

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: P299149

Luminaire Tested: **GLNA-AF-10-LED-E1-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299149
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-T3-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51023.8 lumens
Efficiency: N/A
Efficacy: 91.4 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

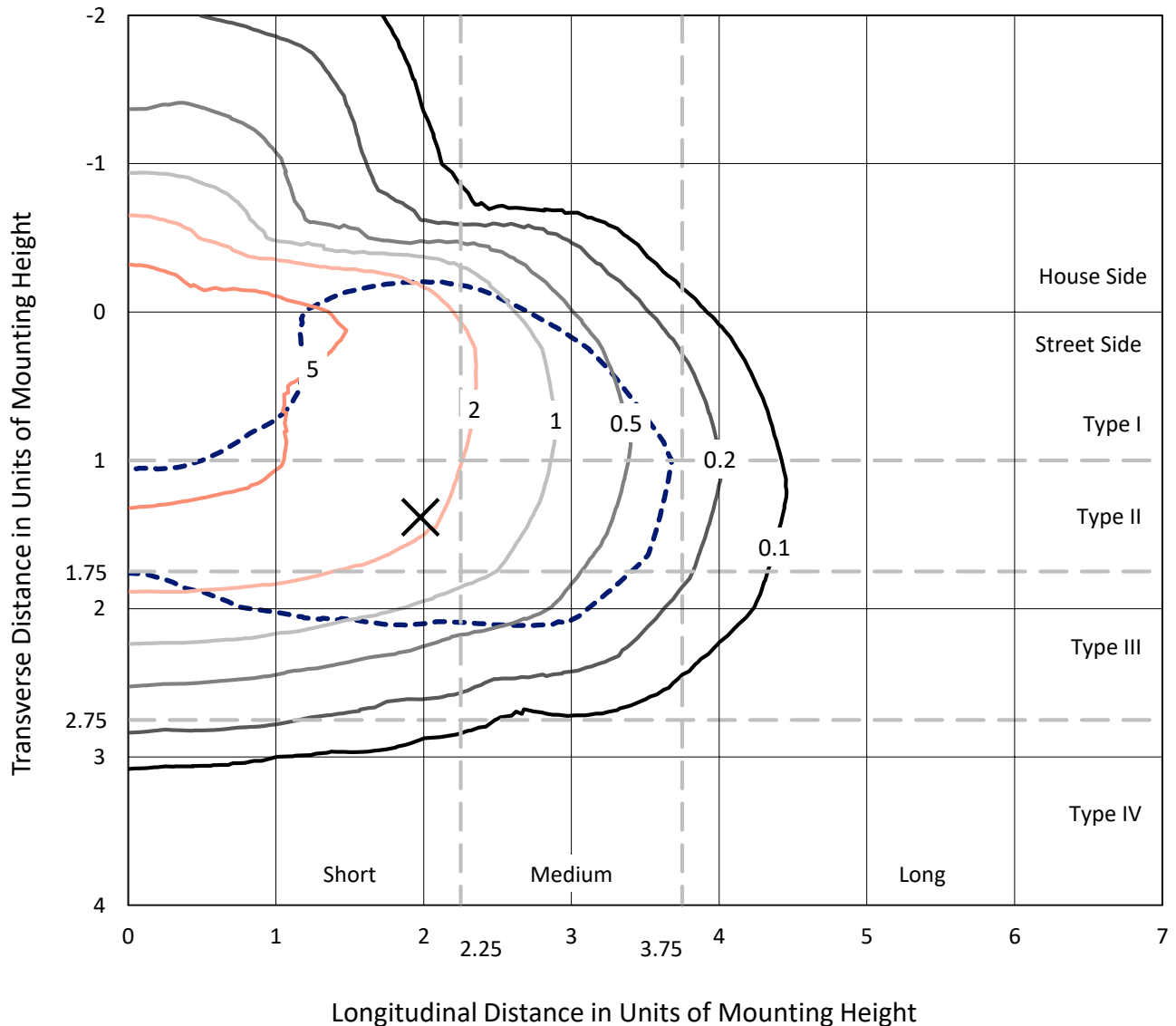
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

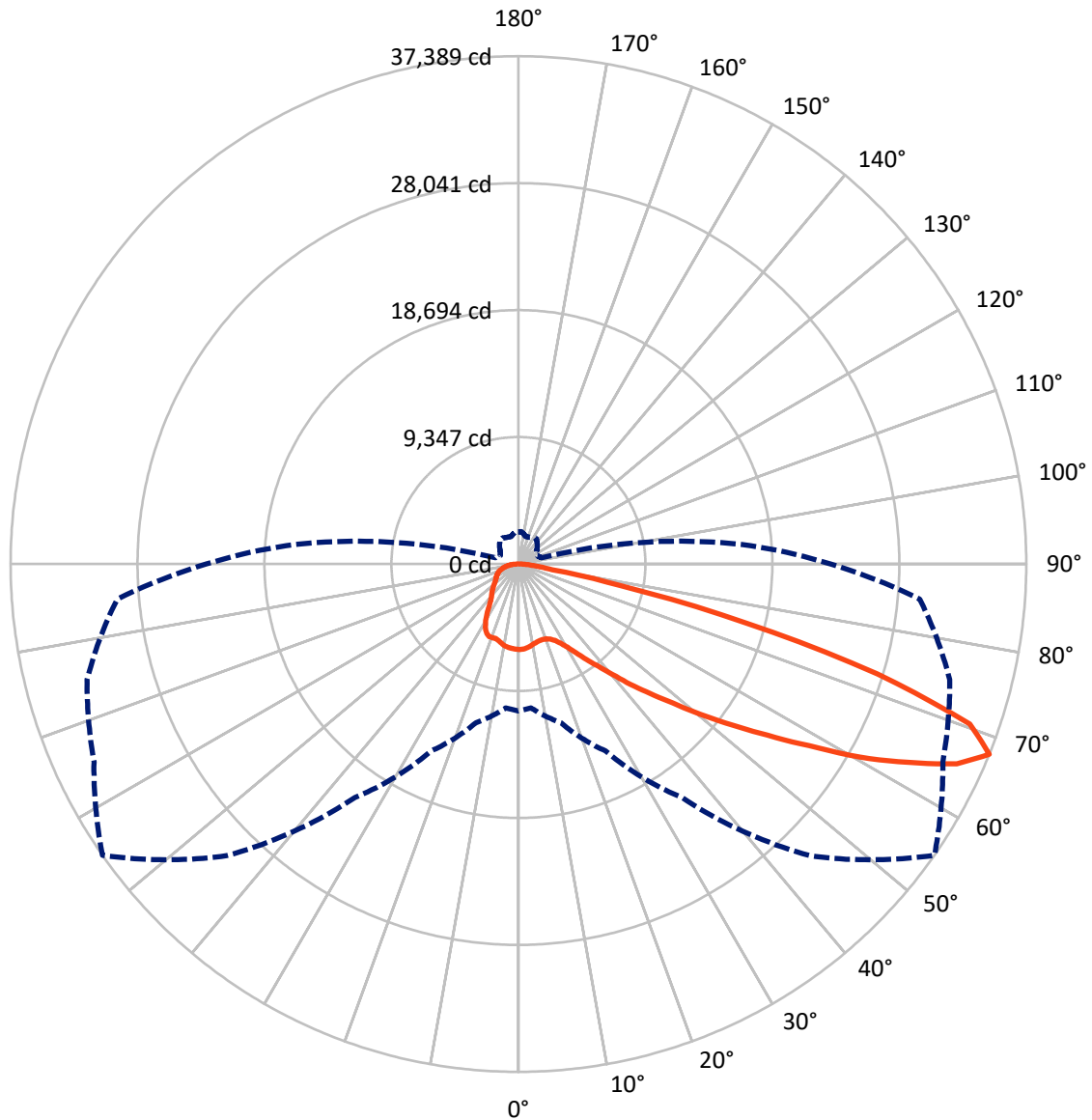
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 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	11022.2	0.0	11022.2
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	40001.6	0.0	40001.6
	% Fixture	78.4	0.0	78.4
Total	Lumens	51023.8	0.0	51023.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	587.3	1.2
10°-20°	1663.2	3.3
20°-30°	2786.1	5.5
30°-40°	4581.6	9.0
40°-50°	7712.3	15.1
50°-60°	12138.5	23.8
60°-70°	14486.0	28.4
70°-80°	6220.6	12.2
80°-90°	848.1	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°	51023.8	100.0
0°-180°	51023.8	100.0



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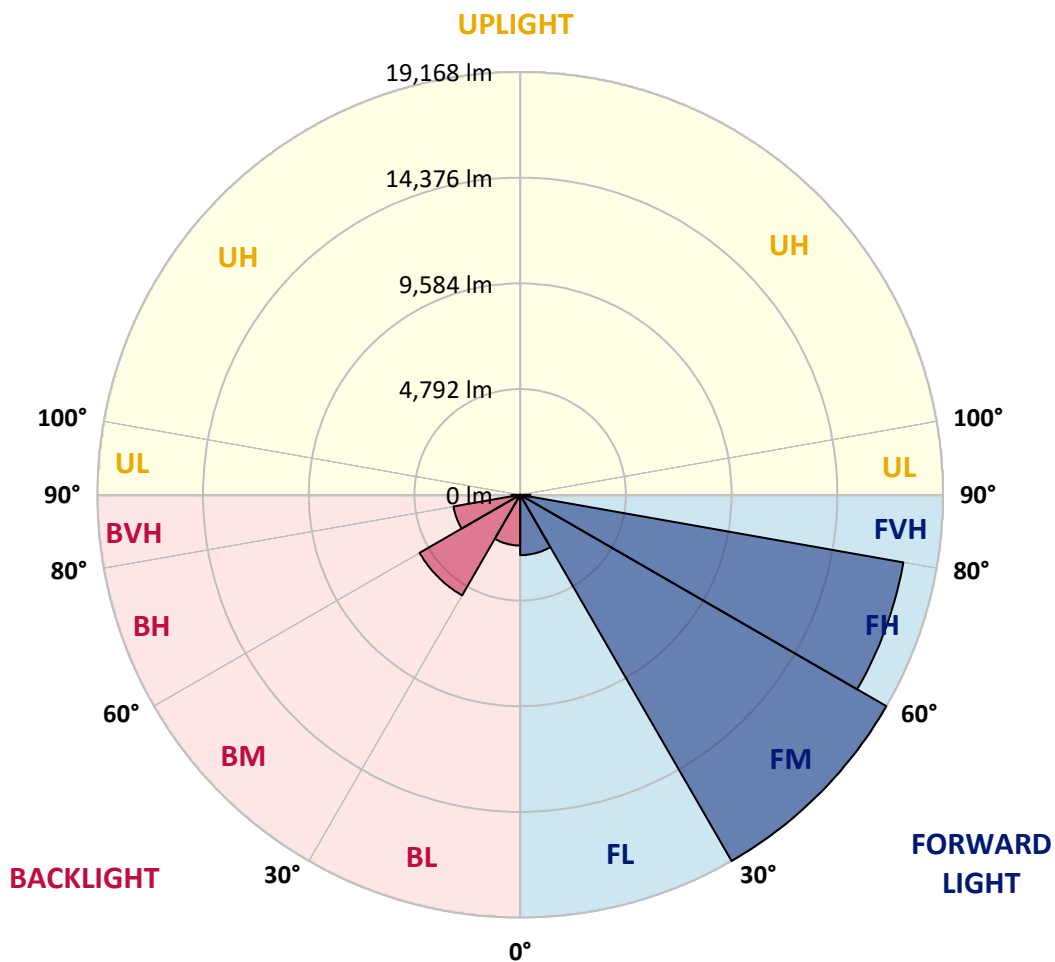
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2735.0	5.4			
FM	(30°-60°)	19168.3	37.6			
FH	(60°-80°)	17639.2	34.6			G5
FVH	(80°-90°)	459.1	0.9			G3/500
BL	(0°-30°)	2301.7	4.5	B3/2500		
BM	(30°-60°)	5264.1	10.3	B4/8500		
BH	(60°-80°)	3067.4	6.0	B4/5000		G4/5000
BVH	(80°-90°)	389.0	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°	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8
2.5°	6237.6	6240.0	6245.0	6264.7	6281.9	6277.0	6279.5	6269.6	6267.1	6252.4	6267.1
5°	6158.7	6166.1	6168.6	6200.6	6220.3	6225.3	6217.9	6205.5	6190.7	6176.0	6183.4
7.5°	5978.8	5998.5	6001.0	6045.3	6077.4	6119.3	6121.7	6124.2	6116.8	6107.0	6121.7
10°	5865.4	5870.4	5867.9	5899.9	5924.6	5971.4	5998.5	6045.3	6065.1	6070.0	6079.8
12.5°	5858.0	5853.1	5845.7	5845.7	5838.3	5858.0	5907.3	5973.9	6020.7	6035.5	6047.8
15°	5936.9	5934.4	5909.8	5872.8	5826.0	5811.2	5853.1	5927.1	5988.7	6020.7	6033.0
17.5°	6114.3	6099.6	6060.1	5976.3	5875.3	5835.9	5840.8	5902.4	5973.9	6015.8	6028.1
20°	6439.7	6439.7	6355.9	6198.1	6018.2	5924.6	5880.2	5917.2	5986.2	6042.9	6060.1
22.5°	7001.6	7006.5	6866.0	6607.2	6304.1	6104.5	5993.6	5986.2	6067.5	6131.6	6151.3
25°	7797.6	7777.9	7580.7	7211.0	6750.2	6419.9	6227.7	6183.4	6252.4	6323.8	6348.5
27.5°	8724.2	8652.8	8418.6	7972.6	7376.2	6893.1	6597.4	6525.9	6592.5	6673.8	6698.4
30°	9641.0	9567.1	9288.6	8800.6	8137.7	7526.5	7102.6	6986.8	7080.4	7196.3	7211.0
32.5°	10557.8	10557.8	10247.3	9678.0	8955.9	8283.1	7775.4	7637.4	7792.7	7933.1	7965.2
35°	11654.5	11659.4	11358.7	10673.6	9897.3	9185.1	8625.6	8524.6	8758.7	8857.3	8933.7
37.5°	13002.5	13029.7	12642.7	11814.7	10964.4	10215.2	9549.8	9411.8	9645.9	9914.6	10161.0
40°	14459.0	14493.5	14067.2	13046.9	12196.7	11413.0	10693.3	10444.4	10833.8	11346.4	11664.3
42.5°	15849.0	16026.4	15614.9	14565.0	13650.7	12839.9	12110.4	11748.1	12236.1	13009.9	13286.0
45°	17857.5	17985.7	17268.5	16317.3	15457.2	14550.2	13584.2	13202.2	13884.8	14860.8	14917.4
47.5°	19195.8	19099.6	18734.9	18143.4	17598.8	16751.0	15297.0	14878.0	15784.9	16933.4	16615.5
50°	19908.0	19937.6	19888.3	19922.8	19942.5	19410.2	17396.7	16822.5	17904.4	19291.9	18559.9
52.5°	20573.4	20376.2	20538.9	21347.2	22323.2	22126.0	19681.3	19082.4	20176.6	21909.1	20615.3
55°	20558.6	20257.9	20787.8	22214.7	24331.7	24558.4	22246.8	21556.7	22579.5	24716.2	22793.9
57.5°	19831.6	19846.4	20662.1	22530.2	25731.5	26845.5	25223.8	24188.8	25127.7	27560.2	24782.7
60°	18831.0	18966.6	20142.1	22478.4	26852.9	28720.9	28876.2	27025.4	27624.2	30145.4	26429.0
62.5°	17216.8	17359.7	18981.3	21941.2	26682.8	30527.4	32178.6	30244.0	30234.1	31712.8	26912.0
65°	14671.0	14629.1	16332.0	19932.6	25255.9	31863.1	35458.8	33026.4	32200.8	31737.4	25941.0
67.5°	10819.0	10631.7	12093.2	15181.1	20992.4	30367.2	37388.5	34475.5	32871.1	29650.0	22973.8
70°	5614.1	5426.8	6609.7	8864.7	13806.0	23700.8	35251.8	33726.3	31390.0	24854.2	17998.0
72.5°	2400.4	2368.4	2848.9	3888.9	6678.7	13670.4	27641.5	29191.6	26934.2	18518.0	12374.1
75°	1614.2	1604.4	1784.3	2119.4	3004.2	5547.5	17298.1	20721.3	19705.9	11482.0	6959.7
77.5°	1266.7	1254.4	1360.4	1523.0	1946.9	2188.4	7676.8	11124.6	10296.6	4997.9	3046.1
80°	990.7	980.9	1047.4	1136.1	1399.8	1380.1	2526.1	4426.2	3425.6	1914.9	1481.1
82.5°	781.2	781.2	835.5	837.9	993.2	941.4	1318.5	1949.4	1710.3	1116.4	906.9
85°	714.7	714.7	771.4	626.0	648.2	593.9	818.2	1155.8	1084.4	458.4	394.3
87.5°	359.8	350.0	648.2	554.5	352.4	315.5	399.2	559.4	601.3	253.8	197.2
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°	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8	6291.8
2.5°	6262.2	6259.8	6264.7	6267.1	6286.9	6314.0	6326.3	6343.5	6353.4	6348.5
5°	6188.3	6193.2	6212.9	6227.7	6262.2	6306.6	6331.2	6350.9	6368.2	6360.8
7.5°	6126.7	6139.0	6168.6	6180.9	6200.6	6212.9	6210.5	6217.9	6232.6	6215.4
10°	6092.2	6107.0	6129.1	6111.9	6065.1	5998.5	5936.9	5904.9	5914.7	5902.4
12.5°	6057.7	6077.4	6060.1	5978.8	5848.2	5761.9	5715.1	5720.0	5742.2	5747.1
15°	6038.0	6045.3	5971.4	5818.6	5685.5	5673.2	5697.9	5692.9	5695.4	5695.4
17.5°	6038.0	6018.2	5880.2	5727.4	5670.7	5648.6	5572.2	5476.1	5434.2	5419.4
20°	6070.0	6018.2	5850.7	5749.6	5626.4	5436.6	5234.5	5057.1	4978.2	4956.0
22.5°	6166.1	6077.4	5934.4	5759.5	5409.5	5091.6	4771.2	4559.3	4416.3	4391.7
25°	6360.8	6262.2	6099.6	5628.8	5064.5	4611.0	4246.3	4009.7	3866.8	3847.0
27.5°	6700.9	6636.8	6188.3	5340.5	4606.1	4120.6	3783.0	3600.6	3494.6	3487.2
30°	7213.5	7181.5	6143.9	4914.2	4041.7	3645.0	3482.3	3376.3	3297.5	3295.0
32.5°	8031.7	7772.9	5998.5	4394.1	3526.7	3307.3	3240.8	3176.7	3115.1	3115.1
35°	9084.0	8251.0	5722.5	3837.2	3213.7	3120.0	3036.2	2935.2	2853.9	2848.9
37.5°	10321.2	8546.8	5227.1	3388.6	3065.8	2994.3	2871.1	2720.8	2577.8	2553.2
40°	11570.7	8635.5	4529.7	3112.6	2972.2	2868.6	2718.3	2540.9	2402.9	2395.5
42.5°	12716.7	8465.5	3790.4	2922.9	2878.5	2740.5	2582.8	2425.0	2316.6	2314.1
45°	13677.8	8024.3	3169.3	2743.0	2779.9	2624.7	2484.2	2356.0	2272.2	2255.0
47.5°	14582.3	7400.8	2733.1	2553.2	2681.3	2560.6	2442.3	2321.5	2240.2	2227.9
50°	15632.1	6728.0	2427.5	2368.4	2595.1	2538.4	2476.8	2351.1	2215.6	2200.8
52.5°	16903.8	6146.4	2188.4	2205.7	2528.5	2568.0	2565.5	2434.9	2198.3	2178.6
55°	18323.3	5500.7	2008.5	2072.6	2501.4	2622.2	2587.7	2513.8	2213.1	2183.5
57.5°	19720.7	4746.6	1882.9	1971.6	2462.0	2617.3	2481.7	2375.7	2247.6	2205.7
60°	20768.1	3733.7	1786.7	1882.9	2375.7	2535.9	2365.9	2225.4	2240.2	2208.2
62.5°	20837.1	2885.9	1670.9	1806.5	2245.1	2454.6	2289.5	2158.9	2272.2	2242.7
65°	19612.3	2181.1	1560.0	1715.3	2104.7	2402.9	2215.6	2121.9	2338.8	2306.7
67.5°	16511.9	1754.7	1466.4	1621.6	1964.2	2294.4	2149.0	2087.4	2397.9	2341.2
70°	11920.6	1495.9	1375.2	1508.3	1838.5	2171.2	2089.9	2025.8	2237.7	2149.0
72.5°	7339.2	1296.3	1271.7	1357.9	1742.4	2043.0	2001.1	1910.0	2015.9	1944.5
75°	3664.7	1123.8	1155.8	1210.1	1606.8	1897.6	1853.3	1762.1	1776.9	1762.1
77.5°	1754.7	961.1	1020.3	1062.2	1431.9	1732.5	1685.7	1592.0	1574.8	1577.3
80°	1111.5	803.4	860.1	889.7	1279.1	1540.3	1493.5	1399.8	1597.0	1481.1
82.5°	695.0	653.1	667.9	722.1	1113.9	1340.7	1279.1	1195.3	1439.3	1138.6
85°	384.5	455.9	475.6	522.5	857.6	1121.3	1059.7	953.7	855.2	840.4
87.5°	229.2	271.1	278.5	313.0	576.7	810.8	717.2	680.2	564.4	561.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)