

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: P453172

Luminaire Tested: **GALN-SA4A-830-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-830-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14711 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 121
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: 24 FT

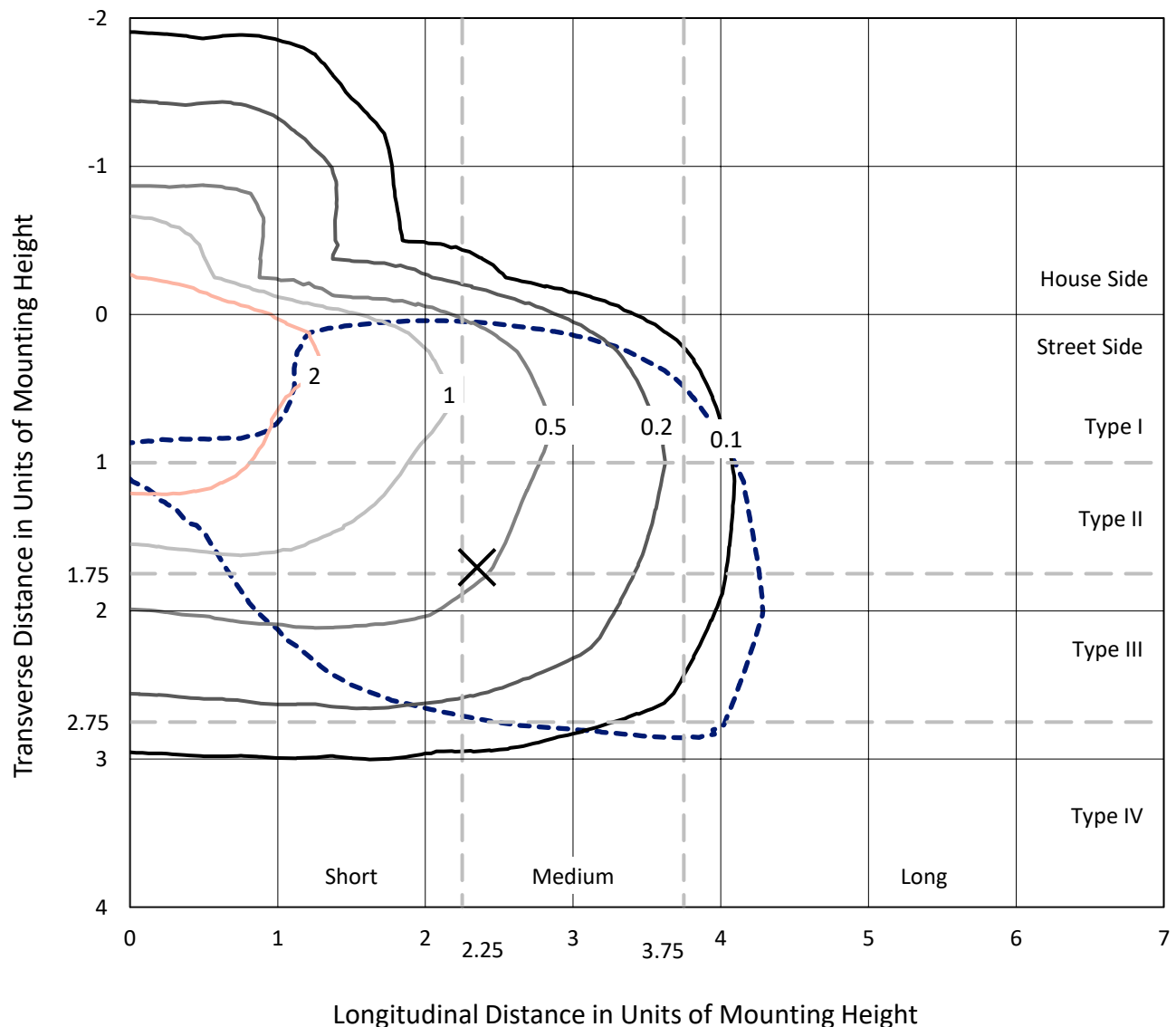


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

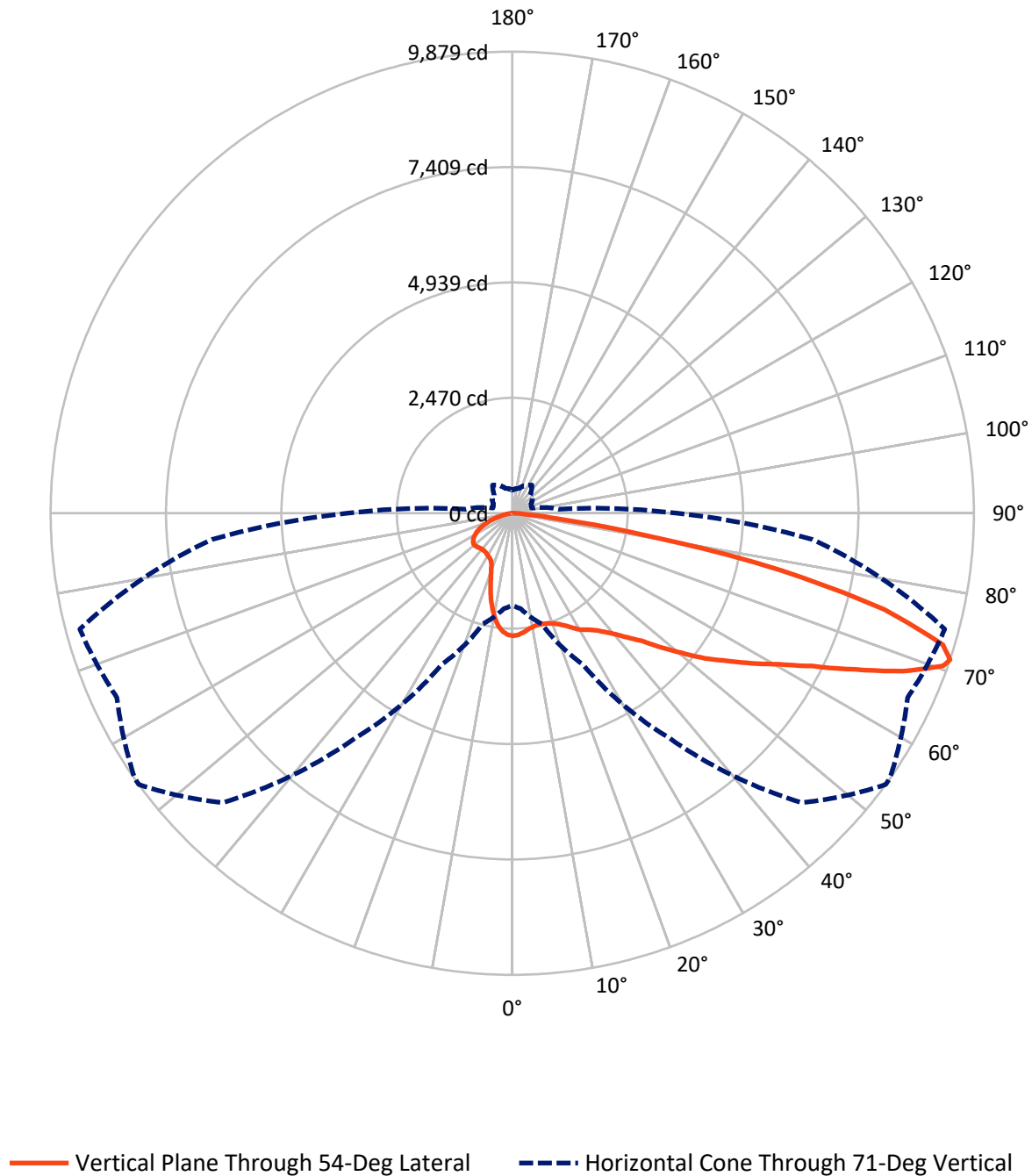


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2656.0	0.0	2656.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	12055.0	0.0	12055.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	14711.0	0.0	14711.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.9	1.6
10°-20°	617.6	4.2
20°-30°	1028.3	7.0
30°-40°	1520.6	10.3
40°-50°	2141.8	14.6
50°-60°	2867.9	19.5
60°-70°	3614.8	24.6
70°-80°	2468.9	16.8
80°-90°	217.1	1.5
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°	14711.0	100.0
0°-180°	14711.0	100.0

Coefficient of Utilization



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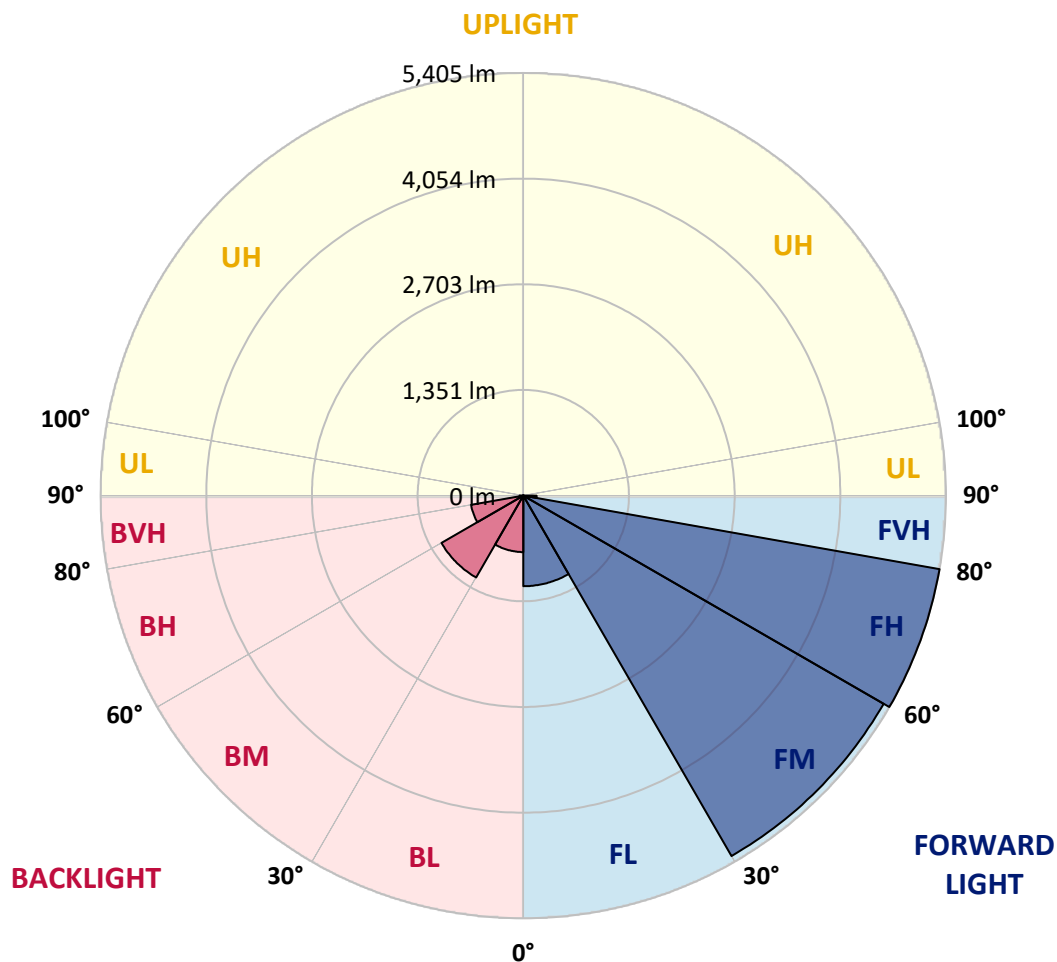
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1158.0	7.9			
FM	(30°-60°)	5321.9	36.2			
FH	(60°-80°)	5405.4	36.7			G3/7500
FVH	(80°-90°)	169.7	1.2			G2/225
BL	(0°-30°)	721.8	4.9	B2/1000		
BM	(30°-60°)	1208.4	8.2	B2/2500		
BH	(60°-80°)	678.3	4.6	B2/1000		G2/1000
BVH	(80°-90°)	47.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7
2.5°	2535.7	2547.6	2550.8	2558.7	2575.4	2588.9	2602.4	2600.8	2619.9	2627.8	2635.0
5°	2422.8	2426.0	2437.9	2453.8	2483.2	2520.6	2557.1	2557.9	2604.8	2642.1	2660.4
7.5°	2340.2	2350.5	2358.5	2375.1	2406.1	2446.7	2504.7	2509.4	2592.9	2666.8	2705.7
10°	2286.1	2298.1	2306.8	2327.5	2358.5	2403.8	2466.5	2475.3	2584.1	2705.7	2774.1
12.5°	2236.9	2248.8	2256.7	2283.8	2324.3	2379.9	2450.6	2461.0	2587.3	2751.0	2848.7
15°	2267.1	2276.6	2273.4	2281.4	2308.4	2372.0	2457.0	2467.3	2599.2	2794.7	2922.6
17.5°	2401.4	2409.3	2383.1	2352.9	2340.2	2387.1	2476.9	2488.0	2623.1	2840.0	2998.1
20°	2599.2	2620.7	2563.5	2495.9	2434.7	2441.1	2518.2	2530.1	2656.4	2885.3	3075.2
22.5°	2856.7	2872.6	2802.7	2691.4	2578.6	2520.6	2580.2	2587.3	2706.5	2944.1	3159.4
25°	3159.4	3169.0	3072.0	2929.0	2766.1	2656.4	2665.2	2677.9	2789.1	3010.9	3234.1
27.5°	3453.5	3483.7	3371.6	3196.8	2982.2	2799.5	2782.0	2789.9	2878.9	3048.2	3285.8
30°	3802.3	3799.9	3681.5	3478.9	3203.9	2955.2	2892.5	2890.9	2927.4	3066.5	3323.1
32.5°	4080.4	4113.0	3997.0	3776.1	3457.4	3116.5	2968.7	2965.6	2964.8	3098.3	3378.8
35°	4396.7	4401.5	4295.0	4072.5	3731.6	3319.2	3075.2	3059.3	3041.0	3166.6	3454.3
37.5°	4679.6	4701.8	4604.1	4354.6	4001.0	3529.7	3221.4	3211.1	3155.5	3285.0	3575.0
40°	4900.5	4917.2	4858.4	4620.8	4266.4	3757.0	3407.4	3388.3	3320.8	3478.9	3736.3
42.5°	4972.8	5007.0	5030.0	4913.2	4571.5	4026.4	3636.2	3612.4	3560.7	3772.9	3922.3
45°	4978.4	5032.4	5154.0	5159.5	4878.2	4349.0	3903.2	3886.5	3882.6	4149.6	4183.7
47.5°	4936.2	4991.1	5195.3	5305.7	5151.6	4674.8	4288.6	4262.4	4264.8	4615.2	4476.9
50°	4834.5	4899.7	5147.6	5399.5	5365.3	5013.3	4695.5	4686.7	4736.0	5146.8	4781.3
52.5°	4643.0	4721.7	5098.3	5458.3	5524.3	5304.9	5157.9	5133.3	5258.1	5723.7	5114.2
55°	4113.0	4231.4	4918.0	5490.9	5675.2	5583.9	5574.3	5618.8	5784.1	6353.1	5480.6
57.5°	3836.5	3925.5	4526.2	5496.5	5866.0	5908.1	6060.6	6071.8	6361.0	7021.3	5894.6
60°	3685.5	3764.2	4311.7	5459.9	6132.2	6309.4	6558.1	6597.8	6924.4	7745.3	6323.7
62.5°	3553.6	3621.1	4182.9	5333.6	6432.5	6904.5	7202.5	7221.6	7564.1	8544.6	6747.2
65°	3242.9	3320.0	3923.9	5207.2	6691.6	7648.3	8057.5	8035.3	8245.1	9234.4	7012.6
67.5°	2824.1	2921.9	3439.9	4771.0	6819.5	8461.2	9020.6	8992.8	8917.3	9686.5	7088.9
70°	2289.3	2341.8	2820.9	4016.9	6308.6	8887.9	9781.1	9751.7	9333.7	9746.1	6728.1
71°	1969.9	2051.7	2456.2	3567.9	5883.4	8757.6	9878.8	9870.9	9334.5	9581.6	6456.4
72.5°	1537.6	1587.7	1945.3	2764.5	5000.6	8017.0	9637.3	9667.5	9131.9	9124.7	5896.1
75°	972.6	994.9	1220.6	1627.4	2743.9	5677.6	8226.8	8308.6	8108.4	7468.7	4384.8
77.5°	565.0	593.6	731.1	959.1	1185.6	3081.6	5886.6	5975.6	5633.9	4112.2	1795.1
80°	329.0	360.8	481.5	557.0	544.3	1143.5	2997.3	3149.1	2439.5	1038.6	503.8
82.5°	182.8	204.2	338.5	339.3	290.0	373.5	943.2	986.9	696.1	418.8	205.8
85°	132.7	150.2	218.5	197.9	139.1	160.5	328.2	344.1	281.3	176.4	66.7
87.5°	46.9	66.7	120.0	95.4	38.1	33.4	94.6	77.1	71.5	49.3	15.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7	2624.7
2.5°	2639.0	2640.6	2632.6	2618.3	2604.0	2585.7	2565.1	2549.2	2542.0	2541.2	2540.4
5°	2667.6	2671.5	2641.3	2596.8	2547.6	2487.2	2435.5	2376.7	2361.6	2337.8	2345.0
7.5°	2713.7	2711.3	2651.7	2557.1	2441.9	2314.0	2205.9	2143.1	2078.0	2059.7	2060.5
10°	2779.6	2764.5	2651.7	2476.1	2283.8	2093.8	1942.9	1847.5	1795.9	1753.0	1737.1
12.5°	2849.5	2811.4	2626.2	2362.4	2080.3	1847.5	1685.4	1556.7	1523.3	1488.3	1489.1
15°	2916.3	2852.7	2576.2	2202.7	1861.0	1584.5	1427.2	1350.1	1339.7	1343.7	1342.9
17.5°	2976.7	2882.1	2499.9	2024.7	1605.2	1358.8	1275.4	1280.9	1308.8	1328.6	1331.0
20°	3037.9	2899.6	2386.3	1786.3	1363.6	1222.1	1225.3	1269.0	1311.1	1338.2	1342.1
22.5°	3095.9	2907.5	2252.8	1555.9	1188.8	1164.1	1211.0	1257.9	1299.2	1325.4	1329.4
25°	3134.0	2889.3	2063.7	1315.1	1102.9	1143.5	1192.7	1232.5	1267.4	1294.5	1300.8
27.5°	3144.3	2830.5	1829.2	1120.4	1063.2	1123.6	1168.9	1198.3	1225.3	1250.7	1255.5
30°	3138.8	2743.9	1571.8	1006.0	1040.2	1100.6	1135.5	1157.0	1189.6	1209.4	1213.4
32.5°	3130.0	2642.9	1303.2	944.8	1021.1	1079.1	1099.8	1118.8	1118.0	1110.1	1115.7
35°	3133.2	2522.2	1085.5	908.3	1004.4	1063.2	1080.7	1056.9	988.5	985.3	982.2
37.5°	3149.9	2403.0	927.3	882.8	995.7	1060.8	1070.4	960.7	900.3	872.5	865.4
40°	3192.8	2263.9	823.2	863.8	994.9	1079.1	1023.5	912.2	796.2	742.2	738.2
42.5°	3250.0	2127.2	759.7	851.8	1004.4	1106.9	1004.4	843.9	717.6	685.8	681.0
45°	3335.1	1970.7	724.7	846.3	1018.7	1117.2	998.1	793.8	685.8	660.3	660.3
47.5°	3431.2	1821.3	705.6	842.3	1037.0	1110.1	941.6	777.9	670.7	673.8	688.9
50°	3526.6	1691.8	691.3	833.6	1052.9	1106.1	918.6	777.1	674.6	715.2	742.2
52.5°	3637.0	1600.4	673.8	819.3	1052.9	1080.7	911.4	793.0	685.8	697.7	709.6
55°	3770.5	1571.8	651.6	788.3	1033.8	1017.1	907.5	816.1	693.7	665.9	670.7
57.5°	3946.9	1617.9	630.1	749.3	990.1	951.2	905.9	822.4	675.4	652.4	647.6
60°	4151.9	1709.2	623.8	709.6	930.5	894.8	896.3	804.2	650.0	626.2	630.1
62.5°	4295.8	1764.1	619.8	679.4	865.4	832.8	873.3	781.9	638.9	618.2	622.2
65°	4295.8	1697.3	583.3	633.3	781.1	758.1	845.5	754.1	624.6	600.7	596.8
67.5°	4132.9	1502.6	527.6	564.2	688.1	673.1	806.5	720.7	603.1	584.8	575.3
70°	3708.5	1139.5	457.7	483.1	570.5	584.1	756.5	675.4	567.4	545.1	530.8
71°	3521.8	992.5	428.3	441.8	525.2	545.1	732.6	656.4	551.5	519.7	494.3
72.5°	3161.8	835.9	383.8	389.4	449.0	484.7	682.6	619.8	521.3	476.0	447.4
75°	2402.2	610.3	309.1	305.9	332.2	384.6	577.7	552.3	456.9	395.7	379.0
77.5°	1037.8	332.2	231.2	233.6	225.7	291.6	454.5	474.4	391.8	321.8	306.7
80°	314.7	191.5	158.1	161.3	151.0	195.5	320.2	371.9	314.7	250.3	229.6
82.5°	161.3	114.4	108.1	106.5	96.2	110.5	193.9	254.3	224.9	156.5	138.3
85°	69.9	61.2	53.2	51.7	45.3	39.7	69.1	127.1	119.2	87.4	83.4
87.5°	17.5	15.9	10.3	9.5	5.6	0.8	0.0	0.0	0.0	0.0	0.0
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)