

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: P451896

Luminaire Tested: **GALN-SA2D-740-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451896
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-SA2D-740-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15920 lumens
Efficiency: N/A
Efficacy: 127.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 125
Input Voltage (V): NR
Input Current (A_{in}): 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

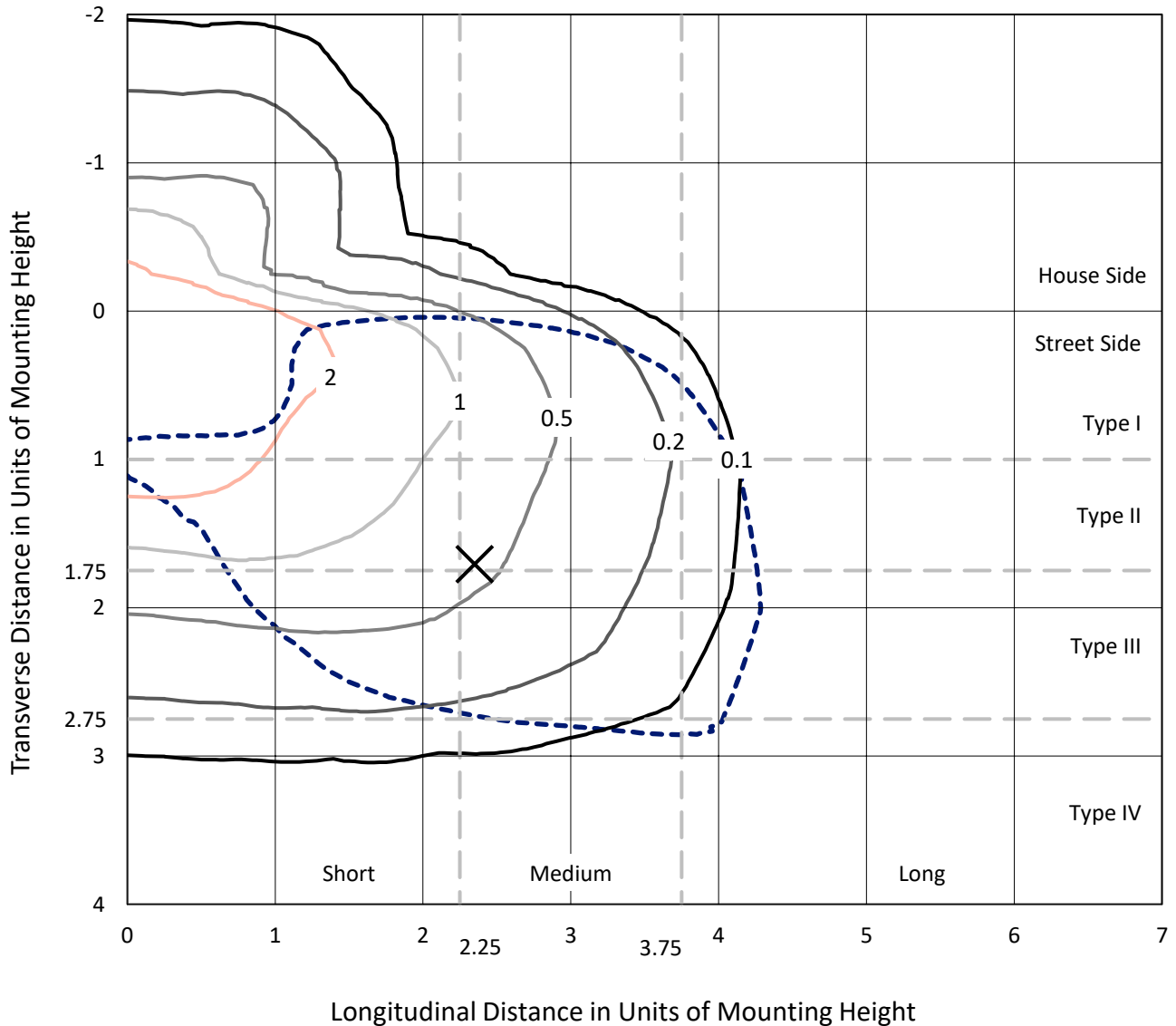




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Iso-Footcandle Lines of Horizontal Illumination

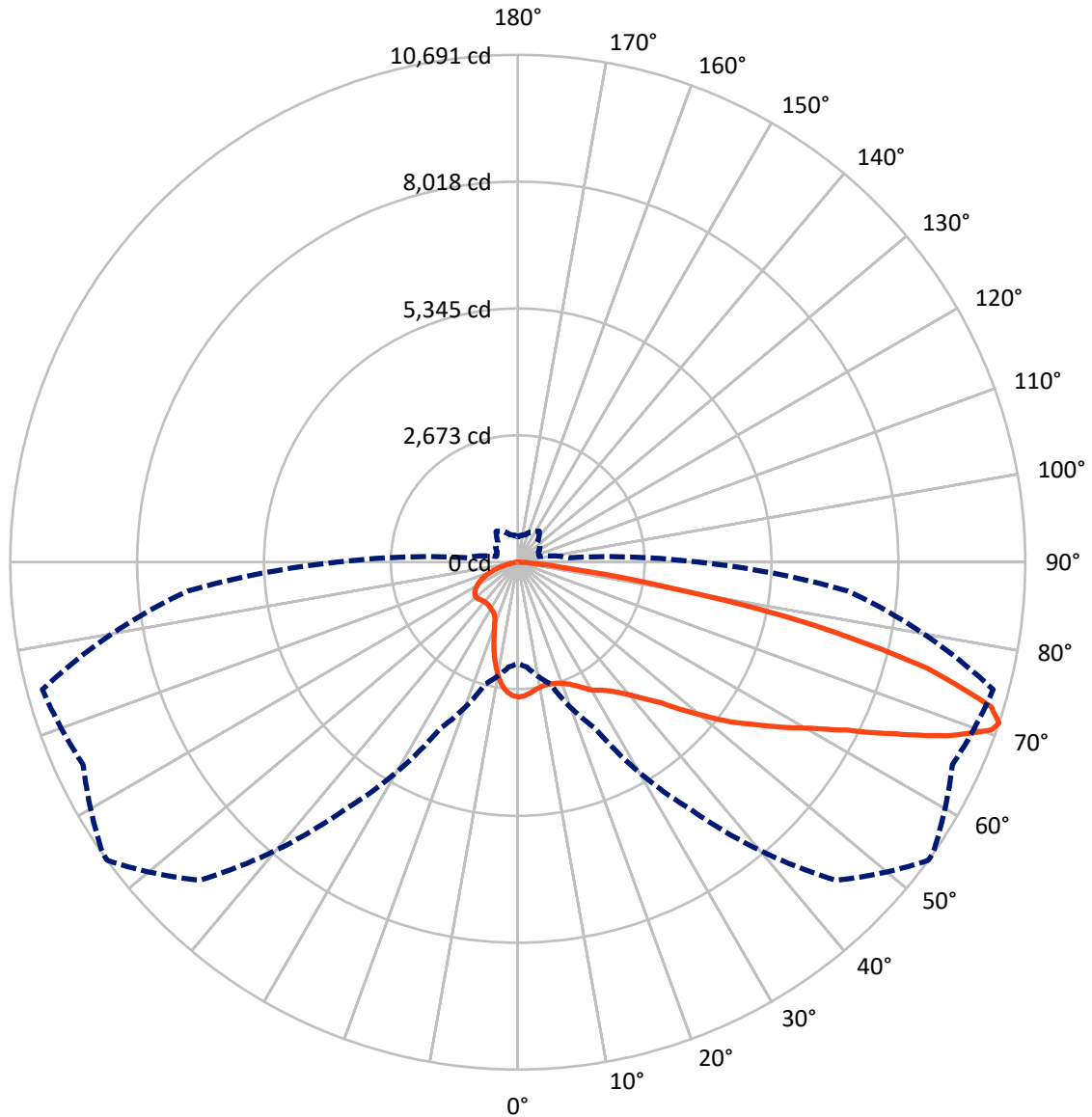
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2874.2	0.0	2874.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13045.8	0.0	13045.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	15920.0	0.0	15920.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.1	1.6
10°-20°	668.4	4.2
20°-30°	1112.8	7.0
30°-40°	1645.5	10.3
40°-50°	2317.8	14.6
50°-60°	3103.6	19.5
60°-70°	3911.9	24.6
70°-80°	2671.8	16.8
80°-90°	235.0	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°	15920.0	100.0
0°-180°	15920.0	100.0



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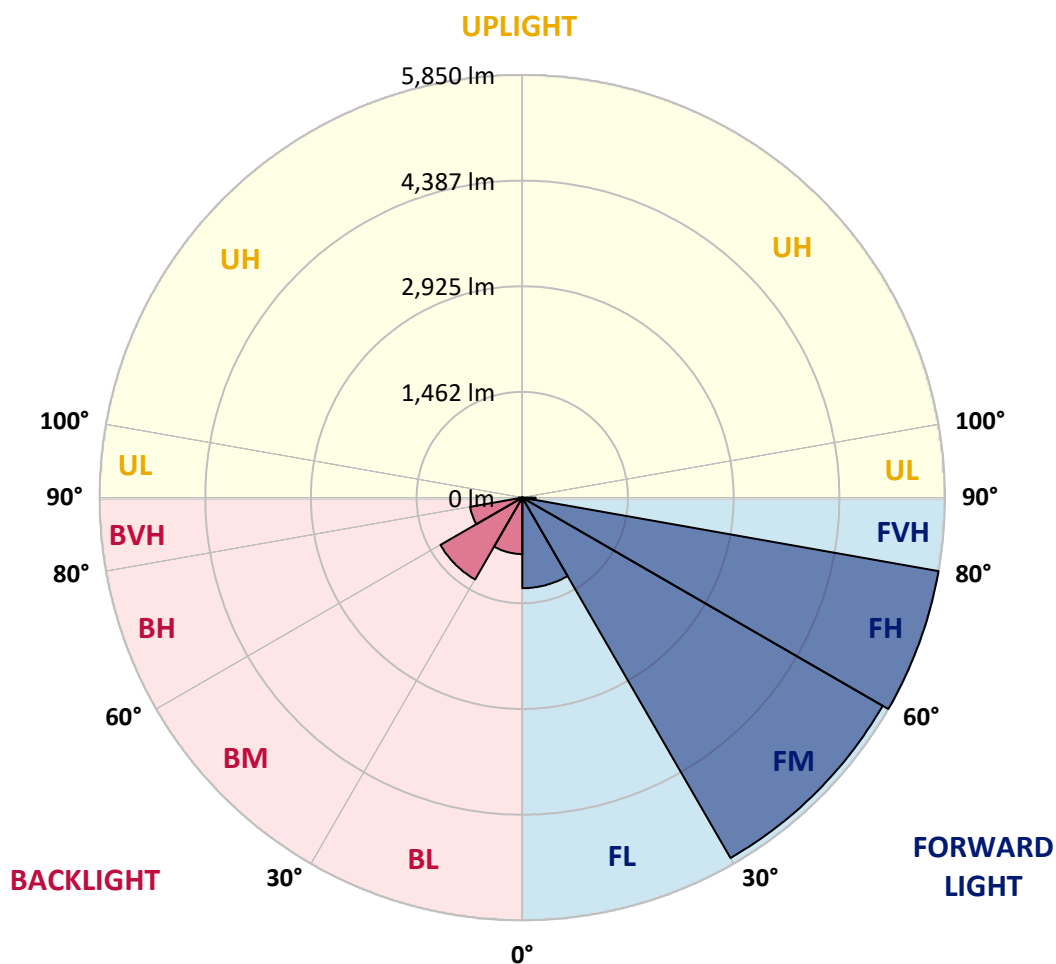
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1253.2	7.9			
FM	(30°-60°)	5759.3	36.2			
FH	(60°-80°)	5849.6	36.7			G3/7500
FVH	(80°-90°)	183.7	1.2			G2/225
BL	(0°-30°)	781.2	4.9	B2/1000		
BM	(30°-60°)	1307.7	8.2	B2/2500		
BH	(60°-80°)	734.1	4.6	B2/1000		G2/1000
BVH	(80°-90°)	51.3	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°	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4
2.5°	2744.1	2757.0	2760.4	2769.0	2787.0	2801.7	2816.3	2814.6	2835.2	2843.8	2851.5
5°	2621.9	2625.4	2638.3	2655.5	2687.3	2727.7	2767.3	2768.1	2818.9	2859.3	2879.1
7.5°	2532.5	2543.7	2552.3	2570.3	2603.9	2647.7	2710.5	2715.7	2806.0	2885.9	2928.1
10°	2474.0	2486.9	2496.4	2518.7	2552.3	2601.3	2669.2	2678.7	2796.5	2928.1	3002.0
12.5°	2420.7	2433.6	2442.2	2471.5	2515.3	2575.5	2652.0	2663.2	2799.9	2977.1	3082.9
15°	2453.4	2463.7	2460.3	2468.9	2498.1	2566.9	2658.9	2670.1	2812.8	3024.4	3162.8
17.5°	2598.7	2607.3	2578.9	2546.3	2532.5	2583.2	2680.4	2692.5	2838.6	3073.4	3244.5
20°	2812.8	2836.1	2774.1	2701.1	2634.8	2641.7	2725.1	2738.0	2874.8	3122.4	3327.9
22.5°	3091.5	3108.7	3033.0	2912.6	2790.5	2727.7	2792.2	2799.9	2928.9	3186.1	3419.1
25°	3419.1	3429.4	3324.5	3169.7	2993.4	2874.8	2884.2	2898.0	3018.4	3258.3	3499.9
27.5°	3737.3	3770.0	3648.7	3459.5	3227.3	3029.5	3010.6	3019.2	3115.5	3298.7	3555.8
30°	4114.8	4112.2	3984.1	3764.8	3467.3	3198.1	3130.2	3128.4	3168.0	3318.5	3596.2
32.5°	4415.8	4451.0	4325.5	4086.4	3741.6	3372.7	3212.7	3209.3	3208.4	3352.9	3656.4
35°	4758.0	4763.2	4647.9	4407.2	4038.3	3591.9	3327.9	3310.7	3291.0	3426.8	3738.1
37.5°	5064.2	5088.2	4982.5	4712.4	4329.8	3819.8	3486.2	3475.0	3414.8	3555.0	3868.8
40°	5303.2	5321.3	5257.6	5000.5	4617.0	4065.8	3687.4	3666.8	3593.7	3764.8	4043.4
42.5°	5381.5	5418.4	5443.4	5317.0	4947.2	4357.3	3935.1	3909.3	3853.4	4083.0	4244.6
45°	5387.5	5446.0	5577.5	5583.6	5279.1	4706.4	4224.0	4205.9	4201.6	4490.6	4527.6
47.5°	5341.9	5401.2	5622.3	5741.8	5575.0	5059.0	4641.1	4612.7	4615.3	4994.5	4844.9
50°	5231.8	5302.4	5570.7	5843.3	5806.3	5425.3	5081.4	5071.9	5125.2	5569.8	5174.2
52.5°	5024.6	5109.7	5517.3	5906.9	5978.3	5740.9	5581.8	5555.2	5690.2	6194.1	5534.5
55°	4451.0	4579.2	5322.1	5942.1	6141.7	6042.8	6032.4	6080.6	6259.5	6875.2	5931.0
57.5°	4151.8	4248.1	4898.2	5948.2	6348.0	6393.6	6558.7	6570.8	6883.8	7598.4	6379.0
60°	3988.4	4073.5	4666.0	5908.6	6636.1	6827.9	7097.0	7140.0	7493.5	8381.8	6843.4
62.5°	3845.6	3918.7	4526.7	5771.9	6961.2	7472.0	7794.4	7815.1	8185.7	9246.9	7301.7
65°	3509.4	3592.8	4246.4	5635.2	7241.5	8276.9	8719.7	8695.7	8922.7	9993.3	7588.9
67.5°	3056.2	3162.0	3722.7	5163.0	7380.0	9156.6	9762.0	9731.9	9650.2	10482.6	7671.5
70°	2477.5	2534.2	3052.8	4347.0	6827.0	9618.4	10584.9	10553.1	10100.8	10547.1	7281.1
71°	2131.8	2220.4	2658.1	3861.1	6367.0	9477.3	10690.7	10682.1	10101.7	10369.1	6987.0
72.5°	1664.0	1718.1	2105.1	2991.7	5411.6	8675.9	10429.3	10462.0	9882.4	9874.6	6380.7
75°	1052.6	1076.6	1320.9	1761.1	2969.4	6144.2	8902.9	8991.5	8774.8	8082.5	4745.1
77.5°	611.4	642.4	791.1	1037.9	1283.0	3334.8	6370.4	6466.7	6096.9	4450.2	1942.6
80°	356.0	390.4	521.1	602.8	589.1	1237.4	3243.7	3407.9	2640.0	1123.9	545.2
82.5°	197.8	221.0	366.3	367.2	313.9	404.2	1020.7	1068.0	753.3	453.2	222.7
85°	143.6	162.5	236.5	214.1	150.5	173.7	355.2	372.4	304.4	190.9	72.2
87.5°	50.7	72.2	129.9	103.2	41.3	36.1	102.3	83.4	77.4	53.3	16.3
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4	2840.4
2.5°	2855.8	2857.6	2849.0	2833.5	2818.0	2798.2	2775.9	2758.7	2750.9	2750.1	2749.2
5°	2886.8	2891.1	2858.4	2810.3	2757.0	2691.6	2635.7	2572.1	2555.7	2529.9	2537.7
7.5°	2936.7	2934.1	2869.6	2767.3	2642.6	2504.1	2387.2	2319.2	2248.7	2229.0	2229.8
10°	3008.1	2991.7	2869.6	2679.6	2471.5	2265.9	2102.5	1999.3	1943.5	1897.0	1879.8
12.5°	3083.7	3042.4	2842.1	2556.6	2251.3	1999.3	1823.9	1684.6	1648.5	1610.7	1611.5
15°	3156.0	3087.2	2787.9	2383.7	2014.0	1714.7	1544.4	1461.0	1449.8	1454.1	1453.3
17.5°	3221.3	3119.0	2705.4	2191.1	1737.1	1470.5	1380.2	1386.2	1416.3	1437.8	1440.4
20°	3287.5	3137.9	2582.4	1933.1	1475.6	1322.6	1326.0	1373.3	1418.9	1448.1	1452.4
22.5°	3350.3	3146.5	2437.9	1683.8	1286.5	1259.8	1310.5	1361.3	1406.0	1434.4	1438.7
25°	3391.6	3126.7	2233.2	1423.2	1193.6	1237.4	1290.8	1333.8	1371.6	1400.8	1407.7
27.5°	3402.8	3063.1	1979.6	1212.5	1150.6	1215.9	1265.0	1296.8	1326.0	1353.5	1358.7
30°	3396.7	2969.4	1701.0	1088.7	1125.7	1191.0	1228.8	1252.1	1287.3	1308.8	1313.1
32.5°	3387.3	2860.1	1410.3	1022.5	1105.0	1167.8	1190.1	1210.8	1209.9	1201.3	1207.3
35°	3390.7	2729.4	1174.7	982.9	1087.0	1150.6	1169.5	1143.7	1069.8	1066.3	1062.9
37.5°	3408.8	2600.4	1003.5	955.4	1077.5	1148.0	1158.3	1039.7	974.3	944.2	936.5
40°	3455.2	2450.0	890.9	934.7	1076.6	1167.8	1107.6	987.2	861.7	803.2	798.9
42.5°	3517.1	2302.0	822.1	921.8	1087.0	1197.9	1087.0	913.3	776.5	742.1	737.0
45°	3609.1	2132.6	784.3	915.8	1102.4	1209.1	1080.1	859.1	742.1	714.6	714.6
47.5°	3713.2	1971.0	763.6	911.5	1122.2	1201.3	1019.0	841.9	725.8	729.2	745.6
50°	3816.4	1830.8	748.1	902.1	1139.4	1197.0	994.1	841.0	730.1	773.9	803.2
52.5°	3935.9	1731.9	729.2	886.6	1139.4	1169.5	986.3	858.2	742.1	755.0	767.9
55°	4080.4	1701.0	705.1	853.1	1118.8	1100.7	982.0	883.2	750.7	720.6	725.8
57.5°	4271.3	1750.8	681.9	810.9	1071.5	1029.3	980.3	890.0	730.9	706.0	700.8
60°	4493.2	1849.7	675.0	767.9	1007.0	968.3	970.0	870.3	703.4	677.6	681.9
62.5°	4648.8	1909.1	670.7	735.2	936.5	901.2	945.1	846.2	691.4	669.0	673.3
65°	4648.8	1836.8	631.2	685.4	845.3	820.4	915.0	816.1	675.9	650.1	645.8
67.5°	4472.5	1626.1	571.0	610.6	744.7	728.4	872.8	780.0	652.7	632.9	622.6
70°	4013.3	1233.1	495.3	522.8	617.4	632.1	818.7	730.9	614.0	589.9	574.4
71°	3811.2	1074.1	463.5	478.1	568.4	589.9	792.9	710.3	596.8	562.4	534.9
72.5°	3421.7	904.7	415.3	421.4	485.9	524.6	738.7	670.7	564.1	515.1	484.1
75°	2599.6	660.4	334.5	331.1	359.5	416.2	625.2	597.7	494.5	428.2	410.2
77.5°	1123.1	359.5	250.2	252.8	244.2	315.6	491.9	513.4	423.9	348.3	331.9
80°	340.5	207.2	171.1	174.6	163.4	211.5	346.6	402.4	340.5	270.9	248.5
82.5°	174.6	123.8	117.0	115.2	104.1	119.5	209.8	275.2	243.4	169.4	149.6
85°	75.7	66.2	57.6	55.9	49.0	43.0	74.8	137.6	129.0	94.6	90.3
87.5°	18.9	17.2	11.2	10.3	6.0	0.9	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)