

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: P299264

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33103.3 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

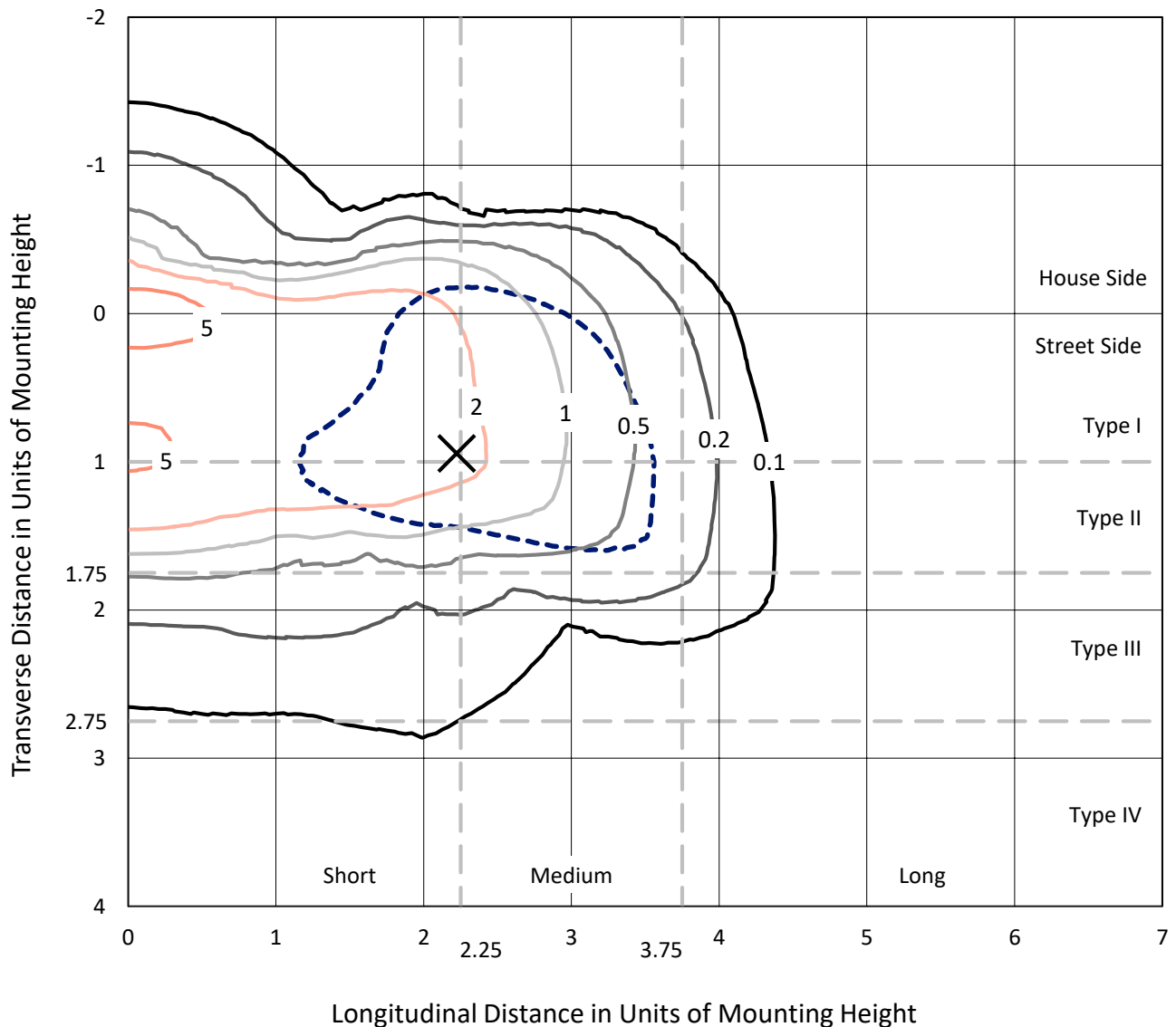
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

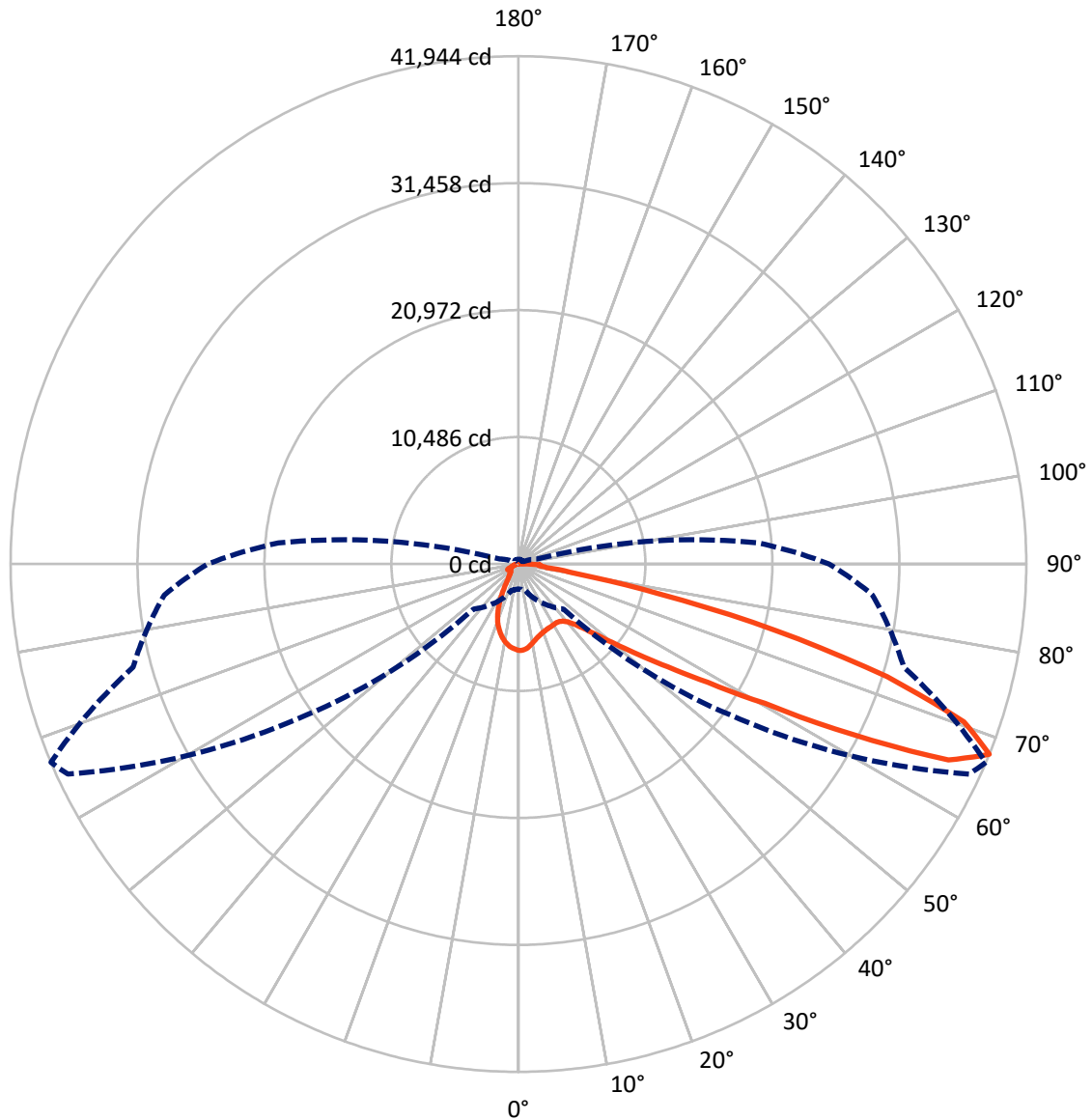
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5484.9	0.0	5484.9
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	27618.4	0.0	27618.4
	% Fixture	83.4	0.0	83.4
Total	Lumens	33103.3	0.0	33103.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	609.2	1.8
10°-20°	1409.5	4.3
20°-30°	1910.6	5.8
30°-40°	2716.2	8.2
40°-50°	4544.3	13.7
50°-60°	7189.0	21.7
60°-70°	9158.1	27.7
70°-80°	4797.0	14.5
80°-90°	769.4	2.3
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°	33103.3	100.0
0°-180°	33103.3	100.0



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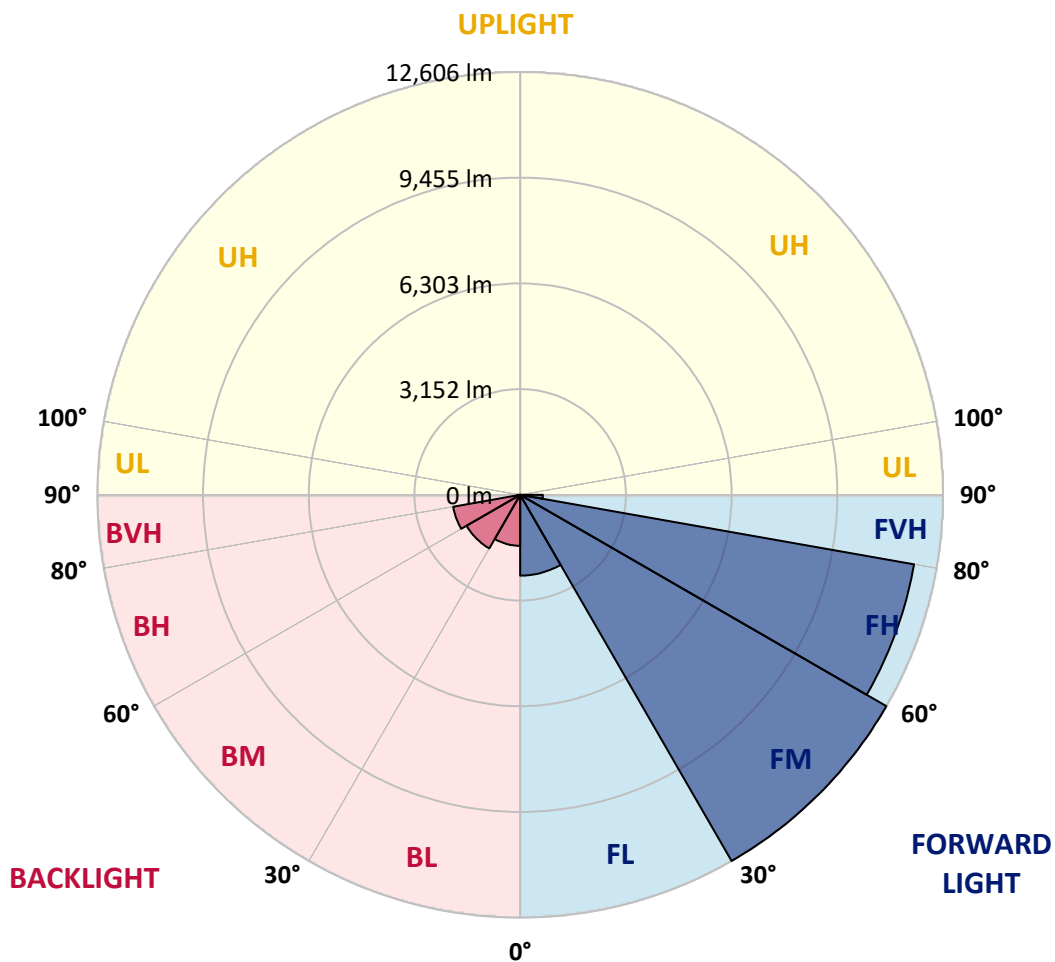
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2409.1	7.3			
FM (30°-60°)	12606.4	38.1			
FH (60°-80°)	11926.4	36.0			G4/12000
FVH (80°-90°)	676.5	2.0			G4/750
BL (0°-30°)	1520.2	4.6	B3/2500		
BM (30°-60°)	1843.1	5.6	B2/2500		
BH (60°-80°)	2028.7	6.1	B3/2500		G3/2500
BVH (80°-90°)	92.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3
2.5°	6846.5	6857.9	6893.8	6916.7	7019.5	7063.6	7094.6	7125.6	7130.5	7145.2	7130.5
5°	6128.2	6152.7	6219.6	6294.7	6493.9	6650.6	6815.4	6986.8	7017.9	7128.9	7159.9
7.5°	5571.5	5565.0	5620.5	5710.3	5914.3	6131.5	6420.4	6761.6	6828.5	7078.3	7199.1
10°	5165.0	5160.1	5218.9	5312.0	5506.2	5711.9	6038.4	6505.3	6600.0	6998.3	7236.6
12.5°	4864.7	4866.3	4925.1	5027.9	5225.4	5432.8	5764.2	6257.1	6377.9	6905.2	7275.8
15°	4665.5	4678.6	4725.9	4835.3	5027.9	5235.2	5560.1	6071.0	6206.5	6831.8	7319.9
17.5°	4598.6	4619.8	4636.1	4716.1	4881.0	5088.3	5406.6	5933.9	6077.6	6781.2	7359.0
20°	4660.6	4685.1	4654.1	4681.8	4786.3	4969.2	5285.8	5826.2	5973.1	6724.0	7363.9
22.5°	4926.7	4949.6	4858.1	4778.2	4771.6	4882.6	5186.3	5741.3	5893.1	6681.6	7365.6
25°	5395.2	5409.9	5256.5	5070.4	4889.2	4851.6	5116.1	5682.5	5844.1	6644.0	7334.6
27.5°	5969.8	5981.3	5805.0	5530.7	5166.7	4925.1	5091.6	5648.2	5816.4	6611.4	7282.3
30°	6668.5	6722.4	6485.7	6139.6	5609.1	5142.2	5140.6	5630.3	5785.4	6555.9	7179.5
32.5°	7383.5	7406.4	7243.1	6892.2	6204.9	5524.2	5277.7	5643.4	5777.2	6489.0	7048.9
35°	8108.3	8137.7	8031.6	7749.2	7019.5	6084.1	5545.4	5720.1	5827.8	6466.1	6957.5
37.5°	9047.0	9086.2	8939.2	8612.8	8010.4	6843.2	5991.1	5912.7	5982.9	6531.4	6929.7
40°	10530.9	10512.9	10083.6	9597.1	9094.3	7814.5	6627.7	6239.2	6280.0	6742.0	7014.6
42.5°	12258.0	12213.9	11474.4	10710.4	10286.0	8989.9	7470.1	6805.6	6797.5	7156.6	7313.3
45°	13635.8	13599.9	12933.8	11991.9	11652.4	10328.5	8558.9	7649.6	7589.2	7814.5	7865.1
47.5°	14381.8	14383.4	13999.8	13230.9	13222.8	12029.5	9957.9	8870.7	8766.2	8872.3	8818.4
50°	14120.6	14154.9	14114.1	13869.2	14656.1	14259.4	11784.6	10573.3	10362.7	10467.2	10259.9
52.5°	12857.1	12901.2	13142.8	13518.2	15258.4	16954.5	14468.3	12689.0	12444.1	12406.6	12176.4
55°	10617.4	10671.3	11164.3	12184.5	14757.3	18764.9	18702.9	15385.8	14995.6	14641.4	14543.4
57.5°	7318.2	7408.0	8201.4	9716.3	13136.3	19311.8	23745.5	19230.2	18436.8	17199.4	17222.3
60°	4125.2	4229.7	5165.0	6541.2	9864.8	18717.6	27581.7	25053.1	23378.2	20194.9	20364.7
62.5°	2623.3	2736.0	3446.1	4544.7	5919.2	15518.0	29153.8	33148.4	31021.3	23887.5	24054.0
65°	2123.8	2172.8	2507.4	3751.4	4298.2	9349.0	27960.5	39816.9	39023.5	28574.3	27797.2
67.5°	2073.2	2089.5	2262.6	3149.0	4121.9	5254.8	22302.4	41064.1	41944.0	32950.8	29356.2
70°	2048.7	2105.8	2549.9	3005.3	3947.2	4432.1	13402.3	37645.7	39034.9	34095.2	27281.4
72.5°	994.2	990.9	1283.1	2718.0	4446.8	4597.0	6885.6	30459.7	31853.8	29539.0	22418.3
75°	801.5	733.0	700.3	995.8	4275.4	4747.1	4388.0	20958.9	21967.8	19804.8	13781.1
77.5°	760.7	679.1	622.0	623.6	1807.1	5034.4	3717.1	11600.1	11894.0	8945.8	3775.8
80°	630.1	555.0	514.2	579.5	875.0	4794.5	4019.1	5249.9	4817.3	2197.3	1257.0
82.5°	437.5	398.3	386.9	486.5	700.3	3416.7	4673.7	2820.9	2365.4	1100.3	775.4
85°	279.1	238.3	264.5	354.2	545.2	1576.9	4814.1	2198.9	1748.3	698.7	437.5
87.5°	129.0	104.5	130.6	195.9	355.9	543.6	4580.6	2469.9	1800.6	368.9	275.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3	7140.3
2.5°	7143.6	7112.5	7088.1	7042.4	6991.7	6942.8	6898.7	6843.2	6826.9	6812.2	6835.0
5°	7166.4	7135.4	7045.6	6905.2	6750.1	6604.9	6459.6	6335.5	6258.8	6216.3	6240.8
7.5°	7200.7	7156.6	6970.5	6712.6	6433.5	6178.8	5916.0	5705.4	5550.3	5476.8	5498.1
10°	7231.7	7146.8	6843.2	6456.3	6048.2	5669.5	5254.8	4912.0	4657.4	4523.5	4556.1
12.5°	7244.8	7109.3	6665.3	6136.3	5576.4	5021.4	4410.9	3898.3	3532.6	3398.7	3371.0
15°	7257.8	7066.8	6469.4	5772.3	5006.7	4221.5	3366.1	2752.3	2448.7	2381.7	2367.0
17.5°	7261.1	6993.4	6247.4	5377.3	4339.0	3269.8	2301.7	1911.6	1913.2	2021.0	2034.0
20°	7226.8	6884.0	5978.0	4885.9	3539.1	2260.9	1580.2	1513.3	1759.8	2029.1	2061.8
22.5°	7148.5	6738.7	5672.7	4312.9	2623.3	1488.8	1222.7	1296.2	1614.5	1944.2	1981.8
25°	7048.9	6562.4	5312.0	3648.5	1736.9	1064.4	1025.2	1115.0	1330.4	1550.8	1572.0
27.5°	6913.4	6353.5	4907.1	2887.8	1128.0	876.6	902.7	963.1	1051.3	1149.2	1159.0
30°	6738.7	6103.7	4474.5	2105.8	852.1	788.5	826.0	858.7	896.2	951.7	956.6
32.5°	6537.9	5863.7	4030.5	1454.5	755.8	742.8	772.1	788.5	817.9	852.1	855.4
35°	6369.8	5635.2	3570.1	1028.4	715.0	708.5	728.1	734.6	762.4	799.9	803.2
37.5°	6273.5	5449.1	3095.1	829.3	687.3	677.5	688.9	688.9	728.1	783.6	791.7
40°	6280.0	5346.2	2620.1	749.3	664.4	651.3	653.0	653.0	703.6	764.0	768.9
42.5°	6457.9	5372.4	2198.9	718.3	646.4	631.8	623.6	628.5	670.9	710.1	713.4
45°	6875.8	5556.8	1803.8	698.7	628.5	623.6	605.6	604.0	620.3	638.3	638.3
47.5°	7561.5	5920.9	1536.1	685.6	613.8	612.2	590.9	569.7	568.1	574.6	574.6
50°	8676.4	6547.7	1356.6	670.9	604.0	590.9	566.5	533.8	522.4	527.3	527.3
52.5°	10348.0	7665.9	1288.0	651.3	582.8	561.6	533.8	501.2	491.4	493.0	493.0
55°	12540.4	9383.3	1278.2	628.5	559.9	525.6	502.8	478.3	466.9	470.1	470.1
57.5°	15219.3	11758.5	1452.9	592.6	528.9	489.7	476.7	460.3	452.2	457.1	455.5
60°	18476.0	14866.6	2154.8	555.0	497.9	457.1	457.1	444.0	437.5	442.4	440.8
62.5°	22227.3	18436.8	3029.8	527.3	465.2	431.0	437.5	431.0	424.4	427.7	426.1
65°	25554.2	20763.0	2837.2	506.1	432.6	406.5	417.9	414.6	409.7	413.0	411.4
67.5°	25650.6	19901.1	1593.3	483.2	401.6	382.0	398.3	396.7	393.4	396.7	395.1
70°	22891.7	16804.4	897.8	440.8	368.9	352.6	375.5	373.8	370.6	377.1	375.5
72.5°	18340.5	12194.3	656.2	388.5	336.3	321.6	347.7	346.1	346.1	355.9	351.0
75°	10553.7	6275.1	524.0	333.0	302.0	290.6	313.4	315.1	318.3	331.4	321.6
77.5°	3008.6	1955.7	427.7	282.4	259.6	254.7	277.5	280.8	282.4	297.1	284.0
80°	1118.2	901.1	352.6	236.7	212.2	213.8	235.1	240.0	241.6	256.3	240.0
82.5°	713.4	594.2	285.7	182.8	166.5	164.9	191.0	197.5	197.5	199.2	189.4
85°	416.3	355.9	215.5	132.2	117.5	112.6	142.0	153.4	148.6	145.3	138.8
87.5°	279.1	244.9	132.2	73.5	63.7	60.4	83.3	91.4	88.2	83.3	78.4
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)