

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: P300313

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300313  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-04-LED-E1-AFL-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

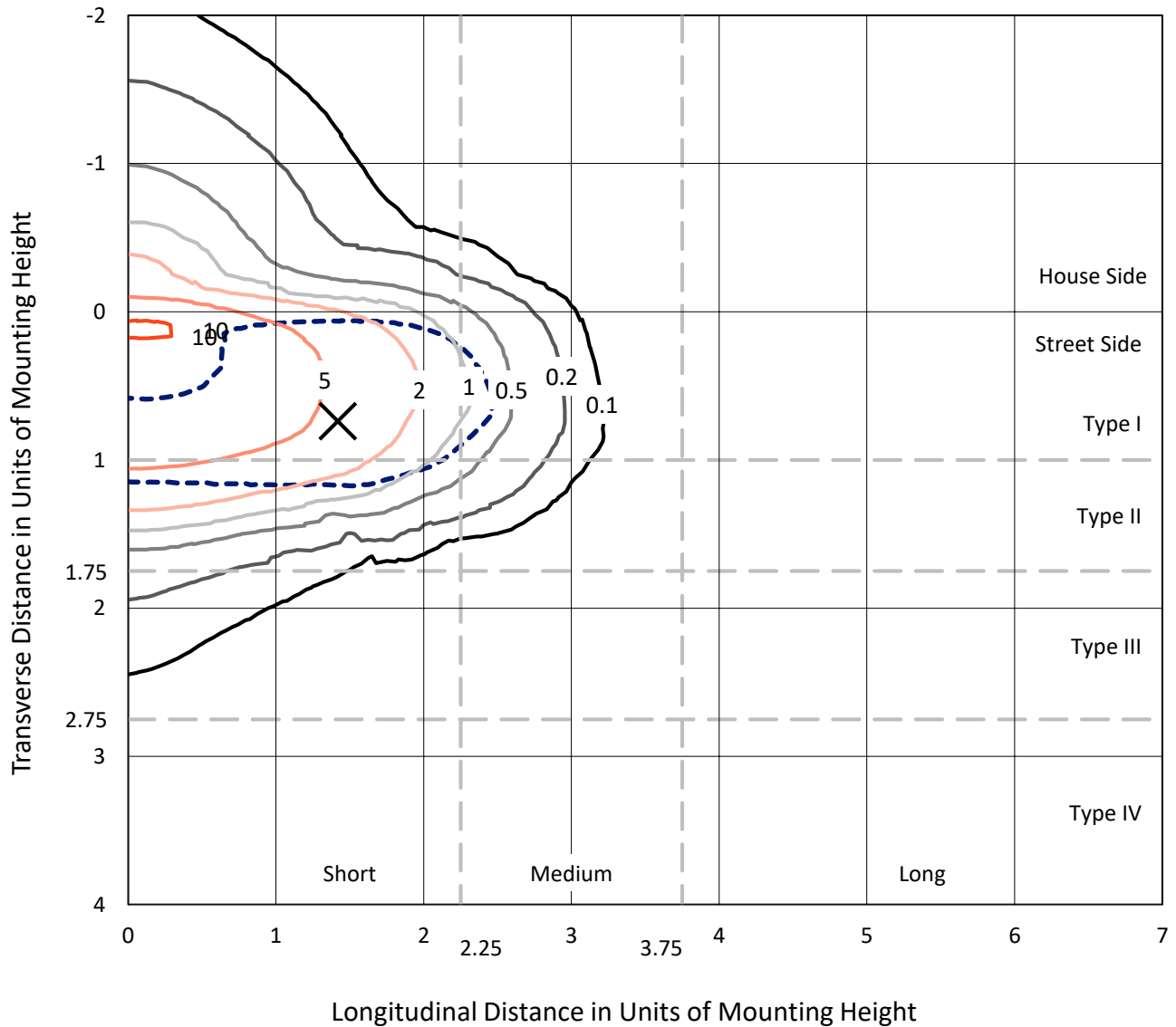
Lumens per Lamp: N/A  
Luminaire Lumens: 21329.6 lumens  
Efficiency: N/A  
Efficacy: 94.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (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

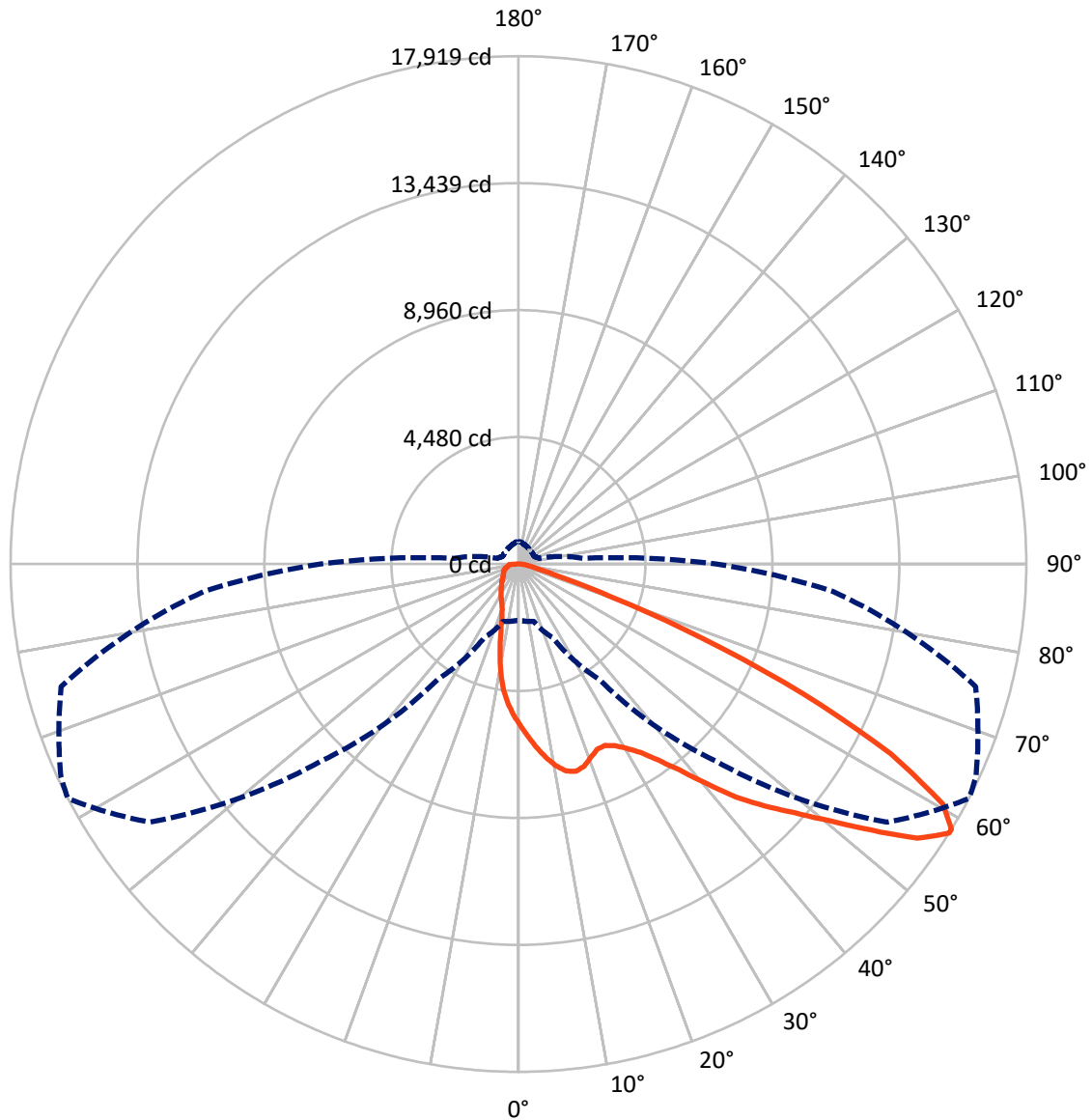
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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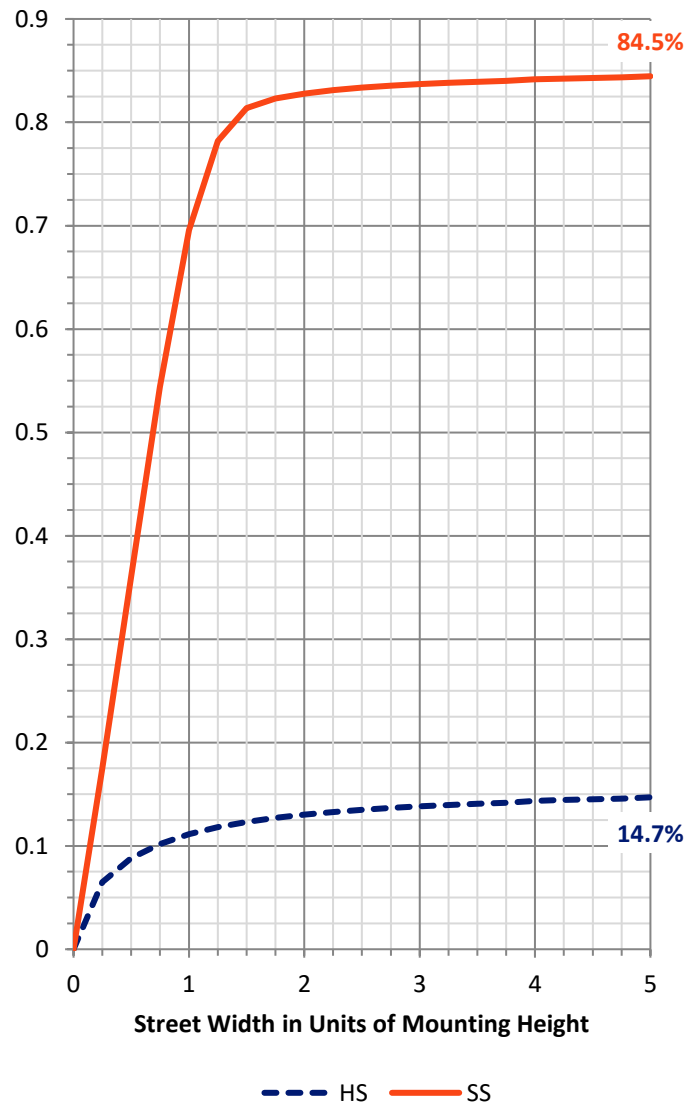
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3252.8	0.0	3252.8
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	18076.7	0.0	18076.7
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	21329.6	0.0	21329.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	506.7	2.4
10°-20°	1295.3	6.1
20°-30°	2093.8	9.8
30°-40°	3323.9	15.6
40°-50°	4863.6	22.8
50°-60°	5086.9	23.8
60°-70°	3005.4	14.1
70°-80°	846.6	4.0
80°-90°	307.4	1.4
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°	21329.6	100.0
0°-180°	21329.6	100.0

**Coefficient of Utilization**



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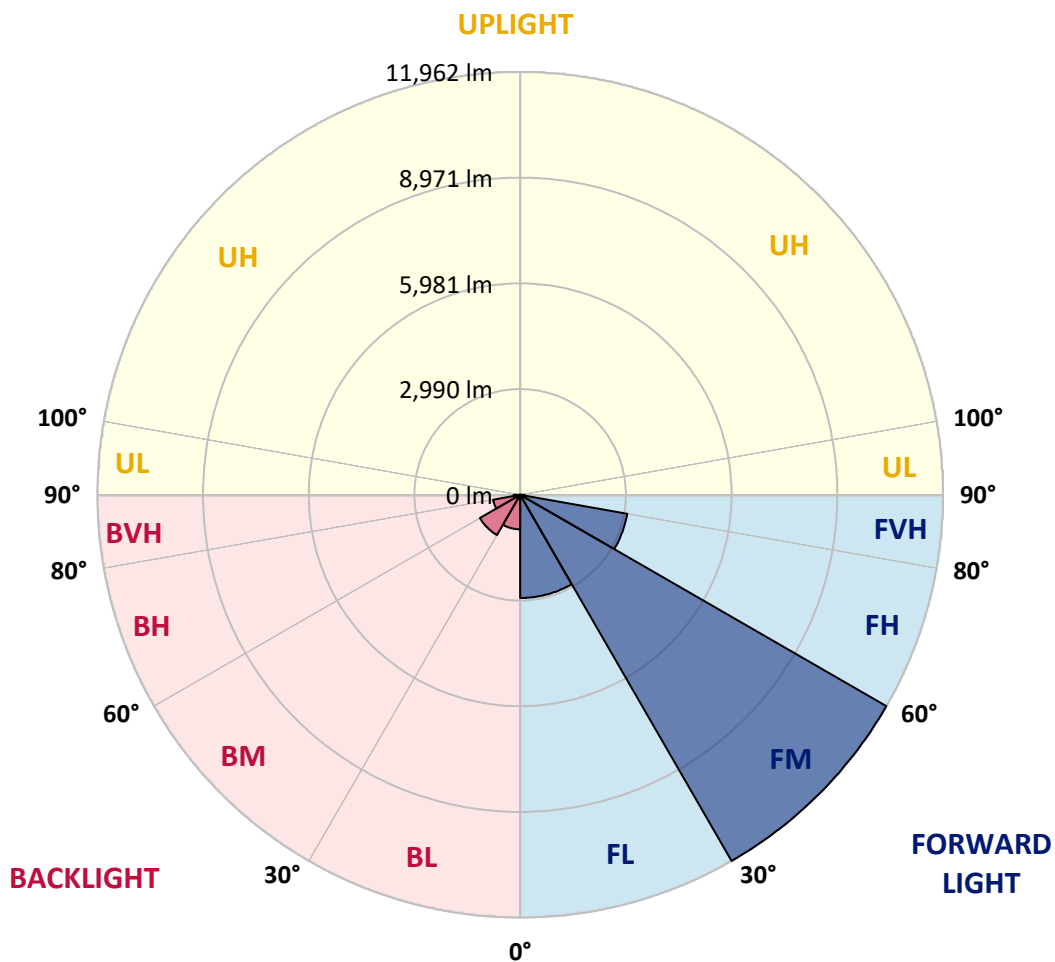
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2918.2	13.7			
FM (30°-60°)	11961.5	56.1			
FH (60°-80°)	3075.8	14.4			G2/5000
FVH (80°-90°)	121.3	0.6			G2/225
BL (0°-30°)	977.6	4.6	B2/1000		
BM (30°-60°)	1312.9	6.2	B2/2500		
BH (60°-80°)	776.2	3.6	B2/1000		G2/1000
BVH (80°-90°)	186.1	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8
2.5°	6474.3	6422.1	6388.9	6359.8	6321.6	6240.3	6130.8	6061.5	6026.3	5906.8	5765.2
5°	7109.1	7062.9	7028.7	6989.6	6921.3	6793.7	6616.9	6476.3	6407.0	6168.0	5884.7
7.5°	6960.4	6979.5	7038.8	7142.2	7230.6	7213.5	7055.8	6877.1	6785.7	6453.2	6023.3
10°	6064.5	6097.7	6200.1	6442.2	6833.9	7235.6	7358.2	7234.6	7142.2	6735.4	6166.0
12.5°	5884.7	5883.7	5891.8	5956.0	6189.1	6754.5	7368.2	7492.8	7437.5	7004.6	6311.6
15°	5958.0	5960.1	5954.0	5981.1	6053.5	6277.4	7060.9	7592.2	7631.4	7275.8	6462.2
17.5°	6150.9	6145.9	6122.8	6122.8	6148.9	6236.3	6699.3	7499.8	7680.6	7515.9	6594.8
20°	6474.3	6451.2	6389.9	6333.7	6305.6	6352.8	6550.6	7286.9	7595.2	7725.8	6704.3
22.5°	6866.0	6847.9	6748.5	6628.0	6530.5	6529.5	6627.0	7101.0	7447.6	7923.6	6796.7
25°	7372.2	7343.1	7195.5	7002.6	6831.9	6766.6	6793.7	7092.0	7367.2	8138.6	6879.1
27.5°	7966.8	7913.6	7738.8	7460.6	7209.5	7077.9	7038.8	7255.7	7440.5	8404.7	6993.6
30°	8688.0	8626.7	8402.7	8040.1	7685.6	7469.6	7386.3	7546.0	7683.6	8729.2	7177.4
32.5°	9508.6	9420.2	9161.0	8761.3	8295.3	7965.8	7830.2	7929.7	8039.1	9119.9	7407.4
35°	10642.5	10537.1	10162.4	9611.0	9084.7	8631.7	8414.8	8487.1	8593.6	9702.4	7739.8
37.5°	11415.9	11368.7	11119.6	10601.3	10028.8	9507.6	9172.1	9214.3	9274.5	10430.6	8165.7
40°	11408.9	11428.0	11433.0	11438.0	11048.3	10549.1	10188.5	10144.3	10132.3	11230.1	8649.8
42.5°	10837.4	10915.7	11168.8	11682.1	11919.1	11690.1	11359.7	11232.1	11168.8	12172.2	9163.1
45°	9962.5	10004.7	10478.8	11481.2	12365.0	12820.0	12569.9	12168.2	12053.7	13038.0	9588.9
47.5°	9511.6	9557.8	9856.1	10948.9	12360.0	13733.0	13877.7	13112.3	12907.4	13791.3	9956.5
50°	8437.9	8534.3	8909.9	10022.8	11909.1	14152.9	15244.6	14237.2	13813.4	14524.5	10325.1
52.5°	6466.3	6614.9	7035.8	8500.2	10765.1	13945.0	16338.4	15601.2	15002.6	15283.8	10641.5
55°	4078.8	4189.3	4542.9	6003.2	8611.6	12863.2	16753.2	17076.6	16544.3	16002.9	10915.7
57.5°	2217.7	2266.9	2399.5	3314.5	5601.5	10471.8	16148.6	17916.3	17695.3	16613.6	11122.6
58°	1984.7	2017.8	2100.2	2872.6	4967.7	9817.9	15880.4	17919.3	17808.8	16703.0	11138.7
60°	1472.4	1455.4	1382.0	1639.2	2765.1	6782.6	14259.3	17202.2	17526.6	16812.5	11060.3
62.5°	1293.7	1252.5	1102.8	1085.7	1344.9	3124.7	10910.7	14735.4	15501.8	16187.8	10584.3
65°	1215.3	1171.1	978.3	916.0	970.2	1321.8	6427.1	11051.3	12012.5	14293.5	9366.9
67.5°	1157.1	1099.8	898.9	813.6	817.6	873.8	2576.3	6960.4	8042.2	10852.4	7285.8
70°	1100.8	1038.5	831.6	733.2	710.1	691.0	1024.5	3484.2	4465.5	6855.0	4645.3
72.5°	1040.5	979.3	772.4	669.9	624.7	561.5	668.9	1425.2	1990.7	3243.2	2107.2
75°	953.2	897.9	713.1	613.7	549.4	465.0	505.2	744.3	892.9	1291.6	1015.4
77.5°	845.7	800.5	646.8	567.5	487.1	377.7	388.7	516.3	572.5	739.2	603.6
80°	607.7	623.7	575.5	510.2	433.9	306.3	298.3	376.6	406.8	475.1	392.7
82.5°	426.9	435.9	476.1	416.8	358.6	241.1	220.0	265.2	283.2	312.4	211.9
85°	294.3	284.2	326.4	290.3	259.1	160.7	150.7	179.8	190.8	193.8	109.5
87.5°	176.8	176.8	188.8	155.7	139.6	83.4	81.4	102.4	109.5	104.5	60.3
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°	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8	5665.8
2.5°	5680.8	5609.5	5457.9	5336.3	5182.7	5023.0	4933.6	4838.1	4772.9	4725.7	4801.0
5°	5724.0	5578.4	5265.0	4967.7	4639.3	4297.8	4038.7	3797.6	3629.9	3525.4	3623.8
7.5°	5792.3	5568.3	5069.2	4560.9	3971.4	3402.9	2894.7	2576.3	2390.4	2299.0	2356.3
10°	5870.7	5552.3	4839.2	4009.5	3165.8	2449.7	2070.0	1941.5	1899.3	1882.2	1890.3
12.5°	5935.9	5518.1	4556.9	3342.6	2377.4	1934.5	1825.0	1822.0	1831.0	1833.0	1836.0
15°	5982.1	5467.9	4138.1	2647.6	1901.3	1762.7	1756.7	1774.8	1791.8	1798.9	1802.9
17.5°	6013.3	5364.4	3665.0	2093.1	1703.4	1679.3	1693.4	1716.5	1734.6	1739.6	1743.6
20°	6010.3	5212.8	3101.6	1745.6	1596.0	1596.0	1620.1	1638.2	1639.2	1633.1	1636.2
22.5°	5979.1	5004.9	2555.2	1560.8	1500.6	1517.6	1541.7	1524.7	1454.4	1408.2	1411.2
25°	5926.9	4756.8	2087.1	1443.3	1412.2	1442.3	1435.3	1306.7	1206.3	1161.1	1161.1
27.5°	5880.7	4463.5	1727.6	1340.9	1323.8	1360.9	1236.4	1119.9	1077.7	1056.6	1049.6
30°	5847.6	4147.1	1487.5	1242.4	1240.4	1213.3	1072.7	1040.5	1033.5	1016.4	1010.4
32.5°	5855.6	3826.7	1333.8	1156.1	1163.1	1038.5	994.3	1001.4	995.4	977.3	969.2
35°	5921.9	3522.4	1233.4	1077.7	1056.6	938.1	948.1	961.2	959.2	934.1	926.0
37.5°	6040.4	3234.1	1167.1	1012.4	922.0	887.9	904.0	924.0	919.0	901.9	895.9
40°	6164.9	2963.0	1112.9	961.2	842.7	853.7	867.8	878.8	883.9	888.9	884.9
42.5°	6286.5	2679.7	1046.6	909.0	809.5	821.6	827.6	838.7	865.8	884.9	883.9
45°	6358.8	2413.5	978.3	834.6	783.4	790.5	786.4	808.5	841.7	872.8	873.8
47.5°	6439.1	2206.6	924.0	766.3	758.3	763.3	751.3	773.4	803.5	841.7	845.7
50°	6536.6	2083.1	880.9	712.1	724.2	724.2	721.2	741.2	783.4	827.6	835.7
52.5°	6647.1	2059.0	844.7	672.9	690.0	689.0	692.0	722.2	768.4	811.5	818.6
55°	6781.6	2124.3	805.5	643.8	656.9	660.9	670.9	705.1	744.3	793.5	796.5
57.5°	6938.3	2256.9	774.4	620.7	626.7	639.8	655.9	687.0	729.2	783.4	786.4
58°	6964.4	2285.0	769.4	618.7	620.7	635.8	653.9	684.0	726.2	785.4	788.4
60°	6965.4	2378.4	758.3	609.7	597.6	622.7	642.8	672.9	721.2	792.5	799.5
62.5°	6718.4	2377.4	750.3	596.6	573.5	604.6	627.7	662.9	716.1	809.5	823.6
65°	5915.9	2160.4	712.1	576.5	554.4	588.6	614.7	655.9	730.2	883.9	892.9
67.5°	4627.2	1770.7	640.8	548.4	529.3	572.5	606.7	654.9	745.3	900.9	907.0
70°	3059.4	1324.8	562.5	516.3	503.2	553.4	610.7	689.0	728.2	864.8	848.7
72.5°	1587.9	930.1	499.2	476.1	473.1	536.3	668.9	685.0	711.1	813.6	793.5
75°	833.6	645.8	443.9	431.9	436.9	532.3	789.5	666.9	689.0	778.4	816.6
77.5°	510.2	521.3	396.7	391.7	401.8	520.3	788.4	643.8	656.9	716.1	758.3
80°	341.5	422.8	360.6	361.6	368.6	476.1	708.1	607.7	617.7	677.0	720.1
82.5°	215.9	250.1	327.4	344.5	335.5	392.7	601.6	553.4	567.5	774.4	818.6
85°	109.5	156.7	284.2	331.4	302.3	275.2	488.1	485.1	492.2	558.4	583.6
87.5°	50.2	86.4	222.0	289.3	228.0	171.8	354.5	359.6	387.7	396.7	396.7
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)