

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: P453688

Luminaire Tested: **GALN-SA4D-727-U-T2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453688
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-727-U-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25739 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

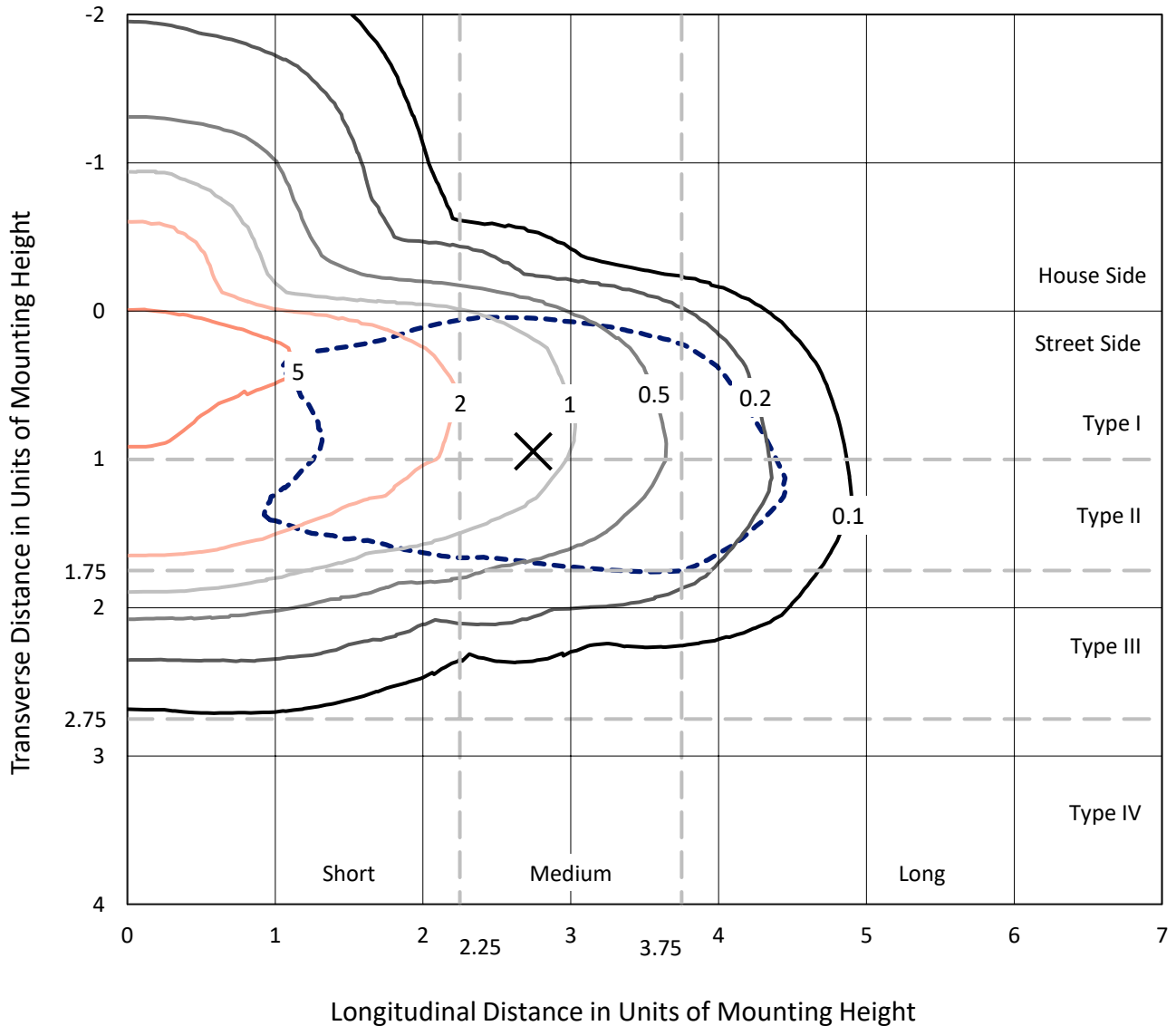
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

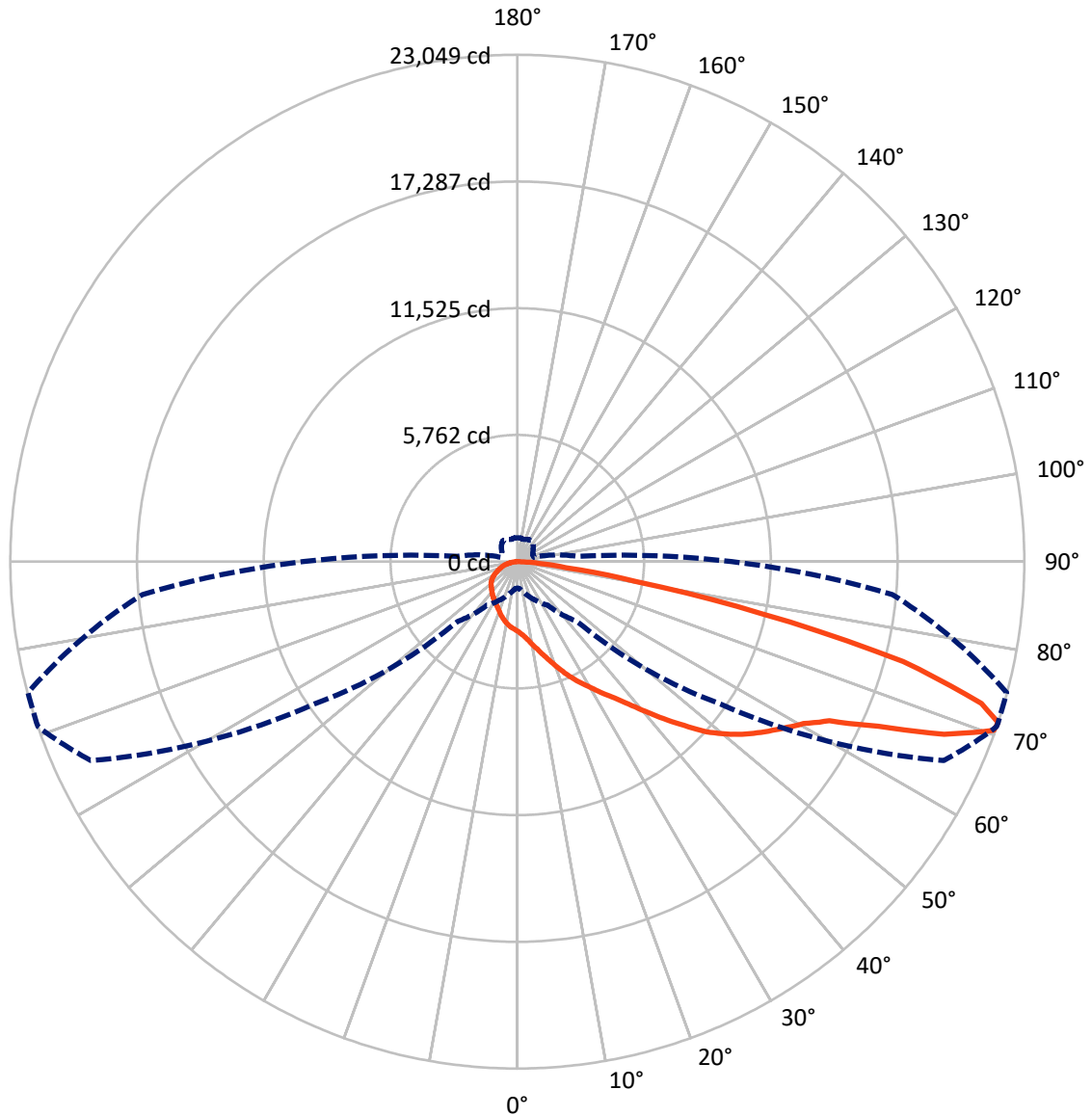
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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

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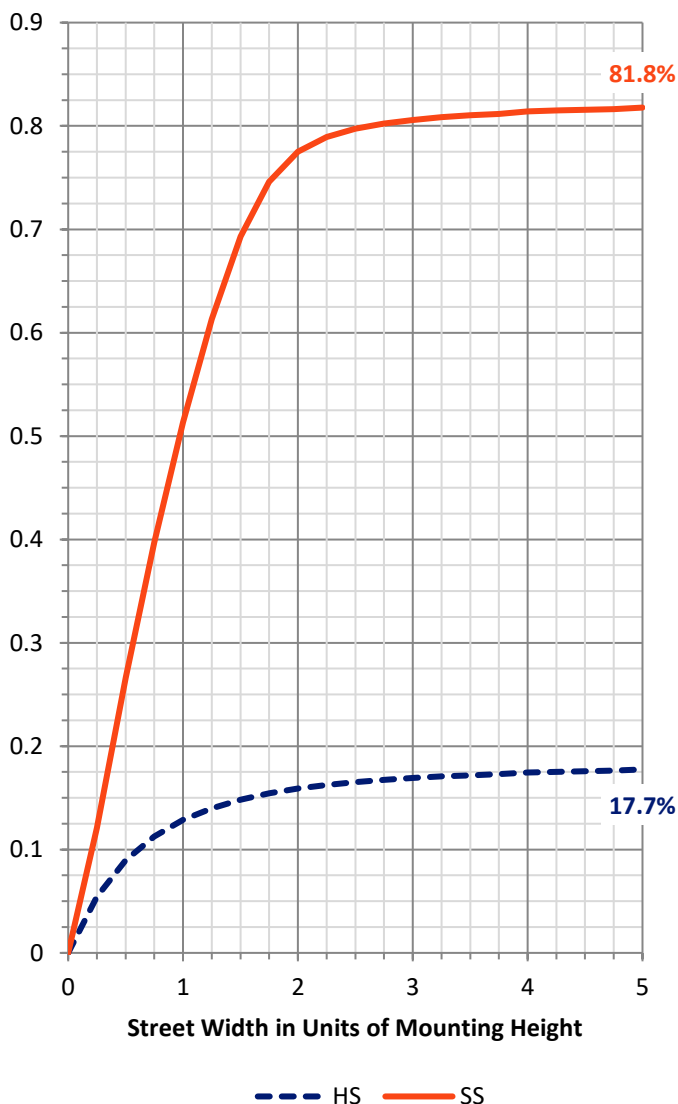
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4629.1	0.0	4629.1
	% Fixture	18.0	0.0	18.0
Street Side	Lumens	21109.9	0.0	21109.9
	% Fixture	82.0	0.0	82.0
Total	Lumens	25739.0	0.0	25739.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.2	1.2
10°-20°	1030.5	4.0
20°-30°	1800.9	7.0
30°-40°	2678.6	10.4
40°-50°	3946.5	15.3
50°-60°	5525.2	21.5
60°-70°	6179.7	24.0
70°-80°	3774.8	14.7
80°-90°	485.6	1.9
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°	25739.0	100.0
0°-180°	25739.0	100.0

Coefficient of Utilization



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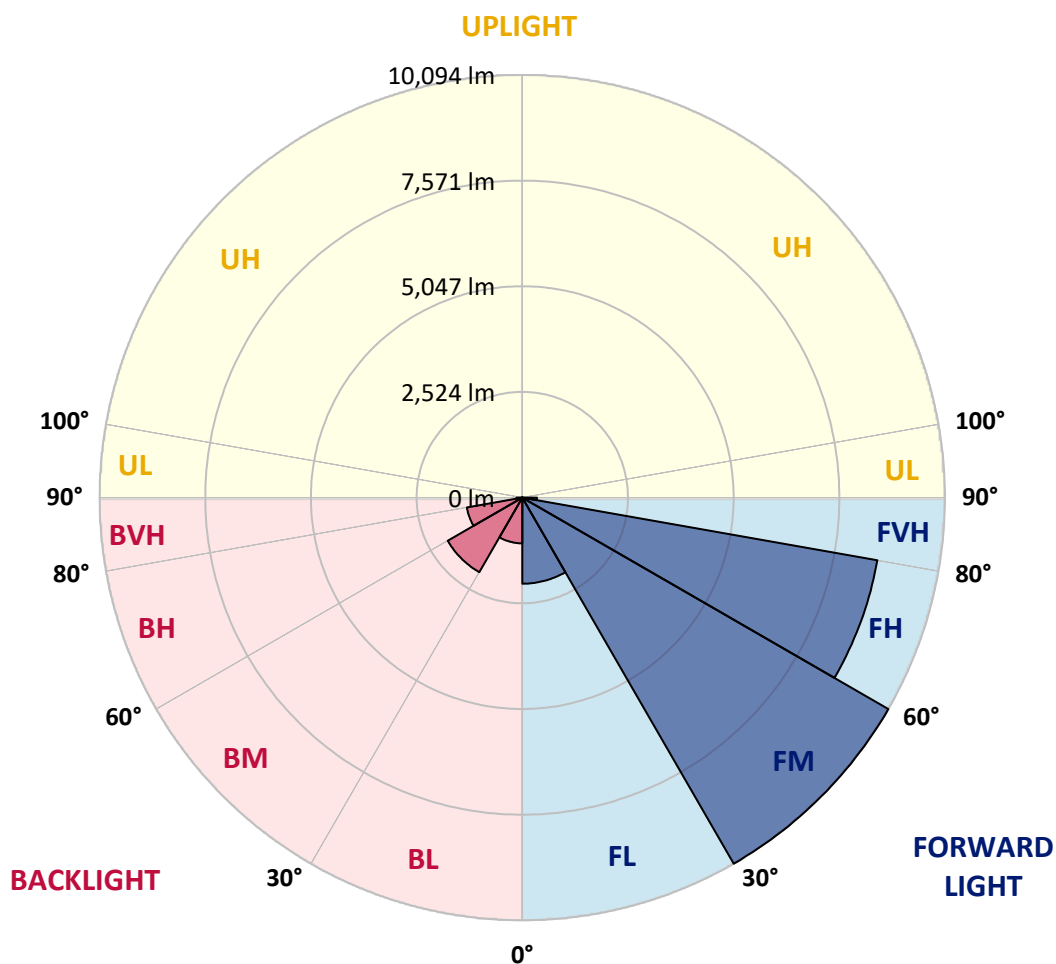
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2056.6	8.0			
FM	(30°-60°)	10094.3	39.2			
FH	(60°-80°)	8609.6	33.4			G4/12000
FVH	(80°-90°)	349.4	1.4			G3/500
BL	(0°-30°)	1092.0	4.2	B3/2500		
BM	(30°-60°)	2056.0	8.0	B2/2500		
BH	(60°-80°)	1345.0	5.2	B3/2500		G3/2500
BVH	(80°-90°)	136.2	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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	71°	75°	85°
0°	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0
2.5°	3507.0	3490.0	3491.4	3467.4	3436.2	3402.3	3354.2	3311.7	3277.8	3258.0	3200.0
5°	3886.1	3869.1	3847.9	3795.6	3772.9	3689.5	3583.4	3487.2	3413.6	3372.6	3256.6
7.5°	4193.1	4188.8	4183.2	4153.5	4095.5	3979.5	3888.9	3722.0	3613.1	3535.3	3337.2
10°	4382.6	4389.7	4394.0	4399.6	4375.6	4314.7	4190.2	3979.5	3840.8	3741.8	3441.9
12.5°	4478.8	4485.9	4510.0	4562.3	4594.8	4587.8	4485.9	4279.4	4088.4	3958.2	3553.6
15°	4538.3	4549.6	4592.0	4661.3	4770.3	4839.6	4790.1	4599.1	4389.7	4235.5	3686.6
17.5°	4603.3	4616.1	4662.7	4761.8	4904.7	5054.6	5108.4	4944.3	4716.5	4532.6	3835.2
20°	4640.1	4657.1	4723.6	4853.7	5020.7	5238.5	5416.8	5330.5	5081.5	4877.8	4006.3
22.5°	4699.5	4713.7	4770.3	4908.9	5108.4	5381.4	5725.2	5706.8	5487.5	5224.4	4194.5
25°	4860.8	4883.4	4911.7	4995.2	5187.6	5527.1	5981.2	6108.5	5880.8	5586.5	4367.1
27.5°	5165.0	5183.3	5181.9	5193.2	5302.2	5653.0	6203.3	6506.1	6271.2	5952.9	4534.0
30°	5511.5	5518.6	5524.3	5498.8	5522.9	5781.7	6407.0	6899.3	6664.5	6329.2	4679.7
32.5°	5933.1	5947.3	5899.2	5834.1	5814.3	5972.7	6575.4	7292.6	7129.9	6711.2	4824.0
35°	6431.1	6467.9	6370.3	6255.7	6175.0	6247.2	6801.7	7694.4	7606.7	7199.2	5015.0
37.5°	6999.8	7045.0	6954.5	6729.6	6615.0	6634.8	7097.4	8190.9	8209.3	7755.2	5299.3
40°	7465.2	7524.6	7527.5	7209.2	7035.1	7057.8	7472.3	8725.7	8936.5	8442.7	5634.6
42.5°	7772.2	7830.2	7891.0	7704.3	7521.8	7650.5	7909.4	9305.7	9754.1	9277.4	6102.9
45°	8108.9	8161.2	8195.2	8110.3	8008.4	8342.3	8437.1	9922.5	10625.6	10209.7	6615.0
47.5°	8499.3	8557.3	8589.9	8509.2	8471.0	8949.2	9005.8	10498.3	11556.4	11115.0	7180.9
50°	9019.9	9063.8	9046.8	8995.9	8987.4	9414.6	9551.8	11037.2	12324.6	12089.8	7767.9
52.5°	9667.8	9720.2	9738.6	9666.4	9633.9	9747.1	9991.8	11528.1	13023.4	12927.2	8394.6
55°	10059.7	10143.2	10423.3	10536.5	10614.3	10177.1	10465.7	12070.0	13650.1	13810.0	9068.0
57.5°	9557.5	9665.0	10291.7	10857.6	11589.0	11252.3	11137.7	12635.8	14276.8	14665.9	9874.4
60°	8332.4	8356.4	9164.2	10206.8	11678.1	12634.4	12539.6	13535.5	14955.9	15528.8	10936.8
62.5°	5780.3	5831.3	6786.2	8449.8	10577.5	13132.4	14924.8	15088.9	15929.2	16820.4	12494.4
65°	2980.7	2914.2	3784.2	5310.7	7974.5	11949.7	16857.2	17945.1	18039.9	18840.6	14687.1
67.5°	1834.8	1864.5	2272.0	3101.0	4715.1	8684.6	16654.9	21435.1	20935.7	21320.5	16722.8
70°	1377.9	1414.7	1694.8	2122.0	2874.6	4965.5	13394.1	22281.0	22978.5	22879.4	17342.4
71°	1198.2	1236.4	1527.8	1931.0	2414.8	3832.3	11284.8	21395.4	23049.2	23032.2	17109.0
72.5°	1021.4	1045.4	1273.2	1635.4	2035.7	2686.5	8478.1	19188.6	22066.0	22630.5	16275.8
75°	802.1	820.5	922.4	1247.7	1602.8	1649.5	4549.6	14385.8	18123.3	19198.5	13549.7
77.5°	653.6	666.3	718.7	926.6	1236.4	1168.5	2386.5	9363.7	11354.1	12436.3	7981.6
80°	519.2	533.3	564.5	628.1	926.6	833.2	1138.8	4744.8	5484.7	5473.4	3185.8
82.5°	403.2	407.4	444.2	461.2	633.8	591.3	616.8	2008.8	2225.3	2298.8	1150.1
85°	254.6	267.4	393.3	353.7	379.1	346.6	304.2	797.9	983.2	969.0	459.8
87.5°	77.8	82.1	133.0	150.0	168.3	151.4	111.8	234.8	287.2	311.2	114.6
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°	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0	3159.0
2.5°	3177.3	3161.8	3106.6	3061.3	3018.9	2972.2	2932.6	2921.3	2911.4	2907.1	2905.7
5°	3207.1	3160.4	3051.4	2962.3	2891.6	2826.5	2785.5	2767.1	2748.7	2748.7	2754.4
7.5°	3249.5	3164.6	2996.3	2863.3	2774.2	2713.3	2683.6	2680.8	2685.0	2689.3	2690.7
10°	3296.2	3161.8	2915.6	2750.1	2670.9	2642.6	2644.0	2668.1	2690.7	2707.7	2710.5
12.5°	3341.4	3144.8	2820.8	2644.0	2593.1	2598.7	2638.4	2692.1	2736.0	2760.0	2761.4
15°	3392.4	3117.9	2706.3	2543.6	2526.6	2570.5	2644.0	2726.1	2792.6	2832.2	2836.4
17.5°	3434.8	3072.7	2586.0	2446.0	2467.2	2547.8	2649.7	2755.8	2836.4	2885.9	2894.4
20°	3482.9	3014.7	2461.5	2352.6	2413.4	2522.4	2638.4	2752.9	2836.4	2884.5	2895.8
22.5°	3521.1	2932.6	2342.7	2276.2	2365.3	2491.2	2600.2	2692.1	2760.0	2785.5	2802.5
25°	3536.7	2829.3	2230.9	2214.0	2327.1	2440.3	2513.9	2566.2	2587.4	2584.6	2591.7
27.5°	3528.2	2710.5	2134.7	2164.4	2279.0	2361.1	2397.9	2393.6	2355.4	2320.1	2337.0
30°	3492.8	2569.0	2054.1	2113.5	2216.8	2262.1	2256.4	2201.2	2129.1	2062.6	2066.8
32.5°	3429.2	2416.3	1979.1	2055.5	2129.1	2148.9	2110.7	2038.5	1935.3	1849.0	1836.2
35°	3375.4	2270.5	1912.6	1989.0	2041.4	2031.5	1994.7	1901.3	1807.9	1731.6	1718.8
37.5°	3366.9	2146.1	1849.0	1914.0	1943.8	1929.6	1884.3	1805.1	1771.2	1713.2	1706.1
40°	3412.2	2058.3	1783.9	1834.8	1849.0	1837.7	1788.1	1742.9	1774.0	1759.8	1759.8
42.5°	3535.3	2011.7	1725.9	1755.6	1766.9	1775.4	1740.0	1701.8	1740.0	1675.0	1653.7
45°	3730.5	2013.1	1673.6	1677.8	1711.7	1741.5	1717.4	1660.8	1641.0	1510.9	1485.4
47.5°	4017.7	2061.2	1631.1	1604.2	1665.1	1714.6	1680.6	1598.6	1510.9	1424.6	1409.0
50°	4352.9	2147.5	1592.9	1527.8	1602.8	1680.6	1655.2	1559.0	1468.4	1416.1	1406.2
52.5°	4725.0	2256.4	1546.2	1443.0	1526.4	1665.1	1660.8	1553.3	1428.8	1393.4	1385.0
55°	5184.8	2363.9	1488.2	1343.9	1458.5	1652.3	1645.3	1506.6	1420.3	1394.9	1392.0
57.5°	5719.5	2519.5	1404.8	1243.5	1380.7	1600.0	1584.4	1478.3	1392.0	1373.6	1372.2
60°	6581.0	2761.4	1285.9	1151.5	1301.5	1508.0	1527.8	1430.2	1346.8	1342.5	1341.1
62.5°	7714.2	3101.0	1162.9	1056.8	1209.5	1389.2	1445.8	1365.2	1298.7	1319.9	1322.7
65°	9278.8	3386.7	1035.5	976.1	1107.7	1274.6	1368.0	1304.3	1244.9	1285.9	1285.9
67.5°	10298.8	3392.4	919.5	892.7	1004.4	1178.4	1285.9	1232.2	1175.6	1244.9	1247.7
70°	10086.6	2972.2	823.3	804.9	904.0	1075.1	1195.4	1153.0	1087.9	1150.1	1127.5
71°	9744.2	2738.8	785.1	771.0	864.4	1025.6	1153.0	1117.6	1052.5	1093.5	1080.8
72.5°	9198.2	2378.1	722.9	725.7	804.9	963.4	1093.5	1056.8	991.7	1014.3	1010.1
75°	7775.0	2076.7	618.2	630.9	691.8	857.3	974.7	946.4	879.9	879.9	875.7
77.5°	4860.8	1451.4	513.5	520.6	587.1	734.2	837.5	813.4	749.8	728.6	722.9
80°	1813.6	749.8	401.8	410.3	451.3	578.6	693.2	670.6	605.5	581.4	558.8
82.5°	686.1	376.3	295.7	288.6	332.4	441.4	543.2	516.4	465.4	407.4	390.4
85°	258.9	186.7	181.1	175.4	195.2	261.7	336.7	331.0	277.3	236.2	232.0
87.5°	67.9	60.8	70.7	52.3	55.2	49.5	50.9	21.2	9.9	4.2	2.8
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)