

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: P454602

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

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454602  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)  
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-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32716 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

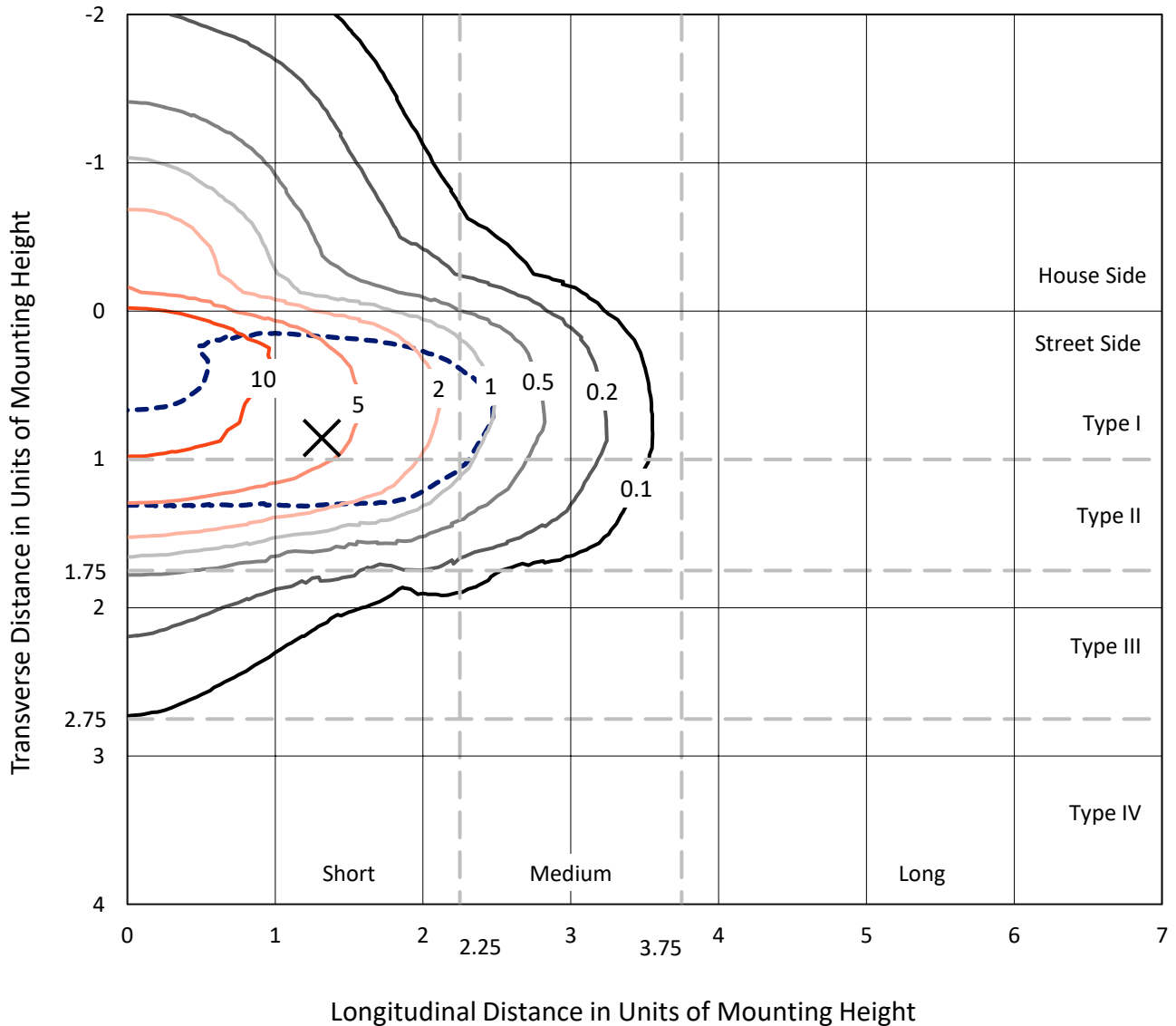
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

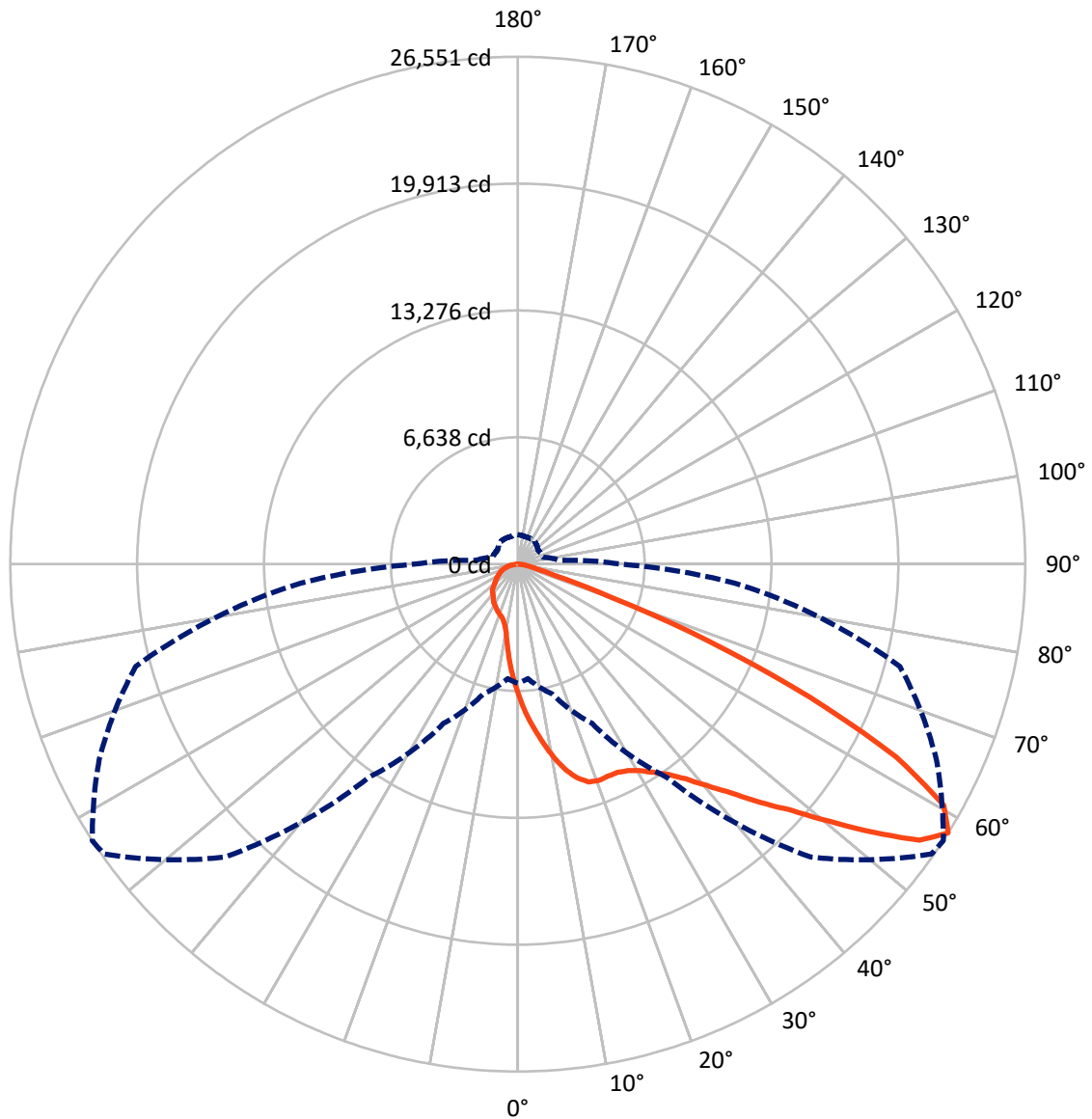
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4975.2	0.0	4975.2
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	27740.8	0.0	27740.8
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	32716.0	0.0	32716.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	660.6	2.0
10°-20°	1946.8	6.0
20°-30°	3232.7	9.9
30°-40°	4869.3	14.9
40°-50°	7310.9	22.3
50°-60°	8194.6	25.0
60°-70°	4795.9	14.7
70°-80°	1418.6	4.3
80°-90°	286.7	0.9
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°	32716.0	100.0
0°-180°	32716.0	100.0

**Coefficient of Utilization**



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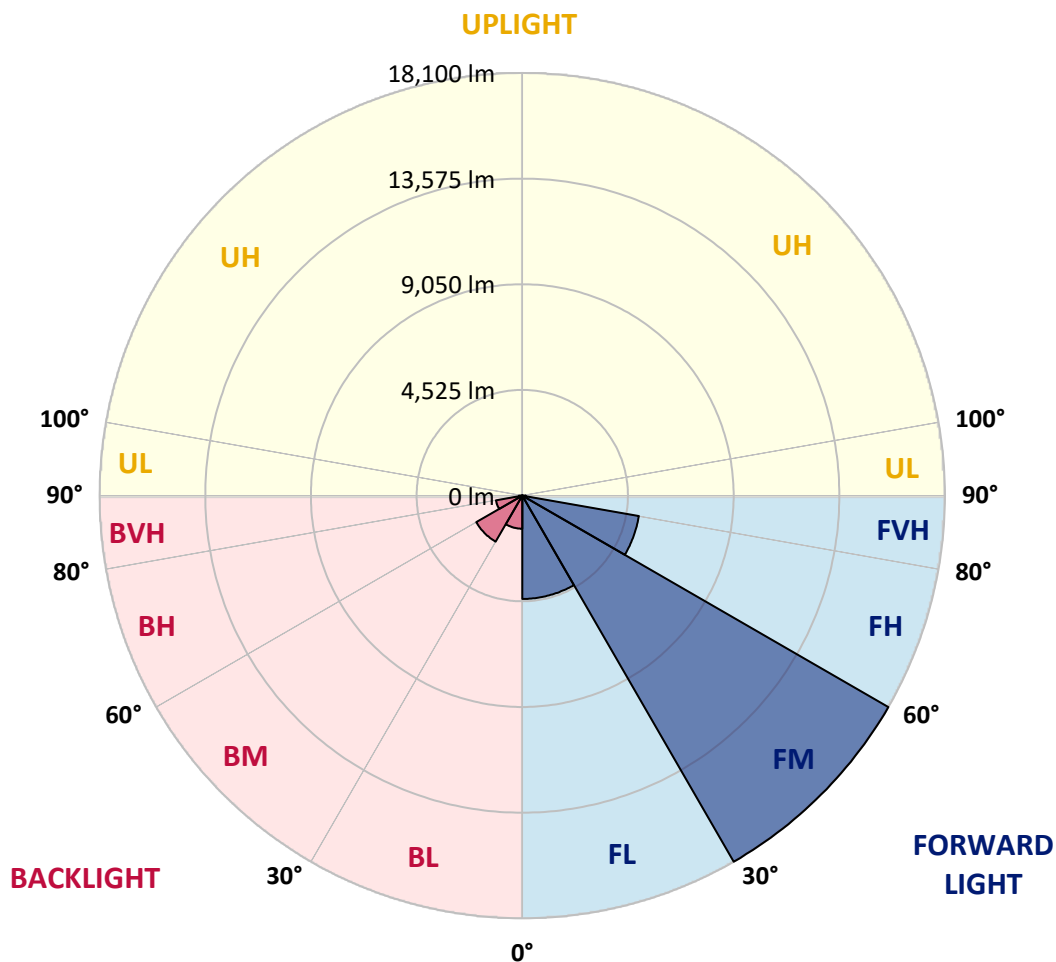
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4422.4	13.5			
FM	(30°-60°)	18099.9	55.3			
FH	(60°-80°)	5069.7	15.5			G3/7500
FVH	(80°-90°)	148.8	0.5			G2/225
BL	(0°-30°)	1417.6	4.3	B3/2500		
BM	(30°-60°)	2274.9	7.0	B2/2500		
BH	(60°-80°)	1144.8	3.5	B3/2500		G3/2500
BVH	(80°-90°)	138.0	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3
2.5°	8540.5	8447.4	8374.0	8309.5	8225.3	7997.9	7770.5	7766.9	7586.0	7306.6	7020.1
5°	9932.0	9806.7	9822.8	9622.2	9421.6	9092.1	8610.4	8585.3	8200.3	7677.3	7145.5
7.5°	10838.2	10840.0	10789.8	10675.2	10458.5	10084.2	9538.0	9414.5	8879.0	8085.7	7288.7
10°	10791.6	10840.0	10924.1	11022.6	11088.9	10904.4	10406.6	10256.2	9559.5	8579.9	7448.1
12.5°	10172.0	10247.2	10367.2	10614.3	11013.7	11318.1	11148.0	11026.2	10347.5	9072.4	7623.6
15°	9785.2	9829.9	9896.2	10062.7	10492.6	11221.4	11662.0	11597.5	11090.7	9629.4	7820.6
17.5°	9667.0	9711.7	9733.2	9835.3	10141.5	10888.3	11864.3	11979.0	11749.7	10141.5	8019.4
20°	9785.2	9806.7	9806.7	9867.5	10107.5	10693.1	11855.4	12086.4	12290.6	10755.8	8205.6
22.5°	10095.0	10103.9	10091.4	10112.9	10292.0	10746.9	11771.2	12057.7	12727.5	11276.9	8350.7
25°	10598.2	10612.5	10530.2	10480.0	10610.7	10983.2	11817.8	12081.0	13069.6	11774.8	8447.4
27.5°	11169.5	11187.4	11087.1	10970.7	11031.6	11275.2	12000.4	12236.8	13325.7	12265.5	8508.3
30°	11869.7	11876.9	11708.5	11568.8	11529.5	11710.3	12312.0	12532.3	13644.4	12843.9	8599.6
32.5°	12586.0	12639.8	12423.1	12226.1	12159.8	12215.3	12772.3	12985.4	14024.1	13465.4	8746.5
35°	13560.3	13569.2	13309.5	13069.6	12851.1	12922.7	13361.5	13515.5	14548.8	14183.5	8954.2
37.5°	14776.2	14858.6	14500.5	14052.7	13784.1	13680.3	14074.2	14242.6	15284.8	15064.6	9267.6
40°	16126.5	16157.0	15850.8	15571.4	15080.7	14779.8	15052.0	15234.7	16192.8	16115.8	9631.2
42.5°	16975.4	17041.7	17064.9	17036.3	16667.4	16162.4	16266.2	16352.2	17267.3	17102.6	10003.7
45°	17261.9	17360.4	17693.5	18399.1	18438.5	17940.7	17698.9	17781.3	18438.5	18098.3	10360.0
47.5°	16787.4	16955.7	17570.0	19017.0	20100.4	20138.0	19409.2	19228.3	19505.9	18923.8	10617.9
50°	15560.6	15596.5	16536.6	18631.9	20879.4	22238.7	21484.7	21148.1	20519.5	19534.5	10795.2
52.5°	13662.3	13703.5	14491.5	16842.9	20399.5	23707.2	23913.1	23311.4	21549.2	20009.1	10911.6
55°	10141.5	10379.7	11246.5	13519.1	18125.1	23569.3	25843.7	25501.6	22793.9	20385.2	11094.3
57.5°	6235.7	6017.2	7045.2	9197.8	13631.9	21674.6	26440.0	26551.0	24163.9	20700.4	11400.5
60°	2868.9	2911.9	3336.3	4743.9	8309.5	16955.7	24903.5	25605.5	24921.4	20689.6	11477.5
62.5°	1977.1	1937.7	1830.2	2082.8	3789.4	10723.6	21035.2	22224.4	23402.7	20046.7	11171.3
65°	1767.6	1728.2	1520.4	1450.6	1740.7	4674.1	15292.0	16792.7	19704.7	18424.2	10408.4
67.5°	1651.2	1597.4	1382.5	1246.4	1242.8	1860.7	9016.9	10823.9	14615.1	15576.8	9018.7
70°	1529.4	1486.4	1273.3	1122.9	1058.4	1169.4	3963.1	5188.1	9489.7	11225.0	7025.5
72.5°	1407.6	1357.5	1165.8	1004.7	920.5	875.7	1518.6	1975.3	5361.8	6730.0	4307.0
75°	1230.3	1205.2	1042.3	909.7	818.4	707.4	963.5	1099.6	2564.5	3091.0	2161.5
77.5°	1076.3	1049.4	925.9	795.1	728.9	574.9	684.1	746.8	1081.7	1253.6	976.0
80°	788.0	814.8	780.8	702.0	650.1	451.3	460.2	512.2	642.9	711.0	596.4
82.5°	499.6	549.8	601.7	540.8	492.5	356.4	318.8	338.5	438.8	465.6	265.0
85°	209.5	213.1	349.2	329.5	281.2	211.3	191.6	202.4	234.6	245.3	123.6
87.5°	80.6	78.8	123.6	114.6	87.8	60.9	60.9	68.1	93.1	86.0	39.4
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°	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3	6873.3
2.5°	6896.5	6769.4	6516.9	6203.5	5974.3	5716.4	5488.9	5326.0	5265.1	5236.4	5182.7
5°	6891.2	6640.4	6117.5	5569.5	5129.0	4677.7	4296.2	4049.1	4027.6	3862.8	3846.7
7.5°	6893.0	6509.7	5677.0	4871.1	4199.5	3737.5	3422.3	3339.9	3241.4	3216.4	3228.9
10°	6898.3	6343.2	5204.2	4179.8	3529.8	3227.1	3108.9	3076.7	3080.3	3091.0	3092.8
12.5°	6905.5	6182.0	4713.5	3655.1	3153.7	3028.3	3015.8	3044.4	3074.9	3098.2	3103.5
15°	6914.4	5997.5	4235.3	3232.5	2965.6	2954.9	2996.1	3044.4	3087.4	3121.4	3126.8
17.5°	6903.7	5782.6	3834.2	2972.8	2861.8	2913.7	2981.8	3042.6	3082.0	3114.3	3117.9
20°	6878.6	5542.7	3447.4	2790.1	2797.3	2881.5	2954.9	3012.2	3055.2	3071.3	3083.8
22.5°	6781.9	5256.1	3110.7	2648.7	2720.3	2836.7	2924.4	2958.5	2910.1	2876.1	2885.0
25°	6617.2	4883.6	2797.3	2534.0	2650.4	2774.0	2863.6	2781.2	2741.8	2727.5	2734.6
27.5°	6411.2	4475.3	2560.9	2414.1	2560.9	2704.2	2679.1	2664.8	2646.9	2623.6	2629.0
30°	6189.2	4076.0	2360.3	2320.9	2464.2	2546.6	2557.3	2580.6	2560.9	2525.1	2539.4
32.5°	5983.2	3699.9	2208.1	2242.1	2396.1	2383.6	2464.2	2491.1	2399.7	2279.7	2285.1
35°	5807.7	3350.7	2093.5	2165.1	2279.7	2285.1	2365.7	2272.6	2174.1	2116.8	2120.4
37.5°	5675.2	3078.5	2018.3	2098.9	2131.1	2199.2	2156.2	2107.8	2095.3	2055.9	2057.7
40°	5596.4	2840.3	1969.9	2046.9	2041.6	2088.1	1950.2	1998.6	2016.5	2004.0	2005.7
42.5°	5517.6	2671.9	1919.8	1975.3	1973.5	1882.2	1851.7	1892.9	1939.5	1944.9	1941.3
45°	5454.9	2541.2	1867.8	1866.1	1901.9	1758.6	1749.7	1774.7	1841.0	1873.2	1871.4
47.5°	5385.1	2432.0	1789.1	1738.9	1749.7	1681.6	1667.3	1678.0	1758.6	1810.5	1824.9
50°	5297.3	2322.7	1690.6	1622.5	1577.7	1610.0	1613.5	1615.3	1695.9	1755.0	1767.6
52.5°	5227.5	2240.3	1577.7	1527.6	1473.9	1545.5	1572.4	1575.9	1624.3	1672.6	1681.6
55°	5268.7	2193.8	1466.7	1430.9	1382.5	1479.2	1531.2	1538.3	1549.1	1584.9	1590.3
57.5°	5392.2	2204.5	1377.2	1330.6	1294.8	1400.4	1488.2	1493.6	1486.4	1529.4	1536.5
60°	5429.8	2199.2	1310.9	1219.6	1198.1	1316.3	1425.5	1436.3	1434.5	1497.1	1509.7
62.5°	5272.2	2131.1	1244.6	1126.4	1112.1	1230.3	1337.8	1380.7	1389.7	1479.2	1495.4
65°	4901.5	1991.4	1156.9	1027.9	1027.9	1139.0	1253.6	1312.7	1337.8	1457.7	1475.7
67.5°	4412.6	1826.7	1067.3	943.8	940.2	1051.2	1164.0	1224.9	1264.3	1427.3	1438.0
70°	3662.3	1604.6	956.3	852.4	852.4	952.7	1054.8	1128.2	1185.5	1370.0	1370.0
72.5°	2509.0	1334.2	822.0	748.6	750.4	843.5	947.4	1029.7	1097.8	1255.4	1259.0
75°	1586.7	1042.3	675.1	637.5	644.7	732.5	839.9	925.9	1062.0	1241.1	1246.4
77.5°	843.5	732.5	537.3	528.3	537.3	617.8	737.8	856.0	1065.6	1076.3	1058.4
80°	546.2	519.3	424.4	406.5	410.1	497.9	657.2	813.0	856.0	866.8	827.4
82.5°	297.3	329.5	300.9	283.0	283.0	388.6	560.5	646.5	614.3	510.4	487.1
85°	127.1	154.0	155.8	136.1	130.7	240.0	376.1	352.8	327.7	313.4	309.8
87.5°	35.8	50.1	50.1	37.6	28.7	66.3	75.2	21.5	0.0	1.8	3.6
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)