

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: P453384

Luminaire Tested: **GALN-SA4B-830-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453384
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-SA4B-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18062 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

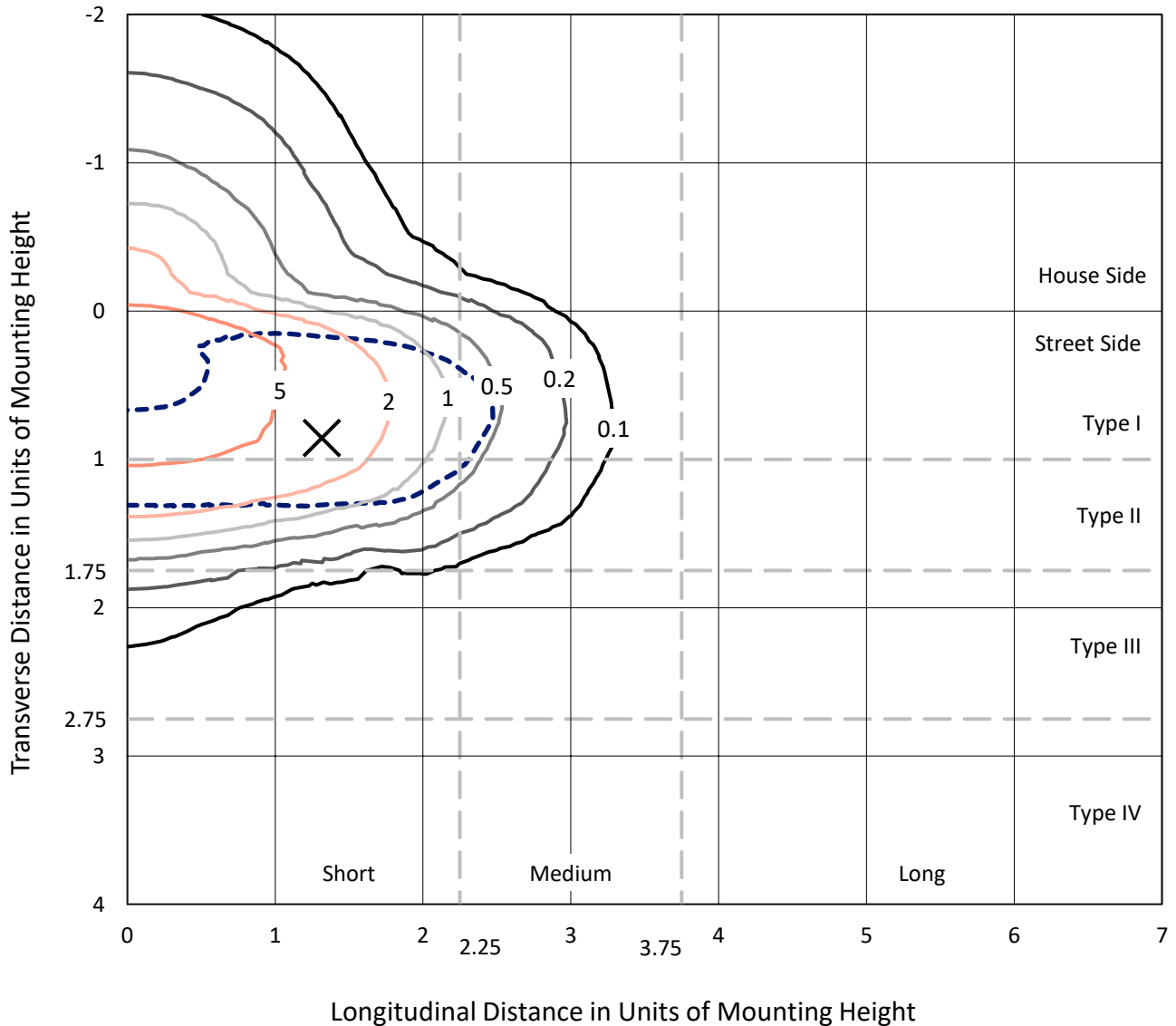
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

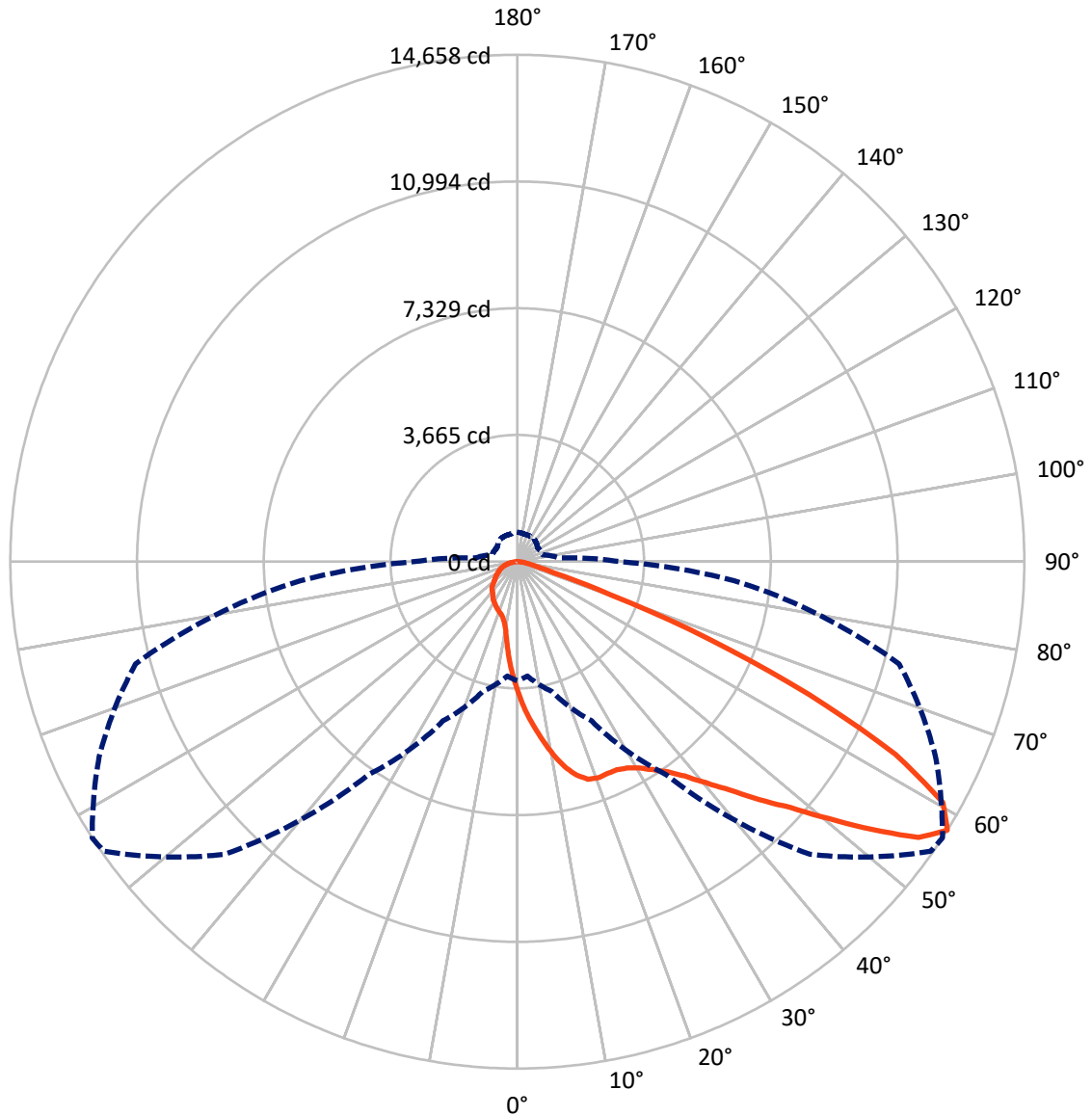
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 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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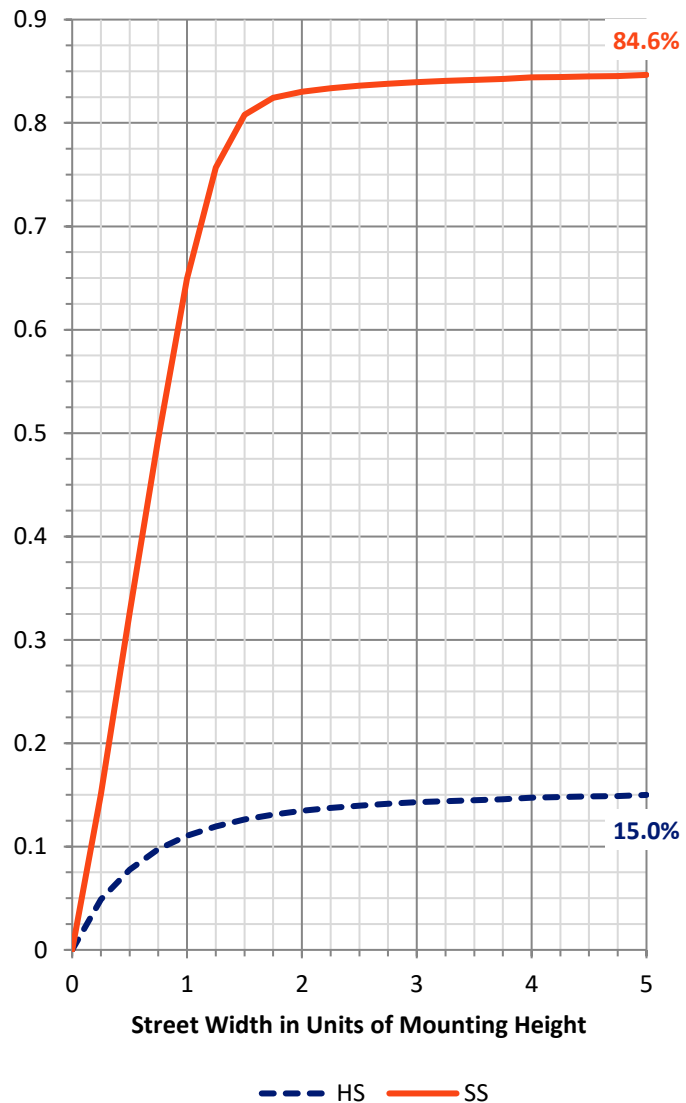
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2746.7	0.0	2746.7
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	15315.3	0.0	15315.3
	% Fixture	84.8	0.0	84.8
Total	Lumens	18062.0	0.0	18062.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	364.7	2.0
10°-20°	1074.8	6.0
20°-30°	1784.7	9.9
30°-40°	2688.3	14.9
40°-50°	4036.2	22.3
50°-60°	4524.1	25.0
60°-70°	2647.7	14.7
70°-80°	783.2	4.3
80°-90°	158.3	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°	18062.0	100.0
0°-180°	18062.0	100.0



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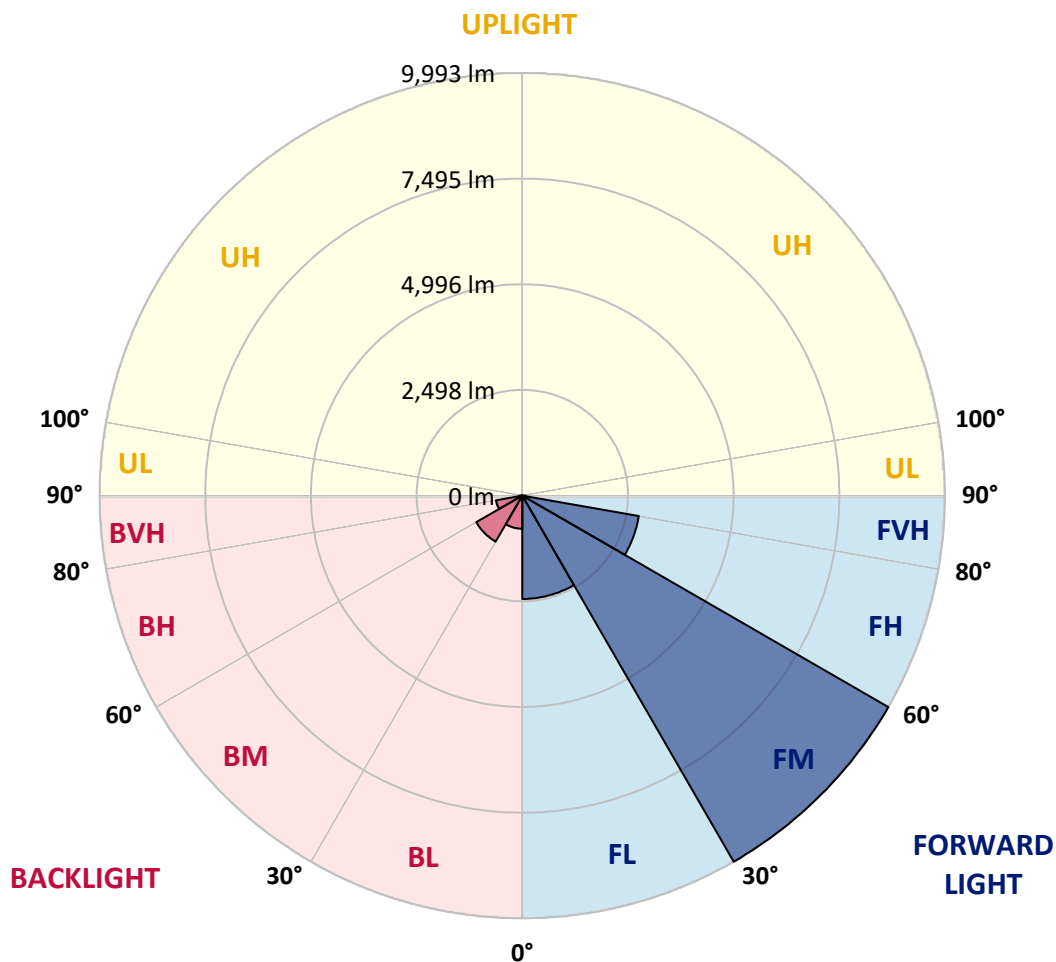
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2441.6	13.5			
FM	(30°-60°)	9992.7	55.3			
FH	(60°-80°)	2798.9	15.5			G2/5000
FVH	(80°-90°)	82.1	0.5			G1/100
BL	(0°-30°)	782.6	4.3	B2/1000		
BM	(30°-60°)	1255.9	7.0	B2/2500		
BH	(60°-80°)	632.0	3.5	B2/1000		G2/1000
BVH	(80°-90°)	76.2	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°	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6
2.5°	4715.1	4663.7	4623.1	4587.6	4541.1	4415.5	4290.0	4288.0	4188.1	4033.9	3875.7
5°	5483.3	5414.1	5423.0	5312.3	5201.5	5019.6	4753.7	4739.8	4527.2	4238.5	3944.9
7.5°	5983.6	5984.6	5956.9	5893.6	5774.0	5567.4	5265.8	5197.6	4902.0	4464.0	4024.0
10°	5957.9	5984.6	6031.1	6085.4	6122.0	6020.2	5745.3	5662.3	5277.7	4736.8	4112.0
12.5°	5615.8	5657.3	5723.6	5860.0	6080.5	6248.6	6154.6	6087.4	5712.7	5008.7	4208.9
15°	5402.2	5427.0	5463.5	5555.5	5792.8	6195.2	6438.4	6402.8	6123.0	5316.2	4317.6
17.5°	5337.0	5361.7	5373.6	5429.9	5599.0	6011.3	6550.1	6613.4	6486.8	5599.0	4427.4
20°	5402.2	5414.1	5414.1	5447.7	5580.2	5903.5	6545.2	6672.7	6785.4	5938.1	4530.2
22.5°	5573.3	5578.2	5571.3	5583.2	5682.0	5933.2	6498.7	6656.9	7026.7	6225.8	4610.3
25°	5851.1	5859.0	5813.5	5785.9	5858.0	6063.7	6524.4	6669.8	7215.5	6500.7	4663.7
27.5°	6166.5	6176.4	6121.0	6056.8	6090.4	6224.8	6625.3	6755.8	7356.9	6771.6	4697.3
30°	6553.1	6557.0	6464.1	6387.0	6365.2	6465.1	6797.3	6918.9	7532.9	7090.9	4747.7
32.5°	6948.6	6978.2	6858.6	6749.8	6713.3	6743.9	7051.4	7169.0	7742.5	7434.0	4828.8
35°	7486.4	7491.4	7348.0	7215.5	7094.9	7134.4	7376.7	7461.7	8032.2	7830.5	4943.5
37.5°	8157.7	8203.2	8005.5	7758.3	7610.0	7552.7	7770.2	7863.1	8438.5	8316.9	5116.5
40°	8903.2	8920.0	8751.0	8596.7	8325.8	8159.7	8310.0	8410.8	8939.8	8897.3	5317.2
42.5°	9371.9	9408.4	9421.3	9405.5	9201.8	8923.0	8980.3	9027.8	9533.0	9442.1	5522.9
45°	9530.1	9584.4	9768.3	10157.9	10179.6	9904.8	9771.3	9816.8	10179.6	9991.8	5719.6
47.5°	9268.0	9361.0	9700.1	10499.0	11097.1	11117.9	10715.5	10615.6	10768.9	10447.6	5862.0
50°	8590.8	8610.6	9129.6	10286.4	11527.2	12277.6	11861.4	11675.5	11328.5	10784.7	5959.9
52.5°	7542.8	7565.5	8000.5	9298.7	11262.2	13088.4	13202.1	12869.9	11897.0	11046.7	6024.1
55°	5599.0	5730.5	6209.0	7463.7	10006.6	13012.2	14267.9	14079.0	12584.1	11254.3	6125.0
57.5°	3442.6	3322.0	3889.5	5077.9	7526.0	11966.2	14597.1	14658.4	13340.5	11428.3	6294.0
60°	1583.9	1607.6	1841.9	2619.1	4587.6	9361.0	13748.8	14136.4	13758.7	11422.4	6336.6
62.5°	1091.5	1069.8	1010.4	1149.9	2092.1	5920.3	11613.2	12269.7	12920.3	11067.5	6167.5
65°	975.8	954.1	839.4	800.8	961.0	2580.5	8442.5	9271.0	10878.6	10171.7	5746.3
67.5°	911.6	881.9	763.3	688.1	686.2	1027.3	4978.1	5975.7	8068.8	8599.7	4979.1
70°	844.3	820.6	703.0	619.9	584.3	645.6	2188.0	2864.3	5239.1	6197.2	3878.7
72.5°	777.1	749.4	643.6	554.7	508.2	483.5	838.4	1090.5	2960.2	3715.5	2377.8
75°	679.2	665.4	575.4	502.3	451.8	390.5	531.9	607.1	1415.8	1706.5	1193.4
77.5°	594.2	579.4	511.2	439.0	402.4	317.4	377.7	412.3	597.2	692.1	538.8
80°	435.0	449.9	431.1	387.6	358.9	249.2	254.1	282.8	354.9	392.5	329.2
82.5°	275.8	303.5	332.2	298.6	271.9	196.8	176.0	186.9	242.2	257.1	146.3
85°	115.7	117.7	192.8	181.9	155.2	116.7	105.8	111.7	129.5	135.5	68.2
87.5°	44.5	43.5	68.2	63.3	48.4	33.6	33.6	37.6	51.4	47.5	21.8
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°	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6	3794.6
2.5°	3807.5	3737.3	3597.9	3424.8	3298.3	3155.9	3030.4	2940.4	2906.8	2891.0	2861.3
5°	3804.5	3666.1	3377.4	3074.8	2831.6	2582.5	2371.9	2235.4	2223.6	2132.6	2123.7
7.5°	3805.5	3593.9	3134.2	2689.3	2318.5	2063.4	1889.4	1843.9	1789.5	1775.7	1782.6
10°	3808.5	3502.0	2873.2	2307.6	1948.7	1781.6	1716.4	1698.6	1700.6	1706.5	1707.5
12.5°	3812.4	3413.0	2602.3	2017.9	1741.1	1671.9	1665.0	1680.8	1697.6	1710.4	1713.4
15°	3817.4	3311.1	2338.3	1784.6	1637.3	1631.4	1654.1	1680.8	1704.5	1723.3	1726.3
17.5°	3811.4	3192.5	2116.8	1641.2	1579.9	1608.6	1646.2	1679.8	1701.5	1719.3	1721.3
20°	3797.6	3060.0	1903.2	1540.4	1544.3	1590.8	1631.4	1663.0	1686.7	1695.6	1702.5
22.5°	3744.2	2901.8	1717.4	1462.3	1501.8	1566.1	1614.5	1633.3	1606.6	1587.8	1592.8
25°	3653.2	2696.2	1544.3	1399.0	1463.3	1531.5	1580.9	1535.4	1513.7	1505.8	1509.7
27.5°	3539.5	2470.8	1413.8	1332.8	1413.8	1492.9	1479.1	1471.2	1461.3	1448.4	1451.4
30°	3416.9	2250.3	1303.1	1281.4	1360.4	1405.9	1411.9	1424.7	1413.8	1394.1	1402.0
32.5°	3303.2	2042.6	1219.1	1237.8	1322.9	1316.0	1360.4	1375.3	1324.9	1258.6	1261.6
35°	3206.3	1849.9	1155.8	1195.3	1258.6	1261.6	1306.1	1254.7	1200.3	1168.6	1170.6
37.5°	3133.2	1699.6	1114.3	1158.8	1176.5	1214.1	1190.4	1163.7	1156.8	1135.0	1136.0
40°	3089.7	1568.1	1087.6	1130.1	1127.1	1152.8	1076.7	1103.4	1113.3	1106.4	1107.3
42.5°	3046.2	1475.1	1059.9	1090.5	1089.5	1039.1	1022.3	1045.1	1070.8	1073.7	1071.7
45°	3011.6	1403.0	1031.2	1030.2	1050.0	970.9	966.0	979.8	1016.4	1034.2	1033.2
47.5°	2973.0	1342.7	987.7	960.0	966.0	928.4	920.5	926.4	970.9	999.6	1007.5
50°	2924.6	1282.3	933.3	895.8	871.0	888.8	890.8	891.8	936.3	968.9	975.8
52.5°	2886.0	1236.9	871.0	843.4	813.7	853.2	868.1	870.1	896.7	923.4	928.4
55°	2908.7	1211.2	809.7	790.0	763.3	816.7	845.3	849.3	855.2	875.0	878.0
57.5°	2977.0	1217.1	760.3	734.6	714.8	773.2	821.6	824.6	820.6	844.3	848.3
60°	2997.7	1214.1	723.7	673.3	661.4	726.7	787.0	792.9	791.9	826.6	833.5
62.5°	2910.7	1176.5	687.1	621.9	614.0	679.2	738.6	762.3	767.2	816.7	825.6
65°	2706.1	1099.4	638.7	567.5	567.5	628.8	692.1	724.7	738.6	804.8	814.7
67.5°	2436.1	1008.5	589.3	521.0	519.1	580.4	642.7	676.3	698.0	788.0	793.9
70°	2021.9	885.9	528.0	470.6	470.6	526.0	582.3	622.9	654.5	756.4	756.4
72.5°	1385.2	736.6	453.8	413.3	414.3	465.7	523.0	568.5	606.1	693.1	695.1
75°	876.0	575.4	372.7	352.0	355.9	404.4	463.7	511.2	586.3	685.2	688.1
77.5°	465.7	404.4	296.6	291.7	296.6	341.1	407.3	472.6	588.3	594.2	584.3
80°	301.6	286.7	234.3	224.4	226.4	274.9	362.9	448.9	472.6	478.5	456.8
82.5°	164.1	181.9	166.1	156.2	156.2	214.5	309.5	356.9	339.1	281.8	268.9
85°	70.2	85.0	86.0	75.1	72.2	132.5	207.6	194.8	180.9	173.0	171.0
87.5°	19.8	27.7	27.7	20.8	15.8	36.6	41.5	11.9	0.0	1.0	2.0
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)