

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: P300324

Luminaire Tested: **GLNA-AF-05-LED-E1-T4FT-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300324
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-05-LED-E1-T4FT-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29828 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

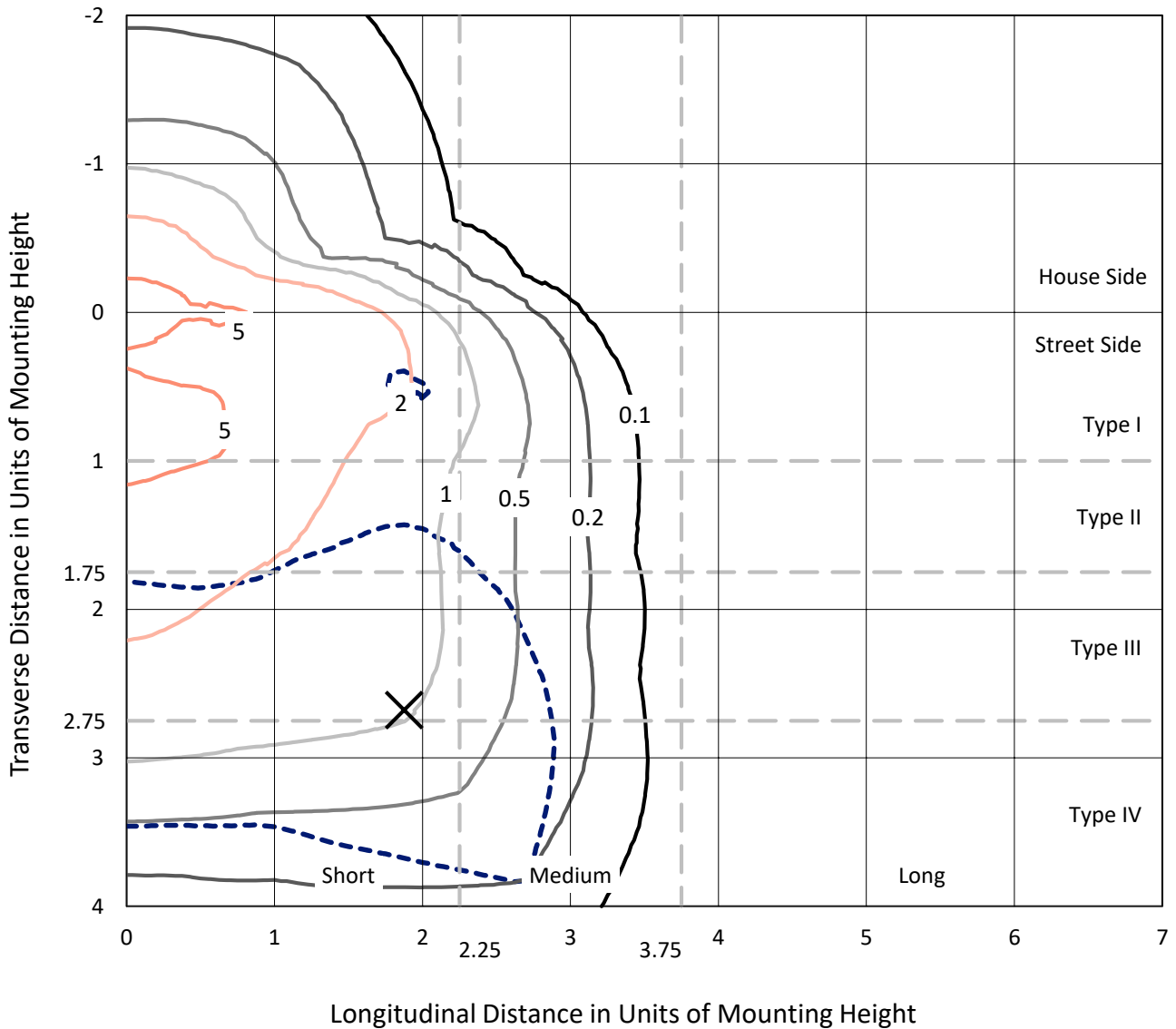
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

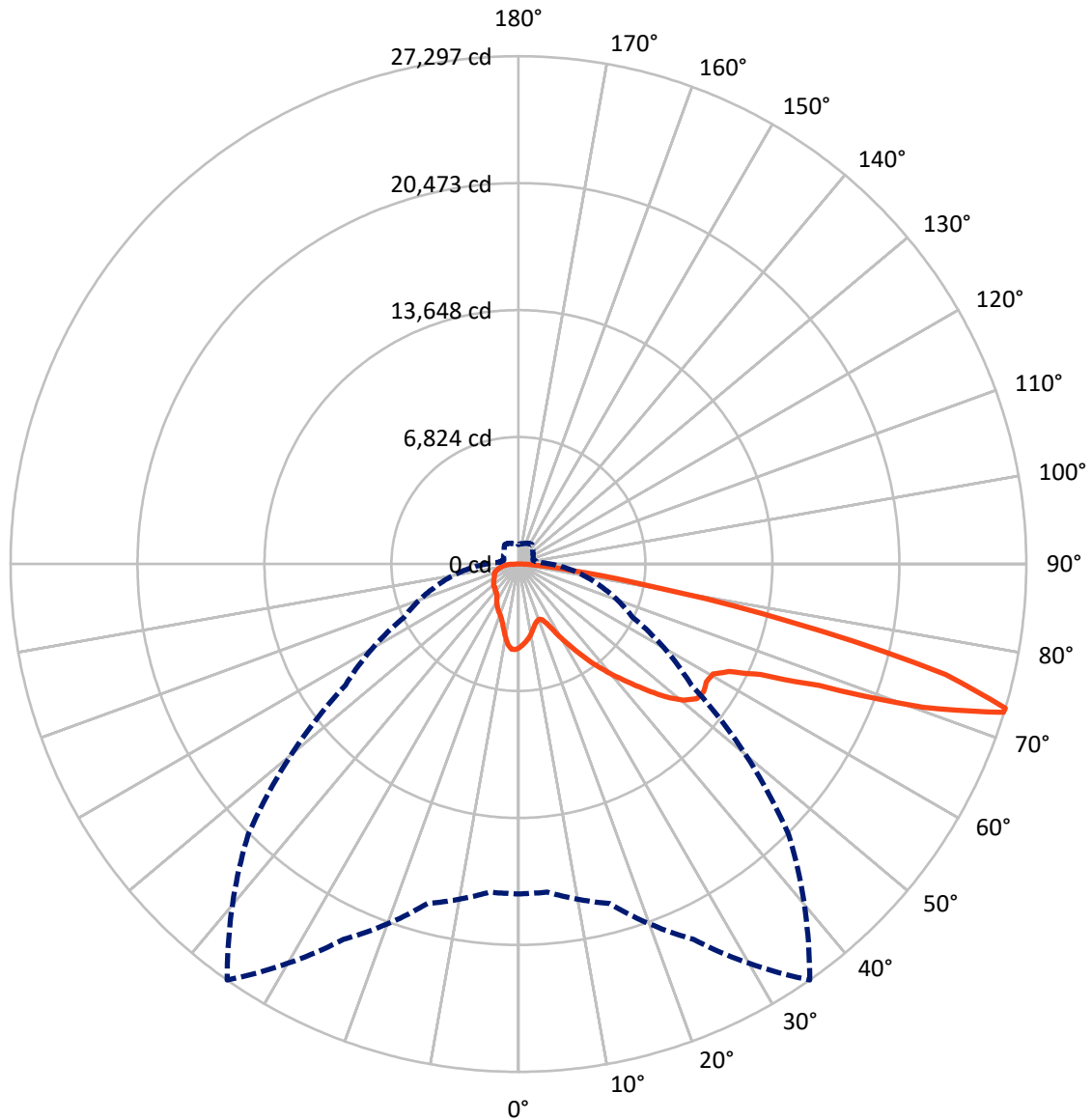
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 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	5689.0	0.0	5689.0
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	24139.0	0.0	24139.0
	% Fixture	80.9	0.0	80.9
Total	Lumens	29828.0	0.0	29828.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	407.6	1.4
10°-20°	1017.2	3.4
20°-30°	1644.5	5.5
30°-40°	2757.5	9.2
40°-50°	4250.6	14.3
50°-60°	5702.6	19.1
60°-70°	7597.1	25.5
70°-80°	5794.3	19.4
80°-90°	656.8	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°	29828.0	100.0
0°-180°	29828.0	100.0



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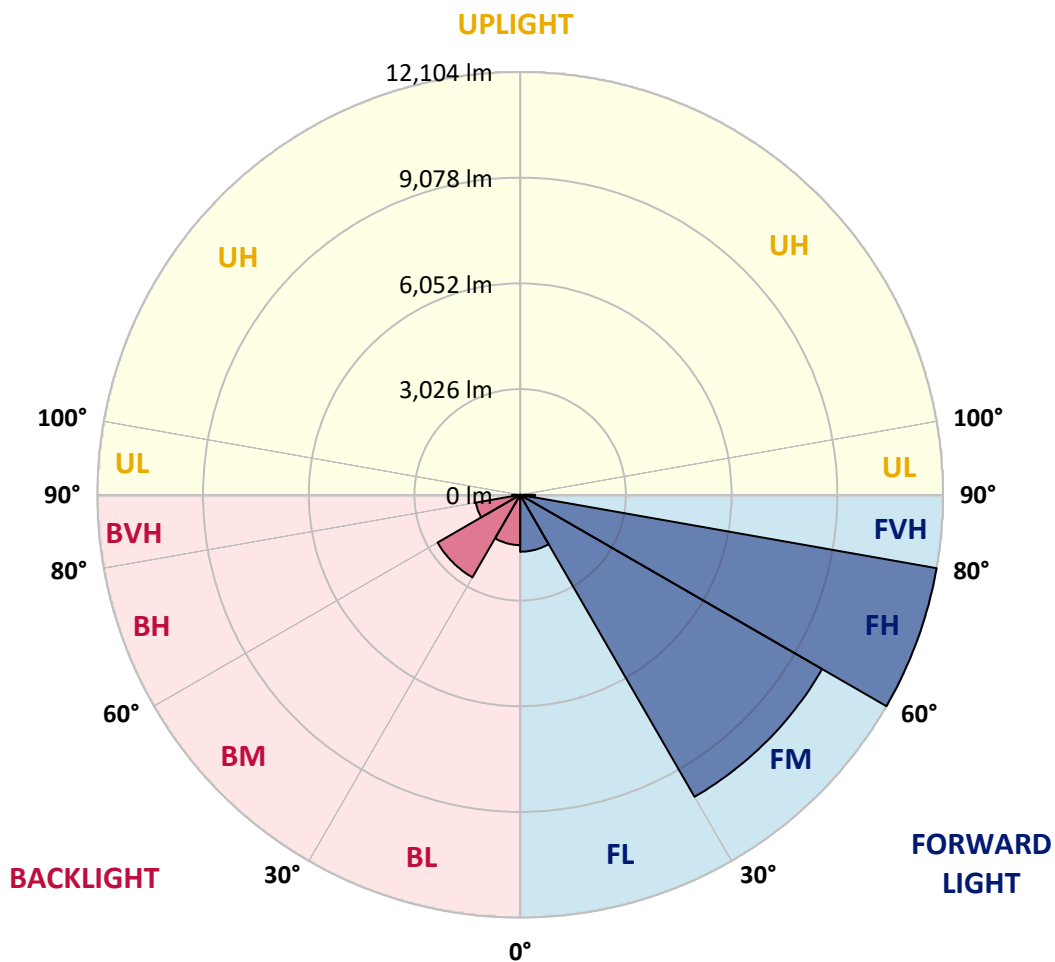
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1629.6	5.5			
FM	(30°-60°)	9980.7	33.5			
FH	(60°-80°)	12104.2	40.6			G5
FVH	(80°-90°)	424.5	1.4			G3/500
BL	(0°-30°)	1439.6	4.8	B3/2500		
BM	(30°-60°)	2730.1	9.2	B3/5000		
BH	(60°-80°)	1287.1	4.3	B3/2500		G3/2500
BVH	(80°-90°)	232.2	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0
2.5°	4324.4	4333.0	4322.9	4335.8	4357.3	4380.2	4396.0	4418.9	4444.7	4480.5	4489.1
5°	4121.0	4133.9	4133.9	4156.8	4198.3	4235.6	4269.9	4307.2	4361.6	4423.2	4447.5
7.5°	3897.5	3904.7	3917.6	3951.9	4012.1	4065.1	4113.8	4174.0	4248.4	4330.1	4373.1
10°	3628.2	3638.3	3658.3	3707.0	3788.7	3861.7	3931.9	4015.0	4109.5	4211.2	4265.6
12.5°	3437.7	3434.9	3443.4	3479.3	3550.9	3639.7	3741.4	3847.4	3963.4	4082.3	4148.2
15°	3373.3	3357.5	3324.6	3316.0	3354.6	3443.4	3560.9	3691.2	3830.2	3973.4	4055.1
17.5°	3413.4	3386.2	3295.9	3230.0	3224.3	3291.6	3416.2	3562.3	3722.8	3897.5	3999.2
20°	3665.5	3601.0	3379.0	3225.7	3172.7	3205.7	3314.5	3469.2	3658.3	3890.3	4020.7
22.5°	4268.5	4174.0	3702.7	3417.7	3238.6	3198.5	3280.2	3444.9	3665.5	3979.2	4145.3
25°	5146.5	5011.9	4258.5	3896.1	3526.5	3313.1	3331.7	3500.7	3767.2	4185.4	4386.0
27.5°	5839.8	5752.4	4984.7	4570.7	4050.8	3622.5	3499.3	3641.1	3974.9	4523.5	4728.3
30°	6252.3	6199.3	5761.0	5335.6	4719.7	4115.2	3820.2	3904.7	4300.0	4991.9	5160.9
32.5°	6730.8	6699.3	6484.4	6093.4	5441.6	4762.7	4328.7	4298.6	4735.5	5554.8	5632.1
35°	7226.4	7216.3	7090.3	6809.5	6216.5	5616.4	5003.3	4799.9	5209.6	6139.2	6090.5
37.5°	7687.6	7670.4	7597.4	7434.1	7027.3	6533.1	5690.9	5314.1	5720.9	6697.8	6481.5
40°	8537.0	8402.4	8151.7	8028.5	7846.6	7305.1	6236.6	5794.0	6250.9	7230.7	6819.6
42.5°	9572.6	9353.5	8886.5	8717.5	8691.7	7913.9	6609.0	6259.5	6785.2	7759.2	7151.9
45°	10387.6	10181.4	9778.9	9565.4	9660.0	8465.4	6982.9	6756.5	7335.2	8313.5	7494.2
47.5°	11257.1	10933.4	10400.5	10465.0	10671.2	8986.8	7363.9	7290.8	7938.3	8933.8	7919.6
50°	11288.6	11040.8	10807.3	11192.6	11513.5	9466.6	7840.9	7850.9	8675.9	9714.4	8485.4
52.5°	10634.0	10581.0	10952.0	11557.9	12020.6	9846.2	8383.7	8429.6	9619.9	10611.1	9107.1
55°	10404.8	10344.7	10772.9	11430.4	12089.3	10159.9	8972.4	9055.5	10761.5	11556.5	9713.0
57.5°	10963.5	10830.2	10858.9	11370.2	11921.7	10503.7	9614.1	9781.7	12001.9	12382.9	10102.6
60°	12524.7	12239.7	11698.3	11685.4	12012.0	11019.3	10356.1	10561.0	13291.1	12778.3	9950.8
62.5°	14714.9	14429.8	13415.7	12755.4	12706.7	11870.2	11267.1	11321.5	14035.9	12242.6	9024.0
65°	17085.5	16830.5	15697.5	14765.0	14315.2	13279.6	12325.6	11661.0	13792.4	10768.6	7402.6
67.5°	19963.1	19689.5	18715.5	17854.6	17422.1	15554.2	13069.1	11335.9	12246.9	8342.2	5321.3
70°	21975.6	21696.3	21312.4	22010.0	23068.5	18835.8	13165.0	10013.8	9147.2	5544.8	3202.8
72.5°	19350.1	19219.7	19920.1	22858.0	27266.8	20826.8	11900.2	7290.8	5312.7	2943.5	1853.5
73°	17728.6	17699.9	18894.6	22263.5	27296.9	20520.3	11345.9	6776.6	4556.4	2604.1	1694.5
75°	8005.6	8236.2	10854.6	17005.2	23716.0	16909.3	7985.5	3887.5	2574.0	1799.1	1279.1
77.5°	1923.7	2003.9	3396.2	8075.8	14977.0	10076.8	3618.2	1922.3	1645.8	1270.5	933.9
80°	819.3	846.5	1307.8	2983.7	7051.6	4057.9	1667.3	1287.7	1138.7	886.6	654.6
82.5°	455.5	484.1	742.0	1353.6	2846.1	1383.7	1017.0	896.7	749.1	534.3	425.4
85°	257.8	273.6	434.0	756.3	1206.1	555.8	608.8	595.9	422.6	275.0	209.1
87.5°	121.8	131.8	209.1	350.9	472.7	217.7	309.4	340.9	265.0	167.6	108.9
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°	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0	4502.0
2.5°	4499.1	4524.9	4555.0	4570.7	4585.1	4602.2	4619.4	4619.4	4622.3	4623.7
5°	4467.6	4520.6	4567.9	4587.9	4592.2	4592.2	4587.9	4565.0	4544.9	4553.5
7.5°	4401.7	4479.1	4519.2	4512.0	4457.6	4394.5	4341.6	4277.1	4244.1	4238.4
10°	4307.2	4396.0	4403.1	4331.5	4196.9	4062.2	3950.5	3841.6	3790.1	3777.2
12.5°	4202.6	4284.3	4238.4	4090.9	3874.6	3678.4	3536.6	3426.3	3377.6	3364.7
15°	4118.1	4174.0	4057.9	3825.9	3553.7	3346.0	3228.6	3146.9	3112.6	3102.5
17.5°	4073.7	4085.2	3873.2	3559.5	3270.1	3096.8	3023.8	2985.1	2972.2	2965.0
20°	4095.2	4015.0	3697.0	3311.7	3038.1	2916.3	2899.1	2889.1	2886.3	2882.0
22.5°	4202.6	3993.5	3535.1	3076.8	2834.7	2781.7	2796.0	2794.6	2791.7	2788.8
25°	4394.5	4012.1	3377.6	2853.3	2664.2	2652.8	2678.6	2678.6	2667.1	2667.1
27.5°	4648.1	4050.8	3201.4	2641.3	2509.5	2511.0	2531.0	2525.3	2512.4	2503.8
30°	4957.5	4075.1	2995.1	2450.8	2364.9	2359.1	2364.9	2340.5	2301.8	2299.0
32.5°	5274.0	4045.0	2755.9	2281.8	2211.6	2198.7	2194.4	2160.0	2115.6	2102.7
35°	5560.5	3934.8	2512.4	2147.1	2065.5	2036.8	2056.9	2045.4	2005.3	1995.3
37.5°	5769.6	3729.9	2293.2	2028.3	1960.9	1953.8	1966.7	1971.0	1923.7	1913.7
40°	5910.0	3452.0	2105.6	1928.0	1940.9	1913.7	1870.7	1840.6	1826.3	1822.0
42.5°	6023.2	3162.7	1948.0	1880.7	1945.2	1866.4	1773.3	1724.6	1750.4	1761.8
45°	6153.5	2880.5	1816.3	1822.0	1923.7	1812.0	1706.0	1658.7	1668.7	1671.6
47.5°	6332.6	2536.7	1674.5	1727.5	1852.1	1774.7	1664.4	1597.1	1549.8	1528.4
50°	6580.4	2130.0	1526.9	1621.5	1781.9	1747.5	1600.0	1528.4	1441.0	1420.9
52.5°	6752.2	1750.4	1405.2	1532.6	1718.9	1693.1	1548.4	1455.3	1363.6	1346.4
55°	6659.1	1453.9	1299.2	1433.8	1635.8	1625.8	1505.4	1380.8	1309.2	1294.9
57.5°	6193.6	1266.2	1217.5	1340.7	1534.1	1568.5	1448.1	1317.8	1266.2	1256.2
60°	5305.5	1148.8	1166.0	1277.7	1451.0	1511.2	1390.8	1283.4	1249.0	1241.9
62.5°	4116.7	1070.0	1127.3	1231.8	1386.5	1471.1	1359.3	1279.1	1266.2	1257.6
65°	2949.3	1007.0	1085.7	1186.0	1327.8	1433.8	1347.9	1273.4	1276.3	1269.1
67.5°	2003.9	951.1	1035.6	1134.4	1270.5	1400.9	1332.1	1253.3	1289.1	1280.5
70°	1402.3	896.7	976.9	1068.6	1198.9	1355.0	1303.5	1223.3	1220.4	1186.0
72.5°	1094.3	825.1	896.7	976.9	1107.2	1290.6	1246.2	1155.9	1108.7	1072.9
73°	1044.2	807.9	876.6	956.8	1087.2	1274.8	1230.4	1137.3	1084.3	1051.4
75°	863.7	733.4	796.4	868.0	1001.2	1200.3	1153.1	1052.8	985.5	965.4
77.5°	678.9	627.4	687.5	752.0	882.3	1091.5	1038.5	942.5	905.3	888.1
80°	502.8	520.0	573.0	630.2	764.9	975.5	928.2	832.2	998.4	956.8
82.5°	353.8	393.9	442.6	494.2	641.7	862.3	805.0	706.2	730.5	607.3
85°	209.1	257.8	303.7	348.1	462.7	714.8	664.6	562.9	461.2	439.7
87.5°	121.8	143.2	156.1	202.0	318.0	538.6	468.4	416.8	239.2	161.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)