

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: P651610

Luminaire Tested: **GALN-SA9D-840-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651610
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-SA9D-840-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59557.1 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

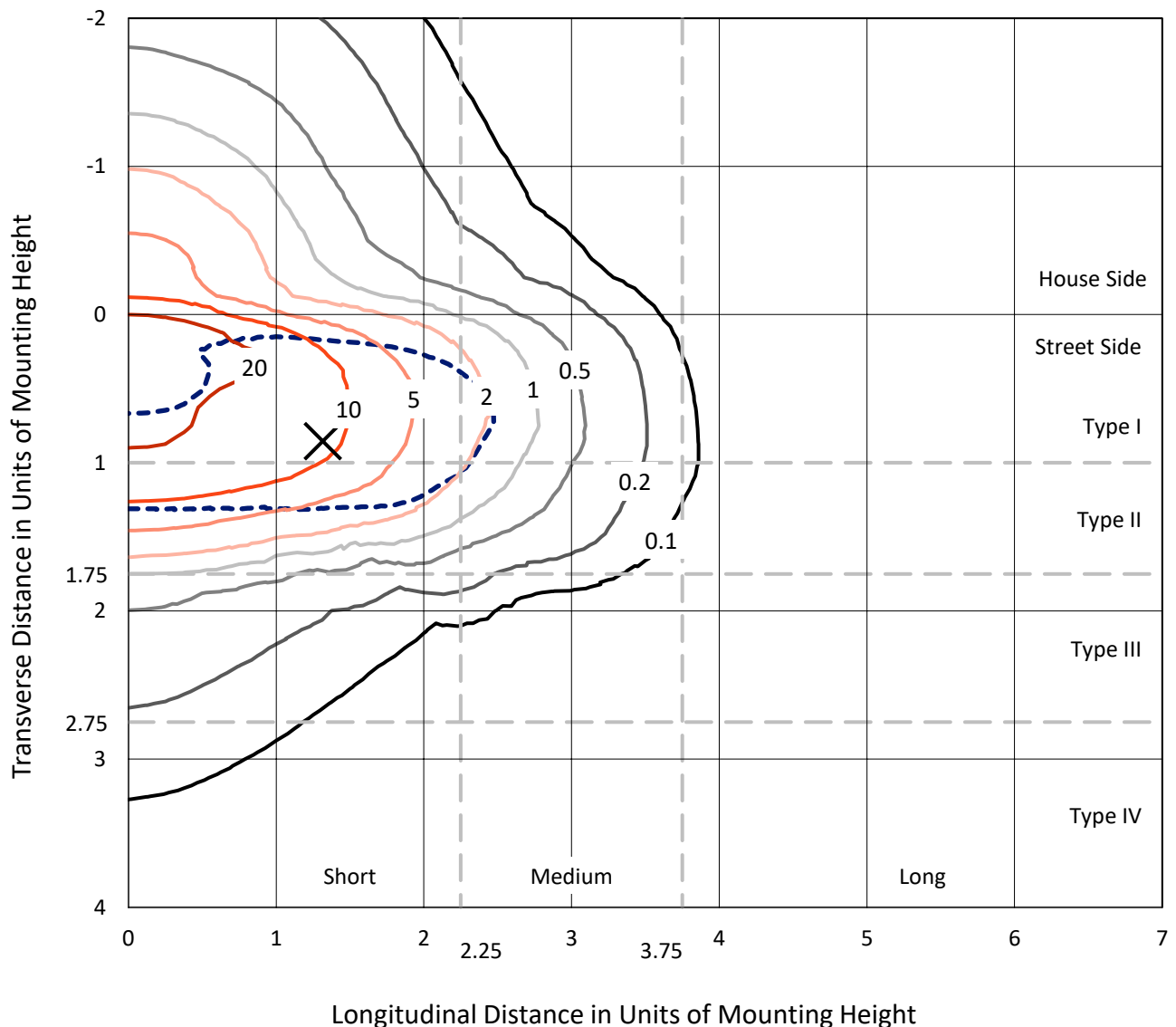
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

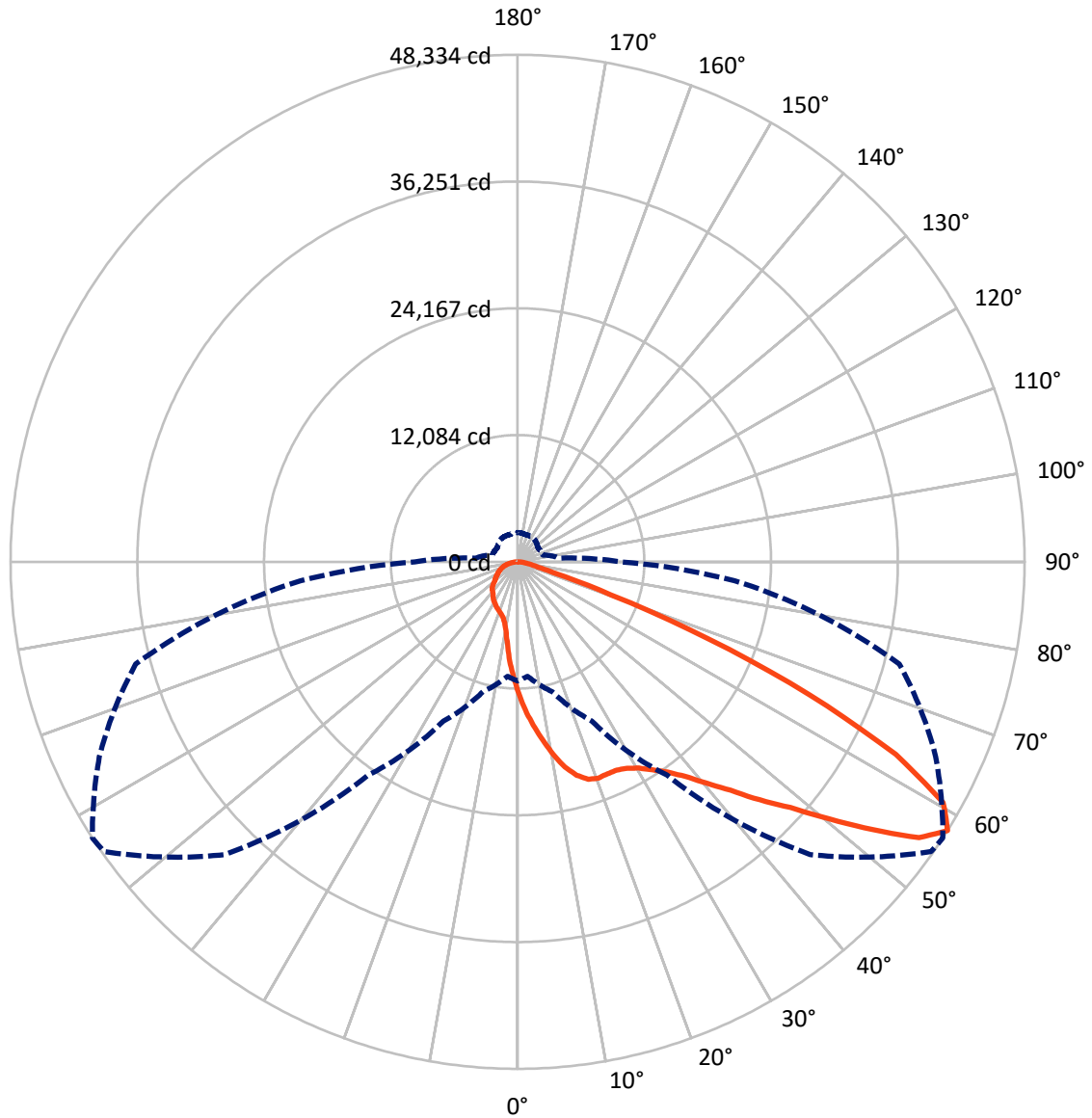
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 30.5 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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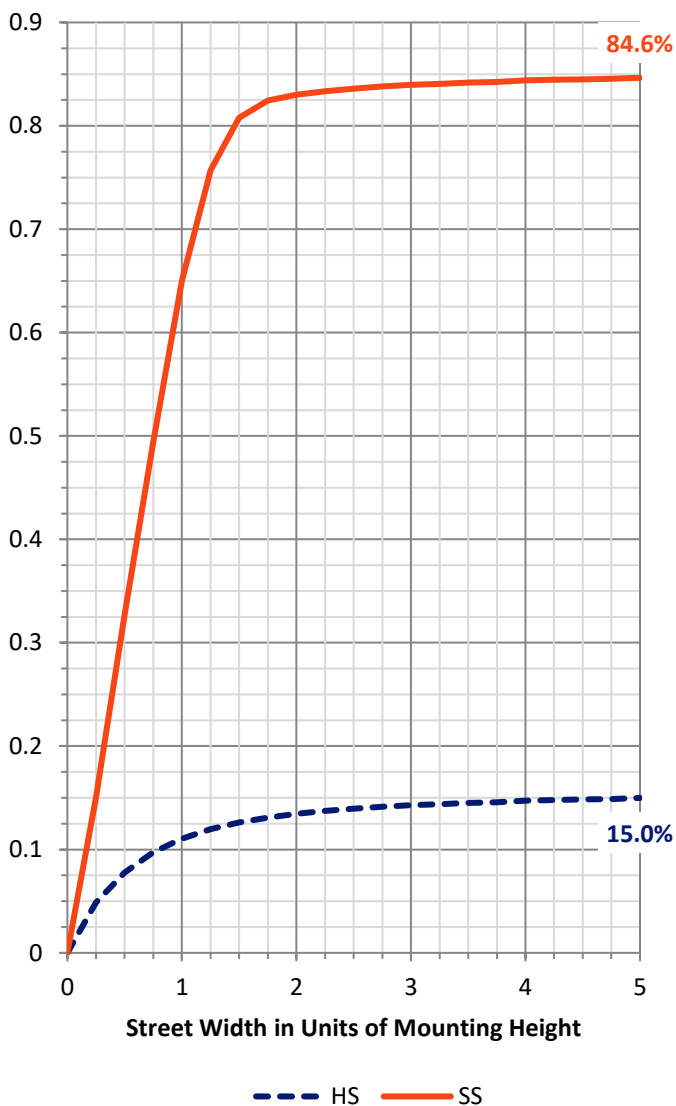
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9057.0	0.0	9057.0
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	50500.1	0.0	50500.1
	% Fixture	84.8	0.0	84.8
Total	Lumens	59557.1	0.0	59557.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1202.5	2.0
10°-20°	3544.0	6.0
20°-30°	5884.8	9.9
30°-40°	8864.3	14.9
40°-50°	13308.9	22.3
50°-60°	14917.6	25.0
60°-70°	8730.5	14.7
70°-80°	2582.4	4.3
80°-90°	522.0	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°	59557.1	100.0
0°-180°	59557.1	100.0

Coefficient of Utilization

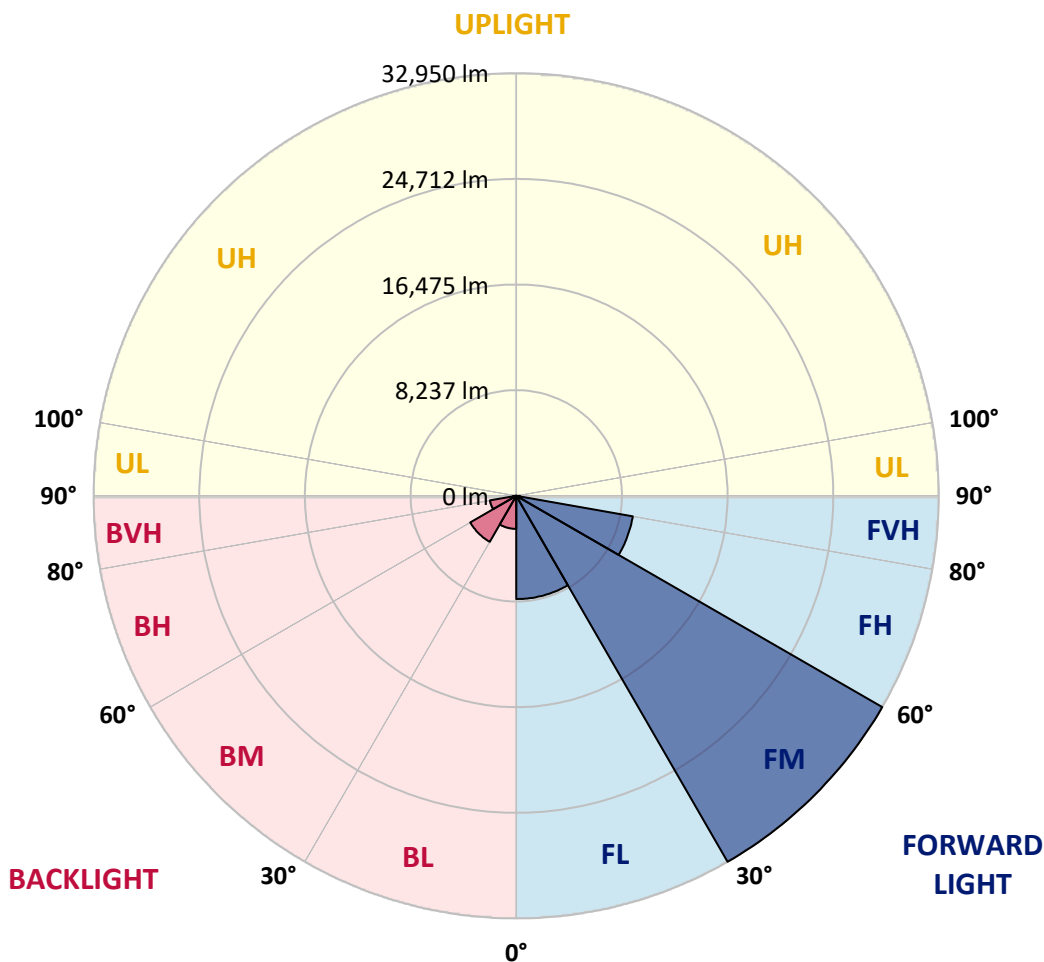


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	8050.7	13.5			
FM	(30°-60°)	32949.6	55.3			
FH	(60°-80°)	9229.0	15.5			G4/12000
FVH	(80°-90°)	270.8	0.5			G3/500
BL	(0°-30°)	2580.6	4.3	B4/5000		
BM	(30°-60°)	4141.2	7.0	B3/5000		
BH	(60°-80°)	2084.0	3.5	B3/2500		G3/2500
BVH	(80°-90°)	251.2	0.4			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2
2.5°	15547.4	15377.9	15244.2	15126.9	14973.7	14559.6	14145.5	14139.1	13809.8	13301.2	12779.6
5°	18080.5	17852.3	17881.7	17516.5	17151.4	16551.6	15674.6	15628.9	14928.0	13976.1	13007.8
7.5°	19730.1	19733.4	19642.1	19433.5	19039.0	18357.6	17363.3	17138.3	16163.6	14719.4	13268.6
10°	19645.3	19733.4	19886.6	20065.9	20186.5	19850.7	18944.5	18670.6	17402.4	15619.1	13558.8
12.5°	18517.4	18654.3	18872.7	19322.6	20049.6	20603.8	20294.1	20072.4	18836.9	16515.6	13878.3
15°	17813.2	17894.7	18015.3	18318.5	19101.0	20427.8	21229.8	21112.4	20189.8	17529.6	14236.9
17.5°	17598.0	17679.5	17718.6	17904.5	18462.0	19821.4	21598.1	21806.8	21389.5	18462.0	14598.8
20°	17813.2	17852.3	17852.3	17963.2	18400.0	19466.0	21581.8	22002.4	22374.0	19580.2	14937.8
22.5°	18377.2	18393.5	18370.6	18409.8	18735.8	19563.8	21428.7	21950.3	23169.6	20528.8	15201.8
25°	19293.3	19319.4	19169.4	19078.1	19316.1	19994.2	21513.4	21992.7	23792.2	21435.2	15377.9
27.5°	20333.3	20365.8	20183.2	19971.4	20082.2	20525.6	21845.9	22276.2	24258.4	22328.5	15488.7
30°	21608.0	21621.0	21314.6	21060.2	20988.5	21317.8	22413.2	22814.1	24838.7	23381.4	15655.0
32.5°	22912.0	23009.8	22615.3	22256.7	22136.0	22237.1	23251.0	23639.0	25529.8	24512.7	15922.3
35°	24685.5	24701.8	24229.0	23792.2	23394.5	23524.9	24323.6	24604.0	26485.0	25820.0	16300.5
37.5°	26899.0	27049.1	26397.1	25582.0	25093.0	24903.9	25621.1	25927.6	27825.0	27424.0	16871.0
40°	29357.2	29412.6	28855.1	28346.6	27453.3	26905.6	27401.1	27733.7	29477.8	29337.6	17532.8
42.5°	30902.5	31023.1	31065.5	31013.3	30341.8	29422.4	29611.5	29768.0	31433.9	31134.0	18210.9
45°	31424.1	31603.4	32209.8	33494.3	33566.0	32659.6	32219.6	32369.5	33566.0	32946.6	18859.7
47.5°	30560.2	30866.6	31984.8	34619.0	36591.4	36659.9	35332.9	35003.7	35509.0	34449.5	19329.1
50°	28327.0	28392.2	30103.8	33918.1	38009.5	40483.9	39111.5	38498.5	37354.2	35561.2	19651.9
52.5°	24871.3	24946.2	26380.7	30661.3	37135.8	43157.2	43532.1	42436.7	39228.8	36425.1	19863.8
55°	18462.0	18895.5	20473.4	24610.5	32995.5	42906.1	47046.5	46423.8	41494.5	37109.7	20196.3
57.5°	11351.6	10953.9	12825.2	16743.9	24815.9	39457.0	48132.1	48334.2	43988.5	37683.5	20753.8
60°	5222.7	5300.9	6073.5	8636.0	15126.9	30866.6	45334.9	46612.9	45367.6	37663.9	20894.0
62.5°	3599.1	3527.4	3331.8	3791.5	6898.4	19521.5	38293.2	40457.8	42603.0	36493.6	20336.5
65°	3217.8	3146.0	2767.8	2640.7	3168.8	8508.9	27838.0	30569.9	35870.9	33539.9	18947.7
67.5°	3005.8	2908.0	2516.8	2269.0	2262.5	3387.2	16414.6	19704.0	26605.7	28356.3	16417.8
70°	2784.1	2705.9	2318.0	2044.1	1926.7	2128.8	7214.6	9444.5	17275.2	20434.3	12789.3
72.5°	2562.4	2471.2	2122.3	1828.9	1675.7	1594.2	2764.5	3595.9	9760.7	12251.4	7840.6
75°	2239.7	2194.1	1897.4	1656.1	1489.8	1287.7	1753.9	2001.7	4668.5	5627.0	3935.0
77.5°	1959.4	1910.4	1685.4	1447.4	1326.8	1046.5	1245.4	1359.5	1969.1	2282.1	1776.8
80°	1434.4	1483.4	1421.4	1278.0	1183.5	821.6	837.8	932.4	1170.3	1294.3	1085.6
82.5°	909.5	1000.9	1095.4	984.6	896.5	648.7	580.3	616.2	798.7	847.6	482.5
85°	381.4	388.0	635.7	599.9	511.8	384.7	348.8	368.4	427.1	446.7	225.0
87.5°	146.7	143.5	225.0	208.7	159.7	110.8	110.8	123.9	169.5	156.5	71.7
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°	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2	12512.2
2.5°	12554.6	12323.2	11863.5	11292.9	10875.7	10406.3	9992.2	9695.6	9584.7	9532.6	9434.8
5°	12544.9	12088.4	11136.5	10138.9	9337.0	8515.4	7821.0	7371.1	7332.0	7032.0	7002.7
7.5°	12548.1	11850.4	10334.5	8867.5	7644.9	6803.9	6230.0	6080.1	5900.8	5855.1	5878.0
10°	12557.9	11547.3	9473.9	7609.1	6425.7	5874.7	5659.5	5600.9	5607.4	5627.0	5630.2
12.5°	12570.9	11253.8	8580.6	6653.8	5741.0	5512.8	5490.0	5542.2	5597.6	5640.0	5649.8
15°	12587.2	10918.1	7710.1	5884.5	5398.7	5379.2	5454.1	5542.2	5620.4	5682.4	5692.1
17.5°	12567.7	10526.9	6979.9	5411.8	5209.7	5304.2	5428.1	5538.9	5610.6	5669.3	5675.8
20°	12522.1	10090.0	6275.7	5079.2	5092.3	5245.5	5379.2	5483.5	5561.7	5591.1	5613.9
22.5°	12346.0	9568.4	5662.8	4821.7	4952.1	5164.0	5323.8	5385.7	5297.6	5235.7	5252.0
25°	12046.1	8890.3	5092.3	4613.1	4825.0	5049.9	5212.9	5062.9	4991.3	4965.1	4978.1
27.5°	11671.1	8147.0	4661.9	4394.6	4661.9	4922.7	4877.1	4851.1	4818.4	4776.0	4785.8
30°	11266.9	7420.0	4296.8	4225.1	4485.9	4635.8	4655.4	4697.8	4661.9	4596.7	4622.8
32.5°	10892.0	6735.4	4019.7	4081.6	4362.0	4339.2	4485.9	4534.8	4368.6	4150.1	4159.9
35°	10572.5	6099.7	3811.1	3941.4	4150.1	4159.9	4306.6	4137.0	3957.7	3853.5	3859.9
37.5°	10331.3	5604.1	3674.2	3820.8	3879.5	4003.4	3925.2	3837.1	3814.4	3742.6	3745.8
40°	10187.8	5170.6	3586.1	3726.3	3716.5	3801.2	3550.3	3638.3	3670.9	3648.1	3651.3
42.5°	10044.4	4864.1	3494.9	3595.9	3592.7	3426.4	3371.0	3445.9	3530.7	3540.4	3534.0
45°	9930.3	4626.1	3400.2	3397.1	3462.2	3201.4	3185.1	3230.8	3351.4	3410.1	3406.8
47.5°	9803.1	4427.2	3256.9	3165.5	3185.1	3061.2	3035.2	3054.7	3201.4	3296.0	3322.0
50°	9643.4	4228.4	3077.6	2953.7	2872.2	2930.8	2937.4	2940.6	3087.3	3194.9	3217.8
52.5°	9516.3	4078.3	2872.2	2780.9	2683.0	2813.5	2862.3	2868.9	2956.9	3044.9	3061.2
55°	9591.2	3993.7	2670.0	2604.8	2516.8	2692.9	2787.4	2800.4	2820.0	2885.2	2895.0
57.5°	9816.2	4013.2	2507.0	2422.2	2357.1	2549.4	2709.1	2719.0	2705.9	2784.1	2797.2
60°	9884.6	4003.4	2386.4	2220.2	2181.0	2396.2	2595.1	2614.6	2611.3	2725.4	2748.3
62.5°	9597.7	3879.5	2265.7	2050.6	2024.5	2239.7	2435.3	2513.5	2529.8	2692.9	2722.1
65°	8922.9	3625.2	2106.0	1871.3	1871.3	2073.4	2282.1	2389.6	2435.3	2653.7	2686.3
67.5°	8032.9	3325.3	1943.0	1718.1	1711.5	1913.7	2119.1	2229.9	2301.6	2598.3	2617.9
70°	6666.9	2921.0	1740.9	1551.8	1551.8	1734.4	1920.2	2053.9	2158.2	2494.0	2494.0
72.5°	4567.4	2428.8	1496.4	1362.8	1366.0	1535.5	1724.6	1874.6	1998.5	2285.3	2291.8
75°	2888.4	1897.4	1229.0	1160.6	1173.6	1333.4	1529.0	1685.4	1933.2	2259.3	2269.0
77.5°	1535.5	1333.4	978.0	961.8	978.0	1124.8	1343.2	1558.3	1939.8	1959.4	1926.7
80°	994.3	945.5	772.6	740.1	746.6	906.3	1196.5	1480.1	1558.3	1577.9	1506.1
82.5°	541.2	599.9	547.7	515.1	515.1	707.4	1020.4	1176.9	1118.2	929.1	886.8
85°	231.4	280.4	283.7	247.8	238.0	436.8	684.7	642.3	596.6	570.5	564.0
87.5°	65.2	91.2	91.2	68.5	52.1	120.6	136.9	39.1	0.0	3.3	6.6
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)