

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: P299260

Luminaire Tested: **GLNA-AF-08-LED-E1-T3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299260
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-T3-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31324.5 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

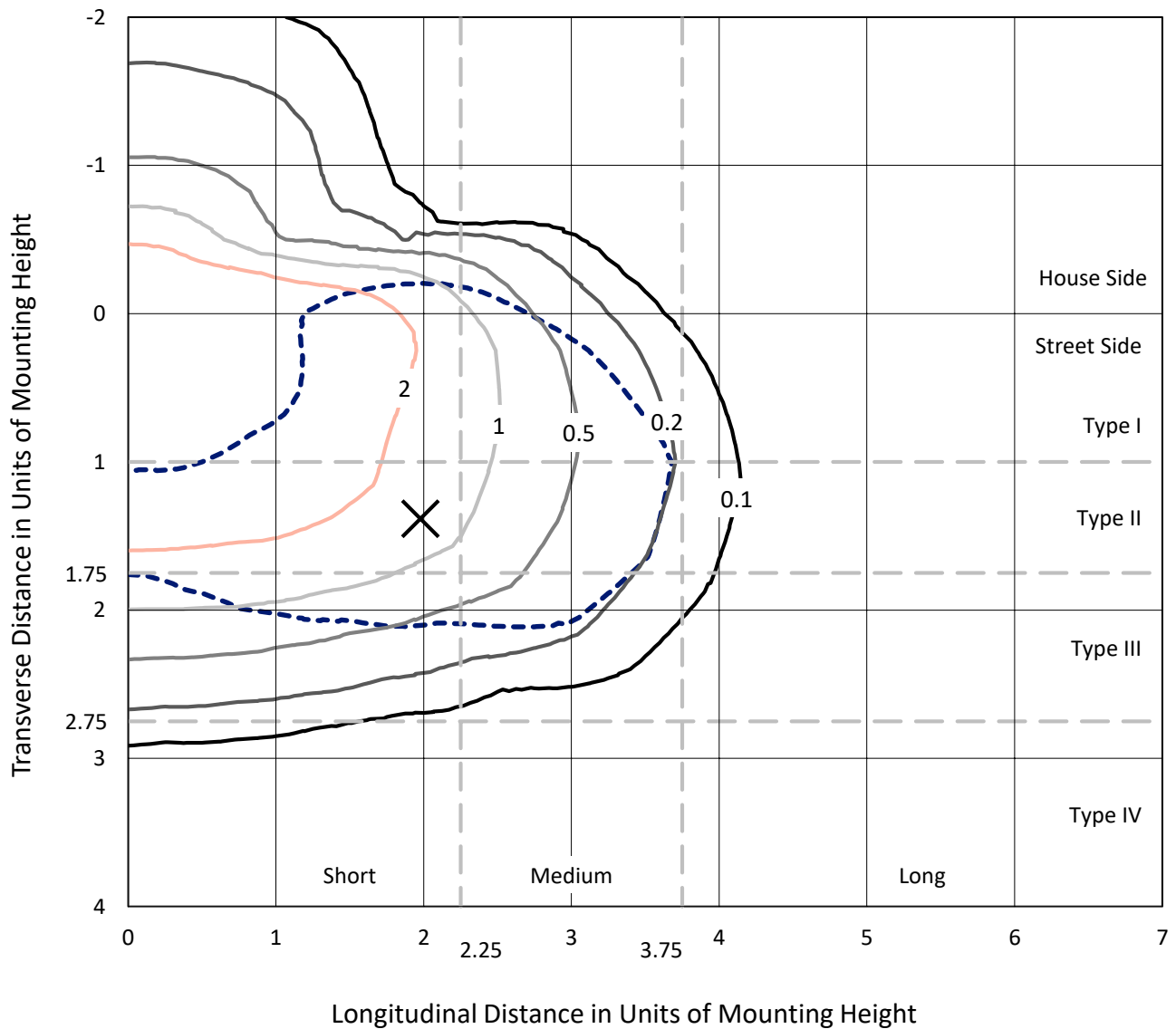
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

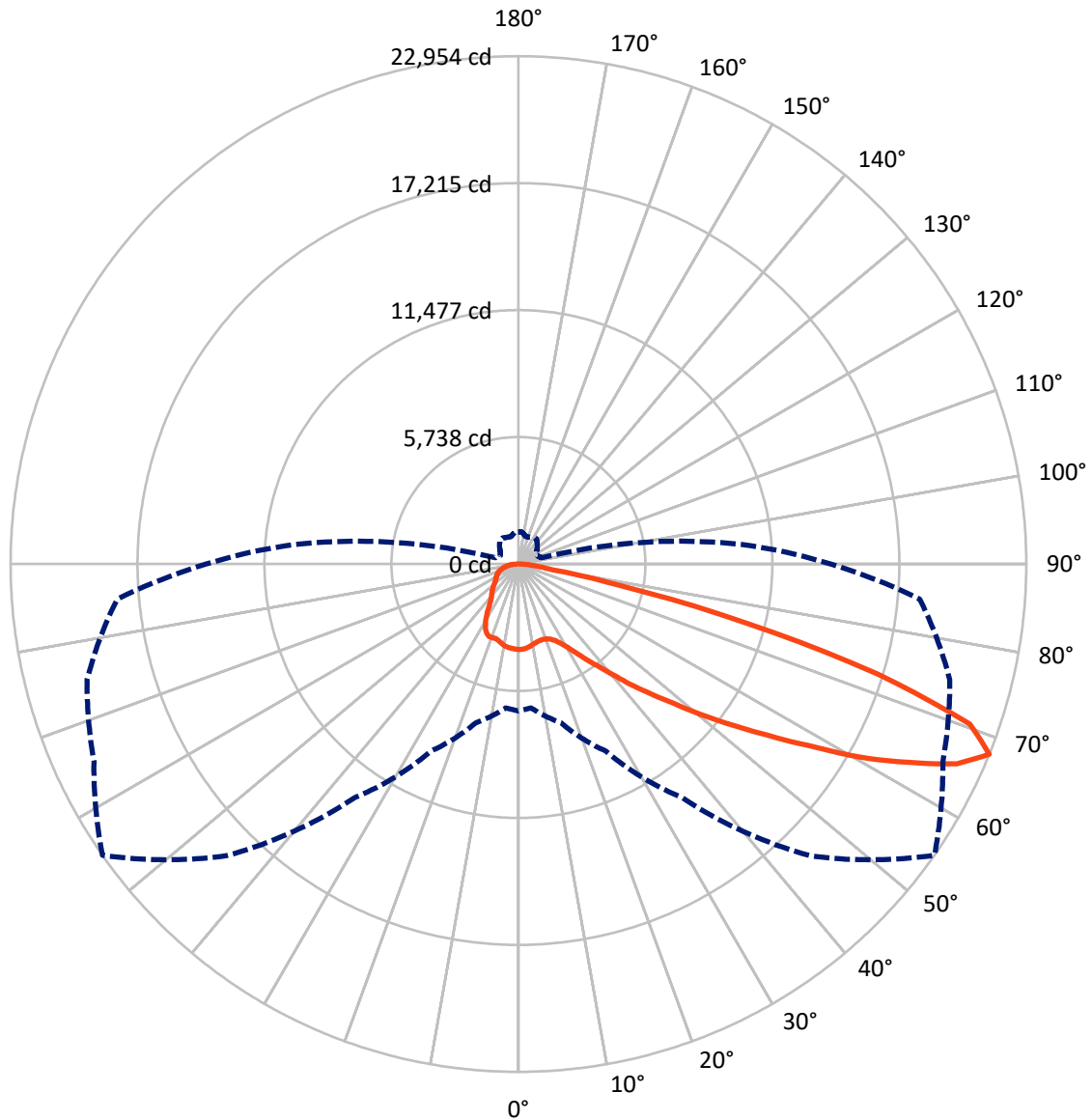
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6766.8	0.0	6766.8
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	24557.7	0.0	24557.7
	% Fixture	78.4	0.0	78.4
Total	Lumens	31324.5	0.0	31324.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.5	1.2
10°-20°	1021.1	3.3
20°-30°	1710.5	5.5
30°-40°	2812.7	9.0
40°-50°	4734.7	15.1
50°-60°	7452.1	23.8
60°-70°	8893.2	28.4
70°-80°	3818.9	12.2
80°-90°	520.7	1.7
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°	31324.5	100.0
0°-180°	31324.5	100.0



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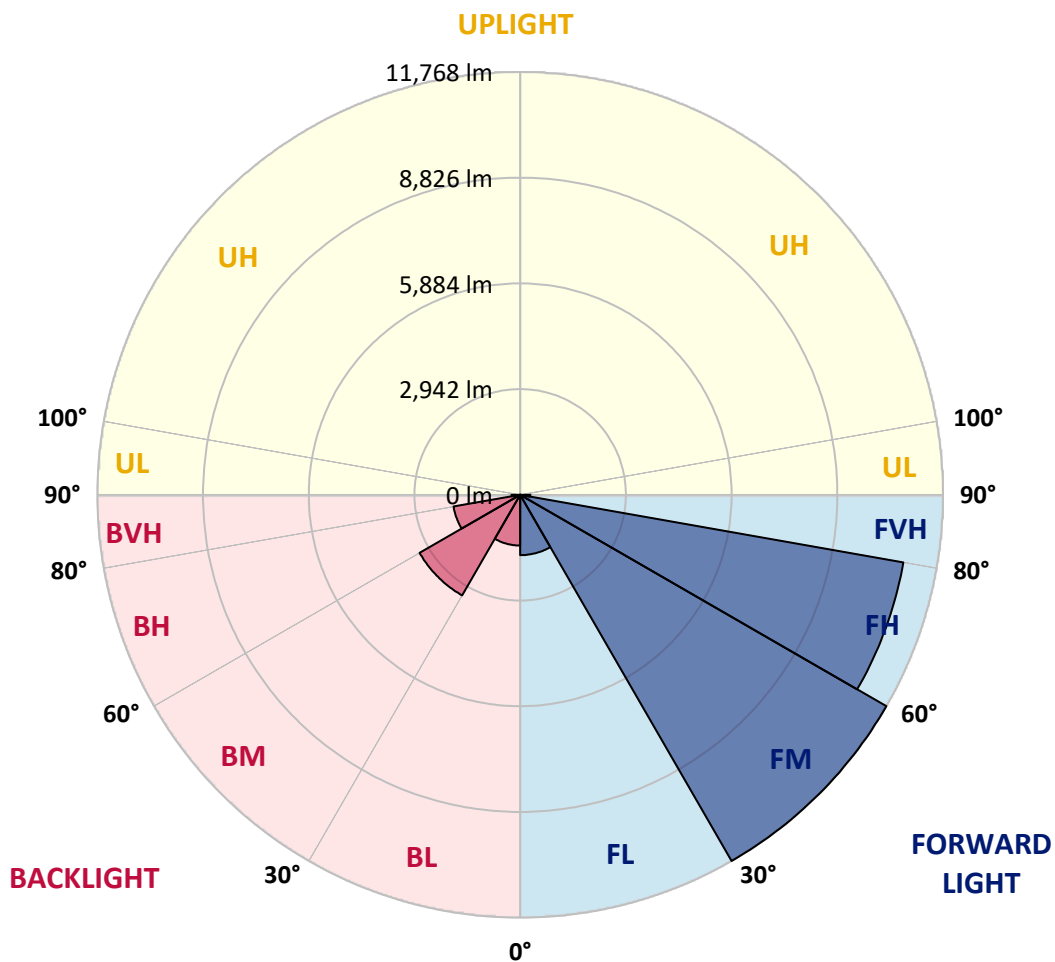
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1679.1	5.4			
FM	(30°-60°)	11767.8	37.6			
FH	(60°-80°)	10829.0	34.6			G4/12000
FVH	(80°-90°)	281.8	0.9			G3/500
BL	(0°-30°)	1413.0	4.5	B3/2500		
BM	(30°-60°)	3231.7	10.3	B3/5000		
BH	(60°-80°)	1883.2	6.0	B3/2500		G3/2500
BVH	(80°-90°)	238.8	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6
2.5°	3829.4	3830.9	3833.9	3846.0	3856.6	3853.6	3855.1	3849.0	3847.5	3838.4	3847.5
5°	3780.9	3785.5	3787.0	3806.7	3818.8	3821.8	3817.3	3809.7	3800.6	3791.5	3796.1
7.5°	3670.5	3682.6	3684.1	3711.3	3731.0	3756.7	3758.3	3759.8	3755.2	3749.2	3758.3
10°	3600.9	3603.9	3602.4	3622.1	3637.2	3666.0	3682.6	3711.3	3723.5	3726.5	3732.5
12.5°	3596.4	3593.3	3588.8	3588.8	3584.3	3596.4	3626.6	3667.5	3696.2	3705.3	3712.9
15°	3644.8	3643.3	3628.1	3605.4	3576.7	3567.6	3593.3	3638.7	3676.6	3696.2	3703.8
17.5°	3753.7	3744.6	3720.4	3669.0	3607.0	3582.7	3585.8	3623.6	3667.5	3693.2	3700.8
20°	3953.4	3953.4	3902.0	3805.2	3694.7	3637.2	3610.0	3632.7	3675.0	3709.8	3720.4
22.5°	4298.4	4301.4	4215.2	4056.3	3870.2	3747.7	3679.6	3675.0	3725.0	3764.3	3776.4
25°	4787.1	4775.0	4653.9	4427.0	4144.1	3941.3	3823.3	3796.1	3838.4	3882.3	3897.4
27.5°	5356.0	5312.1	5168.4	4894.5	4528.4	4231.8	4050.3	4006.4	4047.2	4097.2	4112.3
30°	5918.8	5873.4	5702.4	5402.9	4995.9	4620.7	4360.4	4289.3	4346.8	4417.9	4427.0
32.5°	6481.6	6481.6	6291.0	5941.5	5498.2	5085.1	4773.5	4688.7	4784.1	4870.3	4890.0
35°	7154.9	7157.9	6973.3	6552.7	6076.1	5638.9	5295.4	5233.4	5377.1	5437.7	5484.6
37.5°	7982.5	7999.1	7761.6	7253.2	6731.3	6271.3	5862.8	5778.1	5921.8	6086.7	6238.0
40°	8876.7	8897.9	8636.1	8009.7	7487.8	7006.6	6564.8	6412.0	6651.1	6965.8	7161.0
42.5°	9730.0	9838.9	9586.3	8941.7	8380.4	7882.6	7434.8	7212.4	7512.0	7987.0	8156.5
45°	10963.1	11041.8	10601.5	10017.5	9489.4	8932.7	8339.6	8105.1	8524.2	9123.3	9158.1
47.5°	11784.6	11725.6	11501.7	11138.6	10804.2	10283.8	9391.1	9133.9	9690.7	10395.7	10200.5
50°	12221.9	12240.0	12209.8	12231.0	12243.1	11916.3	10680.2	10327.6	10991.8	11843.6	11394.3
52.5°	12630.4	12509.4	12609.2	13105.5	13704.6	13583.6	12082.7	11715.0	12386.8	13450.4	12656.1
55°	12621.3	12436.7	12762.0	13638.0	14937.7	15076.9	13657.7	13234.1	13862.0	15173.7	13993.6
57.5°	12175.0	12184.1	12684.9	13831.7	15797.1	16480.9	15485.4	14849.9	15426.4	16919.7	15214.6
60°	11560.7	11643.9	12365.6	13799.9	16485.5	17632.3	17727.6	16591.4	16959.0	18506.8	16225.2
62.5°	10569.7	10657.5	11653.0	13470.1	16381.1	18741.3	19755.0	18567.3	18561.3	19469.1	16521.8
65°	9006.8	8981.1	10026.5	12237.0	15505.1	19561.4	21768.8	20275.5	19768.6	19484.2	15925.7
67.5°	6642.0	6527.0	7424.2	9320.0	12887.6	18643.0	22953.5	21165.1	20180.2	18202.7	14104.0
70°	3446.6	3331.6	4057.8	5442.2	8475.7	14550.4	21641.7	20705.2	19270.9	15258.4	11049.3
72.5°	1473.6	1454.0	1749.0	2387.5	4100.2	8392.5	16969.6	17921.3	16535.4	11368.6	7596.7
75°	991.0	985.0	1095.4	1301.2	1844.3	3405.7	10619.6	12721.2	12097.8	7049.0	4272.7
77.5°	777.7	770.1	835.2	935.0	1195.3	1343.5	4712.9	6829.6	6321.2	3068.3	1870.0
80°	608.2	602.2	643.0	697.5	859.4	847.3	1550.8	2717.3	2103.0	1175.6	909.3
82.5°	479.6	479.6	512.9	514.4	609.7	578.0	809.4	1196.8	1050.0	685.4	556.8
85°	438.8	438.8	473.6	384.3	397.9	364.6	502.3	709.6	665.7	281.4	242.1
87.5°	220.9	214.8	397.9	340.4	216.4	193.7	245.1	343.4	369.2	155.8	121.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6	3862.6
2.5°	3844.5	3843.0	3846.0	3847.5	3859.6	3876.3	3883.8	3894.4	3900.5	3897.4
5°	3799.1	3802.1	3814.2	3823.3	3844.5	3871.7	3886.9	3899.0	3909.6	3905.0
7.5°	3761.3	3768.8	3787.0	3794.6	3806.7	3814.2	3812.7	3817.3	3826.3	3815.7
10°	3740.1	3749.2	3762.8	3752.2	3723.5	3682.6	3644.8	3625.1	3631.2	3623.6
12.5°	3718.9	3731.0	3720.4	3670.5	3590.3	3537.4	3508.6	3511.6	3525.3	3528.3
15°	3706.8	3711.3	3666.0	3572.2	3490.5	3482.9	3498.0	3495.0	3496.5	3496.5
17.5°	3706.8	3694.7	3610.0	3516.2	3481.4	3467.8	3420.9	3361.9	3336.1	3327.1
20°	3726.5	3694.7	3591.8	3529.8	3454.1	3337.6	3213.6	3104.6	3056.2	3042.6
22.5°	3785.5	3731.0	3643.3	3535.8	3321.0	3125.8	2929.1	2799.0	2711.3	2696.1
25°	3905.0	3844.5	3744.6	3455.7	3109.2	2830.8	2606.9	2461.6	2373.9	2361.8
27.5°	4113.8	4074.5	3799.1	3278.6	2827.8	2529.7	2322.4	2210.5	2145.4	2140.9
30°	4428.5	4408.8	3771.9	3016.9	2481.3	2237.7	2137.8	2072.8	2024.4	2022.9
32.5°	4930.8	4772.0	3682.6	2697.7	2165.1	2030.4	1989.6	1950.2	1912.4	1912.4
35°	5576.9	5065.5	3513.1	2355.7	1972.9	1915.4	1864.0	1802.0	1752.0	1749.0
37.5°	6336.4	5247.0	3209.0	2080.4	1882.2	1838.3	1762.6	1670.3	1582.6	1567.5
40°	7103.5	5301.5	2780.9	1910.9	1824.7	1761.1	1668.8	1559.9	1475.2	1470.6
42.5°	7807.0	5197.1	2327.0	1794.4	1767.2	1682.4	1585.6	1488.8	1422.2	1420.7
45°	8397.1	4926.3	1945.7	1684.0	1706.6	1611.3	1525.1	1446.4	1395.0	1384.4
47.5°	8952.3	4543.5	1677.9	1567.5	1646.1	1572.0	1499.4	1425.2	1375.3	1367.7
50°	9596.9	4130.4	1490.3	1454.0	1593.2	1558.4	1520.5	1443.4	1360.2	1351.1
52.5°	10377.6	3773.4	1343.5	1354.1	1552.3	1576.5	1575.0	1494.8	1349.6	1337.5
55°	11249.0	3377.0	1233.1	1272.4	1535.7	1609.8	1588.6	1543.2	1358.7	1340.5
57.5°	12106.9	2914.0	1155.9	1210.4	1511.5	1606.8	1523.6	1458.5	1379.8	1354.1
60°	12749.9	2292.2	1096.9	1155.9	1458.5	1556.9	1452.5	1366.2	1375.3	1355.6
62.5°	12792.3	1771.7	1025.8	1109.0	1378.3	1506.9	1405.6	1325.4	1395.0	1376.8
65°	12040.3	1339.0	957.7	1053.0	1292.1	1475.2	1360.2	1302.7	1435.8	1416.2
67.5°	10137.0	1077.2	900.2	995.5	1205.8	1408.6	1319.3	1281.5	1472.1	1437.3
70°	7318.3	918.4	844.2	925.9	1128.7	1332.9	1283.0	1243.7	1373.8	1319.3
72.5°	4505.7	795.8	780.7	833.7	1069.7	1254.3	1228.5	1172.6	1237.6	1193.7
75°	2249.8	689.9	709.6	742.9	986.5	1165.0	1137.8	1081.8	1090.9	1081.8
77.5°	1077.2	590.1	626.4	652.1	879.0	1063.6	1034.9	977.4	966.8	968.3
80°	682.4	493.2	528.0	546.2	785.2	945.6	916.9	859.4	980.4	909.3
82.5°	426.7	400.9	410.0	443.3	683.9	823.1	785.2	733.8	883.6	699.0
85°	236.0	279.9	292.0	320.8	526.5	688.4	650.6	585.5	525.0	515.9
87.5°	140.7	166.4	171.0	192.1	354.0	497.8	440.3	417.6	346.5	345.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)