

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: P302807

Luminaire Tested: **GLNA-AF-08-LED-E1-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302807
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-T4W
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47210.5 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 445
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

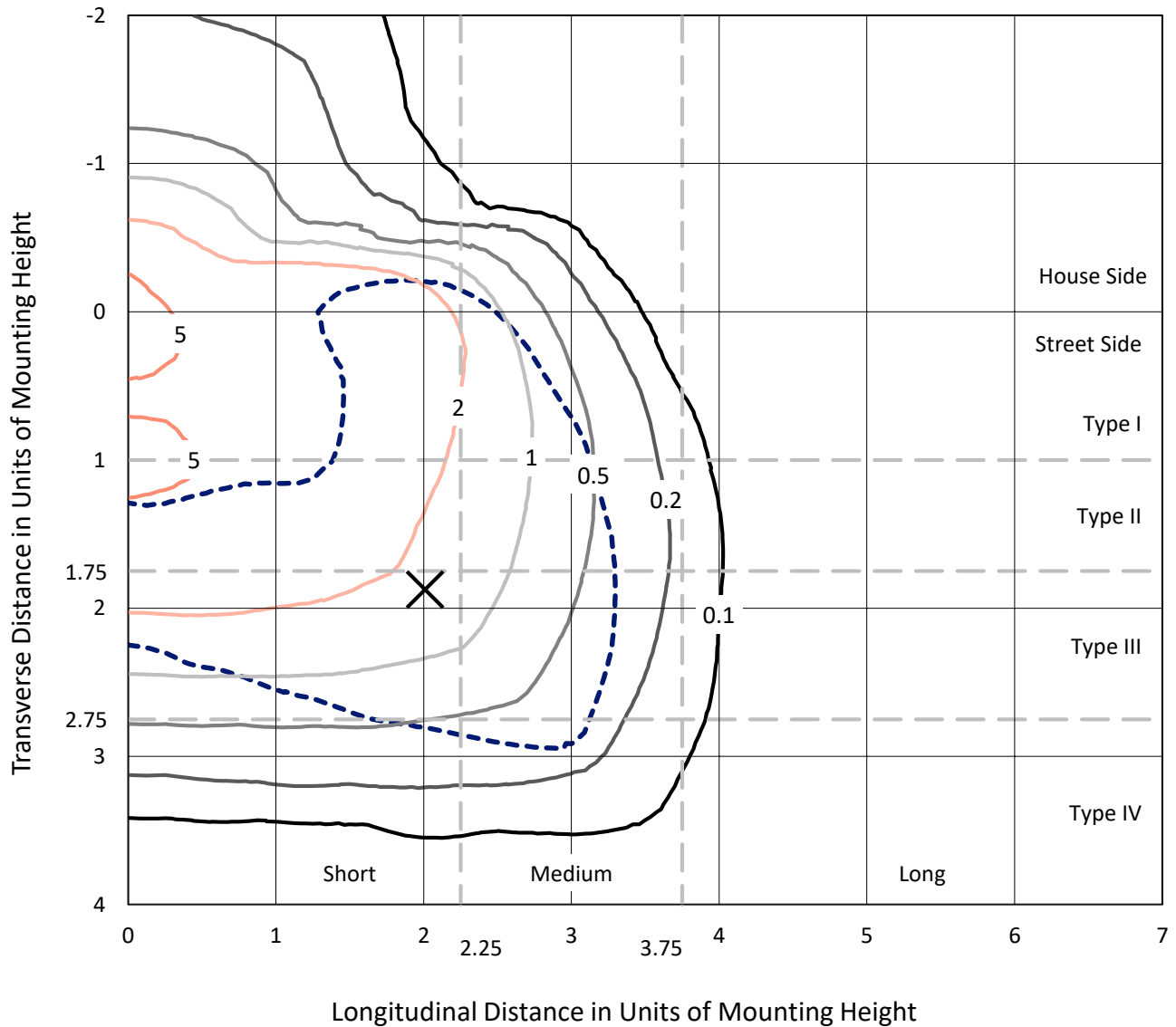


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

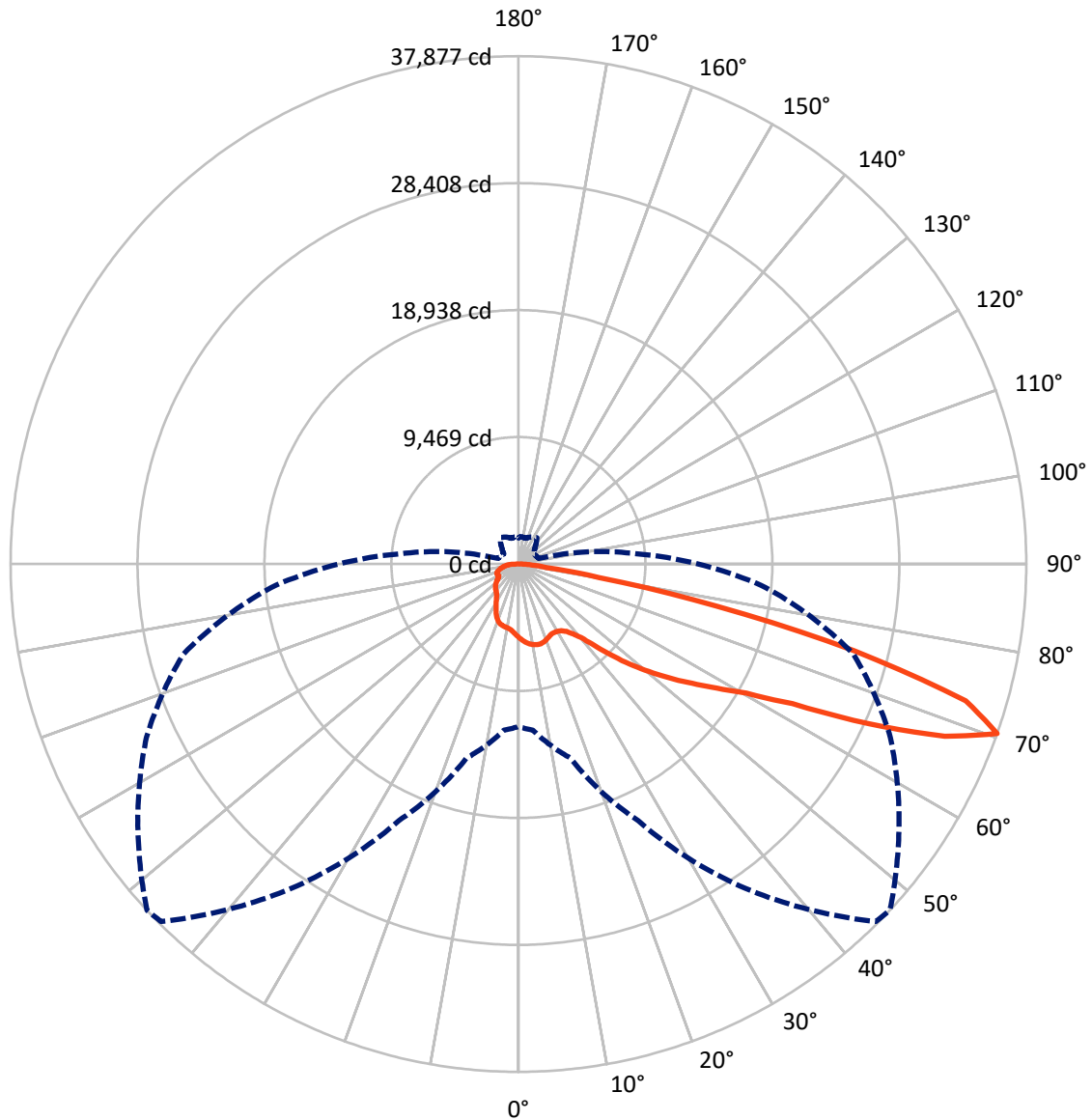


Based on 30 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9849.0	0.0	9849.0
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	37361.4	0.0	37361.4
	% Fixture	79.1	0.0	79.1
Total	Lumens	47210.5	0.0	47210.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	524.9	1.1
10°-20°	1539.8	3.3
20°-30°	2273.9	4.8
30°-40°	3305.1	7.0
40°-50°	5948.0	12.6
50°-60°	10304.4	21.8
60°-70°	14707.4	31.2
70°-80°	7549.9	16.0
80°-90°	1057.0	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°	47210.5	100.0
0°-180°	47210.5	100.0



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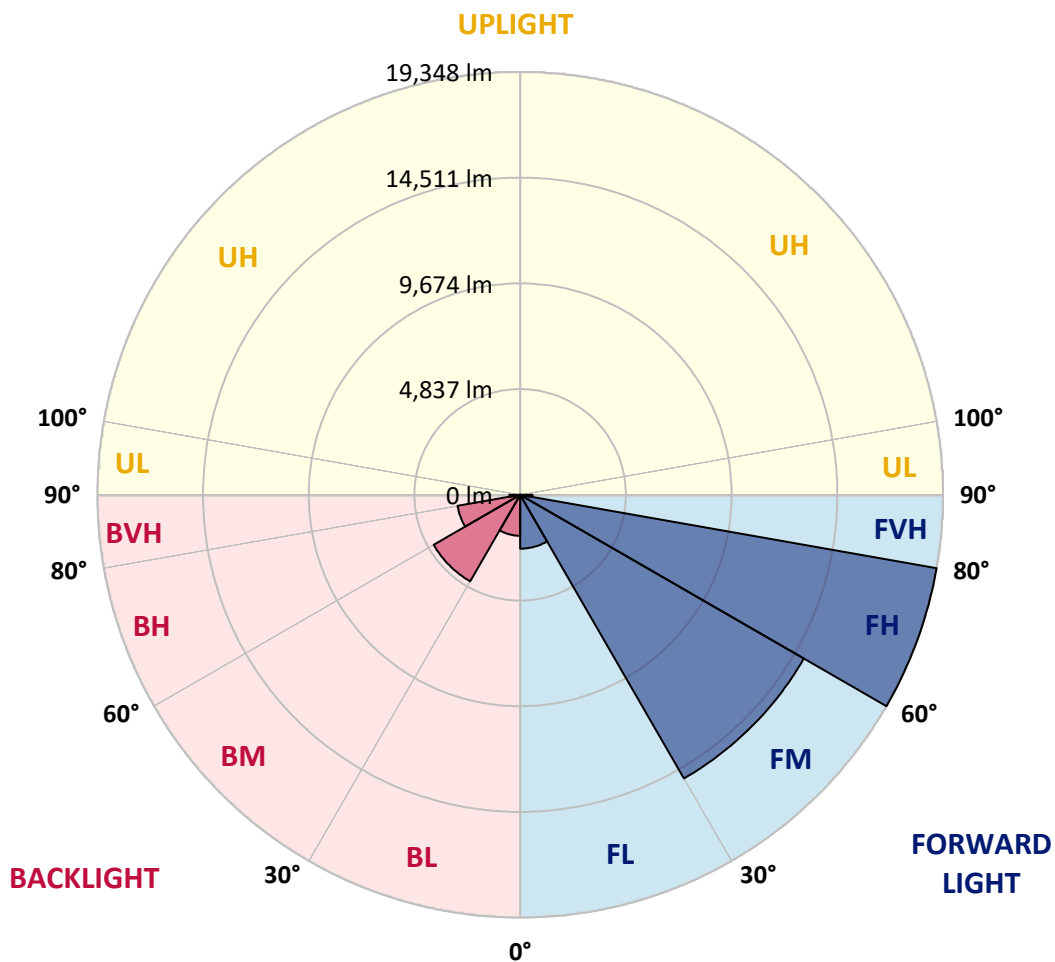
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2463.4	5.2			
FM	(30°-60°)	14985.9	31.7			
FH	(60°-80°)	19348.1	41.0			G5
FVH	(80°-90°)	564.0	1.2			G4/750
BL	(0°-30°)	1875.3	4.0	B3/2500		
BM	(30°-60°)	4571.6	9.7	B3/5000		
BH	(60°-80°)	2909.1	6.2	B4/5000		G4/5000
BVH	(80°-90°)	493.0	1.0			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8
2.5°	5799.7	5788.2	5783.6	5774.5	5763.1	5705.1	5693.6	5652.4	5595.2	5535.0	5473.2
5°	6181.1	6178.8	6152.9	6107.1	6033.9	5907.2	5877.5	5776.8	5641.0	5509.8	5379.4
7.5°	6515.9	6495.4	6447.3	6355.0	6226.8	6054.4	6013.3	5872.9	5686.8	5507.5	5330.5
10°	6761.6	6750.1	6644.9	6518.2	6350.4	6159.7	6111.7	5955.3	5750.8	5523.5	5303.1
12.5°	6901.9	6879.0	6757.0	6606.0	6406.1	6220.0	6171.2	6013.3	5783.6	5523.5	5264.2
15°	6892.8	6876.8	6754.7	6589.2	6387.8	6224.6	6181.1	6022.4	5776.8	5500.6	5213.8
17.5°	6708.9	6715.8	6612.8	6449.6	6284.1	6159.7	6120.8	5974.4	5730.3	5454.9	5154.3
20°	6387.8	6419.8	6350.4	6206.2	6113.9	6029.3	6004.1	5879.8	5659.3	5388.5	5089.5
22.5°	6065.9	6095.6	6068.2	5946.1	5932.4	5882.1	5868.3	5779.1	5597.5	5347.3	5050.6
25°	5829.4	5856.9	5852.3	5746.3	5788.2	5785.9	5774.5	5730.3	5583.8	5347.3	5057.5
27.5°	5765.3	5774.5	5765.3	5668.5	5725.7	5772.2	5763.1	5755.4	5625.0	5413.7	5145.2
30°	5985.8	5972.1	5900.4	5705.1	5758.5	5822.6	5813.4	5818.0	5748.6	5588.4	5340.5
32.5°	6865.3	6802.8	6577.7	6029.3	5888.9	5923.2	5927.8	6004.1	6015.5	5856.9	5643.3
35°	8181.2	8112.5	7820.4	6897.4	6295.5	6176.5	6176.5	6290.9	6359.6	6242.9	6113.9
37.5°	9575.6	9499.3	9343.7	8101.1	7149.8	6615.1	6603.7	6683.8	6782.2	6810.4	6842.4
40°	11160.0	11079.9	11123.3	9451.3	8342.1	7374.9	7211.6	7154.4	7420.6	7597.6	7855.4
42.5°	12894.6	12857.2	12873.2	10955.5	9699.2	8512.2	8280.3	7983.6	8305.5	8619.8	9159.9
45°	14499.6	14531.6	14515.6	12565.8	11211.1	9899.0	9653.4	9079.0	9394.0	9933.4	10813.6
47.5°	15905.4	15771.9	15978.6	14324.9	12903.7	11452.1	11148.5	10379.6	10698.5	11364.4	12852.6
50°	17611.8	17593.5	17290.7	16672.8	14949.6	13011.3	12613.9	11722.9	12218.7	13144.8	15423.3
52.5°	19406.0	19072.6	18795.0	18498.2	17120.6	14610.2	14122.7	13061.6	14006.0	15170.1	18556.2
55°	19772.9	19624.1	19968.2	20467.0	19213.0	16270.8	15703.3	14740.6	16018.3	17486.0	22168.9
57.5°	20558.6	20556.3	21268.8	22157.4	21367.2	18032.1	17460.0	16768.9	18280.1	20138.3	26004.3
60°	21089.5	21238.2	22561.7	24286.4	23482.4	20067.3	19541.0	19109.2	20853.0	23103.3	29578.1
62.5°	21367.2	21569.3	23374.9	25149.9	26472.7	23455.0	22929.4	22306.9	24256.7	26356.0	31668.2
65°	20212.3	20608.9	23248.3	25896.7	29091.4	28946.5	28710.0	27616.9	28512.4	28925.9	30913.0
67.5°	17014.5	17421.1	20494.5	25200.3	30961.1	34243.4	34293.8	32426.4	31131.2	29146.3	25990.6
70°	12122.6	12441.5	14984.7	21128.4	29536.9	37704.3	37876.7	34642.4	30609.4	25847.9	18158.8
72.5°	5755.4	5950.7	8358.1	13751.2	23439.0	34546.3	34879.6	31813.1	26027.2	19136.7	9905.9
75°	2115.3	2174.8	2824.7	5850.0	13594.9	25476.4	25869.3	22805.1	17253.3	9527.5	3773.6
77.5°	1267.8	1306.7	1585.1	2469.2	5347.3	14562.1	15142.6	12402.6	7540.4	3546.3	1855.9
80°	886.4	913.9	1136.6	1536.3	2526.4	5549.5	6065.9	5062.0	3004.0	2244.2	1350.2
82.5°	599.6	613.3	799.4	1038.2	1679.0	1981.8	2138.2	2251.1	2026.0	1669.8	856.6
85°	392.8	406.6	542.4	684.2	1067.9	1024.5	1047.3	1325.0	1479.1	1134.3	475.2
87.5°	225.0	234.2	326.5	365.4	524.1	434.0	438.6	698.0	946.7	765.1	289.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8	5477.8
2.5°	5457.2	5427.4	5361.1	5319.1	5280.2	5271.0	5255.0	5252.7	5250.4	5250.4	5243.6
5°	5335.1	5284.8	5181.8	5123.8	5075.8	5071.2	5068.9	5080.3	5084.9	5089.5	5082.6
7.5°	5257.3	5188.7	5059.7	4977.4	4920.1	4905.7	4929.3	4981.9	5016.3	5030.0	5023.1
10°	5209.3	5123.8	4975.1	4885.1	4837.0	4830.1	4859.9	4922.4	4993.4	5020.8	5018.5
12.5°	5154.3	5057.5	4898.8	4805.0	4777.5	4791.2	4830.1	4887.3	4961.3	5004.8	5007.1
15°	5098.6	4986.5	4823.3	4740.9	4729.4	4747.7	4784.4	4827.8	4885.1	4929.3	4933.9
17.5°	5032.3	4914.8	4752.3	4666.9	4657.7	4666.9	4669.2	4692.1	4729.4	4770.6	4782.1
20°	4961.3	4841.6	4671.5	4586.8	4545.6	4509.0	4467.0	4471.6	4483.1	4525.0	4534.2
22.5°	4910.2	4791.2	4609.7	4492.2	4382.4	4271.8	4189.4	4177.9	4182.5	4216.8	4228.3
25°	4914.8	4788.9	4593.7	4391.5	4150.5	3973.5	3862.9	3844.6	3842.3	3867.5	3884.2
27.5°	5004.8	4878.2	4653.2	4287.8	3898.0	3635.6	3518.9	3505.1	3486.8	3493.7	3512.0
30°	5204.7	5087.2	4798.1	4182.5	3624.1	3305.3	3183.2	3169.5	3144.3	3132.9	3146.6
32.5°	5530.4	5434.3	5009.4	4081.1	3351.0	3022.3	2898.7	2868.9	2852.9	2839.2	2850.6
35°	6072.8	6031.6	5291.6	3971.2	3110.0	2804.1	2692.0	2646.2	2623.3	2648.5	2666.8
37.5°	6922.5	6945.4	5661.6	3798.8	2923.9	2659.9	2565.3	2512.7	2478.4	2499.0	2519.6
40°	8126.2	8142.3	6070.5	3555.5	2762.9	2574.5	2473.8	2425.7	2376.9	2340.3	2338.0
42.5°	9706.0	9543.6	6472.5	3291.5	2576.8	2521.9	2409.7	2349.5	2276.2	2174.8	2154.2
45°	11580.3	11008.9	6777.6	2987.9	2367.8	2457.8	2338.0	2255.6	2140.5	2030.6	2019.2
47.5°	13739.8	12581.8	6927.1	2673.7	2172.5	2363.2	2251.1	2119.9	1974.9	1920.0	1913.1
50°	16376.1	14449.2	6998.0	2367.8	2003.1	2239.6	2124.4	1970.3	1849.1	1837.6	1830.8
52.5°	19378.5	16695.7	7021.7	2117.6	1862.8	2078.7	2021.5	1871.9	1775.1	1785.0	1785.0
55°	22520.5	19015.4	6708.9	1936.0	1733.9	1913.1	1952.0	1833.0	1752.2	1789.6	1803.3
57.5°	25404.7	21071.2	5725.7	1796.4	1612.6	1787.3	1926.9	1869.7	1814.7	1963.5	1972.6
60°	27619.2	22285.6	4276.3	1669.8	1522.6	1743.0	1994.0	2010.0	2023.7	2379.2	2428.0
62.5°	28083.0	21882.1	2939.9	1571.4	1481.4	1780.4	2115.3	2117.6	2101.6	2349.5	2379.2
65°	25954.0	19325.1	2138.2	1515.7	1447.1	1846.8	2219.0	2170.2	2064.9	2253.3	2197.7
67.5°	20611.2	14559.8	1780.4	1474.5	1396.7	1842.2	2328.9	2219.0	2044.3	2207.6	2117.6
70°	13379.0	8803.6	1585.1	1440.2	1336.4	1754.5	2392.9	2214.4	1984.1	2053.5	1947.5
72.5°	6527.4	3936.9	1453.9	1389.8	1274.7	1633.2	2390.7	2172.5	1922.3	1917.7	1860.5
75°	2553.9	1803.3	1334.2	1313.6	1169.4	1495.1	2326.6	2113.0	1849.1	1775.1	1754.5
77.5°	1495.1	1286.1	1183.1	1201.4	1042.8	1357.0	2232.8	2010.0	1747.6	1660.6	1637.8
80°	1088.5	962.7	1008.4	1038.2	891.0	1219.7	2106.1	1883.4	1635.5	1679.0	1646.9
82.5°	698.0	620.2	817.7	847.5	742.2	1079.4	1968.1	1749.9	1476.8	1341.0	1309.0
85°	356.2	392.8	608.7	645.3	572.1	886.4	1801.0	1573.7	1297.5	1116.0	1134.3
87.5°	199.9	268.5	388.3	434.0	404.3	682.0	1460.8	1297.5	1058.8	861.2	758.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)