

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: P453645

Luminaire Tested: **GALN-SA4D-722-U-AFL**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453645  
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-722-U-AFL  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2200K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22717 lumens  
Efficiency: N/A  
Efficacy: 92.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

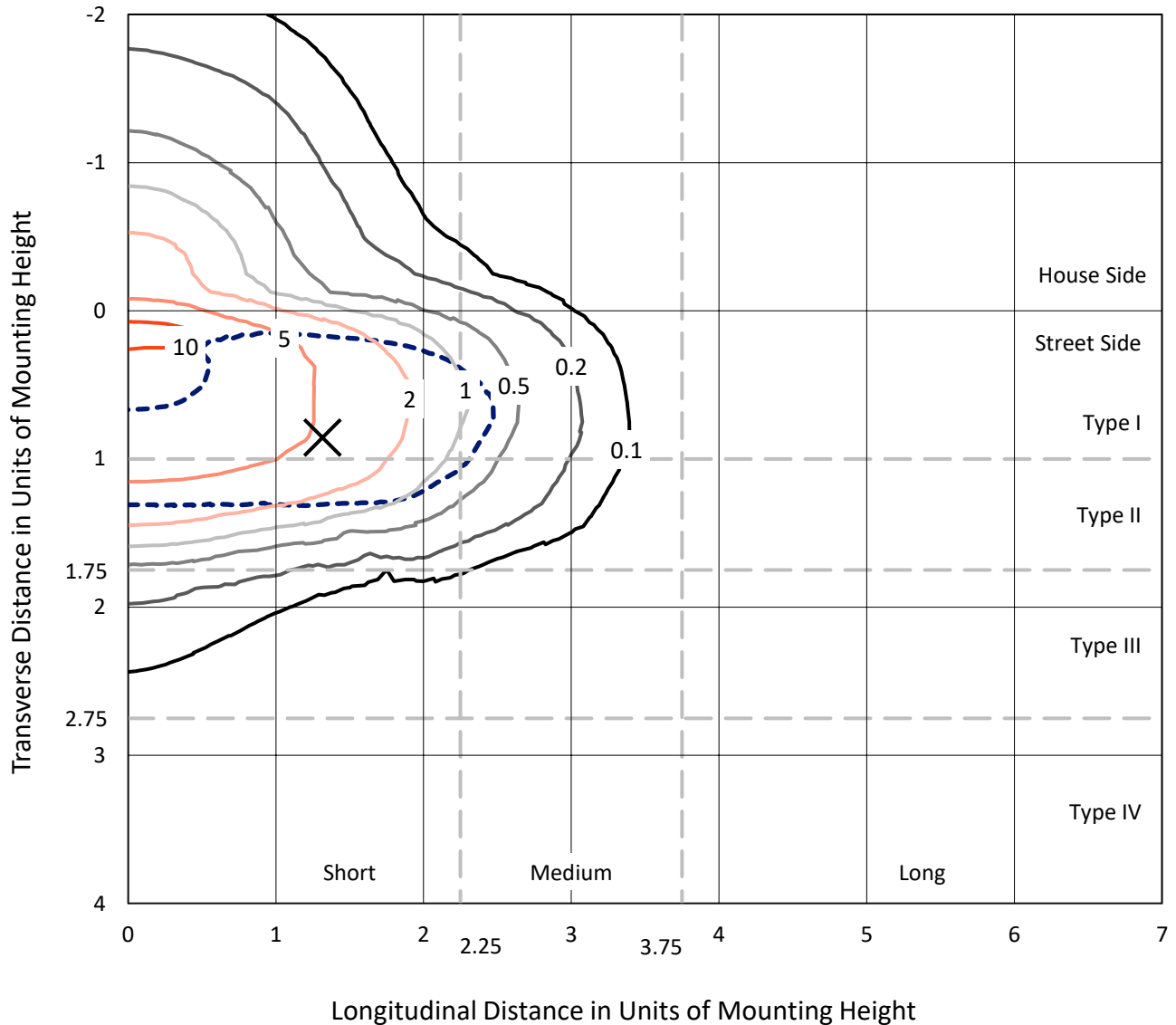
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

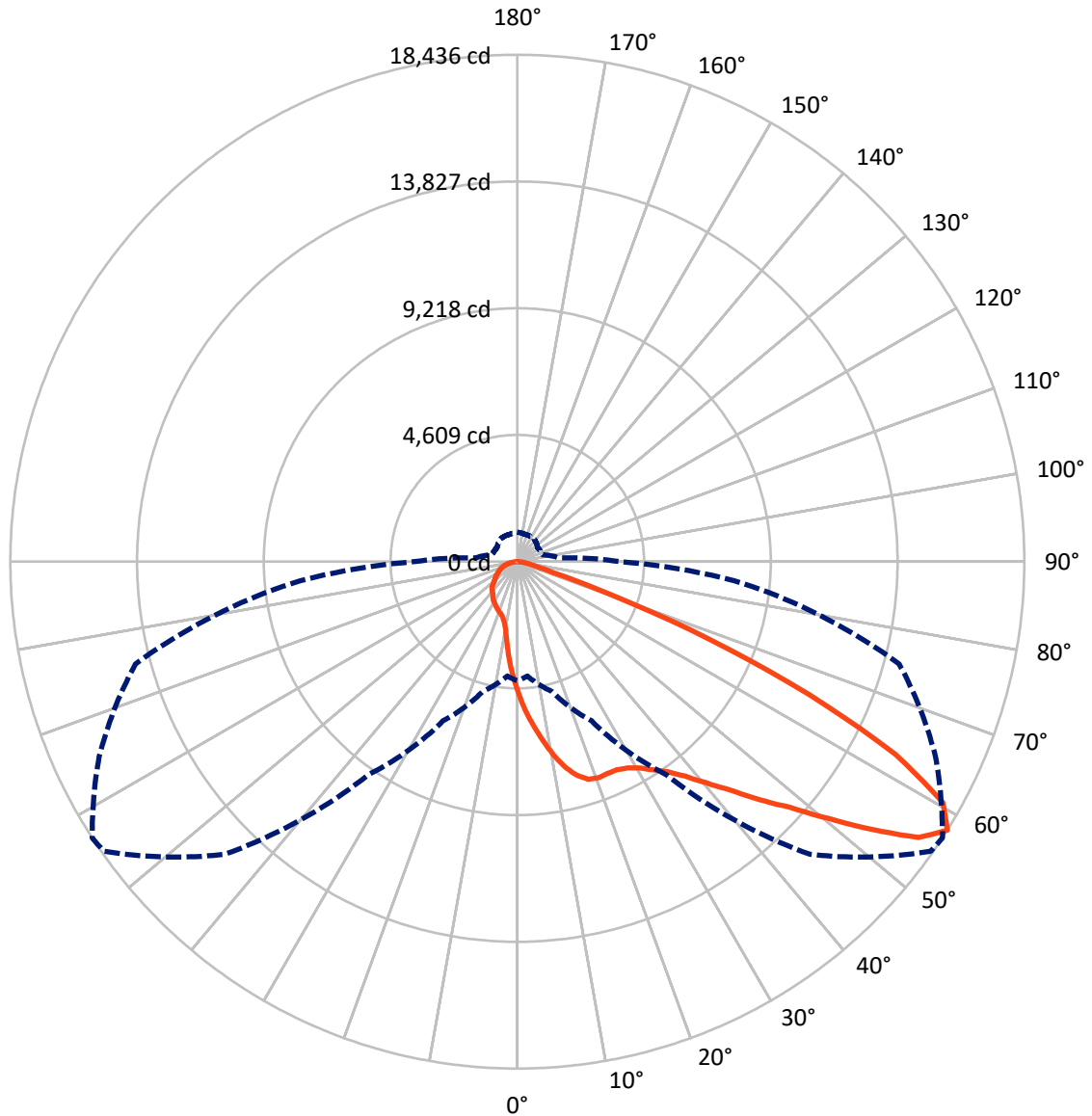
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.6 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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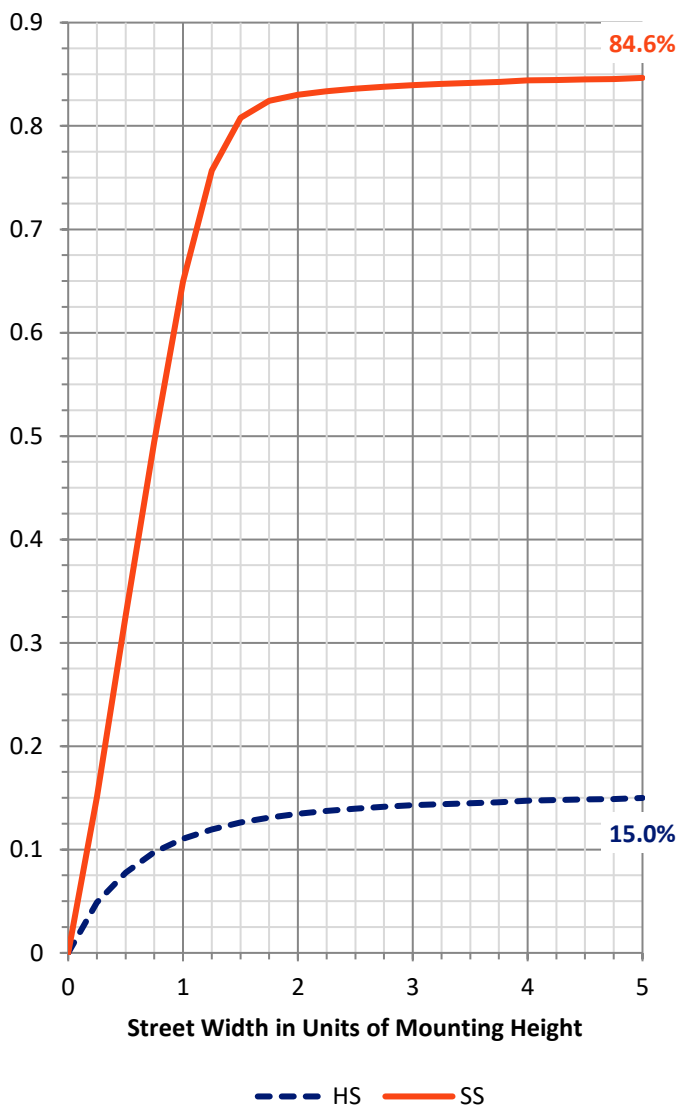
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3454.6	0.0	3454.6
	% Fixture	15.2	0.0	15.2
<b>Street Side</b>	Lumens	19262.4	0.0	19262.4
	% Fixture	84.8	0.0	84.8
<b>Total</b>	Lumens	22717.0	0.0	22717.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	458.7	2.0
10°-20°	1351.8	6.0
20°-30°	2244.7	9.9
30°-40°	3381.1	14.9
40°-50°	5076.4	22.3
50°-60°	5690.1	25.0
60°-70°	3330.1	14.7
70°-80°	985.0	4.3
80°-90°	199.1	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°	22717.0	100.0
0°-180°	22717.0	100.0

**Coefficient of Utilization**



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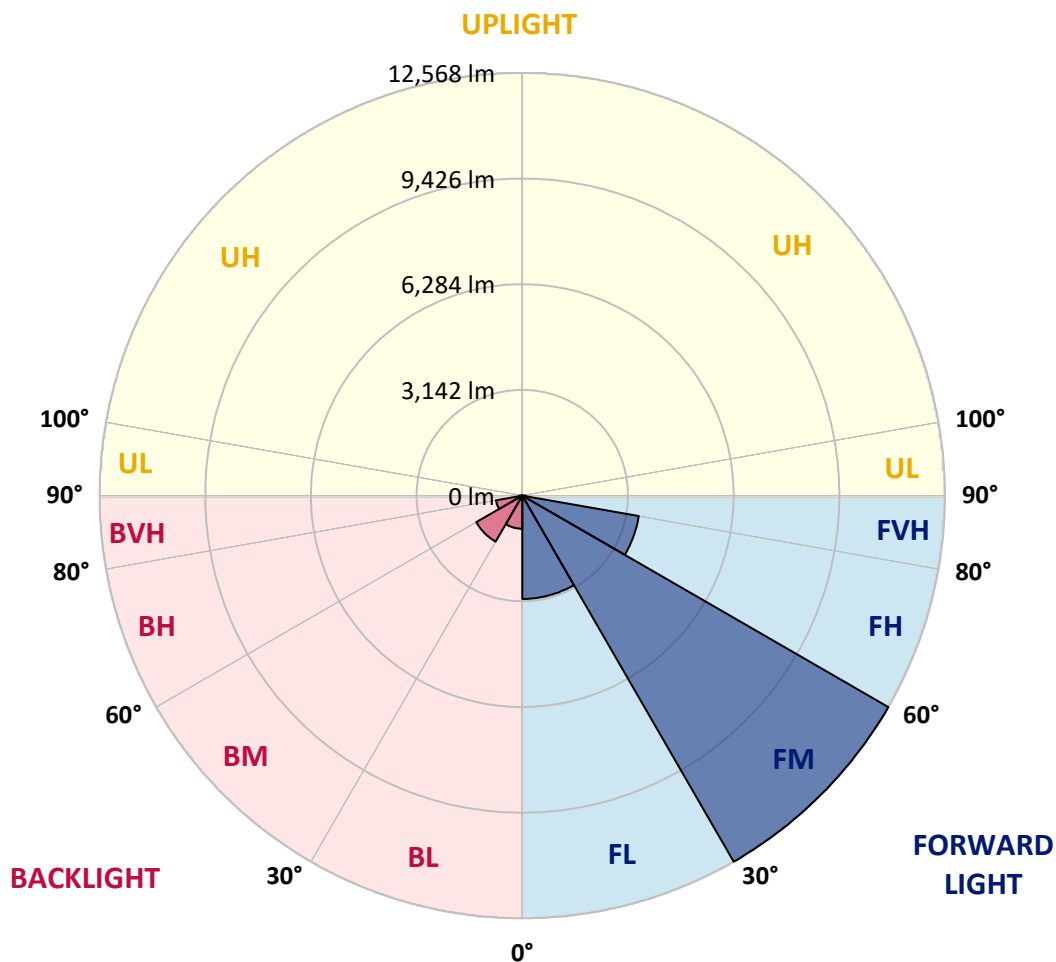
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3070.8	13.5			
FM	(30°-60°)	12568.0	55.3			
FH	(60°-80°)	3520.2	15.5			G2/5000
FVH	(80°-90°)	103.3	0.5			G2/225
BL	(0°-30°)	984.3	4.3	B2/1000		
BM	(30°-60°)	1579.6	7.0	B2/2500		
BH	(60°-80°)	794.9	3.5	B2/1000		G2/1000
BVH	(80°-90°)	95.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6
2.5°	5930.3	5865.6	5814.6	5769.9	5711.4	5553.5	5395.6	5393.1	5267.5	5073.5	4874.5
5°	6896.5	6809.4	6820.6	6681.4	6542.1	6313.3	5978.8	5961.4	5694.0	5330.9	4961.6
7.5°	7525.7	7527.0	7492.1	7412.5	7262.1	7002.2	6622.9	6537.1	6165.3	5614.4	5061.1
10°	7493.4	7527.0	7585.4	7653.8	7699.8	7571.7	7226.0	7121.6	6637.8	5957.6	5171.7
12.5°	7063.1	7115.3	7198.7	7370.3	7647.6	7859.0	7740.8	7656.3	7185.0	6299.6	5293.6
15°	6794.5	6825.6	6871.6	6987.3	7285.7	7791.8	8097.7	8053.0	7701.0	6686.3	5430.4
17.5°	6712.5	6743.5	6758.5	6829.3	7042.0	7560.5	8238.2	8317.8	8158.7	7042.0	5568.4
20°	6794.5	6809.4	6809.4	6851.7	7018.4	7425.0	8232.0	8392.4	8534.2	7468.5	5697.8
22.5°	7009.7	7015.9	7007.2	7022.1	7146.4	7462.3	8173.6	8372.5	8837.6	7830.4	5798.5
25°	7359.1	7369.0	7311.8	7277.0	7367.8	7626.4	8205.9	8388.7	9075.1	8176.1	5865.6
27.5°	7755.8	7768.2	7698.6	7617.7	7660.0	7829.1	8332.7	8496.9	9252.9	8516.8	5907.9
30°	8242.0	8246.9	8130.1	8033.1	8005.7	8131.3	8549.1	8702.1	9474.3	8918.4	5971.3
32.5°	8739.4	8776.7	8626.2	8489.4	8443.4	8482.0	8868.7	9016.7	9737.9	9349.9	6073.3
35°	9415.8	9422.1	9241.7	9075.1	8923.4	8973.1	9277.8	9384.8	10102.3	9848.6	6217.5
37.5°	10260.2	10317.4	10068.7	9757.8	9571.3	9499.2	9772.7	9889.6	10613.3	10460.4	6435.2
40°	11197.8	11218.9	11006.3	10812.3	10471.6	10262.7	10451.7	10578.5	11243.8	11190.3	6687.6
42.5°	11787.2	11833.2	11849.4	11829.5	11573.3	11222.7	11294.8	11354.5	11989.9	11875.5	6946.2
45°	11986.2	12054.6	12285.9	12775.8	12803.2	12457.5	12289.6	12346.8	12803.2	12566.9	7193.7
47.5°	11656.6	11773.5	12200.1	13204.8	13957.1	13983.2	13477.1	13351.5	13544.3	13140.1	7372.8
50°	10804.8	10829.7	11482.5	12937.5	14498.1	15441.9	14918.4	14684.6	14248.1	13564.2	7495.9
52.5°	9486.7	9515.3	10062.5	11695.2	14164.8	16461.6	16604.6	16186.7	14963.1	13893.7	7576.7
55°	7042.0	7207.4	7809.2	9387.2	12585.5	16365.8	17945.1	17707.5	15827.4	14154.8	7703.5
57.5°	4329.9	4178.2	4892.0	6386.7	9465.6	15050.2	18359.1	18436.2	16778.6	14373.7	7916.2
60°	1992.1	2021.9	2316.7	3294.1	5769.9	11773.5	17292.2	17779.7	17304.7	14366.2	7969.6
62.5°	1372.8	1345.5	1270.9	1446.2	2631.3	7446.1	14606.2	15431.9	16250.2	13919.8	7757.0
65°	1227.3	1200.0	1055.7	1007.2	1208.7	3245.6	10618.3	11660.4	13682.3	12793.2	7227.3
67.5°	1146.5	1109.2	960.0	865.5	863.0	1292.0	6261.1	7515.8	10148.3	10816.0	6262.3
70°	1062.0	1032.1	884.1	779.7	734.9	812.0	2751.9	3602.4	6589.3	7794.3	4878.3
72.5°	977.4	942.6	809.5	697.6	639.2	608.1	1054.5	1371.6	3723.1	4673.1	2990.6
75°	854.3	836.9	723.7	631.7	568.3	491.2	669.0	763.5	1780.7	2146.3	1500.9
77.5°	747.3	728.7	642.9	552.1	506.1	399.2	475.0	518.5	751.1	870.5	677.7
80°	547.1	565.8	542.2	487.5	451.4	313.4	319.6	355.6	446.4	493.7	414.1
82.5°	346.9	381.8	417.8	375.5	342.0	247.5	221.3	235.0	304.7	323.3	184.0
85°	145.5	148.0	242.5	228.8	195.2	146.7	133.1	140.5	162.9	170.4	85.8
87.5°	56.0	54.7	85.8	79.6	60.9	42.3	42.3	47.3	64.7	59.7	27.4
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°	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6	4772.6
2.5°	4788.7	4700.5	4525.1	4307.5	4148.3	3969.3	3811.4	3698.2	3655.9	3636.0	3598.7
5°	4785.0	4610.9	4247.8	3867.3	3561.4	3248.0	2983.2	2811.6	2796.6	2682.2	2671.1
7.5°	4786.3	4520.1	3941.9	3382.3	2916.0	2595.2	2376.3	2319.1	2250.7	2233.3	2242.0
10°	4790.0	4404.5	3613.6	2902.3	2451.0	2240.8	2158.7	2136.3	2138.8	2146.3	2147.5
12.5°	4795.0	4292.6	3272.9	2538.0	2189.8	2102.8	2094.1	2114.0	2135.1	2151.3	2155.0
15°	4801.2	4164.5	2940.9	2244.5	2059.2	2051.8	2080.4	2114.0	2143.8	2167.4	2171.2
17.5°	4793.7	4015.3	2662.3	2064.2	1987.1	2023.2	2070.4	2112.7	2140.1	2162.5	2164.9
20°	4776.3	3848.7	2393.8	1937.4	1942.4	2000.8	2051.8	2091.6	2121.4	2132.6	2141.3
22.5°	4709.2	3649.7	2160.0	1839.1	1888.9	1969.7	2030.6	2054.3	2020.7	1997.1	2003.3
25°	4594.8	3391.0	1942.4	1759.6	1840.4	1926.2	1988.4	1931.2	1903.8	1893.9	1898.8
27.5°	4451.8	3107.5	1778.2	1676.2	1778.2	1877.7	1860.3	1850.3	1837.9	1821.7	1825.5
30°	4297.6	2830.2	1638.9	1611.6	1711.1	1768.3	1775.7	1791.9	1778.2	1753.3	1763.3
32.5°	4154.6	2569.1	1533.2	1556.9	1663.8	1655.1	1711.1	1729.7	1666.3	1583.0	1586.7
35°	4032.7	2326.6	1453.7	1503.4	1583.0	1586.7	1642.7	1578.0	1509.6	1469.8	1472.3
37.5°	3940.7	2137.6	1401.4	1457.4	1479.8	1527.0	1497.2	1463.6	1454.9	1427.5	1428.8
40°	3886.0	1972.2	1367.9	1421.3	1417.6	1449.9	1354.2	1387.8	1400.2	1391.5	1392.7
42.5°	3831.2	1855.3	1333.0	1371.6	1370.3	1306.9	1285.8	1314.4	1346.7	1350.4	1348.0
45°	3787.7	1764.5	1297.0	1295.7	1320.6	1221.1	1214.9	1232.3	1278.3	1300.7	1299.5
47.5°	3739.2	1688.7	1242.3	1207.4	1214.9	1167.7	1157.7	1165.2	1221.1	1257.2	1267.1
50°	3678.3	1612.8	1173.9	1126.6	1095.5	1117.9	1120.4	1121.6	1177.6	1218.6	1227.3
52.5°	3629.8	1555.6	1095.5	1060.7	1023.4	1073.1	1091.8	1094.3	1127.9	1161.4	1167.7
55°	3658.4	1523.3	1018.4	993.6	960.0	1027.1	1063.2	1068.2	1075.6	1100.5	1104.2
57.5°	3744.2	1530.8	956.3	923.9	899.1	972.4	1033.4	1037.1	1032.1	1062.0	1066.9
60°	3770.3	1527.0	910.2	846.8	831.9	914.0	989.8	997.3	996.0	1039.6	1048.3
62.5°	3660.9	1479.8	864.2	782.2	772.2	854.3	928.9	958.7	965.0	1027.1	1038.3
65°	3403.5	1382.8	803.3	713.8	713.8	790.9	870.5	911.5	928.9	1012.2	1024.7
67.5°	3064.0	1268.4	741.1	655.3	652.8	729.9	808.3	850.6	877.9	991.1	998.5
70°	2543.0	1114.2	664.0	591.9	591.9	661.5	732.4	783.4	823.2	951.3	951.3
72.5°	1742.2	926.4	570.8	519.8	521.0	585.7	657.8	715.0	762.3	871.7	874.2
75°	1101.7	723.7	468.8	442.7	447.7	508.6	583.2	642.9	737.4	861.8	865.5
77.5°	585.7	508.6	373.1	366.8	373.1	429.0	512.3	594.4	739.9	747.3	734.9
80°	379.3	360.6	294.7	282.3	284.8	345.7	456.4	564.6	594.4	601.9	574.5
82.5°	206.4	228.8	208.9	196.5	196.5	269.8	389.2	448.9	426.5	354.4	338.2
85°	88.3	106.9	108.2	94.5	90.8	166.6	261.1	245.0	227.6	217.6	215.1
87.5°	24.9	34.8	34.8	26.1	19.9	46.0	52.2	14.9	0.0	1.2	2.5
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)