

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: P300470

Luminaire Tested: **GLNA-AF-10-LED-E1-T4FT-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300470
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-10-LED-E1-T4FT-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K 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: 33809.7 lumens
Efficiency: N/A
Efficacy: 104.7 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): 323
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

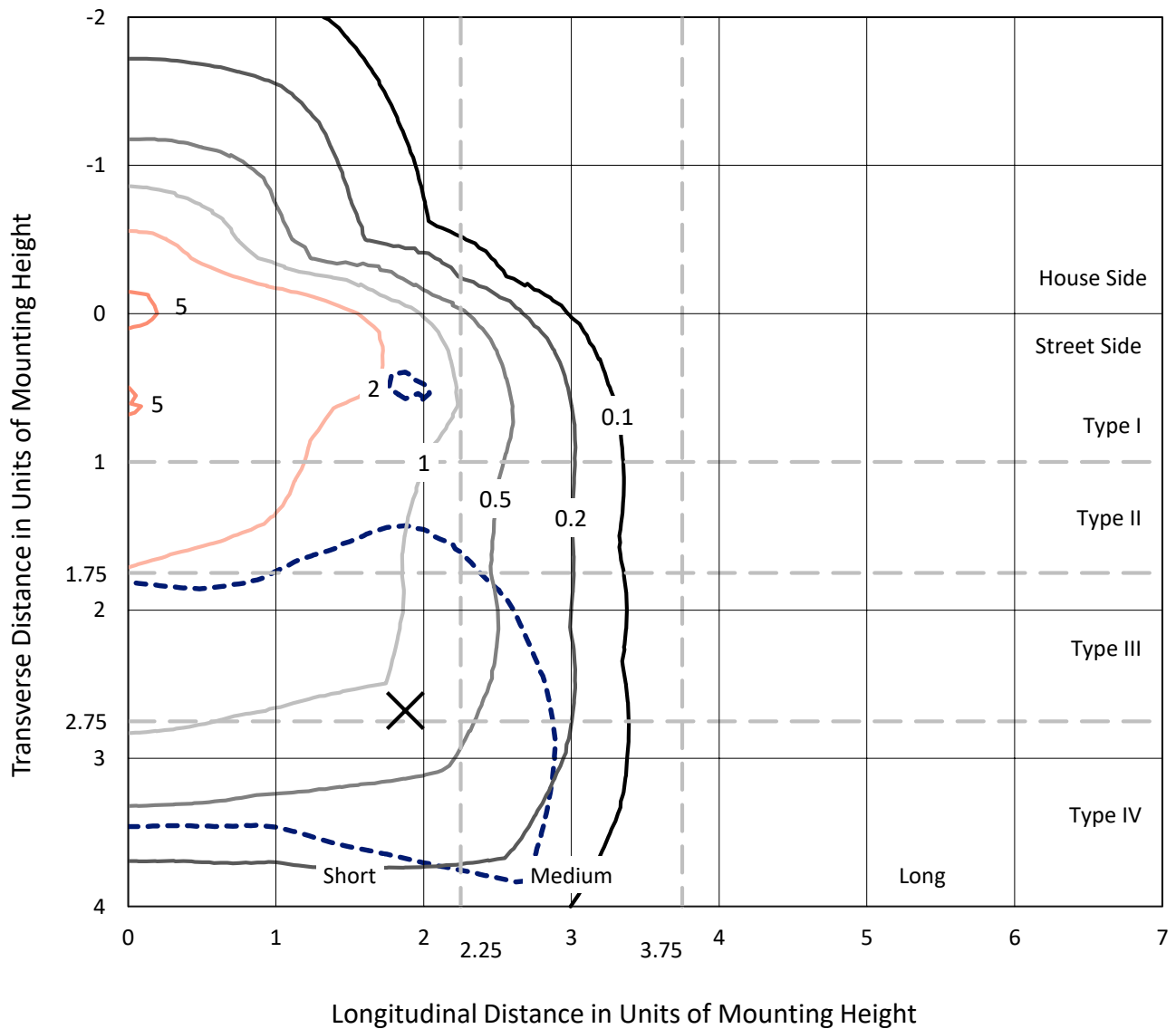


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Iso-Footcandle Lines of Horizontal Illumination

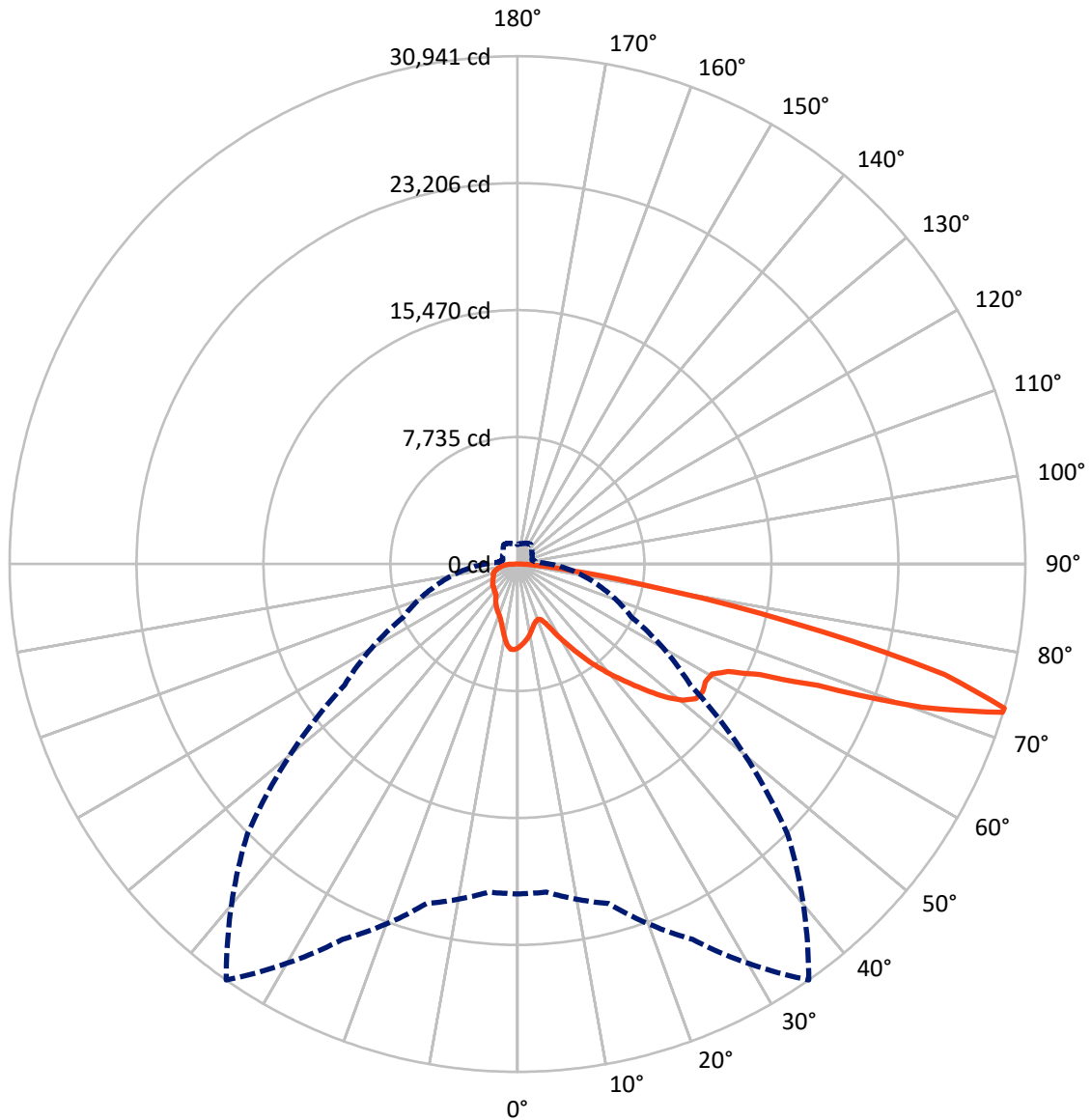
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.7 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	6448.4	0.0	6448.4
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	27361.2	0.0	27361.2
	% Fixture	80.9	0.0	80.9
Total	Lumens	33809.7	0.0	33809.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	462.0	1.4
10°-20°	1153.0	3.4
20°-30°	1864.0	5.5
30°-40°	3125.6	9.2
40°-50°	4818.0	14.3
50°-60°	6463.8	19.1
60°-70°	8611.2	25.5
70°-80°	6567.7	19.4
80°-90°	744.4	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°	33809.7	100.0
0°-180°	33809.7	100.0



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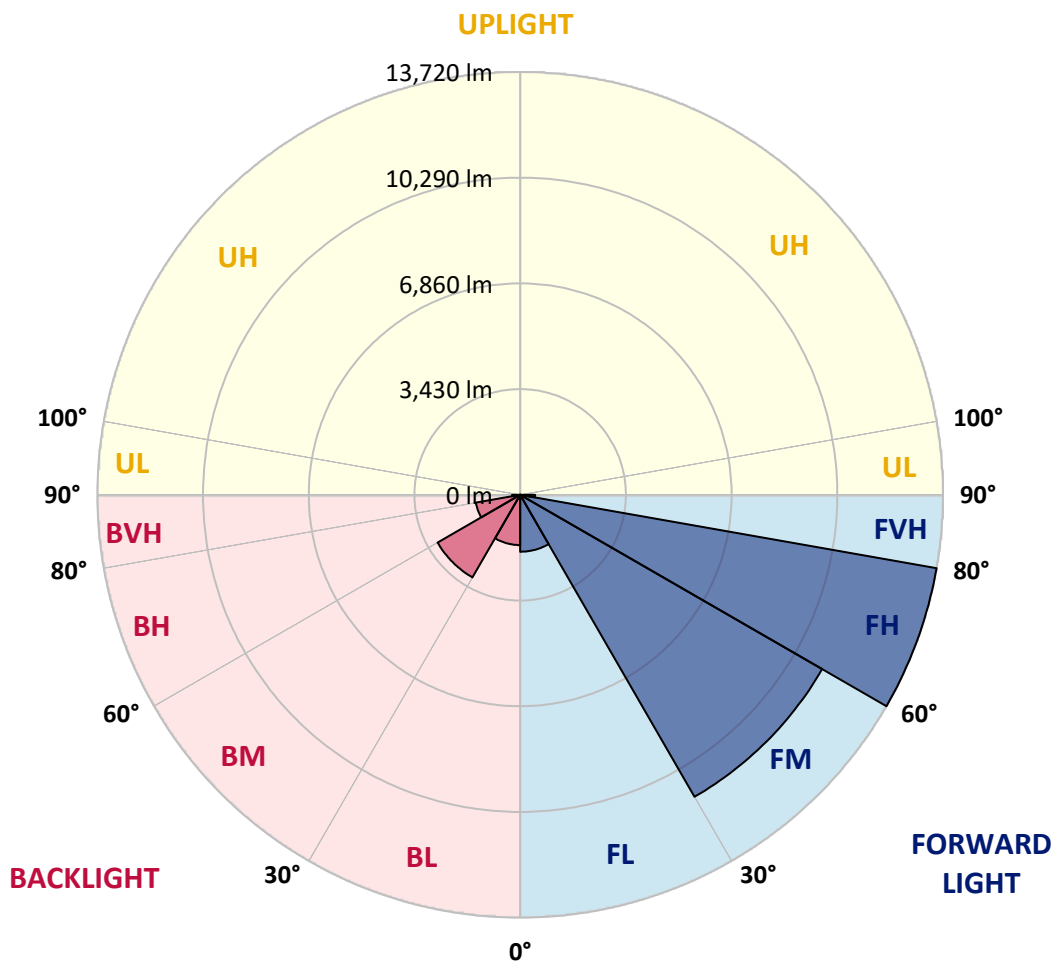
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1847.2	5.5			
FM	(30°-60°)	11312.9	33.5			
FH	(60°-80°)	13719.9	40.6			G5
FVH	(80°-90°)	481.2	1.4			G3/500
BL	(0°-30°)	1631.8	4.8	B3/2500		
BM	(30°-60°)	3094.5	9.2	B3/5000		
BH	(60°-80°)	1458.9	4.3	B3/2500		G3/2500
BVH	(80°-90°)	263.2	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°	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9
2.5°	4901.6	4911.3	4900.0	4914.6	4938.9	4964.9	4982.8	5008.8	5038.0	5078.6	5088.3
5°	4671.1	4685.7	4685.7	4711.6	4758.7	4800.9	4839.9	4882.1	4943.8	5013.6	5041.2
7.5°	4417.8	4425.9	4440.5	4479.5	4547.7	4607.7	4662.9	4731.1	4815.6	4908.1	4956.8
10°	4112.5	4123.9	4146.6	4201.8	4294.4	4377.2	4456.7	4550.9	4658.1	4773.3	4835.0
12.5°	3896.6	3893.4	3903.1	3943.7	4024.9	4125.5	4240.8	4360.9	4492.5	4627.2	4701.9
15°	3823.5	3805.7	3768.3	3758.6	3802.4	3903.1	4036.2	4184.0	4341.5	4503.8	4596.4
17.5°	3869.0	3838.2	3735.9	3661.2	3654.7	3731.0	3872.2	4037.9	4219.7	4417.8	4533.0
20°	4154.8	4081.7	3830.0	3656.3	3596.2	3633.6	3757.0	3932.3	4146.6	4409.7	4557.4
22.5°	4838.3	4731.1	4197.0	3873.9	3670.9	3625.5	3718.0	3904.7	4154.8	4510.3	4698.7
25°	5833.5	5680.9	4826.9	4416.2	3997.3	3755.4	3776.5	3968.0	4270.0	4744.1	4971.4
27.5°	6619.4	6520.3	5650.1	5180.9	4591.5	4106.0	3966.4	4127.2	4505.4	5127.3	5359.5
30°	7086.9	7026.9	6530.1	6047.9	5349.7	4664.6	4330.1	4425.9	4874.0	5658.2	5849.8
32.5°	7629.2	7593.5	7350.0	6906.7	6168.0	5398.4	4906.5	4872.4	5367.6	6296.3	6383.9
35°	8191.0	8179.6	8036.7	7718.5	7046.4	6366.1	5671.2	5440.6	5905.0	6958.7	6903.5
37.5°	8713.8	8694.3	8611.5	8426.4	7965.3	7405.2	6450.5	6023.5	6484.6	7591.9	7346.7
40°	9676.6	9523.9	9239.8	9100.2	8894.0	8280.3	7069.1	6567.4	7085.3	8195.9	7729.9
42.5°	10850.4	10602.0	10072.7	9881.1	9851.9	8970.3	7491.2	7095.1	7690.9	8795.0	8106.6
45°	11774.2	11540.4	11084.2	10842.3	10949.5	9595.4	7915.0	7658.4	8314.4	9423.3	8494.6
47.5°	12759.8	12392.8	11788.8	11861.9	12095.7	10186.4	8346.8	8264.0	8997.9	10126.3	8976.8
50°	12795.5	12514.6	12249.9	12686.7	13050.4	10730.3	8887.5	8898.9	9834.1	11011.2	9618.1
52.5°	12053.5	11993.4	12413.9	13100.7	13625.1	11160.5	9502.8	9554.8	10904.0	12027.5	10322.8
55°	11793.7	11725.5	12211.0	12956.2	13703.1	11516.1	10170.1	10264.3	12198.0	13099.1	11009.5
57.5°	12426.9	12275.9	12308.4	12888.0	13513.1	11905.7	10897.5	11087.5	13604.0	14035.9	11451.1
60°	14196.6	13873.5	13259.8	13245.2	13615.4	12490.2	11738.5	11970.7	15065.2	14484.0	11279.0
62.5°	16679.1	16356.0	15206.5	14458.0	14402.8	13454.6	12771.1	12832.8	15909.5	13876.8	10228.6
65°	19366.1	19077.1	17792.9	16735.9	16226.1	15052.3	13970.9	13217.6	15633.5	12206.1	8390.7
67.5°	22627.9	22317.8	21213.8	20238.0	19747.7	17630.5	14813.6	12849.0	13881.6	9455.8	6031.6
70°	24909.0	24592.4	24157.3	24948.0	26147.8	21350.1	14922.4	11350.5	10368.2	6284.9	3630.3
72.5°	21933.0	21785.3	22579.2	25909.2	30906.6	23606.9	13488.7	8264.0	6021.9	3336.5	2100.9
73°	20095.1	20062.6	21416.7	25235.4	30940.7	23259.5	12860.4	7681.2	5164.6	2951.7	1920.7
75°	9074.2	9335.6	12303.5	19275.2	26881.7	19166.4	9051.5	4406.4	2917.6	2039.2	1449.9
77.5°	2180.5	2271.4	3849.5	9153.8	16976.2	11421.9	4101.2	2178.9	1865.5	1440.1	1058.6
80°	928.7	959.5	1482.3	3381.9	7992.9	4599.6	1889.9	1459.6	1290.7	1005.0	742.0
82.5°	516.3	548.8	841.0	1534.3	3226.1	1568.4	1152.7	1016.4	849.1	605.6	482.2
85°	292.2	310.1	491.9	857.3	1367.1	630.0	690.0	675.4	479.0	311.7	237.0
87.5°	138.0	149.4	237.0	397.8	535.8	246.8	350.7	386.4	300.4	190.0	123.4
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°	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9	5102.9
2.5°	5099.7	5128.9	5163.0	5180.9	5197.1	5216.6	5236.1	5236.1	5239.3	5240.9
5°	5064.0	5124.0	5177.6	5200.3	5205.2	5205.2	5200.3	5174.4	5151.6	5161.4
7.5°	4989.3	5076.9	5122.4	5114.3	5052.6	4981.2	4921.1	4848.0	4810.7	4804.2
10°	4882.1	4982.8	4990.9	4909.7	4757.1	4604.5	4477.8	4354.5	4296.0	4281.4
12.5°	4763.6	4856.1	4804.2	4637.0	4391.8	4169.4	4008.6	3883.6	3828.4	3813.8
15°	4667.8	4731.1	4599.6	4336.6	4028.1	3792.7	3659.6	3567.0	3528.0	3516.7
17.5°	4617.5	4630.5	4390.2	4034.6	3706.6	3510.2	3427.4	3383.6	3368.9	3360.8
20°	4641.8	4550.9	4190.5	3753.7	3443.6	3305.6	3286.1	3274.8	3271.5	3266.7
22.5°	4763.6	4526.6	4007.0	3487.5	3213.1	3153.0	3169.2	3167.6	3164.4	3161.1
25°	4981.2	4547.7	3828.4	3234.2	3019.9	3006.9	3036.1	3036.1	3023.1	3023.1
27.5°	5268.5	4591.5	3628.7	2993.9	2844.5	2846.1	2868.9	2862.4	2847.8	2838.0
30°	5619.2	4619.1	3394.9	2778.0	2680.5	2674.0	2680.5	2652.9	2609.1	2605.9
32.5°	5978.0	4585.0	3123.8	2586.4	2506.8	2492.2	2487.3	2448.4	2398.0	2383.4
35°	6302.8	4460.0	2847.8	2433.8	2341.2	2308.7	2331.5	2318.5	2273.0	2261.7
37.5°	6539.8	4227.8	2599.4	2299.0	2222.7	2214.6	2229.2	2234.1	2180.5	2169.1
40°	6698.9	3912.8	2386.7	2185.3	2200.0	2169.1	2120.4	2086.3	2070.1	2065.2
42.5°	6827.2	3584.9	2208.1	2131.8	2204.8	2115.5	2010.0	1954.8	1984.0	1997.0
45°	6974.9	3265.0	2058.7	2065.2	2180.5	2053.8	1933.7	1880.1	1891.5	1894.7
47.5°	7177.9	2875.4	1898.0	1958.0	2099.3	2011.6	1886.6	1810.3	1756.7	1732.4
50°	7458.7	2414.3	1730.7	1837.9	2019.7	1980.8	1813.5	1732.4	1633.3	1610.6
52.5°	7653.6	1984.0	1592.7	1737.2	1948.3	1919.1	1755.1	1649.6	1545.7	1526.2
55°	7548.0	1647.9	1472.6	1625.2	1854.1	1842.8	1706.4	1565.1	1484.0	1467.7
57.5°	7020.4	1435.2	1380.0	1519.7	1738.9	1777.8	1641.4	1493.7	1435.2	1423.9
60°	6013.8	1302.1	1321.6	1448.2	1644.7	1712.9	1576.5	1454.7	1415.8	1407.6
62.5°	4666.2	1212.8	1277.8	1396.3	1571.6	1667.4	1540.8	1449.9	1435.2	1425.5
65°	3343.0	1141.4	1230.7	1344.3	1505.1	1625.2	1527.8	1443.4	1446.6	1438.5
67.5°	2271.4	1078.1	1173.9	1285.9	1440.1	1587.9	1509.9	1420.6	1461.2	1451.5
70°	1589.5	1016.4	1107.3	1211.2	1358.9	1535.9	1477.5	1386.5	1383.3	1344.3
72.5°	1240.4	935.2	1016.4	1107.3	1255.0	1462.8	1412.5	1310.2	1256.7	1216.1
73°	1183.6	915.7	993.6	1084.6	1232.3	1445.0	1394.7	1289.1	1229.1	1191.7
75°	979.0	831.3	902.7	983.9	1134.9	1360.6	1307.0	1193.3	1117.0	1094.3
77.5°	769.6	711.1	779.3	852.4	1000.1	1237.2	1177.1	1068.3	1026.1	1006.6
80°	569.9	589.4	649.4	714.4	867.0	1105.7	1052.1	943.3	1131.6	1084.6
82.5°	401.0	446.5	501.7	560.1	727.4	977.4	912.5	800.4	828.0	688.4
85°	237.0	292.2	344.2	394.5	524.4	810.2	753.3	638.1	522.8	498.4
87.5°	138.0	162.4	177.0	228.9	360.4	610.5	530.9	472.5	271.1	183.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)