

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: P299974

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299974  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-07-LED-E1-SL3-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27642.3 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G4

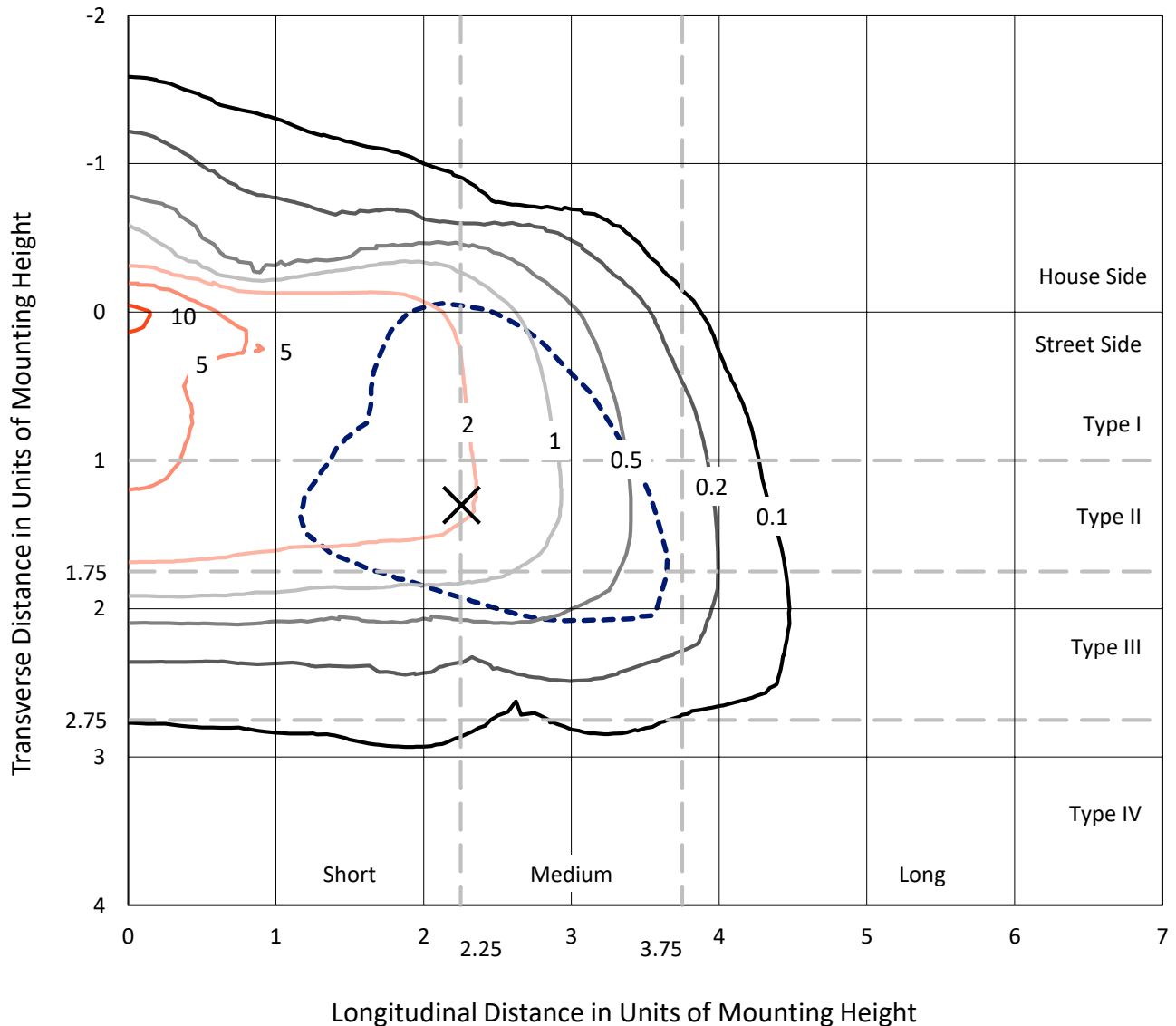
Input Watts (W): 226  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

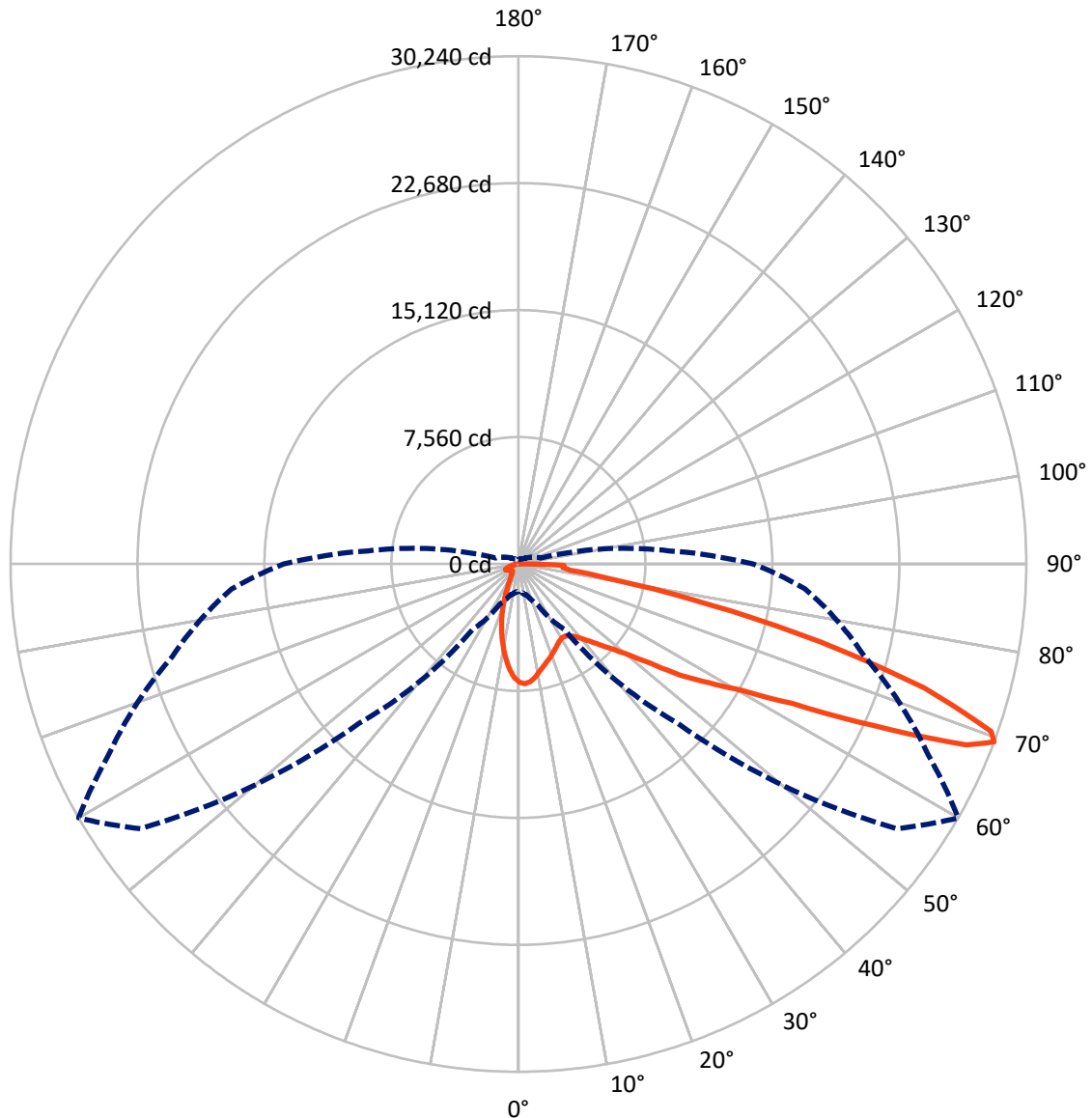
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.3 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3932.6	0.0	3932.6
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	23709.7	0.0	23709.7
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	27642.3	0.0	27642.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	595.6	2.2
10°-20°	1268.9	4.6
20°-30°	1616.8	5.8
30°-40°	2222.7	8.0
40°-50°	3606.5	13.0
50°-60°	5784.0	20.9
60°-70°	7698.0	27.8
70°-80°	4156.3	15.0
80°-90°	693.5	2.5
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°	27642.3	100.0
0°-180°	27642.3	100.0



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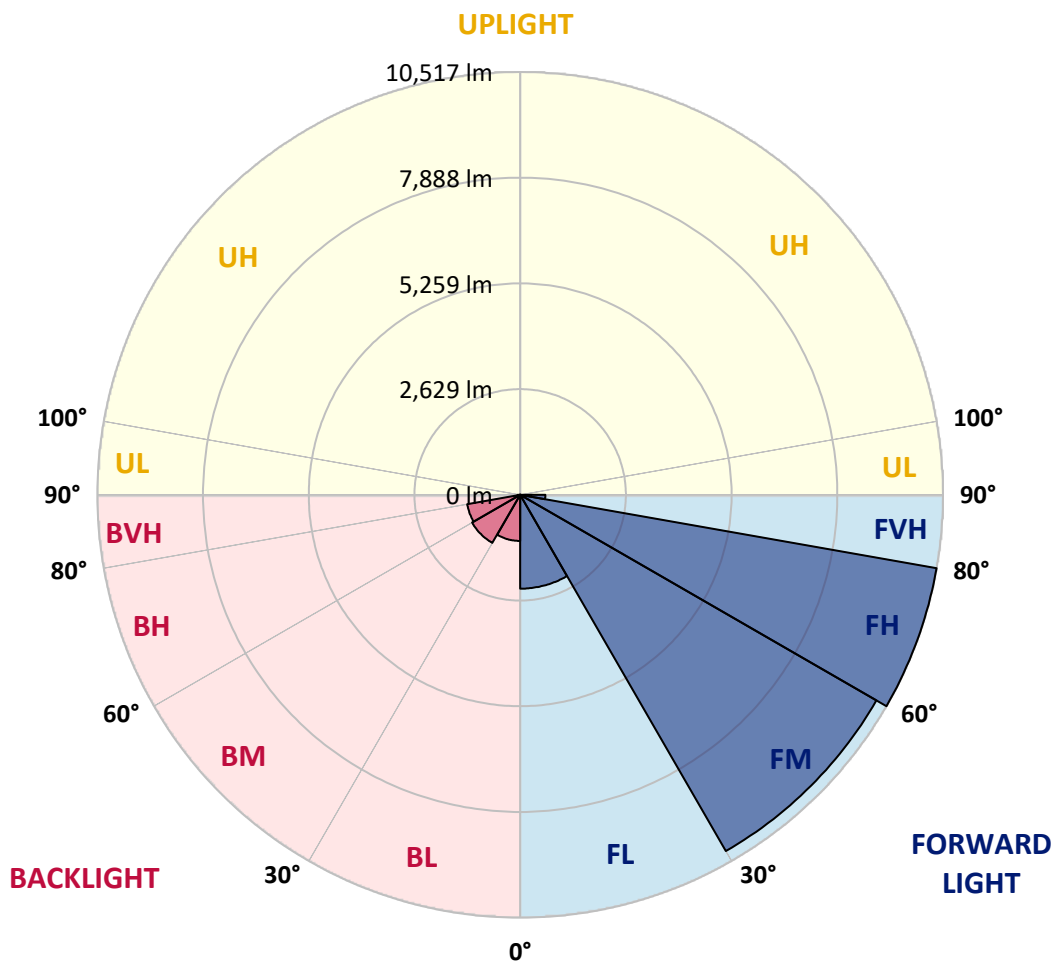
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2334.0	8.4			
FM	(30°-60°)	10231.6	37.0			
FH	(60°-80°)	10517.4	38.0			G4/12000
FVH	(80°-90°)	626.7	2.3			G4/750
BL	(0°-30°)	1147.3	4.2	B3/2500		
BM	(30°-60°)	1381.6	5.0	B2/2500		
BH	(60°-80°)	1337.0	4.8	B3/2500		G3/2500
BVH	(80°-90°)	66.8	0.2			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7
2.5°	7187.9	7203.9	7197.2	7193.2	7205.3	7186.6	7147.8	7135.8	7117.1	7073.1	6998.3
5°	6918.2	6966.2	6963.6	6999.6	7059.7	7075.7	7058.4	7061.0	7026.3	6971.6	6847.4
7.5°	6452.1	6472.2	6482.9	6561.6	6671.1	6759.3	6834.0	6858.1	6842.1	6795.3	6635.1
10°	5971.4	5987.5	6012.8	6105.0	6243.8	6365.4	6506.9	6588.3	6623.1	6615.1	6436.1
12.5°	5558.8	5574.9	5608.2	5712.4	5878.0	6027.5	6233.2	6334.6	6417.4	6466.8	6274.6
15°	5189.0	5223.7	5255.7	5375.9	5561.5	5757.8	5990.1	6118.3	6246.5	6357.3	6131.7
17.5°	4900.5	4935.3	4953.9	5063.4	5261.1	5501.4	5773.8	5924.7	6084.9	6266.5	5990.1
20°	4733.6	4749.6	4741.6	4803.1	4980.7	5235.7	5558.8	5733.8	5927.4	6181.1	5848.6
22.5°	4686.9	4688.2	4658.8	4652.2	4767.0	4982.0	5329.2	5541.5	5779.2	6125.0	5727.1
25°	4800.4	4796.4	4716.3	4650.8	4662.9	4788.4	5107.5	5354.5	5655.0	6113.0	5633.6
27.5°	5052.8	5064.8	4945.9	4823.1	4701.6	4697.6	4939.3	5199.6	5553.5	6167.7	5593.6
30°	5406.6	5426.6	5299.8	5143.6	4915.2	4726.9	4873.8	5107.5	5490.7	6281.2	5586.9
32.5°	5793.8	5815.2	5719.1	5554.8	5255.7	4908.5	4919.2	5115.5	5488.1	6440.1	5632.3
35°	6206.5	6230.5	6181.1	6042.2	5709.7	5243.7	5092.8	5245.0	5574.9	6683.2	5753.8
37.5°	6667.1	6704.5	6717.9	6585.7	6230.5	5685.7	5377.2	5490.7	5771.1	7021.0	5976.8
40°	7330.8	7382.8	7378.8	7189.2	6827.4	6282.6	5816.5	5845.9	6076.9	7472.3	6333.3
42.5°	8602.0	8612.7	8280.2	7867.6	7484.3	6910.2	6334.6	6310.6	6498.9	8043.8	6858.1
45°	10219.0	10175.0	9435.2	8638.0	8170.7	7631.2	7009.0	6891.5	7034.3	8740.8	7515.0
47.5°	11561.0	11459.5	10524.8	9424.5	8897.1	8415.0	7800.8	7595.2	7673.9	9531.3	8364.3
50°	12027.0	11950.9	11176.4	10078.8	9584.8	9371.1	8775.6	8484.5	8505.8	10474.1	9359.1
52.5°	11926.9	11916.2	11399.4	10510.1	10228.4	10375.2	10156.3	9762.3	9554.0	11520.9	10432.7
55°	11690.5	11713.2	11526.3	11012.2	10964.1	11344.7	11960.2	11669.1	11021.5	12577.1	11542.3
57.5°	10869.3	10928.1	11339.3	11643.8	12148.5	12714.7	13413.0	13330.3	12601.2	13718.8	12861.6
60°	8756.9	8893.1	9996.0	11520.9	13367.6	15138.2	15450.7	15258.4	14230.2	15135.6	14604.1
62.5°	6135.7	6277.2	7588.5	9974.7	13167.3	17875.6	19093.4	18264.2	16569.7	17222.6	16859.4
65°	3284.8	3352.9	4354.4	6920.8	11116.3	18440.4	24417.2	23155.4	20273.8	19795.8	18788.9
67.5°	1812.0	1849.4	2232.6	3494.5	7119.8	16238.5	27808.9	28762.3	24903.3	21508.9	18437.8
69°	1638.4	1673.1	1924.2	2646.6	4764.3	13426.4	27477.7	30240.4	26932.9	21339.4	17139.9
70°	1602.4	1634.4	1860.1	2439.6	3856.3	11066.9	26368.1	29862.5	27416.3	20731.8	16007.5
72.5°	1442.1	1476.8	1695.8	2191.2	3295.5	5517.4	20886.7	25249.1	24891.2	17975.7	12141.8
75°	1344.6	1376.7	1747.9	2145.8	3155.3	3491.8	13769.6	18608.7	18297.6	12574.5	6547.0
77.5°	575.5	572.8	810.5	1816.0	3202.0	3381.0	7398.9	11625.1	10606.3	5374.6	1880.1
80°	384.6	377.9	384.6	534.1	2936.3	3399.7	3876.4	5900.7	4457.2	1370.0	926.7
82.5°	331.2	325.8	337.8	325.8	1032.2	3880.4	3295.5	3137.9	2119.1	778.5	459.3
85°	223.0	213.6	291.1	292.4	487.4	3447.7	3712.1	2650.6	1714.5	462.0	227.0
87.5°	106.8	104.2	169.6	207.0	285.8	1400.7	4164.8	2716.0	1729.2	236.3	108.2
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7	7043.7
2.5°	6975.6	6920.8	6867.4	6803.3	6736.6	6661.8	6624.4	6587.0	6577.7	6567.0	6529.6
5°	6783.3	6705.9	6572.3	6425.4	6270.5	6119.7	6004.8	5932.7	5878.0	5849.9	5800.5
7.5°	6534.9	6421.4	6187.8	5934.1	5673.7	5436.0	5230.4	5100.8	4978.0	4920.6	4855.1
10°	6298.6	6129.0	5765.8	5391.9	5018.0	4658.8	4321.0	4082.0	3869.7	3750.8	3666.7
12.5°	6095.6	5863.3	5359.9	4853.8	4341.0	3829.6	3323.6	2925.6	2593.1	2418.2	2328.8
15°	5898.0	5617.6	4974.0	4331.7	3673.4	2977.7	2312.7	1861.4	1586.3	1476.8	1439.4
17.5°	5719.1	5359.9	4586.7	3805.6	2984.4	2143.1	1554.3	1305.9	1200.4	1164.4	1152.4
20°	5525.5	5099.5	4184.8	3255.5	2266.0	1498.2	1213.8	1104.3	1061.6	1050.9	1045.5
22.5°	5338.5	4843.1	3800.3	2666.6	1627.7	1156.4	1042.9	997.5	990.8	1000.1	1000.1
25°	5179.6	4613.4	3385.0	2051.0	1195.1	973.4	933.4	922.7	948.1	982.8	989.5
27.5°	5060.8	4425.2	2943.0	1514.2	952.1	846.6	845.2	862.6	925.4	992.1	1005.5
30°	4979.3	4246.2	2470.3	1092.3	798.5	745.1	766.5	803.8	896.0	990.8	1016.2
32.5°	4937.9	4114.0	1977.6	845.2	683.7	654.3	690.3	735.7	826.5	914.7	948.1
35°	4970.0	4016.6	1512.9	705.0	603.6	580.9	618.2	662.3	715.7	753.1	778.5
37.5°	5090.1	3977.8	1141.7	631.6	548.8	527.4	556.8	582.2	603.6	614.2	626.3
40°	5349.2	4019.2	914.7	594.2	518.1	491.4	503.4	512.8	526.1	536.8	542.1
42.5°	5731.1	4143.4	819.9	579.5	502.1	463.3	460.7	464.7	482.0	502.1	506.1
45°	6265.2	4362.4	813.2	588.9	494.1	440.6	428.6	434.0	460.7	491.4	496.7
47.5°	6947.5	4696.2	866.6	616.9	500.7	428.6	408.6	415.3	448.7	490.1	496.7
50°	7774.1	5162.3	956.1	658.3	530.1	431.3	401.9	405.9	440.6	486.0	492.7
52.5°	8750.2	5823.2	1053.5	698.4	560.8	448.7	407.3	397.9	430.0	470.0	478.0
55°	9835.8	6671.1	1153.7	734.4	576.8	470.0	417.9	387.2	409.9	443.3	450.0
57.5°	11168.4	7856.9	1327.3	769.1	587.5	484.7	428.6	376.6	384.6	408.6	413.9
60°	12972.4	9534.0	1633.1	826.5	611.6	490.1	427.3	367.2	359.2	372.5	375.2
62.5°	15134.2	11355.4	1888.1	898.7	651.6	494.1	419.3	360.5	337.8	337.8	340.5
65°	16417.5	11842.7	1746.6	958.7	685.0	490.1	409.9	353.9	321.8	307.1	308.5
67.5°	15329.2	10415.3	1496.9	970.8	683.7	471.4	395.2	341.8	305.8	283.1	281.7
69°	13965.9	8986.5	1384.7	938.7	651.6	447.3	376.6	328.5	293.8	269.7	268.4
70°	12866.9	8114.6	1311.3	904.0	616.9	430.0	361.9	316.5	284.4	261.7	259.0
72.5°	9355.1	5317.1	1120.3	777.1	508.7	360.5	312.5	277.7	253.7	240.4	237.7
75°	4674.9	2535.7	909.3	630.3	389.9	288.4	256.4	232.3	220.3	217.7	216.3
77.5°	1535.6	1161.7	650.3	470.0	289.8	225.7	207.0	189.6	186.9	195.0	192.3
80°	843.9	675.7	412.6	311.1	197.6	165.6	162.9	153.6	157.6	170.9	168.2
82.5°	430.0	351.2	255.0	186.9	133.5	118.8	129.5	124.2	129.5	141.5	140.2
85°	212.3	192.3	161.6	113.5	88.1	76.1	92.1	96.1	98.8	108.2	108.2
87.5°	122.8	113.5	85.5	53.4	44.1	40.1	53.4	52.1	61.4	66.8	65.4
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)