.6	1959.6	1957.6	1955.6
25°	3081.6	2813.4	2368.4	2000.8	1868.2	1860.2	1878.3	1878.3	1870.3	1870.3
27.5°	3259.4	2840.5	2244.9	1852.2	1759.8	1760.8	1774.8	1770.8	1761.8	1755.7
30°	3476.3	2857.6	2100.3	1718.6	1658.3	1654.3	1658.3	1641.2	1614.1	1612.1
32.5°	3698.3	2836.5	1932.5	1600.1	1550.8	1541.8	1538.8	1514.7	1483.5	1474.5
35°	3899.2	2759.2	1761.8	1505.6	1448.4	1428.3	1442.4	1434.3	1406.2	1399.2
37.5°	4045.8	2615.5	1608.1	1422.3	1375.1	1370.0	1379.1	1382.1	1349.0	1341.9
40°	4144.3	2420.7	1476.5	1352.0	1361.0	1341.9	1311.8	1290.7	1280.6	1277.6
42.5°	4223.6	2217.8	1366.0	1318.8	1364.0	1308.8	1243.5	1209.3	1227.4	1235.5
45°	4315.0	2019.9	1273.6	1277.6	1349.0	1270.6	1196.3	1163.1	1170.2	1172.2
47.5°	4440.6	1778.8	1174.2	1211.3	1298.7	1244.5	1167.1	1119.9	1086.8	1071.7
50°	4614.4	1493.6	1070.7	1137.0	1249.5	1225.4	1121.9	1071.7	1010.5	996.4
52.5°	4734.9	1227.4	985.3	1074.7	1205.3	1187.2	1085.8	1020.5	956.2	944.2
55°	4669.6	1019.5	911.0	1005.4	1147.1	1140.0	1055.7	968.3	918.1	908.0
57.5°	4343.2	887.9	853.8	940.1	1075.7	1099.9	1015.5	924.1	887.9	880.9
60°	3720.4	805.6	817.6	896.0	1017.5	1059.7	975.3	900.0	875.9	870.8
62.5°	2886.7	750.3	790.5	863.8	972.3	1031.6	953.2	897.0	887.9	881.9
65°	2068.1	706.1	761.4	831.7	931.1	1005.4	945.2	892.9	894.9	889.9
67.5°	1405.2	666.9	726.2	795.5	890.9	982.3	934.1	878.9	904.0	898.0
70°	983.3	628.8	685.0	749.3	840.7	950.2	914.0	857.8	855.8	831.7
72.5°	767.4	578.6	628.8	685.0	776.4	905.0	873.9	810.6	777.4	752.3
73°	732.2	566.5	614.7	671.0	762.4	893.9	862.8	797.5	760.4	737.3
75°	605.7	514.3	558.5	608.7	702.1	841.7	808.6	738.3	691.0	677.0
77.5°	476.1	439.9	482.1	527.3	618.7	765.4	728.2	660.9	634.8	622.7
80°	352.6	364.6	401.8	441.9	536.4	684.0	650.9	583.6	700.1	671.0
82.5°	248.1	276.2	310.4	346.5	450.0	604.7	564.5	495.2	512.3	425.9
85°	146.6	180.8	212.9	244.1	324.4	501.2	466.1	394.7	323.4	308.4
87.5°	85.4	100.4	109.5	141.6	223.0	377.7	328.4	292.3	167.7	113.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)