

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: P300456

Luminaire Tested: **GLNA-AF-07-LED-E1-T4FT-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-T4FT-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27808.3 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 226
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

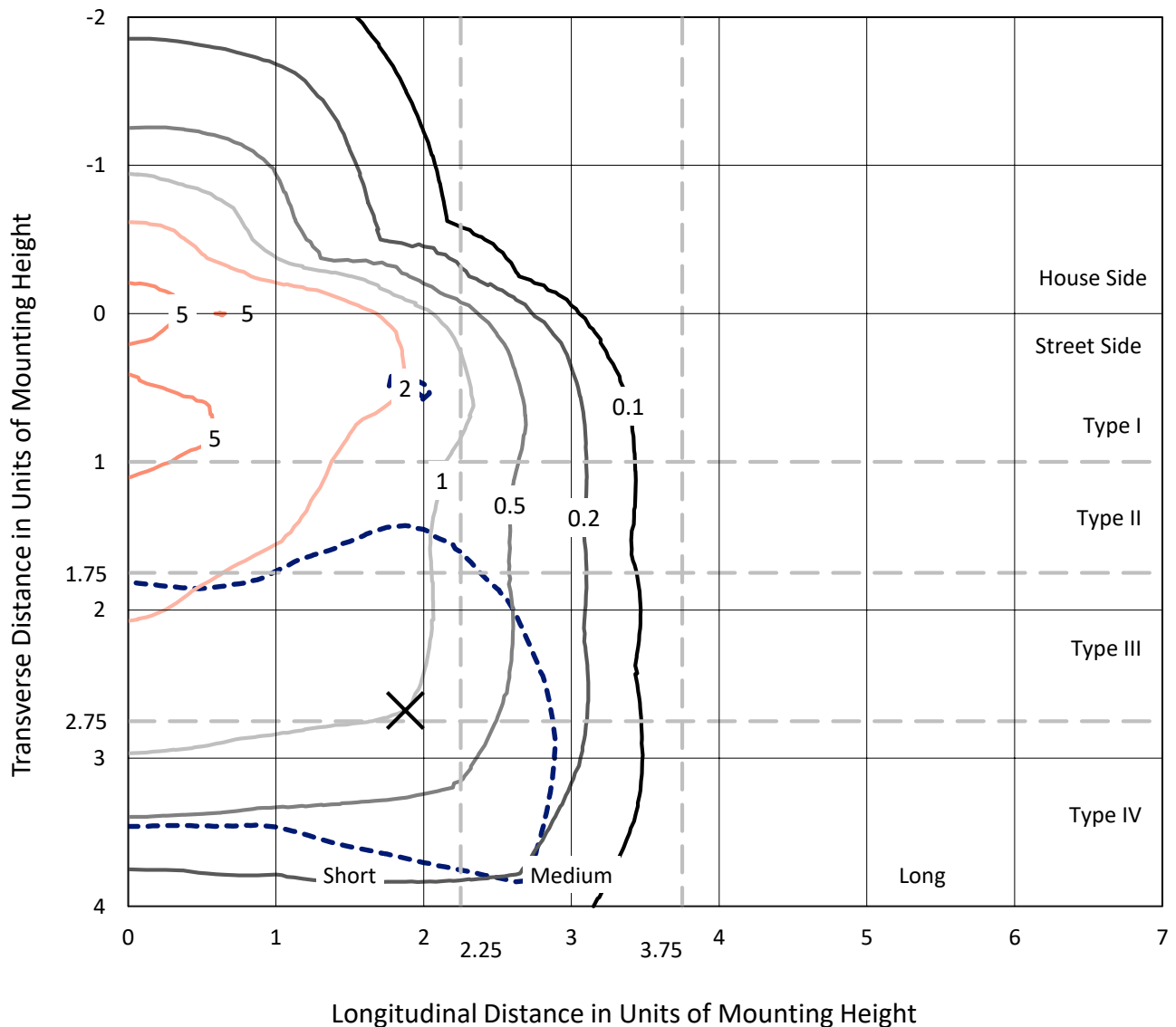


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Iso-Footcandle Lines of Horizontal Illumination

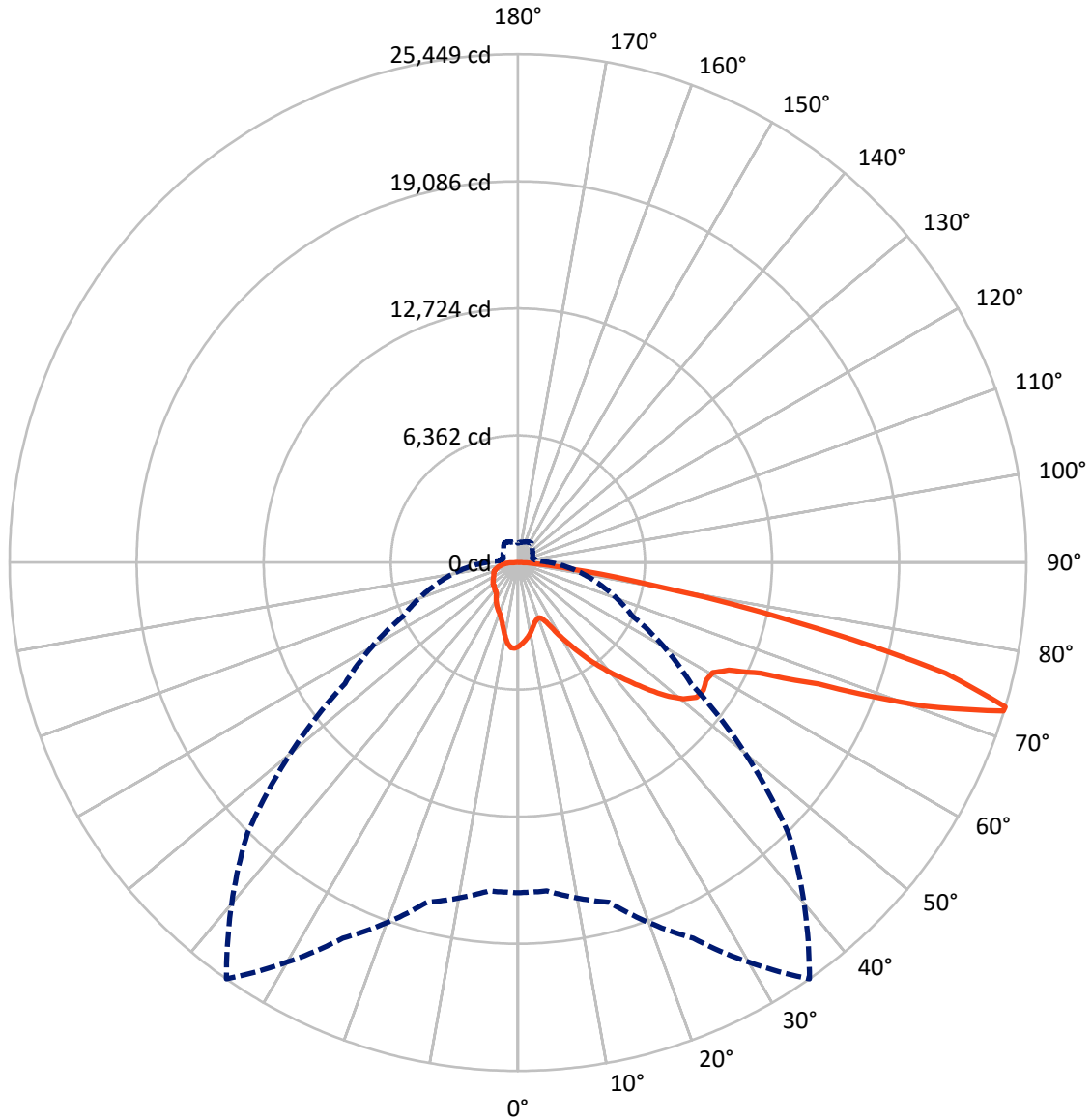
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5303.8	0.0	5303.8
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	22504.5	0.0	22504.5
	% Fixture	80.9	0.0	80.9
Total	Lumens	27808.3	0.0	27808.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.0	1.4
10°-20°	948.3	3.4
20°-30°	1533.1	5.5
30°-40°	2570.8	9.2
40°-50°	3962.8	14.3
50°-60°	5316.5	19.1
60°-70°	7082.6	25.5
70°-80°	5401.9	19.4
80°-90°	612.3	2.2
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°	27808.3	100.0
0°-180°	27808.3	100.0



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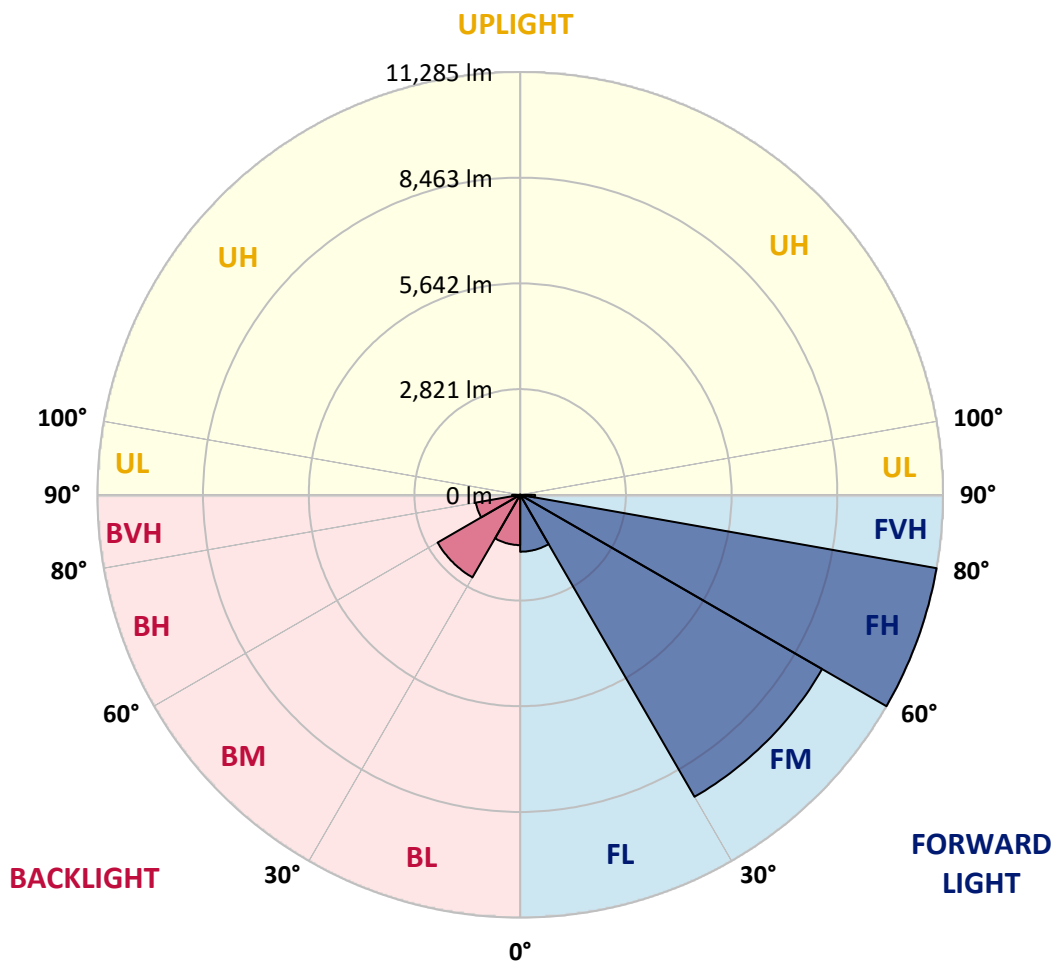
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1519.3	5.5			
FM (30°-60°)	9304.8	33.5			
FH (60°-80°)	11284.6	40.6			G4/12000
FVH (80°-90°)	395.8	1.4			G3/500
BL (0°-30°)	1342.1	4.8	B3/2500		
BM (30°-60°)	2545.2	9.2	B3/5000		
BH (60°-80°)	1200.0	4.3	B3/2500		G3/2500
BVH (80°-90°)	216.5	0.8			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1
2.5°	4031.6	4039.6	4030.2	4042.2	4062.3	4083.6	4098.3	4119.7	4143.7	4177.1	4185.1
5°	3841.9	3853.9	3853.9	3875.3	3914.0	3948.8	3980.8	4015.5	4066.3	4123.7	4146.4
7.5°	3633.6	3640.3	3652.3	3684.3	3740.4	3789.8	3835.2	3891.3	3960.8	4036.9	4077.0
10°	3382.5	3391.9	3410.6	3456.0	3532.1	3600.2	3665.7	3743.1	3831.2	3926.1	3976.8
12.5°	3204.9	3202.3	3210.3	3243.7	3310.4	3393.2	3488.0	3586.9	3695.0	3805.9	3867.3
15°	3144.8	3130.2	3099.4	3091.4	3127.5	3210.3	3319.8	3441.3	3570.8	3704.4	3780.5
17.5°	3182.2	3156.9	3072.7	3011.3	3006.0	3068.7	3184.9	3321.1	3470.7	3633.6	3728.4
20°	3417.3	3357.2	3150.2	3007.3	2957.9	2988.6	3090.1	3234.3	3410.6	3626.9	3748.4
22.5°	3979.5	3891.3	3452.0	3186.2	3019.3	2981.9	3058.0	3211.6	3417.3	3709.7	3864.6
25°	4798.1	4672.5	3970.1	3632.3	3287.7	3088.8	3106.1	3263.7	3512.1	3902.0	4089.0
27.5°	5444.4	5362.9	4647.2	4261.2	3776.5	3377.2	3262.4	3394.6	3705.7	4217.2	4408.1
30°	5829.0	5779.6	5370.9	4974.3	4400.1	3836.6	3561.5	3640.3	4008.8	4653.8	4811.4
32.5°	6275.0	6245.6	6045.3	5680.8	5073.2	4440.2	4035.6	4007.5	4414.8	5178.7	5250.8
35°	6737.1	6727.7	6610.2	6348.5	5795.6	5236.1	4664.5	4474.9	4856.8	5723.5	5678.1
37.5°	7167.1	7151.0	7082.9	6930.7	6551.4	6090.7	5305.5	4954.3	5333.6	6244.3	6042.7
40°	7958.9	7833.4	7599.7	7484.9	7315.3	6810.5	5814.3	5401.7	5827.7	6741.1	6357.8
42.5°	8924.4	8720.1	8284.8	8127.2	8103.2	7378.0	6161.5	5835.7	6325.8	7233.8	6667.6
45°	9684.3	9492.0	9116.7	8917.8	9005.9	7892.2	6510.0	6299.0	6838.5	7750.6	6986.8
47.5°	10494.9	10193.1	9696.3	9756.4	9948.7	8378.3	6865.3	6797.1	7400.7	8328.8	7383.4
50°	10524.2	10293.2	10075.5	10434.8	10733.9	8825.6	7309.9	7319.3	8088.5	9056.6	7910.9
52.5°	9914.0	9864.5	10210.4	10775.3	11206.6	9179.5	7816.1	7858.8	8968.5	9892.6	8490.4
55°	9700.3	9644.2	10043.5	10656.4	11270.7	9471.9	8364.9	8442.4	10032.8	10773.9	9055.3
57.5°	10221.1	10096.9	10123.6	10600.3	11114.5	9792.4	8963.2	9119.4	11189.3	11544.5	9418.5
60°	11676.7	11410.9	10906.2	10894.1	11198.6	10273.2	9654.9	9845.9	12391.1	11913.0	9277.0
62.5°	13718.5	13452.7	12507.3	11891.7	11846.3	11066.4	10504.2	10554.9	13085.5	11413.6	8413.0
65°	15928.6	15690.9	14634.6	13765.2	13345.9	12380.4	11491.1	10871.4	12858.5	10039.5	6901.3
67.5°	18611.4	18356.3	17448.2	16645.7	16242.4	14501.0	12184.1	10568.3	11417.6	7777.3	4961.0
70°	20487.6	20227.2	19869.3	20519.6	21506.5	17560.4	12273.6	9335.7	8527.8	5169.3	2985.9
72.5°	18039.8	17918.3	18571.3	21310.2	25420.5	19416.6	11094.4	6797.1	4953.0	2744.2	1728.0
73°	16528.2	16501.4	17615.2	20756.0	25448.6	19130.8	10577.6	6317.7	4247.9	2427.7	1579.8
75°	7463.5	7678.5	10119.6	15853.8	22110.1	15764.3	7444.8	3624.3	2399.7	1677.3	1192.5
77.5°	1793.4	1868.2	3166.2	7528.9	13962.9	9394.5	3373.2	1792.1	1534.4	1184.5	870.7
80°	763.8	789.2	1219.2	2781.6	6574.1	3783.2	1554.4	1200.5	1061.6	826.6	610.3
82.5°	424.7	451.4	691.7	1261.9	2653.4	1290.0	948.1	836.0	698.4	498.1	396.6
85°	240.4	255.1	404.6	705.1	1124.4	518.1	567.5	555.5	393.9	256.4	195.0
87.5°	113.5	122.9	195.0	327.2	440.7	203.0	288.4	317.8	247.0	156.2	101.5
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°	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1	4197.1
2.5°	4194.5	4218.5	4246.5	4261.2	4274.6	4290.6	4306.6	4306.6	4309.3	4310.6
5°	4165.1	4214.5	4258.6	4277.3	4281.3	4281.3	4277.3	4255.9	4237.2	4245.2
7.5°	4103.7	4175.8	4213.2	4206.5	4155.7	4097.0	4047.6	3987.5	3956.8	3951.4
10°	4015.5	4098.3	4105.0	4038.2	3912.7	3787.2	3683.0	3581.5	3533.4	3521.4
12.5°	3918.0	3994.2	3951.4	3813.9	3612.2	3429.3	3297.1	3194.3	3148.9	3136.8
15°	3839.3	3891.3	3783.2	3566.8	3313.1	3119.5	3010.0	2933.9	2901.8	2892.5
17.5°	3797.9	3808.5	3610.9	3318.5	3048.7	2887.1	2819.0	2783.0	2770.9	2764.3
20°	3817.9	3743.1	3446.6	3087.4	2832.4	2718.9	2702.8	2693.5	2690.8	2686.8
22.5°	3918.0	3723.1	3295.7	2868.4	2642.7	2593.3	2606.7	2605.4	2602.7	2600.0
25°	4097.0	3740.4	3148.9	2660.1	2483.8	2473.1	2497.2	2497.2	2486.5	2486.5
27.5°	4333.3	3776.5	2984.6	2462.5	2339.6	2340.9	2359.6	2354.3	2342.3	2334.3
30°	4621.8	3799.2	2792.3	2284.9	2204.7	2199.4	2204.7	2182.0	2146.0	2143.3
32.5°	4916.9	3771.1	2569.3	2127.3	2061.8	2049.8	2045.8	2013.8	1972.4	1960.4
35°	5184.0	3668.3	2342.3	2001.8	1925.6	1898.9	1917.6	1906.9	1869.5	1860.2
37.5°	5379.0	3477.4	2138.0	1890.9	1828.2	1821.5	1833.5	1837.5	1793.4	1784.1
40°	5509.8	3218.3	1963.0	1797.4	1809.5	1784.1	1744.0	1716.0	1702.6	1698.6
42.5°	5615.3	2948.5	1816.1	1753.4	1813.5	1740.0	1653.2	1607.8	1631.8	1642.5
45°	5736.8	2685.5	1693.3	1698.6	1793.4	1689.3	1590.5	1546.4	1555.7	1558.4
47.5°	5903.8	2365.0	1561.1	1610.5	1726.7	1654.6	1551.7	1489.0	1444.9	1424.9
50°	6134.8	1985.7	1423.5	1511.7	1661.2	1629.2	1491.6	1424.9	1343.4	1324.7
52.5°	6295.0	1631.8	1310.0	1428.9	1602.5	1578.4	1443.6	1356.8	1271.3	1255.3
55°	6208.2	1355.4	1211.2	1336.7	1525.0	1515.7	1403.5	1287.3	1220.5	1207.2
57.5°	5774.2	1180.5	1135.1	1249.9	1430.2	1462.3	1350.1	1228.6	1180.5	1171.1
60°	4946.3	1071.0	1087.0	1191.2	1352.8	1408.8	1296.7	1196.5	1164.5	1157.8
62.5°	3837.9	997.5	1051.0	1148.4	1292.7	1371.4	1267.3	1192.5	1180.5	1172.5
65°	2749.6	938.8	1012.2	1105.7	1237.9	1336.7	1256.6	1187.2	1189.8	1183.2
67.5°	1868.2	886.7	965.5	1057.6	1184.5	1306.0	1241.9	1168.5	1201.9	1193.8
70°	1307.3	836.0	910.7	996.2	1117.7	1263.3	1215.2	1140.4	1137.8	1105.7
72.5°	1020.2	769.2	836.0	910.7	1032.3	1203.2	1161.8	1077.7	1033.6	1000.2
73°	973.5	753.2	817.3	892.0	1013.6	1188.5	1147.1	1060.3	1010.9	980.2
75°	805.2	683.7	742.5	809.2	933.4	1119.1	1075.0	981.5	918.8	900.1
77.5°	633.0	584.9	641.0	701.1	822.6	1017.6	968.2	878.7	844.0	827.9
80°	468.7	484.7	534.2	587.6	713.1	909.4	865.3	775.9	930.8	892.0
82.5°	329.8	367.2	412.6	460.7	598.3	803.9	750.5	658.3	681.1	566.2
85°	195.0	240.4	283.1	324.5	431.3	666.4	619.6	524.8	430.0	410.0
87.5°	113.5	133.5	145.6	188.3	296.5	502.1	436.7	388.6	223.0	150.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)