

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: P453703

Luminaire Tested: **GALN-SA4D-730-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453703  
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-SA4D-730-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28143 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2

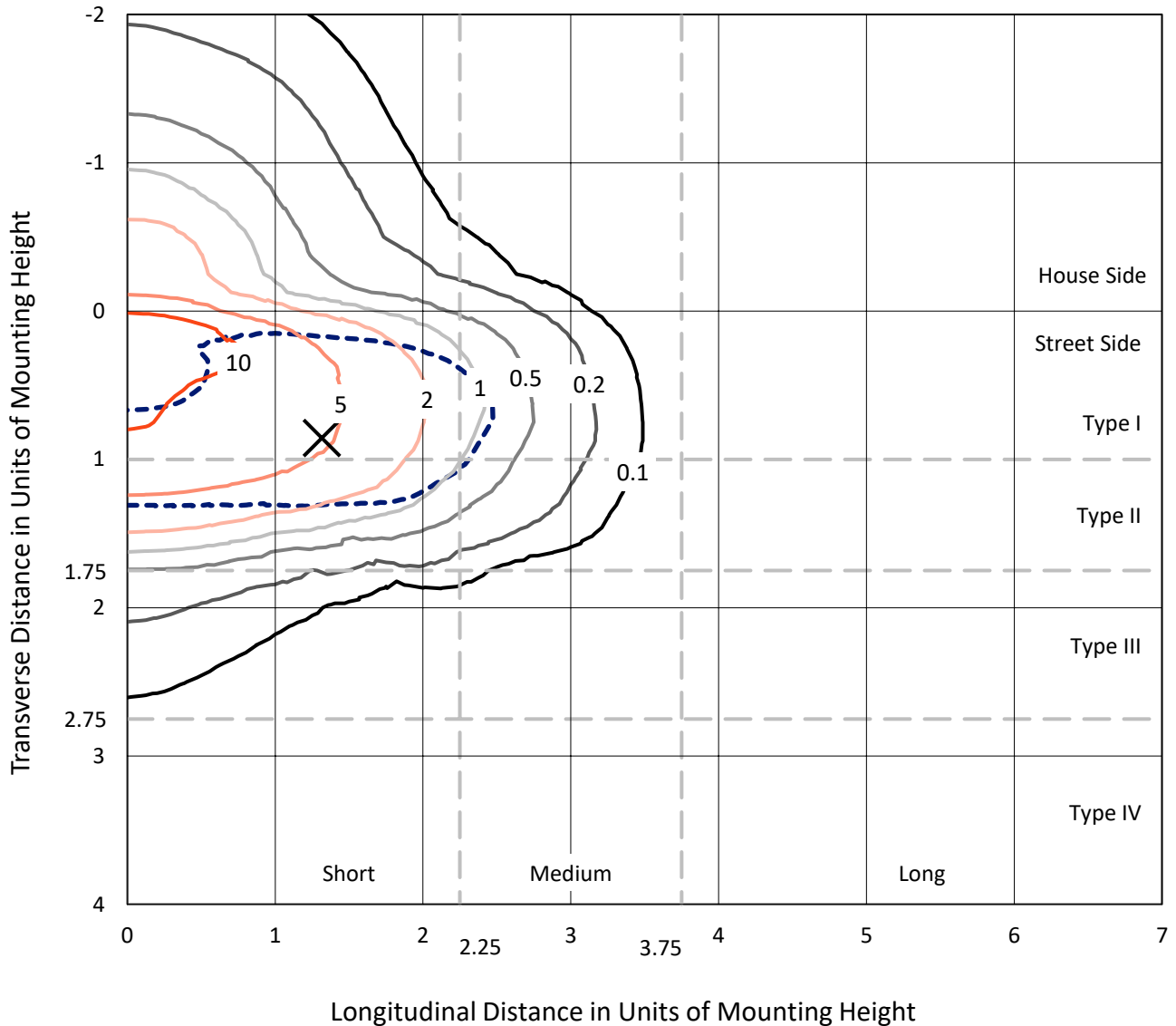
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

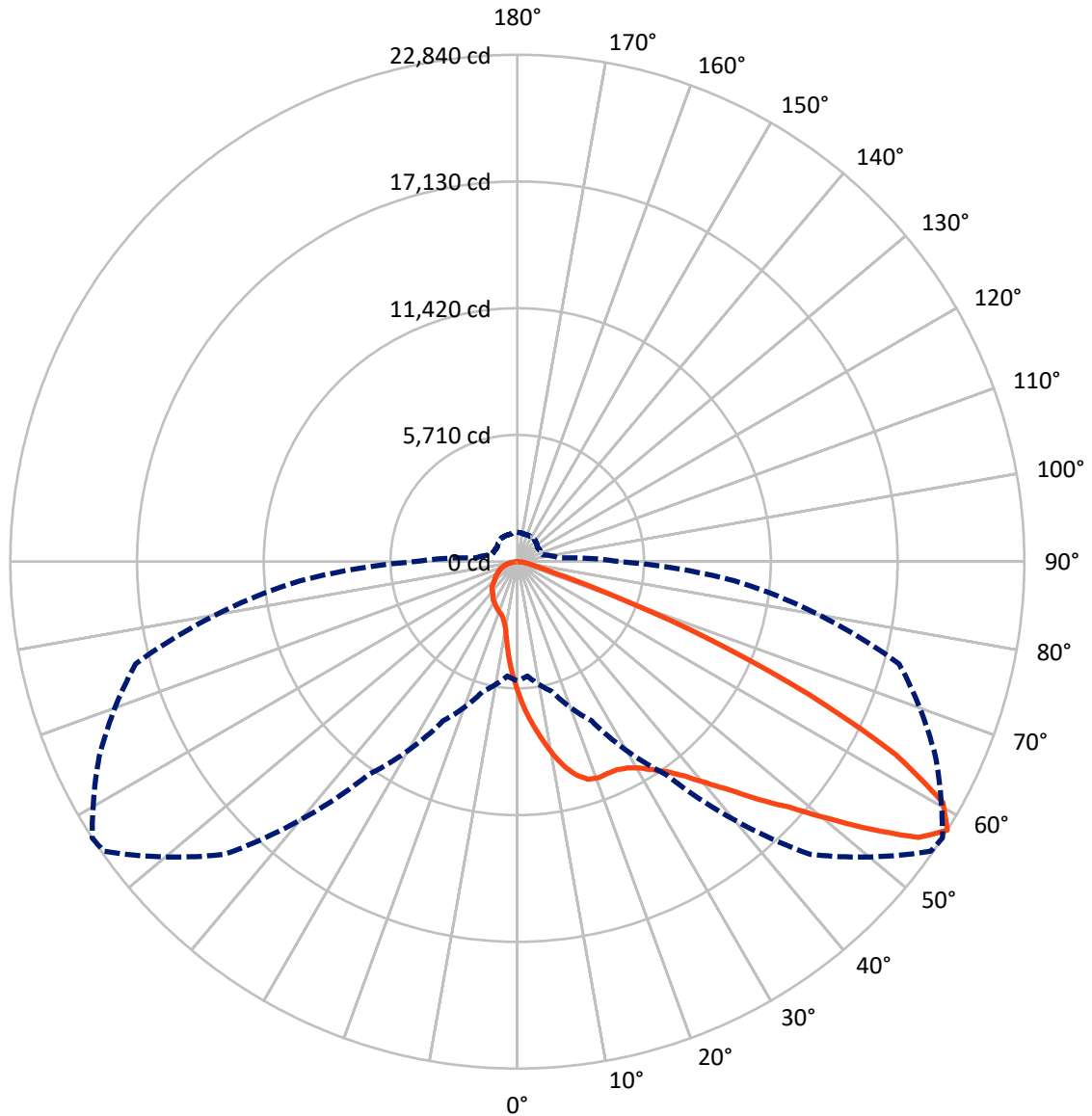
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 14.4 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	4279.8	0.0	4279.8
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	23863.2	0.0	23863.2
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	28143.0	0.0	28143.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	568.2	2.0
10°-20°	1674.7	6.0
20°-30°	2780.8	9.9
30°-40°	4188.7	14.9
40°-50°	6289.0	22.3
50°-60°	7049.1	25.0
60°-70°	4125.5	14.7
70°-80°	1220.3	4.3
80°-90°	246.7	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°	28143.0	100.0
0°-180°	28143.0	100.0

**Coefficient of Utilization**



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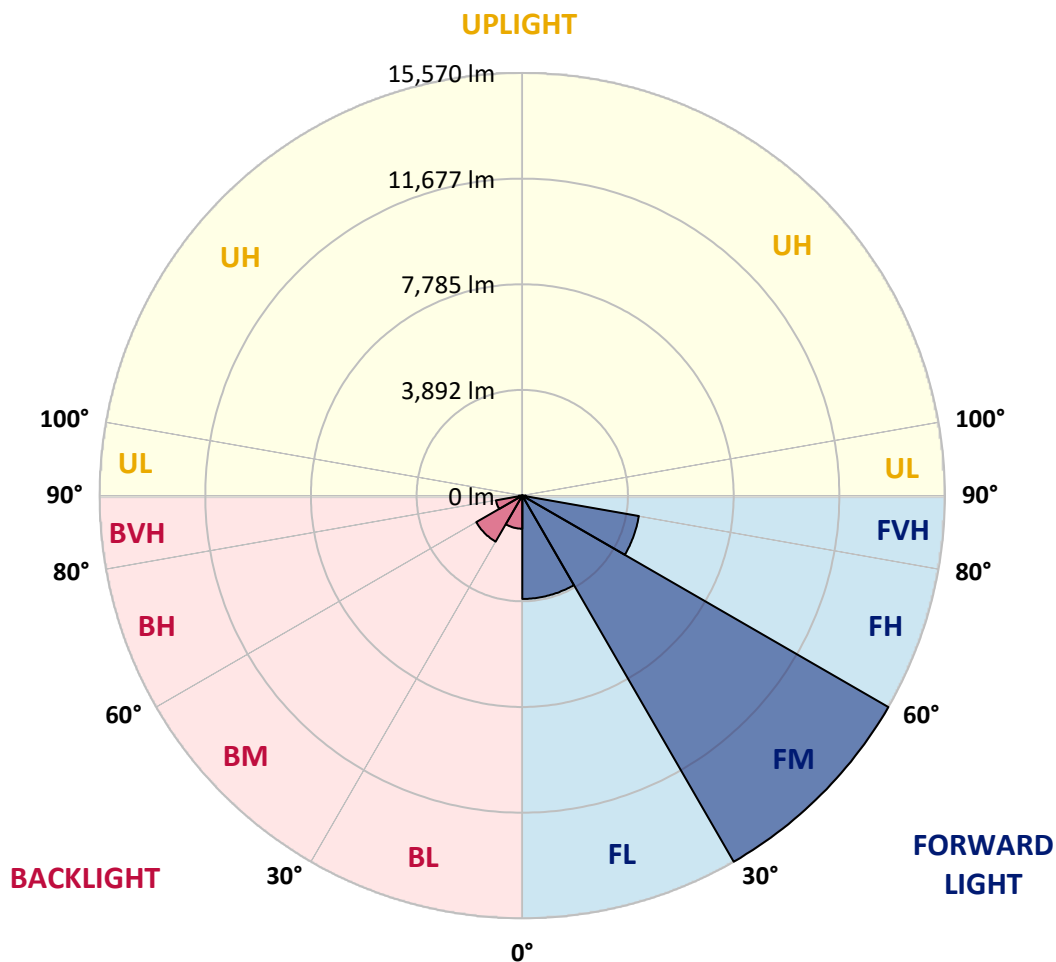
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3804.3	13.5			
FM	(30°-60°)	15569.9	55.3			
FH	(60°-80°)	4361.0	15.5			G2/5000
FVH	(80°-90°)	128.0	0.5			G2/225
BL	(0°-30°)	1219.5	4.3	B3/2500		
BM	(30°-60°)	1956.9	7.0	B2/2500		
BH	(60°-80°)	984.8	3.5	B2/1000		G2/1000
BVH	(80°-90°)	118.7	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5
2.5°	7346.7	7266.6	7203.5	7148.0	7075.6	6880.0	6684.3	6681.2	6525.6	6285.3	6038.8
5°	8543.7	8435.9	8449.8	8277.2	8104.7	7821.2	7406.8	7385.3	7054.0	6604.2	6146.7
7.5°	9323.2	9324.8	9281.6	9183.0	8996.6	8674.7	8204.8	8098.5	7637.9	6955.5	6269.9
10°	9283.2	9324.8	9397.2	9481.9	9538.9	9380.2	8952.0	8822.6	8223.3	7380.6	6407.0
12.5°	8750.2	8814.9	8918.1	9130.7	9474.2	9736.1	9589.7	9485.0	8901.1	7804.3	6558.0
15°	8417.4	8455.9	8512.9	8656.2	9025.9	9652.9	10031.9	9976.4	9540.5	8283.4	6727.5
17.5°	8315.7	8354.2	8372.7	8460.5	8724.0	9366.4	10206.0	10304.5	10107.4	8724.0	6898.5
20°	8417.4	8435.9	8435.9	8488.3	8694.7	9198.5	10198.3	10397.0	10572.6	9252.4	7058.7
22.5°	8683.9	8691.6	8680.8	8699.3	8853.4	9244.7	10125.8	10372.3	10948.5	9700.7	7183.5
25°	9116.8	9129.1	9058.3	9015.1	9127.6	9448.0	10165.9	10392.4	11242.7	10128.9	7266.6
27.5°	9608.2	9623.6	9537.4	9437.2	9489.6	9699.1	10323.0	10526.4	11463.0	10551.0	7319.0
30°	10210.6	10216.7	10071.9	9951.8	9917.9	10073.5	10591.1	10780.6	11737.2	11048.6	7397.6
32.5°	10826.8	10873.0	10686.6	10517.1	10460.1	10507.9	10987.0	11170.3	12063.8	11583.2	7523.9
35°	11664.8	11672.5	11449.2	11242.7	11054.8	11116.4	11493.8	11626.3	12515.2	12200.9	7702.6
37.5°	12710.8	12781.7	12473.6	12088.5	11857.4	11768.0	12107.0	12251.8	13148.4	12958.9	7972.2
40°	13872.4	13898.6	13635.2	13394.8	12972.7	12713.9	12948.1	13105.2	13929.4	13863.2	8284.9
42.5°	14602.6	14659.6	14679.6	14655.0	14337.6	13903.2	13992.6	14066.5	14853.7	14712.0	8605.4
45°	14849.1	14933.8	15220.4	15827.3	15861.2	15432.9	15225.0	15295.8	15861.2	15568.5	8911.9
47.5°	14440.9	14585.7	15114.1	16358.8	17290.8	17323.2	16696.2	16540.6	16779.4	16278.7	9133.8
50°	13385.6	13416.4	14225.2	16027.6	17960.9	19130.2	18481.6	18192.0	17651.3	16804.0	9286.3
52.5°	11752.6	11788.1	12465.9	14488.6	17548.1	20393.4	20570.6	20053.0	18537.1	17212.2	9386.4
55°	8724.0	8928.9	9674.5	11629.4	15591.6	20274.8	22231.3	21937.0	19607.8	17535.8	9543.5
57.5°	5364.1	5176.2	6060.4	7912.1	11726.5	18644.9	22744.3	22839.8	20786.3	17806.9	9807.0
60°	2467.9	2504.9	2870.0	4080.8	7148.0	14585.7	21422.5	22026.4	21437.9	17797.6	9873.2
62.5°	1700.7	1666.8	1574.4	1791.6	3259.7	9224.6	18095.0	19117.9	20131.5	17244.6	9609.8
65°	1520.5	1486.6	1307.9	1247.8	1497.4	4020.8	13154.5	14445.5	16950.4	15848.9	8953.5
67.5°	1420.4	1374.1	1189.3	1072.2	1069.1	1600.6	7756.5	9310.9	12572.2	13399.5	7758.1
70°	1315.6	1278.6	1095.3	965.9	910.4	1006.0	3409.2	4462.9	8163.2	9656.0	6043.5
72.5°	1210.9	1167.7	1002.9	864.2	791.8	753.3	1306.4	1699.2	4612.3	5789.3	3705.0
75°	1058.3	1036.8	896.6	782.6	704.0	608.5	828.8	945.9	2206.0	2658.9	1859.4
77.5°	925.9	902.7	796.4	684.0	627.0	494.5	588.5	642.4	930.5	1078.4	839.6
80°	677.8	700.9	671.7	603.9	559.2	388.2	395.9	440.6	553.0	611.6	513.0
82.5°	429.8	472.9	517.6	465.2	423.6	306.6	274.2	291.2	377.4	400.5	228.0
85°	180.2	183.3	300.4	283.5	241.9	181.8	164.8	174.1	201.8	211.1	106.3
87.5°	69.3	67.8	106.3	98.6	75.5	52.4	52.4	58.5	80.1	73.9	33.9
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°	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5	5912.5
2.5°	5932.5	5823.2	5606.0	5336.4	5139.2	4917.3	4721.7	4581.5	4529.1	4504.5	4458.3
5°	5927.9	5712.3	5262.4	4791.0	4412.1	4023.8	3695.7	3483.1	3464.6	3322.9	3309.0
7.5°	5929.5	5599.8	4883.5	4190.2	3612.5	3215.1	2943.9	2873.1	2788.3	2766.8	2777.6
10°	5934.1	5456.5	4476.8	3595.6	3036.4	2776.0	2674.3	2646.6	2649.7	2658.9	2660.5
12.5°	5940.3	5317.9	4054.7	3144.2	2712.9	2605.0	2594.2	2618.9	2645.1	2665.1	2669.7
15°	5948.0	5159.2	3643.3	2780.6	2551.1	2541.9	2577.3	2618.9	2655.9	2685.1	2689.8
17.5°	5938.7	4974.3	3298.3	2557.3	2461.8	2506.4	2565.0	2617.3	2651.2	2679.0	2682.0
20°	5917.1	4767.9	2965.5	2400.1	2406.3	2478.7	2541.9	2591.2	2628.1	2642.0	2652.8
22.5°	5834.0	4521.4	2675.9	2278.4	2340.1	2440.2	2515.7	2544.9	2503.3	2474.1	2481.8
25°	5692.2	4201.0	2406.3	2179.8	2280.0	2386.3	2463.3	2392.4	2358.5	2346.2	2352.4
27.5°	5515.1	3849.8	2202.9	2076.6	2202.9	2326.2	2304.6	2292.3	2276.9	2256.9	2261.5
30°	5324.0	3506.2	2030.4	1996.5	2119.8	2190.6	2199.9	2219.9	2202.9	2172.1	2184.5
32.5°	5146.9	3182.7	1899.5	1928.7	2061.2	2050.4	2119.8	2142.9	2064.3	1961.1	1965.7
35°	4995.9	2882.3	1800.9	1862.5	1961.1	1965.7	2035.0	1954.9	1870.2	1820.9	1824.0
37.5°	4881.9	2648.2	1736.2	1805.5	1833.2	1891.8	1854.8	1813.2	1802.4	1768.5	1770.1
40°	4814.1	2443.3	1694.6	1760.8	1756.2	1796.2	1677.6	1719.2	1734.6	1723.8	1725.4
42.5°	4746.3	2298.5	1651.4	1699.2	1697.7	1619.1	1592.9	1628.3	1668.4	1673.0	1669.9
45°	4692.4	2186.0	1606.8	1605.2	1636.0	1512.8	1505.1	1526.7	1583.7	1611.4	1609.8
47.5°	4632.3	2092.0	1539.0	1495.8	1505.1	1446.5	1434.2	1443.5	1512.8	1557.5	1569.8
50°	4556.9	1998.1	1454.3	1395.7	1357.2	1384.9	1388.0	1389.6	1458.9	1509.7	1520.5
52.5°	4496.8	1927.2	1357.2	1314.1	1267.8	1329.5	1352.6	1355.7	1397.3	1438.8	1446.5
55°	4532.2	1887.1	1261.7	1230.9	1189.3	1272.5	1317.1	1323.3	1332.6	1363.4	1368.0
57.5°	4638.5	1896.4	1184.7	1144.6	1113.8	1204.7	1280.2	1284.8	1278.6	1315.6	1321.8
60°	4670.9	1891.8	1127.7	1049.1	1030.6	1132.3	1226.3	1235.5	1234.0	1287.9	1298.7
62.5°	4535.3	1833.2	1070.7	969.0	956.7	1058.3	1150.8	1187.7	1195.4	1272.5	1286.3
65°	4216.4	1713.1	995.2	884.3	884.3	979.8	1078.4	1129.2	1150.8	1254.0	1269.4
67.5°	3795.8	1571.3	918.2	811.9	808.8	904.3	1001.3	1053.7	1087.6	1227.8	1237.0
70°	3150.4	1380.3	822.6	733.3	733.3	819.6	907.4	970.5	1019.8	1178.5	1178.5
72.5°	2158.3	1147.7	707.1	643.9	645.5	725.6	814.9	885.8	944.3	1079.9	1083.0
75°	1364.9	896.6	580.8	548.4	554.6	630.1	722.5	796.4	913.5	1067.6	1072.2
77.5°	725.6	630.1	462.2	454.5	462.2	531.5	634.7	736.4	916.6	925.9	910.4
80°	469.9	446.8	365.1	349.7	352.8	428.3	565.4	699.4	736.4	745.6	711.7
82.5°	255.7	283.5	258.8	243.4	243.4	334.3	482.2	556.1	528.4	439.0	419.0
85°	109.4	132.5	134.0	117.1	112.5	206.4	323.5	303.5	281.9	269.6	266.5
87.5°	30.8	43.1	43.1	32.4	24.6	57.0	64.7	18.5	0.0	1.5	3.1
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)