

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: P300467

Luminaire Tested: **GLNA-AF-09-LED-E1-T4FT-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300467
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-09-LED-E1-T4FT-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K 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: 35147.2 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

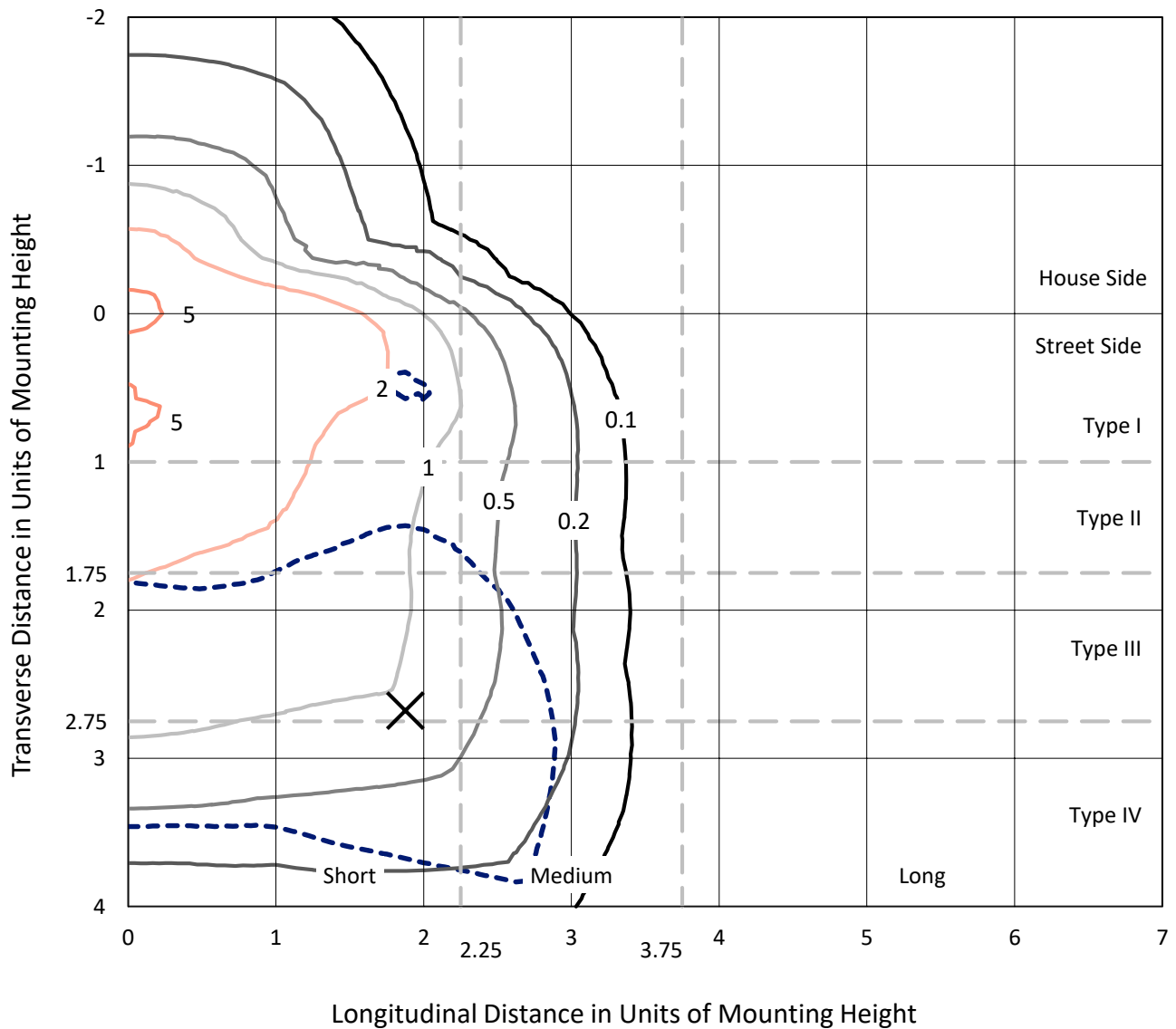
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

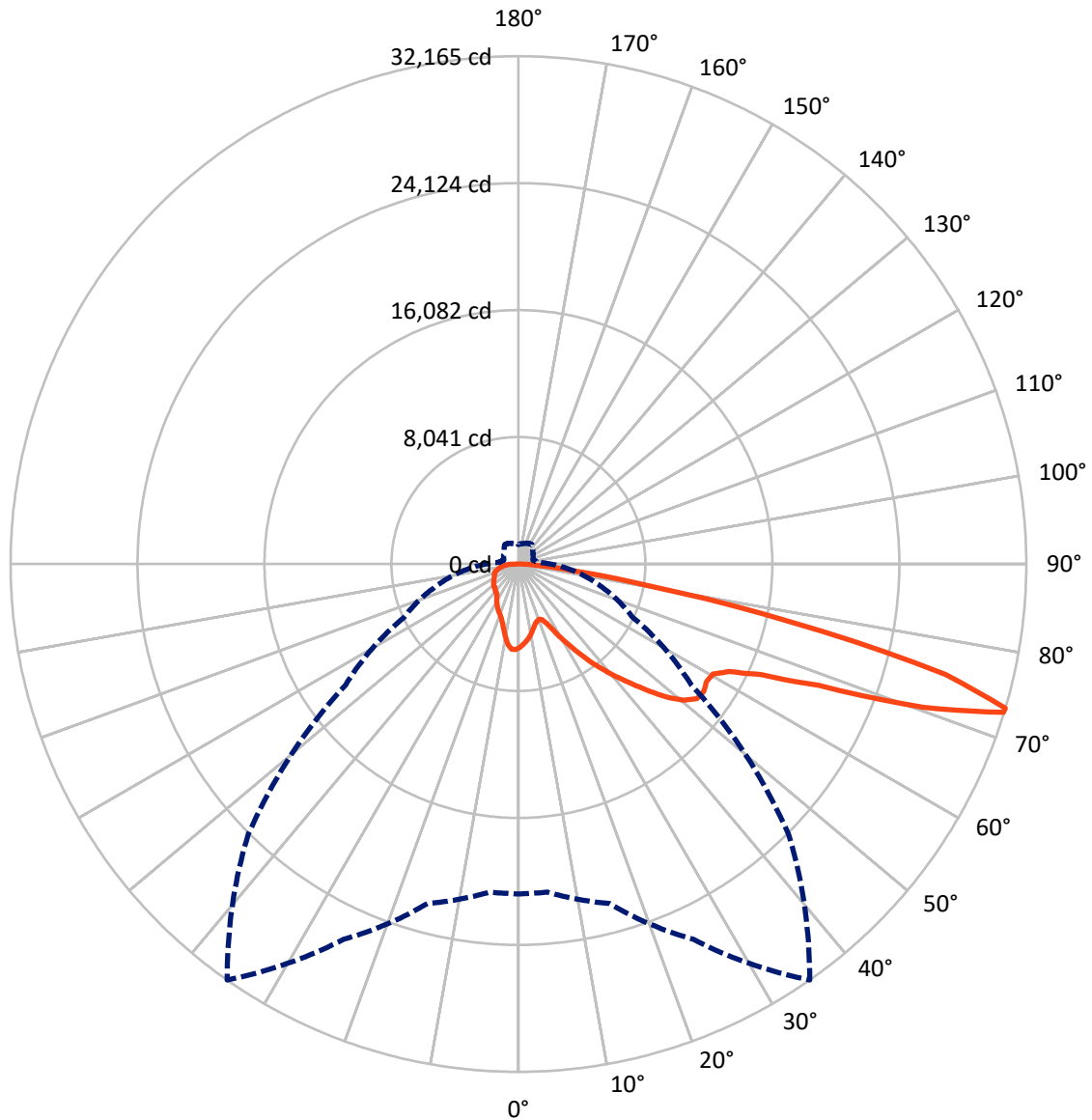
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 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	6703.5	0.0	6703.5
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	28443.7	0.0	28443.7
	% Fixture	80.9	0.0	80.9
Total	Lumens	35147.2	0.0	35147.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.2	1.4
10°-20°	1198.6	3.4
20°-30°	1937.7	5.5
30°-40°	3249.3	9.2
40°-50°	5008.6	14.3
50°-60°	6719.6	19.1
60°-70°	8951.8	25.5
70°-80°	6827.5	19.4
80°-90°	773.9	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°	35147.2	100.0
0°-180°	35147.2	100.0



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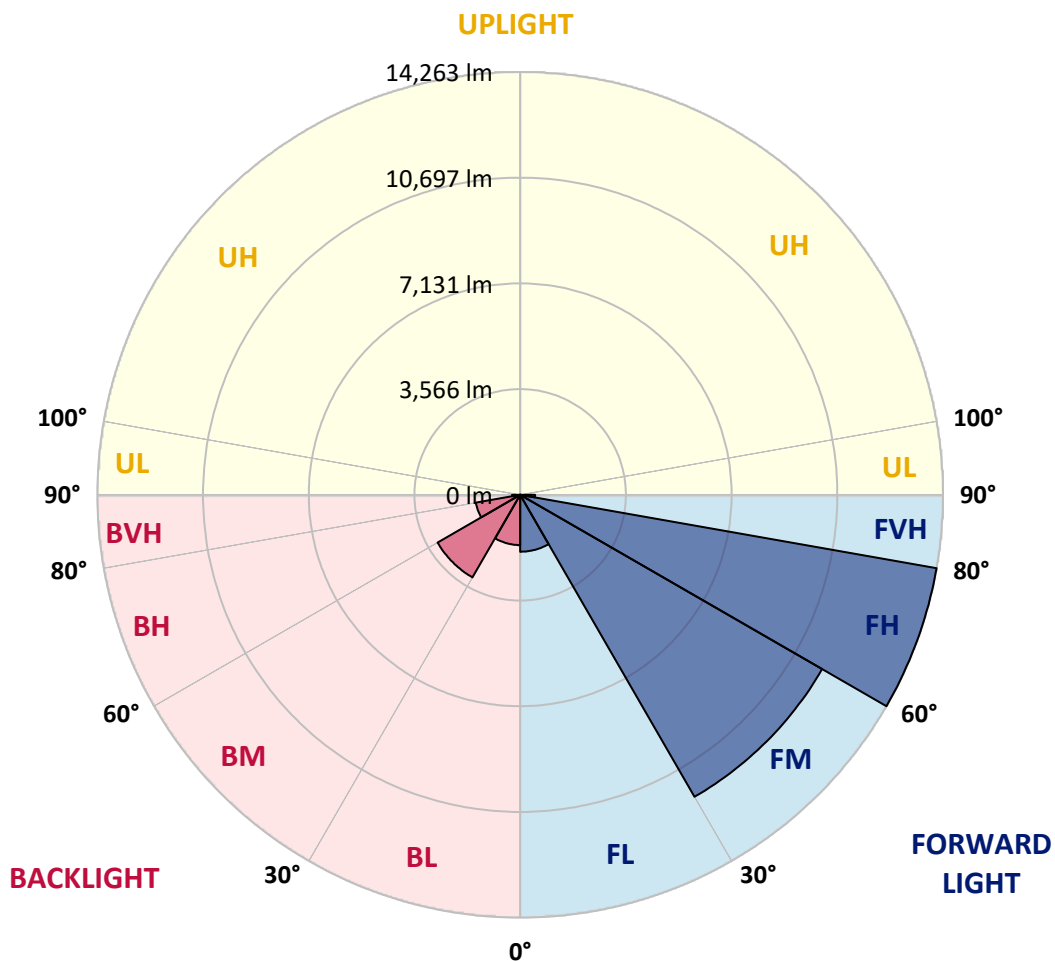
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1920.2	5.5			
FM	(30°-60°)	11760.5	33.5			
FH	(60°-80°)	14262.7	40.6			G5
FVH	(80°-90°)	500.2	1.4			G4/750
BL	(0°-30°)	1696.3	4.8	B3/2500		
BM	(30°-60°)	3217.0	9.2	B3/5000		
BH	(60°-80°)	1516.6	4.3	B3/2500		G3/2500
BVH	(80°-90°)	273.6	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°	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8
2.5°	5095.5	5105.6	5093.8	5109.0	5134.3	5161.3	5179.9	5206.9	5237.3	5279.5	5289.6
5°	4855.8	4871.0	4871.0	4898.0	4947.0	4990.9	5031.4	5075.3	5139.4	5212.0	5240.7
7.5°	4592.6	4601.0	4616.2	4656.7	4727.6	4790.0	4847.4	4918.3	5006.1	5102.3	5152.9
10°	4275.2	4287.1	4310.7	4368.1	4464.3	4550.4	4633.1	4731.0	4842.3	4962.2	5026.3
12.5°	4050.8	4047.4	4057.5	4099.7	4184.1	4288.7	4408.6	4533.5	4670.2	4810.3	4887.9
15°	3974.8	3956.2	3917.4	3907.3	3952.9	4057.5	4195.9	4349.5	4513.2	4682.0	4778.2
17.5°	4022.1	3990.0	3883.7	3806.0	3799.3	3878.6	4025.4	4197.6	4386.6	4592.6	4712.4
20°	4319.1	4243.2	3981.6	3801.0	3738.5	3777.3	3905.6	4087.9	4310.7	4584.1	4737.7
22.5°	5029.7	4918.3	4363.0	4027.1	3816.2	3768.9	3865.1	4059.2	4319.1	4688.8	4884.5
25°	6064.3	5905.7	5017.9	4590.9	4155.4	3903.9	3925.9	4125.0	4439.0	4931.8	5168.1
27.5°	6881.2	6778.3	5873.6	5385.8	4773.1	4268.5	4123.3	4290.4	4683.7	5330.1	5571.5
30°	7367.3	7304.9	6788.4	6287.1	5561.4	4849.1	4501.4	4601.0	5066.8	5882.0	6081.2
32.5°	7931.1	7893.9	7640.7	7180.0	6412.0	5612.0	5100.6	5065.1	5579.9	6545.4	6636.5
35°	8515.0	8503.2	8354.7	8023.9	7325.1	6617.9	5895.5	5655.9	6138.6	7234.0	7176.6
37.5°	9058.5	9038.3	8952.2	8759.8	8280.4	7698.1	6705.7	6261.8	6741.1	7892.2	7637.4
40°	10059.4	9900.7	9605.4	9460.2	9245.9	8607.9	7348.8	6827.2	7365.6	8520.1	8035.7
42.5°	11279.7	11021.4	10471.2	10272.1	10241.7	9325.2	7787.6	7375.8	7995.2	9142.9	8427.3
45°	12240.0	11997.0	11522.7	11271.2	11382.6	9975.0	8228.1	7961.4	8643.3	9796.1	8830.7
47.5°	13264.6	12883.1	12255.2	12331.2	12574.2	10589.4	8677.1	8591.0	9353.9	10526.9	9331.9
50°	13301.7	13009.7	12734.6	13188.6	13566.7	11154.8	9239.1	9250.9	10223.1	11446.8	9998.6
52.5°	12530.4	12467.9	12905.0	13619.0	14164.2	11602.1	9878.8	9932.8	11335.4	12503.3	10731.1
55°	12260.3	12189.4	12694.1	13468.8	14245.2	11971.7	10572.5	10670.4	12680.6	13617.3	11445.1
57.5°	12918.6	12761.6	12795.3	13397.9	14047.7	12376.8	11328.6	11526.1	14142.2	14591.2	11904.2
60°	14758.3	14422.4	13784.4	13769.2	14154.0	12984.4	12202.9	12444.3	15661.3	15057.0	11725.3
62.5°	17338.9	17003.1	15808.1	15030.0	14972.6	13986.9	13276.4	13340.5	16538.9	14425.8	10633.2
65°	20132.3	19831.9	18496.8	17398.0	16868.0	15647.8	14523.7	13740.5	16252.0	12689.0	8722.6
67.5°	23523.1	23200.7	22053.0	21038.6	20528.9	18328.0	15399.6	13357.4	14430.8	9829.8	6270.2
70°	25894.5	25565.4	25113.0	25935.0	27182.3	22194.8	15512.7	11799.5	10778.4	6533.5	3774.0
72.5°	22800.7	22647.1	23472.5	26934.2	32129.3	24540.9	14022.4	8591.0	6260.1	3468.5	2184.0
73°	20890.1	20856.4	22264.0	26233.7	32164.7	24179.7	13369.2	7985.1	5368.9	3068.5	1996.7
75°	9433.2	9704.9	12790.3	20037.8	27945.2	19924.7	9409.6	4580.7	3033.0	2119.9	1507.2
77.5°	2266.7	2361.3	4001.8	9515.9	17647.8	11873.8	4263.4	2265.1	1939.3	1497.1	1100.5
80°	965.4	997.5	1541.0	3515.7	8309.1	4781.6	1964.6	1517.3	1341.8	1044.8	771.3
82.5°	536.7	570.5	874.3	1595.0	3353.7	1630.4	1198.4	1056.6	882.7	629.6	501.3
85°	303.8	322.4	511.4	891.2	1421.1	654.9	717.3	702.1	497.9	324.1	246.4
87.5°	143.5	155.3	246.4	413.5	557.0	256.5	364.6	401.7	312.2	197.5	128.3
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°	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8	5304.8
2.5°	5301.4	5331.8	5367.3	5385.8	5402.7	5423.0	5443.2	5443.2	5446.6	5448.3
5°	5264.3	5326.8	5382.4	5406.1	5411.1	5411.1	5406.1	5379.1	5355.4	5365.6
7.5°	5186.7	5277.8	5325.1	5316.6	5252.5	5178.2	5115.8	5039.8	5001.0	4994.3
10°	5075.3	5179.9	5188.3	5104.0	4945.3	4786.6	4655.0	4526.7	4466.0	4450.8
12.5°	4952.1	5048.3	4994.3	4820.4	4565.5	4334.3	4167.2	4037.3	3979.9	3964.7
15°	4852.5	4918.3	4781.6	4508.2	4187.5	3942.7	3804.3	3708.1	3667.6	3655.8
17.5°	4800.2	4813.7	4563.9	4194.2	3853.3	3649.1	3563.0	3517.4	3502.2	3493.8
20°	4825.5	4731.0	4356.3	3902.2	3579.9	3436.4	3416.1	3404.3	3401.0	3395.9
22.5°	4952.1	4705.6	4165.5	3625.4	3340.2	3277.7	3294.6	3292.9	3289.6	3286.2
25°	5178.2	4727.6	3979.9	3362.1	3139.3	3125.8	3156.2	3156.2	3142.7	3142.7
27.5°	5477.0	4773.1	3772.3	3112.3	2957.1	2958.7	2982.4	2975.6	2960.4	2950.3
30°	5841.5	4801.8	3529.2	2887.9	2786.6	2779.8	2786.6	2757.9	2712.3	2708.9
32.5°	6214.5	4766.4	3247.4	2688.7	2606.0	2590.8	2585.7	2545.2	2492.9	2477.7
35°	6552.1	4636.4	2960.4	2530.0	2433.8	2400.1	2423.7	2410.2	2362.9	2351.1
37.5°	6798.5	4395.1	2702.2	2389.9	2310.6	2302.2	2317.4	2322.4	2266.7	2254.9
40°	6963.9	4067.6	2481.1	2271.8	2287.0	2254.9	2204.3	2168.8	2152.0	2146.9
42.5°	7097.3	3726.7	2295.4	2216.1	2292.1	2199.2	2089.5	2032.1	2062.5	2076.0
45°	7250.9	3394.2	2140.2	2146.9	2266.7	2135.1	2010.2	1954.5	1966.3	1969.7
47.5°	7461.8	2989.1	1973.1	2035.5	2182.3	2091.2	1961.2	1881.9	1826.2	1800.9
50°	7753.8	2509.8	1799.2	1910.6	2099.6	2059.1	1885.3	1800.9	1697.9	1674.3
52.5°	7956.4	2062.5	1655.7	1806.0	2025.4	1995.0	1824.5	1714.8	1606.8	1586.5
55°	7846.7	1713.1	1530.9	1689.5	1927.5	1915.7	1773.9	1627.1	1542.7	1525.8
57.5°	7298.1	1492.0	1434.6	1579.8	1807.7	1848.2	1706.4	1552.8	1492.0	1480.2
60°	6251.7	1353.6	1373.9	1505.5	1709.8	1780.6	1638.9	1512.3	1471.8	1463.3
62.5°	4850.8	1260.8	1328.3	1451.5	1633.8	1733.4	1601.7	1507.2	1492.0	1481.9
65°	3475.2	1186.5	1279.4	1397.5	1564.6	1689.5	1588.2	1500.5	1503.8	1495.4
67.5°	2361.3	1120.7	1220.3	1336.8	1497.1	1650.7	1569.7	1476.8	1519.0	1508.9
70°	1652.4	1056.6	1151.1	1259.1	1412.7	1596.7	1535.9	1441.4	1438.0	1397.5
72.5°	1289.5	972.2	1056.6	1151.1	1304.7	1520.7	1468.4	1362.1	1306.4	1264.2
73°	1230.4	951.9	1032.9	1127.5	1281.1	1502.2	1449.8	1340.1	1277.7	1238.9
75°	1017.8	864.2	938.4	1022.8	1179.8	1414.4	1358.7	1240.5	1161.2	1137.6
77.5°	800.0	739.3	810.2	886.1	1039.7	1286.1	1223.7	1110.6	1066.7	1046.4
80°	592.4	612.7	675.1	742.6	901.3	1149.4	1093.7	980.6	1176.4	1127.5
82.5°	416.9	464.1	521.5	582.3	756.1	1016.1	948.6	832.1	860.8	715.6
85°	246.4	303.8	357.8	410.1	545.2	842.2	783.1	663.3	543.5	518.2
87.5°	143.5	168.8	184.0	238.0	374.7	634.6	551.9	491.2	281.9	190.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)