

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: P299152

Luminaire Tested: **GLNA-AF-10-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299152
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-10-LED-E1-T3
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 58726.4 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 558
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

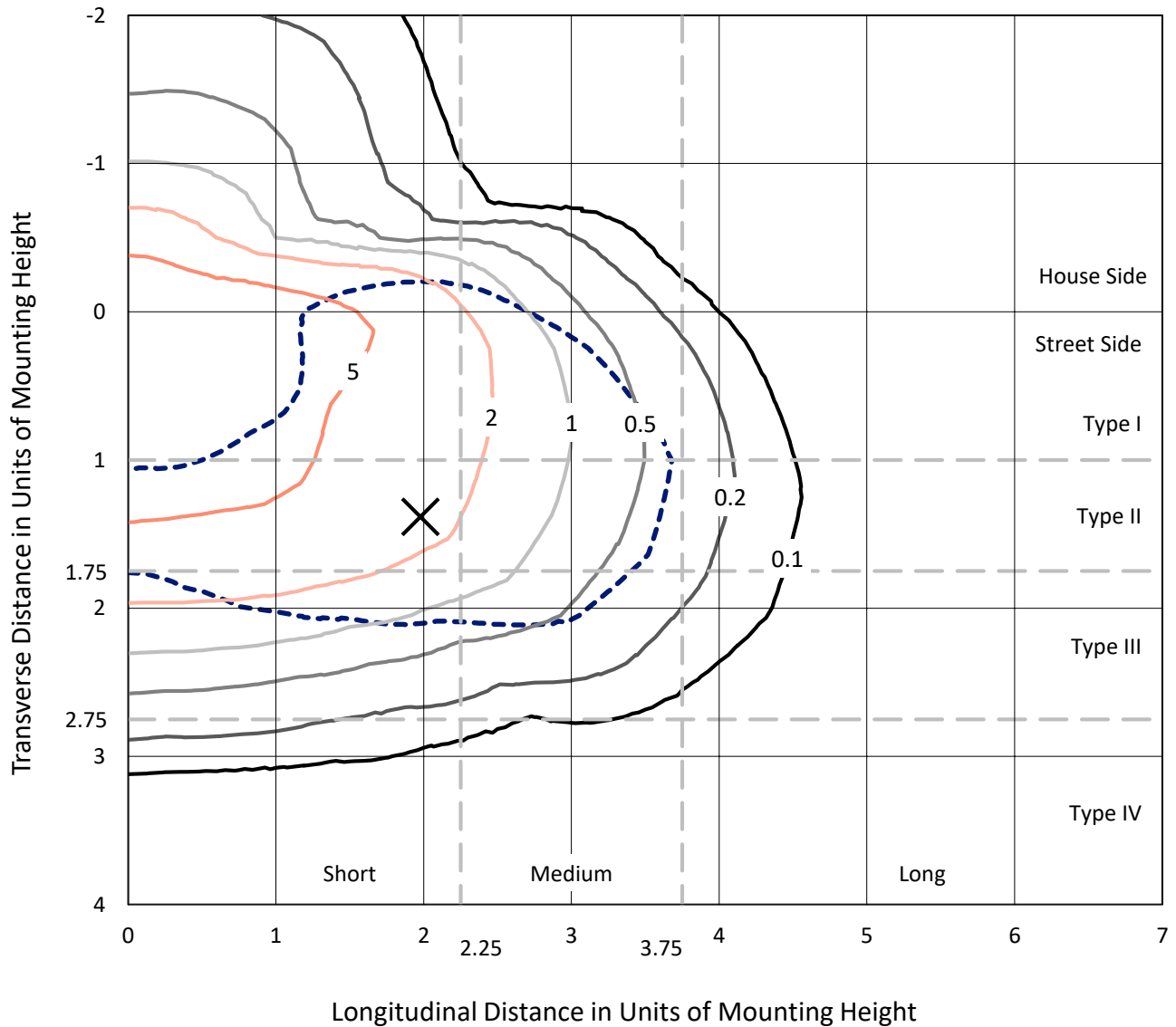


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Iso-Footcandle Lines of Horizontal Illumination

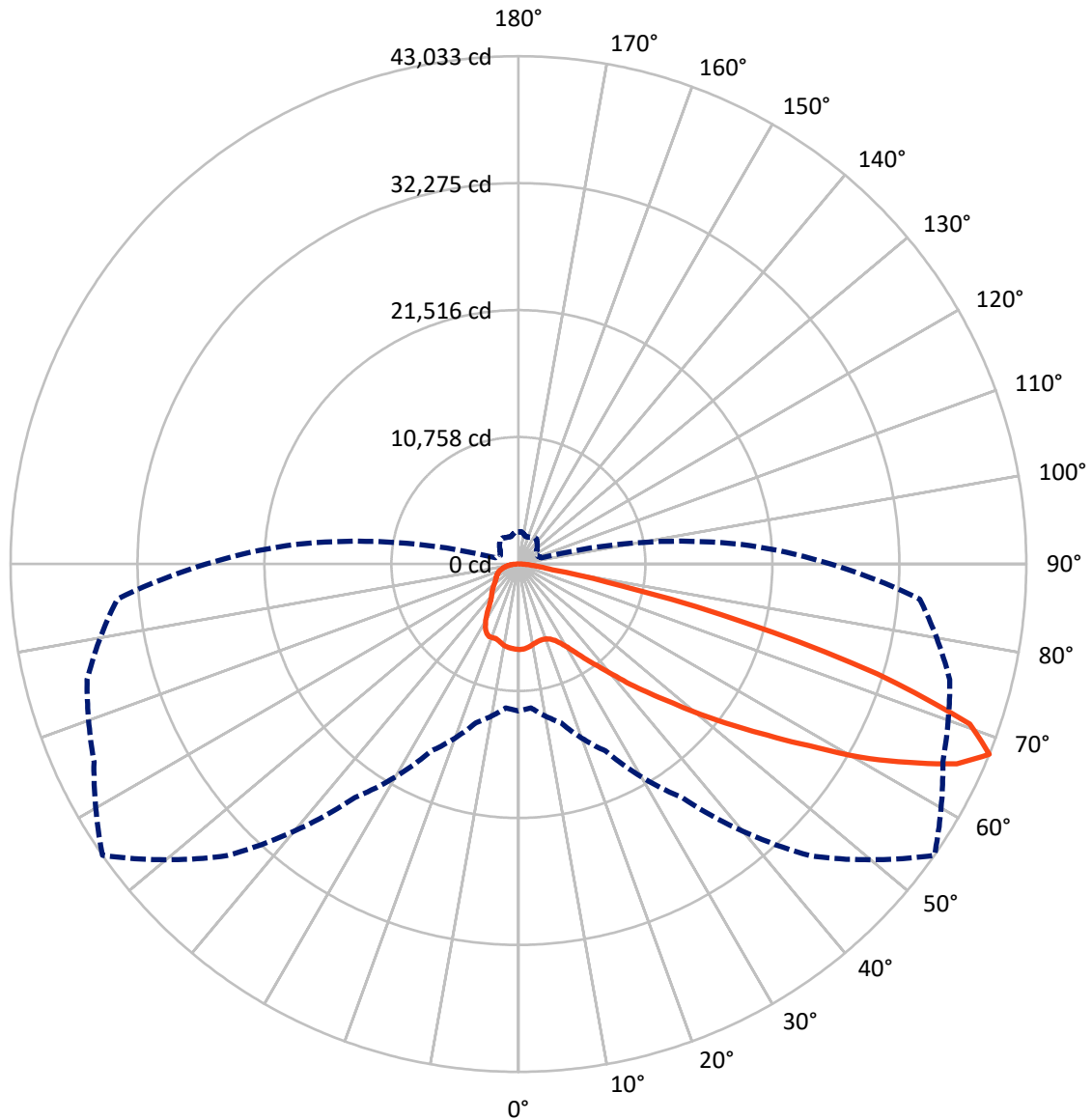
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.3 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	12686.2	0.0	12686.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	46040.3	0.0	46040.3
	% Fixture	78.4	0.0	78.4
Total	Lumens	58726.4	0.0	58726.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	675.9	1.2
10°-20°	1914.3	3.3
20°-30°	3206.7	5.5
30°-40°	5273.3	9.0
40°-50°	8876.5	15.1
50°-60°	13971.0	23.8
60°-70°	16672.9	28.4
70°-80°	7159.6	12.2
80°-90°	976.1	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°	58726.4	100.0
0°-180°	58726.4	100.0



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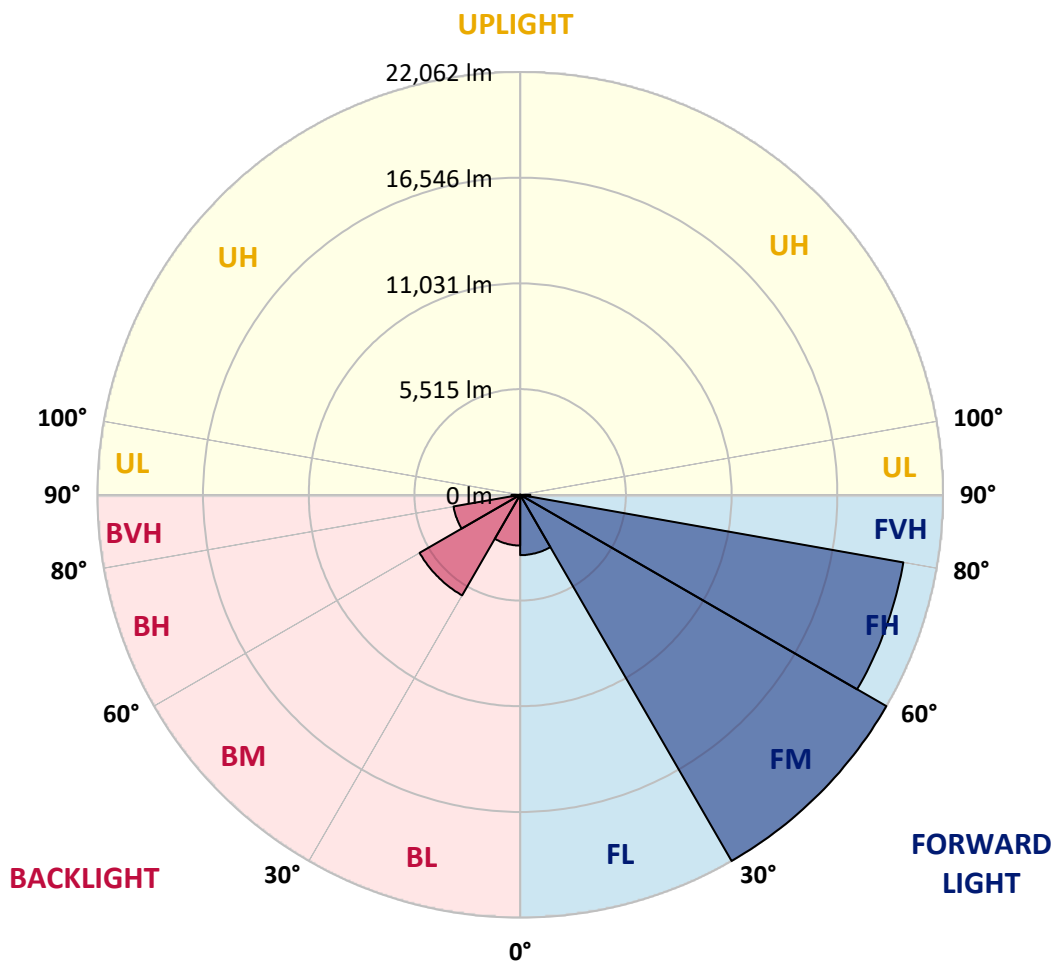
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3147.9	5.4			
FM	(30°-60°)	22062.0	37.6			
FH	(60°-80°)	20302.0	34.6			G5
FVH	(80°-90°)	528.4	0.9			G4/750
BL	(0°-30°)	2649.1	4.5	B4/5000		
BM	(30°-60°)	6058.8	10.3	B4/8500		
BH	(60°-80°)	3530.5	6.0	B4/5000		G4/5000
BVH	(80°-90°)	447.7	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6
2.5°	7179.2	7182.0	7187.7	7210.4	7230.3	7224.6	7227.4	7216.1	7213.2	7196.2	7213.2
5°	7088.4	7096.9	7099.8	7136.7	7159.4	7165.0	7156.5	7142.3	7125.3	7108.3	7116.8
7.5°	6881.4	6904.1	6906.9	6958.0	6994.8	7043.1	7045.9	7048.7	7040.2	7028.9	7045.9
10°	6750.9	6756.6	6753.7	6790.6	6819.0	6872.9	6904.1	6958.0	6980.7	6986.3	6997.7
12.5°	6742.4	6736.7	6728.2	6728.2	6719.7	6742.4	6799.1	6875.7	6929.6	6946.6	6960.8
15°	6833.2	6830.3	6802.0	6759.4	6705.5	6688.5	6736.7	6821.8	6892.7	6929.6	6943.8
17.5°	7037.4	7020.4	6975.0	6878.5	6762.2	6716.9	6722.5	6793.4	6875.7	6923.9	6938.1
20°	7411.8	7411.8	7315.4	7133.8	6926.8	6819.0	6767.9	6810.5	6889.9	6955.1	6975.0
22.5°	8058.5	8064.2	7902.5	7604.7	7255.8	7026.0	6898.4	6889.9	6983.5	7057.2	7079.9
25°	8974.7	8952.0	8725.1	8299.6	7769.2	7389.1	7167.9	7116.8	7196.2	7278.5	7306.9
27.5°	10041.2	9959.0	9689.5	9176.1	8489.7	7933.7	7593.3	7511.1	7587.7	7681.3	7709.6
30°	11096.4	11011.3	10690.8	10129.2	9366.2	8662.7	8174.8	8041.5	8149.3	8282.6	8299.6
32.5°	12151.6	12151.6	11794.2	11139.0	10307.9	9533.5	8949.2	8790.3	8969.0	9130.7	9167.6
35°	13413.9	13419.5	13073.5	12284.9	11391.4	10571.7	9927.8	9811.5	10081.0	10194.4	10282.3
37.5°	14965.4	14996.6	14551.3	13598.2	12619.6	11757.3	10991.5	10832.6	11102.1	11411.3	11694.9
40°	16641.8	16681.5	16190.8	15016.5	14037.9	13135.9	12307.6	12021.1	12469.3	13059.3	13425.2
42.5°	18241.6	18445.8	17972.1	16763.8	15711.4	14778.2	13938.6	13521.6	14083.3	14973.9	15291.6
45°	20553.4	20700.9	19875.4	18780.5	17790.6	16746.8	15634.8	15195.2	15980.9	17104.2	17169.4
47.5°	22093.6	21983.0	21563.2	20882.4	20255.5	19279.8	17606.2	17124.0	18167.8	19489.7	19123.8
50°	22913.3	22947.4	22890.6	22930.3	22953.0	22340.4	20022.9	19362.0	20607.2	22204.2	21361.8
52.5°	23679.2	23452.3	23639.5	24569.9	25693.1	25466.2	22652.4	21963.1	23222.5	25216.6	23727.4
55°	23662.2	23316.1	23926.0	25568.3	28004.9	28265.8	25605.2	24811.0	25988.1	28447.4	26234.9
57.5°	22825.4	22842.4	23781.3	25931.4	29616.0	30898.1	29031.7	27840.3	28921.1	31720.7	28523.9
60°	21673.8	21829.8	23182.8	25871.8	30906.6	33056.7	33235.4	31105.2	31794.4	34696.2	30418.7
62.5°	19815.9	19980.4	21846.8	25253.4	30710.9	35135.9	37036.3	34809.7	34798.3	36500.2	30974.7
65°	16885.7	16837.5	18797.6	22941.7	29068.6	36673.2	40811.7	38012.1	37061.8	36528.6	29857.1
67.5°	12452.3	12236.7	13918.8	17472.9	24161.4	34951.5	43032.7	39679.9	37833.4	34126.1	26441.9
70°	6461.6	6246.0	7607.5	10202.9	15890.1	27278.7	40573.4	38817.6	36128.6	28606.2	20715.0
72.5°	2762.8	2725.9	3279.0	4476.0	7686.9	15734.1	31814.3	33598.5	31000.2	21313.5	14242.1
75°	1857.9	1846.6	2053.6	2439.4	3457.7	6385.0	19909.5	23849.4	22680.7	13215.3	8010.3
77.5°	1458.0	1443.8	1565.8	1753.0	2240.8	2518.8	8835.7	12804.0	11850.9	5752.4	3505.9
80°	1140.3	1128.9	1205.5	1307.6	1611.1	1588.4	2907.4	5094.4	3942.7	2204.0	1704.7
82.5°	899.2	899.2	961.6	964.4	1143.1	1083.5	1517.5	2243.7	1968.5	1284.9	1043.8
85°	822.6	822.6	887.8	720.5	746.0	683.6	941.7	1330.3	1248.1	527.6	453.8
87.5°	414.1	402.8	746.0	638.2	405.6	363.1	459.5	643.9	692.1	292.2	226.9
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°	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6	7241.6
2.5°	7207.6	7204.7	7210.4	7213.2	7235.9	7267.1	7281.3	7301.2	7312.5	7306.9
5°	7122.5	7128.1	7150.8	7167.9	7207.6	7258.6	7287.0	7309.7	7329.5	7321.0
7.5°	7051.6	7065.7	7099.8	7114.0	7136.7	7150.8	7148.0	7156.5	7173.5	7153.7
10°	7011.9	7028.9	7054.4	7034.5	6980.7	6904.1	6833.2	6796.3	6807.6	6793.4
12.5°	6972.1	6994.8	6975.0	6881.4	6731.0	6631.8	6577.9	6583.5	6609.1	6614.7
15°	6949.4	6958.0	6872.9	6697.0	6543.8	6529.6	6558.0	6552.3	6555.2	6555.2
17.5°	6949.4	6926.8	6767.9	6592.0	6526.8	6501.3	6413.3	6302.7	6254.5	6237.5
20°	6986.3	6926.8	6733.9	6617.6	6475.8	6257.3	6024.7	5820.5	5729.8	5704.2
22.5°	7096.9	6994.8	6830.3	6628.9	6226.1	5860.2	5491.5	5247.5	5083.0	5054.7
25°	7321.0	7207.6	7020.4	6478.6	5829.0	5307.1	4887.3	4615.0	4450.5	4427.8
27.5°	7712.5	7638.7	7122.5	6146.7	5301.4	4742.6	4354.0	4144.1	4022.2	4013.7
30°	8302.5	8265.6	7071.4	5656.0	4651.9	4195.2	4008.0	3886.0	3795.3	3792.4
32.5°	9244.2	8946.4	6904.1	5057.5	4059.0	3806.6	3730.0	3656.3	3585.3	3585.3
35°	10455.4	9496.6	6586.4	4416.4	3698.8	3591.0	3494.6	3378.3	3284.7	3279.0
37.5°	11879.3	9837.0	6016.2	3900.2	3528.6	3446.4	3304.5	3131.5	2967.0	2938.6
40°	13317.4	9939.1	5213.5	3582.5	3420.8	3301.7	3128.7	2924.4	2765.6	2757.1
42.5°	14636.4	9743.4	4362.6	3364.1	3313.0	3154.2	2972.7	2791.1	2666.3	2663.5
45°	15742.6	9235.7	3647.8	3157.0	3199.6	3020.9	2859.2	2711.7	2615.3	2595.4
47.5°	16783.6	8518.0	3145.7	2938.6	3086.1	2947.1	2811.0	2672.0	2578.4	2564.2
50°	17992.0	7743.7	2794.0	2725.9	2986.8	2921.6	2850.7	2706.0	2550.0	2533.0
52.5°	19455.6	7074.3	2518.8	2538.7	2910.3	2955.6	2952.8	2802.5	2530.2	2507.5
55°	21089.5	6331.1	2311.8	2385.5	2879.1	3018.0	2978.3	2893.2	2547.2	2513.1
57.5°	22697.8	5463.1	2167.1	2269.2	2833.7	3012.4	2856.4	2734.4	2586.9	2538.7
60°	23903.3	4297.3	2056.5	2167.1	2734.4	2918.8	2723.0	2561.4	2578.4	2541.5
62.5°	23982.7	3321.6	1923.2	2079.2	2584.1	2825.2	2635.1	2484.8	2615.3	2581.2
65°	22572.9	2510.3	1795.5	1974.2	2422.4	2765.6	2550.0	2442.2	2691.8	2655.0
67.5°	19004.6	2019.6	1687.7	1866.4	2260.7	2640.8	2473.4	2402.5	2759.9	2694.7
70°	13720.2	1721.8	1582.8	1735.9	2116.0	2499.0	2405.4	2331.6	2575.6	2473.4
72.5°	8447.1	1492.0	1463.6	1562.9	2005.4	2351.5	2303.2	2198.3	2320.3	2238.0
75°	4217.9	1293.4	1330.3	1392.7	1849.4	2184.1	2133.1	2028.1	2045.1	2028.1
77.5°	2019.6	1106.2	1174.3	1222.5	1648.0	1994.1	1940.2	1832.4	1812.5	1815.4
80°	1279.3	924.7	989.9	1024.0	1472.1	1772.8	1718.9	1611.1	1838.1	1704.7
82.5°	799.9	751.7	768.7	831.1	1282.1	1543.1	1472.1	1375.7	1656.5	1310.5
85°	442.5	524.8	547.4	601.3	987.1	1290.6	1219.7	1097.7	984.3	967.2
87.5°	263.8	312.0	320.5	360.2	663.7	933.2	825.4	782.9	649.6	646.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)