

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: P299263

Luminaire Tested: **GLNA-AF-09-LED-E1-SL2-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299263  
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-SL2-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29734.4 lumens  
Efficiency: N/A  
Efficacy: 102.5 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

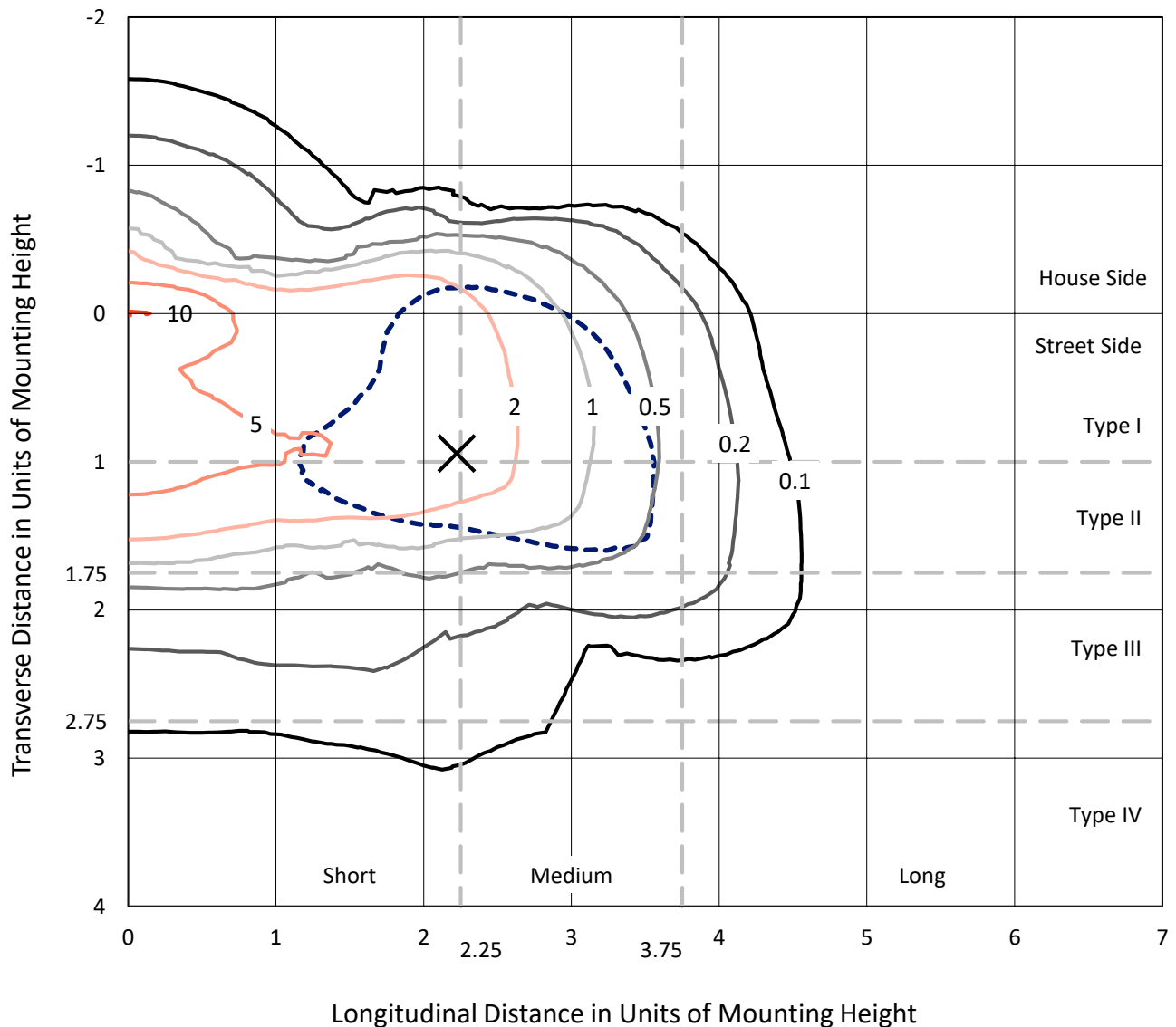
Input Watts (W): 290  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

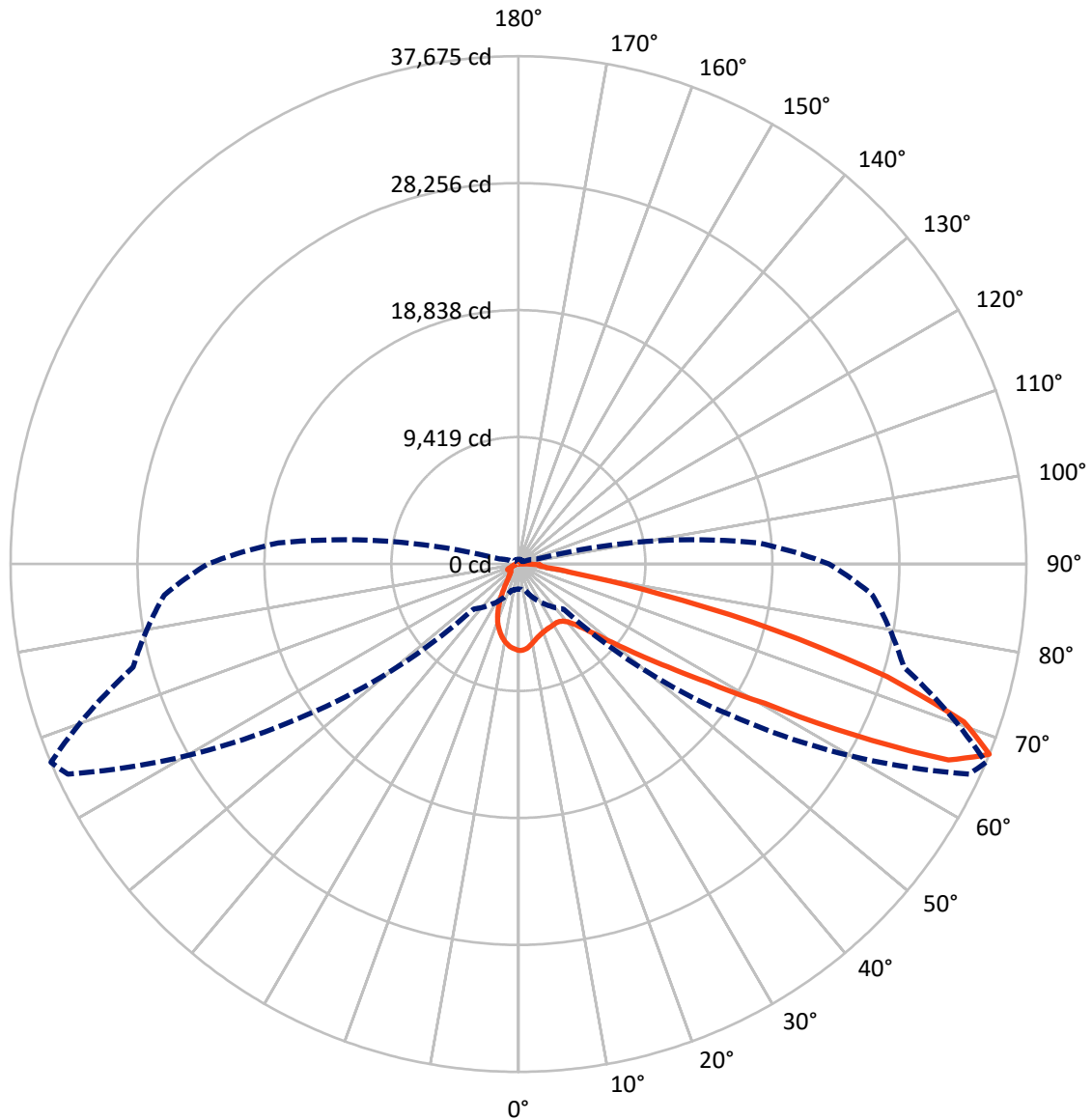
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 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
<b>House Side</b>	Lumens	4926.7	0.0	4926.7
	% Fixture	16.6	0.0	16.6
<b>Street Side</b>	Lumens	24807.7	0.0	24807.7
	% Fixture	83.4	0.0	83.4
<b>Total</b>	Lumens	29734.4	0.0	29734.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	547.2	1.8
10°-20°	1266.1	4.3
20°-30°	1716.2	5.8
30°-40°	2439.8	8.2
40°-50°	4081.8	13.7
50°-60°	6457.4	21.7
60°-70°	8226.1	27.7
70°-80°	4308.8	14.5
80°-90°	691.1	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°	29734.4	100.0
0°-180°	29734.4	100.0



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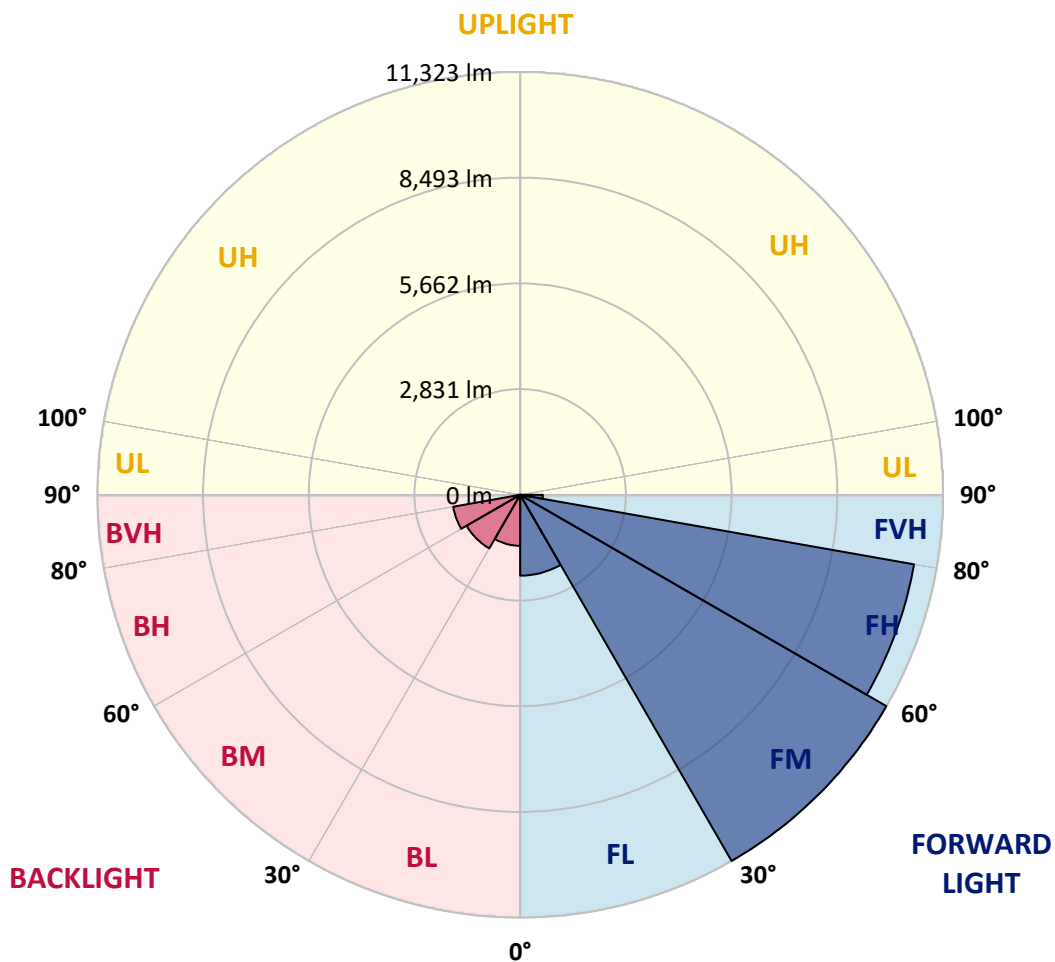
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2163.9	7.3			
FM (30°-60°)	11323.5	38.1			
FH (60°-80°)	10712.7	36.0			G4/12000
FVH (80°-90°)	607.6	2.0			G4/750
BL (0°-30°)	1365.5	4.6	B3/2500		
BM (30°-60°)	1655.5	5.6	B2/2500		
BH (60°-80°)	1822.2	6.1	B3/2500		G3/2500
BVH (80°-90°)	83.4	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°	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6
2.5°	6149.7	6160.0	6192.2	6212.7	6305.1	6344.7	6372.6	6400.4	6404.8	6418.0	6404.8
5°	5504.5	5526.5	5586.6	5654.1	5833.0	5973.7	6121.8	6275.8	6303.7	6403.4	6431.2
7.5°	5004.5	4998.6	5048.5	5129.1	5312.4	5507.4	5767.0	6073.4	6133.6	6357.9	6466.4
10°	4639.4	4635.0	4687.8	4771.4	4945.9	5130.6	5423.9	5843.2	5928.3	6286.1	6500.1
12.5°	4369.6	4371.1	4423.8	4516.2	4693.6	4879.9	5177.5	5620.4	5728.9	6202.5	6535.3
15°	4190.7	4202.4	4245.0	4343.2	4516.2	4702.4	4994.2	5453.2	5574.9	6136.5	6574.9
17.5°	4130.6	4149.6	4164.3	4236.2	4384.3	4570.5	4856.4	5330.0	5459.1	6091.0	6610.1
20°	4186.3	4208.3	4180.4	4205.4	4299.2	4463.4	4747.9	5233.2	5365.2	6039.7	6614.5
22.5°	4425.3	4445.8	4363.7	4291.9	4286.0	4385.7	4658.5	5157.0	5293.4	6001.6	6616.0
25°	4846.1	4859.3	4721.5	4554.3	4391.6	4357.9	4595.4	5104.2	5249.4	5967.9	6588.1
27.5°	5362.3	5372.5	5214.2	4967.8	4640.9	4423.8	4573.4	5073.4	5224.5	5938.5	6541.2
30°	5989.9	6038.3	5825.6	5514.8	5038.2	4618.9	4617.4	5057.3	5196.6	5888.7	6448.8
32.5°	6632.1	6652.6	6506.0	6190.7	5573.4	4962.0	4740.6	5069.0	5189.3	5828.6	6331.5
35°	7283.1	7309.5	7214.2	6960.6	6305.1	5464.9	4981.0	5137.9	5234.7	5808.0	6249.4
37.5°	8126.3	8161.5	8029.5	7736.2	7195.2	6146.8	5381.3	5311.0	5374.0	5866.7	6224.5
40°	9459.1	9443.0	9057.4	8620.4	8168.8	7019.2	5953.2	5604.2	5640.9	6055.8	6300.7
42.5°	11010.5	10970.9	10306.7	9620.4	9239.2	8075.0	6709.8	6113.0	6105.7	6428.3	6569.1
45°	12248.1	12215.8	11617.6	10771.5	10466.5	9277.3	7687.8	6871.1	6816.9	7019.2	7064.7
47.5°	12918.2	12919.6	12575.0	11884.4	11877.1	10805.2	8944.5	7967.9	7874.1	7969.4	7921.0
50°	12683.6	12714.3	12677.7	12457.7	13164.5	12808.2	10585.3	9497.3	9308.1	9402.0	9215.7
52.5°	11548.6	11588.2	11805.2	12142.5	13705.6	15229.1	12995.9	11397.6	11177.7	11143.9	10937.2
55°	9536.9	9585.2	10028.1	10944.5	13255.4	16855.2	16799.5	13819.9	13469.5	13151.3	13063.3
57.5°	6573.5	6654.1	7366.7	8727.5	11799.4	17346.4	21328.9	17273.1	16560.5	15449.0	15469.5
60°	3705.4	3799.2	4639.4	5875.5	8860.9	16812.7	24774.7	22503.4	20999.0	18139.7	18292.2
62.5°	2356.4	2457.5	3095.4	4082.2	5316.8	13938.7	26186.8	29774.8	27864.2	21456.5	21606.0
65°	1907.7	1951.7	2252.2	3369.6	3860.8	8397.5	25114.9	35764.7	35052.1	25666.2	24968.3
67.5°	1862.2	1876.9	2032.3	2828.5	3702.4	4720.0	20032.7	36885.0	37675.3	29597.4	26368.6
70°	1840.2	1891.5	2290.4	2699.5	3545.5	3981.0	12038.4	33814.5	35062.3	30625.3	24504.9
72.5°	893.0	890.0	1152.5	2441.4	3994.2	4129.1	6184.9	27359.8	28612.0	26532.8	20136.8
75°	720.0	658.4	629.0	894.4	3840.3	4264.0	3941.4	18825.9	19732.1	17789.2	12378.6
77.5°	683.3	610.0	558.7	560.1	1623.2	4522.1	3338.8	10419.6	10683.5	8035.4	3391.6
80°	566.0	498.5	461.9	520.5	785.9	4306.5	3610.0	4715.6	4327.1	1973.6	1129.1
82.5°	393.0	357.8	347.5	437.0	629.0	3069.0	4198.0	2533.8	2124.7	988.3	696.5
85°	250.7	214.1	237.5	318.2	489.7	1416.5	4324.1	1975.1	1570.4	627.6	393.0
87.5°	115.8	93.8	117.3	176.0	319.7	488.3	4114.5	2218.5	1617.3	331.4	247.8
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°	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6	6413.6
2.5°	6416.6	6388.7	6366.7	6325.6	6280.2	6236.2	6196.6	6146.8	6132.1	6118.9	6139.4
5°	6437.1	6409.2	6328.6	6202.5	6063.2	5932.7	5802.2	5690.7	5621.8	5583.7	5605.7
7.5°	6467.9	6428.3	6261.1	6029.5	5778.7	5550.0	5313.9	5124.7	4985.4	4919.5	4938.5
10°	6495.7	6419.5	6146.8	5799.2	5432.7	5092.5	4720.0	4412.1	4183.4	4063.1	4092.5
12.5°	6507.5	6385.8	5986.9	5511.8	5008.9	4510.4	3962.0	3501.5	3173.1	3052.9	3027.9
15°	6519.2	6347.6	5811.0	5184.9	4497.2	3791.9	3023.5	2472.2	2199.5	2139.3	2126.1
17.5°	6522.1	6281.7	5611.6	4830.0	3897.4	2937.0	2067.5	1717.0	1718.5	1815.3	1827.0
20°	6491.3	6183.4	5369.6	4388.7	3179.0	2030.8	1419.4	1359.3	1580.7	1822.6	1851.9
22.5°	6421.0	6052.9	5095.4	3874.0	2356.4	1337.3	1098.3	1164.2	1450.2	1746.4	1780.1
25°	6331.5	5894.6	4771.4	3277.2	1560.2	956.0	920.8	1001.5	1195.0	1393.0	1412.1
27.5°	6209.8	5706.9	4407.7	2593.9	1013.2	787.4	810.9	865.1	944.3	1032.3	1041.1
30°	6052.9	5482.5	4019.1	1891.5	765.4	708.2	742.0	771.3	805.0	854.9	859.3
32.5°	5872.6	5267.0	3620.3	1306.5	678.9	667.2	693.6	708.2	734.6	765.4	768.3
35°	5721.5	5061.7	3206.8	923.8	642.2	636.4	654.0	659.8	684.8	718.5	721.4
37.5°	5635.0	4894.5	2780.1	744.9	617.3	608.5	618.8	618.8	654.0	703.8	711.2
40°	5640.9	4802.2	2353.4	673.0	596.8	585.1	586.5	586.5	632.0	686.2	690.6
42.5°	5800.7	4825.6	1975.1	645.2	580.7	567.5	560.1	564.5	602.7	637.8	640.8
45°	6176.1	4991.3	1620.3	627.6	564.5	560.1	544.0	542.5	557.2	573.3	573.3
47.5°	6791.9	5318.3	1379.8	615.8	551.3	549.9	530.8	511.7	510.3	516.1	516.1
50°	7793.4	5881.4	1218.5	602.7	542.5	530.8	508.8	479.5	469.2	473.6	473.6
52.5°	9294.9	6885.8	1156.9	585.1	523.5	504.4	479.5	450.2	441.4	442.8	442.8
55°	11264.2	8428.3	1148.1	564.5	502.9	472.2	451.6	429.6	419.4	422.3	422.3
57.5°	13670.4	10561.8	1305.0	532.3	475.1	439.9	428.2	413.5	406.2	410.6	409.1
60°	16595.7	13353.7	1935.5	498.5	447.2	410.6	410.6	398.8	393.0	397.4	395.9
62.5°	19965.2	16560.5	2721.5	473.6	417.9	387.1	393.0	387.1	381.2	384.2	382.7
65°	22953.6	18650.0	2548.4	454.6	388.6	365.1	375.4	372.4	368.0	371.0	369.5
67.5°	23040.1	17875.7	1431.1	434.0	360.7	343.1	357.8	356.3	353.4	356.3	354.8
70°	20562.0	15094.2	806.5	395.9	331.4	316.7	337.3	335.8	332.9	338.7	337.3
72.5°	16474.0	10953.3	589.5	349.0	302.1	288.9	312.3	310.9	310.9	319.7	315.3
75°	9479.7	5636.5	470.7	299.1	271.3	261.0	281.5	283.0	285.9	297.7	288.9
77.5°	2702.4	1756.6	384.2	253.7	233.1	228.7	249.3	252.2	253.7	266.9	255.1
80°	1004.4	809.4	316.7	212.6	190.6	192.1	211.1	215.5	217.0	230.2	215.5
82.5°	640.8	533.7	256.6	164.2	149.6	148.1	171.6	177.4	177.4	178.9	170.1
85°	373.9	319.7	193.6	118.8	105.6	101.2	127.6	137.8	133.4	130.5	124.6
87.5°	250.7	219.9	118.8	66.0	57.2	54.3	74.8	82.1	79.2	74.8	70.4
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)