

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: P454618

Luminaire Tested: **GALN-SA5D-727-U-T2R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454618  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA5D-727-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33019 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G4

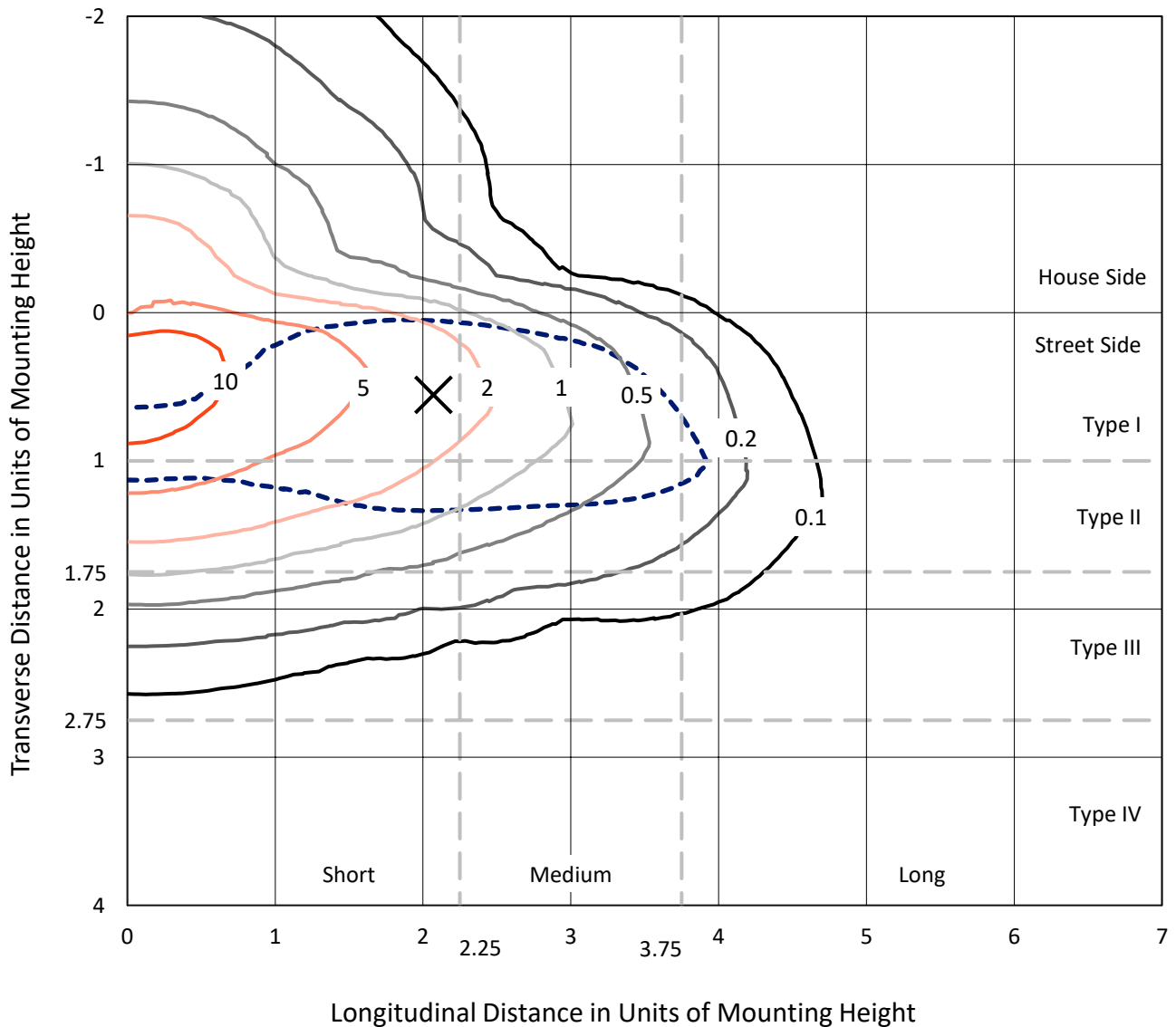
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

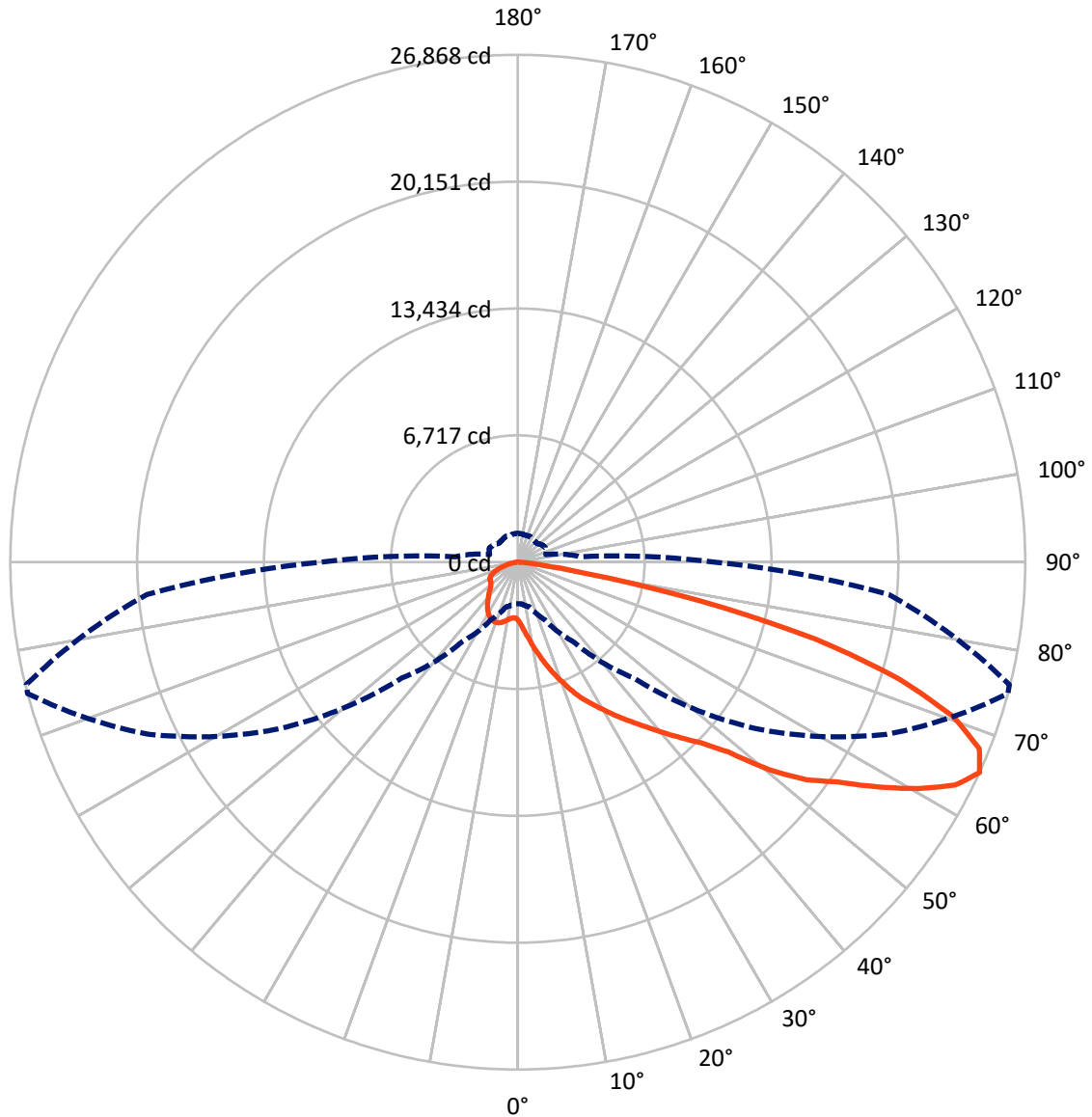
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5550.9	0.0	5550.9
	% Fixture	16.8	0.0	16.8
<b>Street Side</b>	Lumens	27468.1	0.0	27468.1
	% Fixture	83.2	0.0	83.2
<b>Total</b>	Lumens	33019.0	0.0	33019.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	372.7	1.1
10°-20°	1460.0	4.4
20°-30°	2820.2	8.5
30°-40°	4580.8	13.9
40°-50°	6301.3	19.1
50°-60°	7439.7	22.5
60°-70°	6518.4	19.7
70°-80°	3111.9	9.4
80°-90°	414.1	1.3
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°	33019.0	100.0
0°-180°	33019.0	100.0

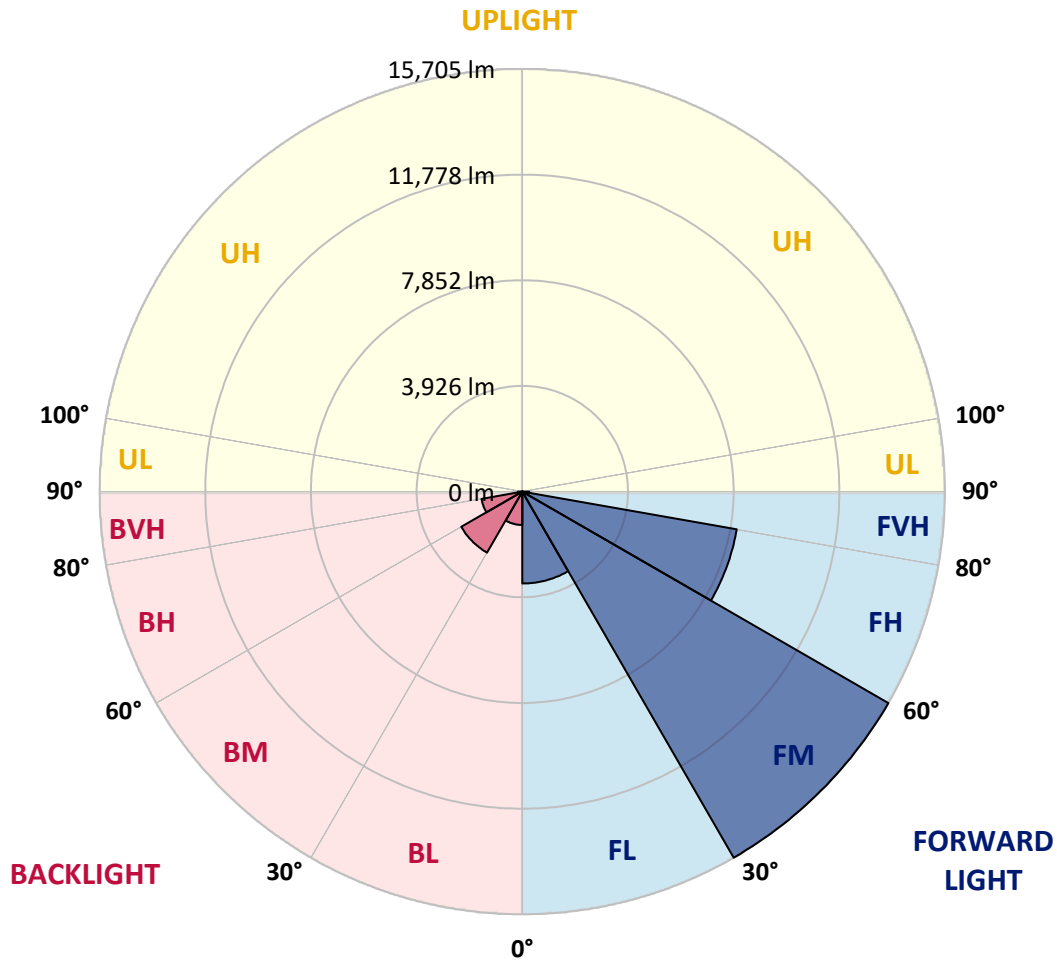


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3413.6	10.3			
FM	(30°-60°)	15704.5	47.6			
FH	(60°-80°)	8091.1	24.5			G4/12000
FVH	(80°-90°)	258.8	0.8			G3/500
BL	(0°-30°)	1239.2	3.8	B3/2500		
BM	(30°-60°)	2617.2	7.9	B3/5000		
BH	(60°-80°)	1539.2	4.7	B3/2500		G3/2500
BVH	(80°-90°)	155.3	0.5			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9
2.5°	4076.2	4049.3	4020.7	3941.9	3857.7	3762.8	3626.7	3495.9	3322.2	3316.8	3187.9
5°	5206.3	5188.4	5061.2	4987.8	4792.6	4532.9	4312.6	3970.5	3653.5	3615.9	3365.2
7.5°	6245.0	6175.2	6126.8	5994.3	5800.9	5467.7	5041.5	4579.4	4049.3	3999.2	3583.7
10°	7027.7	7020.5	6995.4	6880.8	6735.7	6404.4	5931.6	5268.9	4550.8	4452.3	3848.7
12.5°	7613.3	7618.7	7615.1	7613.3	7509.4	7228.2	6716.0	6017.6	5057.6	4987.8	4155.0
15°	7998.3	8052.1	8073.6	8163.1	8172.1	7984.0	7543.4	6741.1	5628.9	5525.1	4484.5
17.5°	8252.7	8279.5	8379.8	8532.0	8655.6	8621.6	8229.4	7410.9	6212.8	6039.1	4826.6
20°	8496.2	8542.8	8619.8	8827.5	9046.0	9146.3	8870.5	8096.8	6791.2	6680.2	5204.5
22.5°	9003.1	9069.3	9096.2	9201.9	9388.1	9565.4	9440.1	8754.1	7425.2	7274.8	5605.6
25°	9860.9	9930.8	9855.5	9830.5	9891.4	9979.1	9952.3	9373.8	8023.4	7808.5	5985.3
27.5°	10978.5	10987.4	10840.6	10700.9	10550.4	10505.7	10423.3	9923.6	8542.8	8363.7	6366.8
30°	12178.4	12135.4	11891.8	11639.3	11385.0	11134.3	10897.9	10453.7	9121.3	8915.3	6741.1
32.5°	13292.4	13269.1	12998.7	12606.4	12176.6	11940.2	11462.0	10989.2	9740.9	9542.1	7126.2
35°	14126.9	14161.0	13863.7	13435.6	12966.4	12756.9	12153.3	11551.6	10382.1	10165.4	7545.2
37.5°	14719.7	14701.8	14438.6	14067.8	13655.9	13473.3	12961.0	12165.9	11071.6	10863.8	8003.7
40°	14931.1	14920.3	14725.1	14454.7	14193.2	14128.7	13806.4	12828.5	11861.4	11617.8	8555.3
42.5°	14796.8	14820.0	14691.1	14617.7	14569.3	14615.9	14646.3	13697.1	12722.8	12499.0	9153.5
45°	14384.8	14372.3	14354.4	14474.4	14746.6	15052.9	15477.3	14517.4	13659.5	13480.4	9955.8
47.5°	13648.8	13738.3	13783.1	14114.4	14709.0	15434.3	16433.7	15617.0	15018.8	14863.0	11179.1
50°	12619.0	12690.6	12955.7	13544.9	14431.4	15577.6	17368.5	17415.1	17286.2	16994.2	12507.9
52.5°	11010.7	11121.7	11668.0	12747.9	13861.9	15518.5	17934.5	18957.1	19127.3	18908.8	13817.1
55°	9210.8	9366.6	9943.3	11359.9	13077.5	15196.1	18324.9	19850.8	20529.6	20327.2	15077.9
57.5°	7448.5	7613.3	8206.1	9578.0	11709.2	14483.3	18581.0	20846.6	22438.7	22175.4	16646.8
60°	5582.4	5754.3	6262.9	7676.0	9760.6	13090.0	18407.3	21709.8	24346.1	24233.2	18217.5
62.5°	3601.6	3791.4	4233.8	5403.3	7502.3	11186.2	17477.8	22186.2	25997.3	25861.2	19363.7
65°	2193.9	2215.4	2459.0	3354.4	5134.6	8661.0	15351.9	21554.0	26867.7	26826.5	19712.9
67.5°	1418.4	1452.5	1563.5	2009.4	3078.6	6015.8	12275.1	19467.5	26359.1	26344.7	18991.1
70°	1198.1	1208.9	1259.0	1355.7	1789.2	3648.1	8619.8	16141.8	24426.6	24426.6	17255.7
72.5°	1071.0	1085.3	1103.2	1133.7	1276.9	2066.7	5143.6	12565.2	21090.1	21229.8	14687.5
75°	972.5	968.9	979.6	985.0	1088.9	1350.4	2659.5	9293.2	16315.5	16036.1	10636.4
77.5°	832.8	838.2	832.8	856.1	961.7	1028.0	1350.4	6236.1	9887.8	9526.0	5338.8
80°	684.1	693.1	702.0	716.4	822.0	780.9	811.3	2842.2	3657.1	3580.1	1649.5
82.5°	514.0	526.5	540.9	574.9	646.5	515.8	512.2	1214.3	1319.9	1208.9	607.1
85°	207.7	245.4	370.7	404.8	406.5	283.0	315.2	506.8	539.1	526.5	238.2
87.5°	48.4	57.3	120.0	180.9	166.6	105.7	116.4	164.8	188.0	173.7	80.6
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°	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9	3067.9
2.5°	3128.8	3066.1	2958.6	2876.3	2817.2	2765.2	2733.0	2713.3	2706.1	2704.3	2706.1
5°	3234.4	3123.4	2953.3	2845.8	2786.7	2752.7	2733.0	2731.2	2733.0	2734.8	2729.4
7.5°	3379.5	3220.1	2998.0	2897.7	2853.0	2827.9	2818.9	2815.4	2817.2	2815.4	2815.4
10°	3572.9	3354.4	3085.8	2981.9	2944.3	2915.7	2901.3	2892.4	2885.2	2878.0	2874.5
12.5°	3786.0	3503.1	3180.7	3080.4	3026.7	2981.9	2949.7	2926.4	2910.3	2894.2	2890.6
15°	4024.2	3660.7	3286.4	3146.7	3069.7	3003.4	2947.9	2910.3	2881.6	2858.3	2856.6
17.5°	4251.7	3809.3	3358.0	3177.1	3064.3	2971.2	2897.7	2845.8	2810.0	2779.5	2776.0
20°	4495.3	3950.8	3390.3	3157.4	3010.6	2897.7	2801.0	2738.3	2697.2	2663.1	2657.8
22.5°	4740.6	4070.8	3386.7	3094.7	2917.4	2784.9	2682.8	2616.6	2568.2	2534.2	2521.6
25°	4975.2	4167.5	3341.9	2994.5	2788.5	2650.6	2546.7	2485.8	2442.8	2401.7	2401.7
27.5°	5186.6	4224.8	3257.7	2872.7	2656.0	2510.9	2428.5	2373.0	2333.6	2306.7	2290.6
30°	5394.3	4251.7	3143.1	2718.6	2516.3	2392.7	2326.4	2294.2	2258.4	2227.9	2224.3
32.5°	5580.6	4246.3	2999.8	2568.2	2383.7	2296.0	2269.1	2244.0	2206.4	2163.5	2152.7
35°	5761.5	4210.5	2829.7	2403.4	2272.7	2238.7	2245.8	2210.0	2142.0	2088.2	2079.3
37.5°	5958.5	4146.0	2643.4	2269.1	2179.6	2211.8	2229.7	2150.9	2039.9	1955.7	1936.0
40°	6185.9	4072.6	2450.0	2134.8	2106.1	2186.7	2186.7	2041.7	1889.4	1837.5	1823.2
42.5°	6452.8	4011.7	2288.8	2022.0	2045.3	2125.8	2116.9	1896.6	1833.9	1807.1	1799.9
45°	6875.4	3990.2	2122.3	1923.5	1995.1	2054.2	1980.8	1846.5	1810.6	1789.2	1782.0
47.5°	7543.4	4015.3	1975.4	1850.0	1937.8	1982.6	1828.6	1812.4	1787.4	1756.9	1753.3
50°	8163.1	3992.0	1871.5	1808.9	1887.7	1896.6	1765.9	1771.2	1756.9	1722.9	1715.7
52.5°	8669.9	3918.6	1805.3	1787.4	1844.7	1746.2	1706.8	1726.5	1721.1	1678.1	1670.9
55°	9226.9	3873.8	1773.0	1787.4	1816.0	1615.4	1651.2	1679.9	1672.7	1642.3	1640.5
57.5°	9902.1	3882.8	1749.7	1792.7	1787.4	1549.2	1595.7	1629.8	1628.0	1619.0	1619.0
60°	10593.4	3886.3	1713.9	1790.9	1753.3	1497.2	1538.4	1586.8	1590.4	1595.7	1595.7
62.5°	10822.7	3730.5	1644.1	1758.7	1678.1	1447.1	1484.7	1551.0	1547.4	1561.7	1563.5
65°	10394.6	3298.9	1540.2	1685.3	1581.4	1411.3	1443.5	1504.4	1484.7	1522.3	1529.5
67.5°	9461.5	2729.4	1379.0	1552.7	1473.9	1373.7	1416.6	1439.9	1404.1	1477.5	1479.3
70°	8177.4	2131.2	1174.9	1364.7	1352.2	1334.3	1395.1	1359.3	1309.2	1398.7	1380.8
72.5°	6837.8	1628.0	938.5	1115.8	1189.2	1275.2	1357.5	1255.4	1185.6	1212.5	1180.2
75°	5136.4	1203.5	754.0	874.0	990.4	1191.0	1323.5	1130.1	1022.6	997.6	990.4
77.5°	2618.4	786.2	564.1	653.7	743.2	1076.4	1276.9	983.2	847.1	807.7	789.8
80°	934.9	488.9	397.6	451.3	501.5	925.9	1115.8	813.1	657.3	650.1	657.3
82.5°	433.4	315.2	266.9	295.5	297.3	617.9	850.7	607.1	499.7	759.4	641.2
85°	186.3	157.6	150.4	146.9	136.1	275.8	478.2	326.0	508.6	227.4	209.5
87.5°	55.5	62.7	55.5	41.2	30.4	30.4	48.4	17.9	12.5	9.0	9.0
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)