

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: P299834

Luminaire Tested: **GLNA-AF-04-LED-E1-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299834
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-04-LED-E1-SL3-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23147.2 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

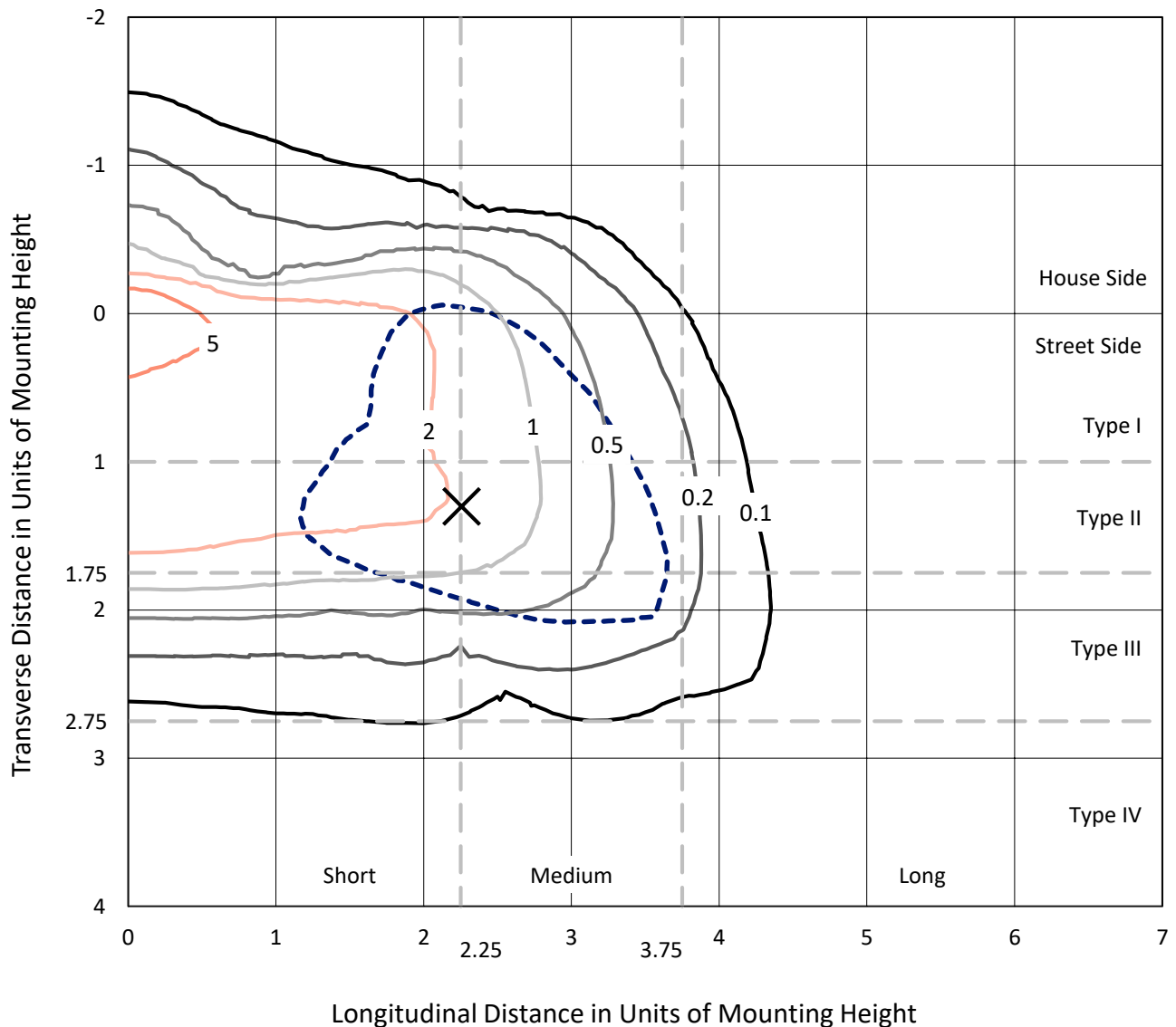
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299834
 CATALOG NUMBER: GLNA-AF-04-LED-E1-SL3-7030

Iso-Footcandle Lines of Horizontal Illumination

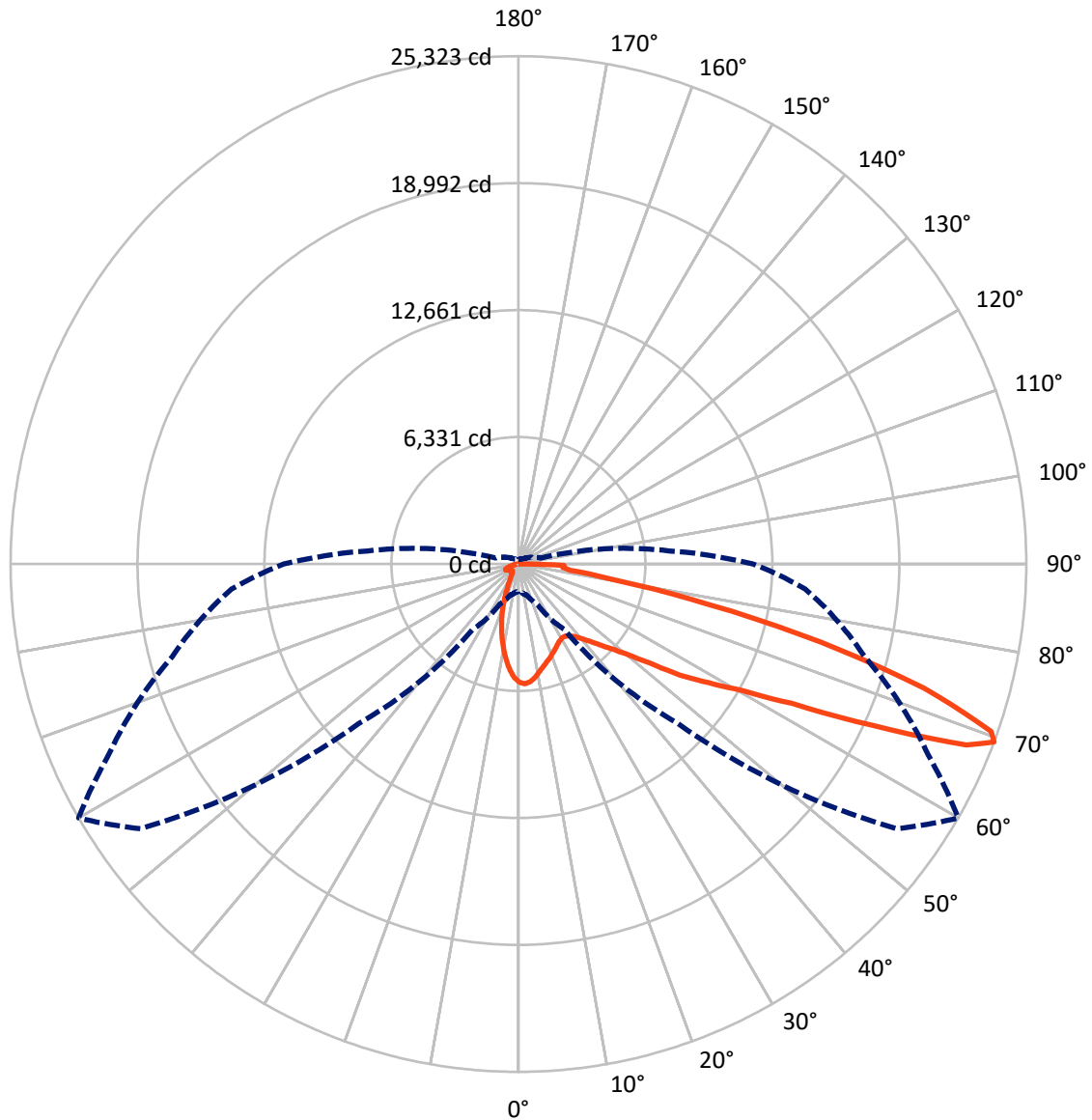
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P299834
CATALOG NUMBER: GLNA-AF-04-LED-E1-SL3-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299834

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL3-7030

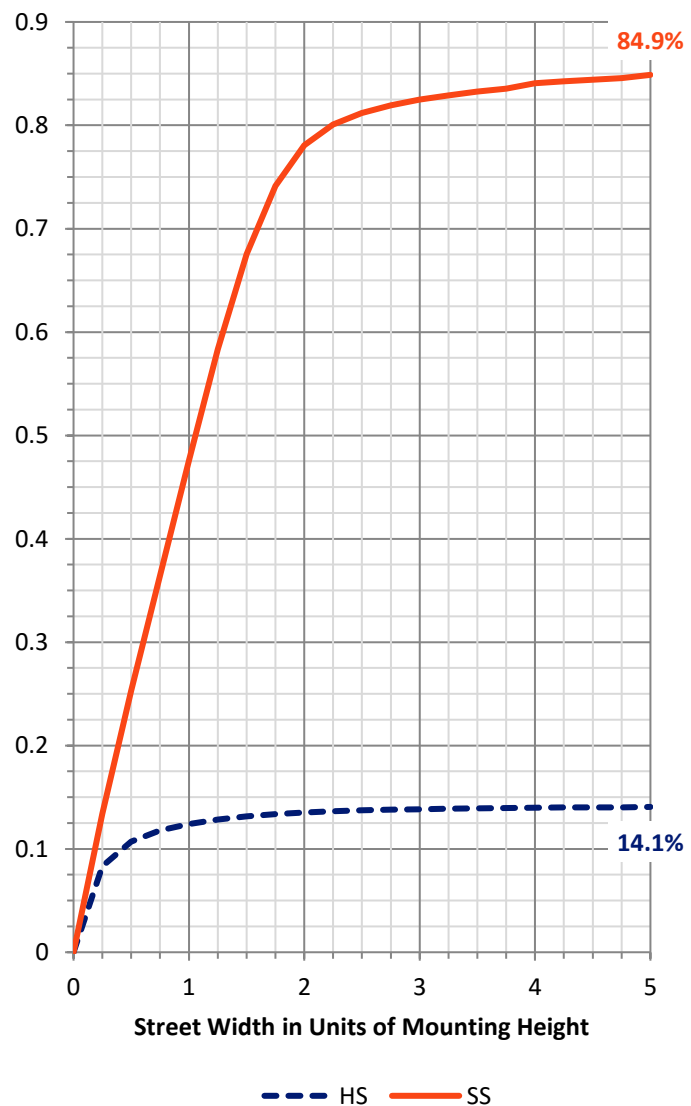
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3293.1	0.0	3293.1
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	19854.1	0.0	19854.1
	% Fixture	85.8	0.0	85.8
Total	Lumens	23147.2	0.0	23147.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	498.7	2.2
10°-20°	1062.6	4.6
20°-30°	1353.9	5.8
30°-40°	1861.2	8.0
40°-50°	3020.1	13.0
50°-60°	4843.4	20.9
60°-70°	6446.2	27.8
70°-80°	3480.4	15.0
80°-90°	580.7	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°	23147.2	100.0
0°-180°	23147.2	100.0

Coefficient of Utilization



REPORT NUMBER: P299834

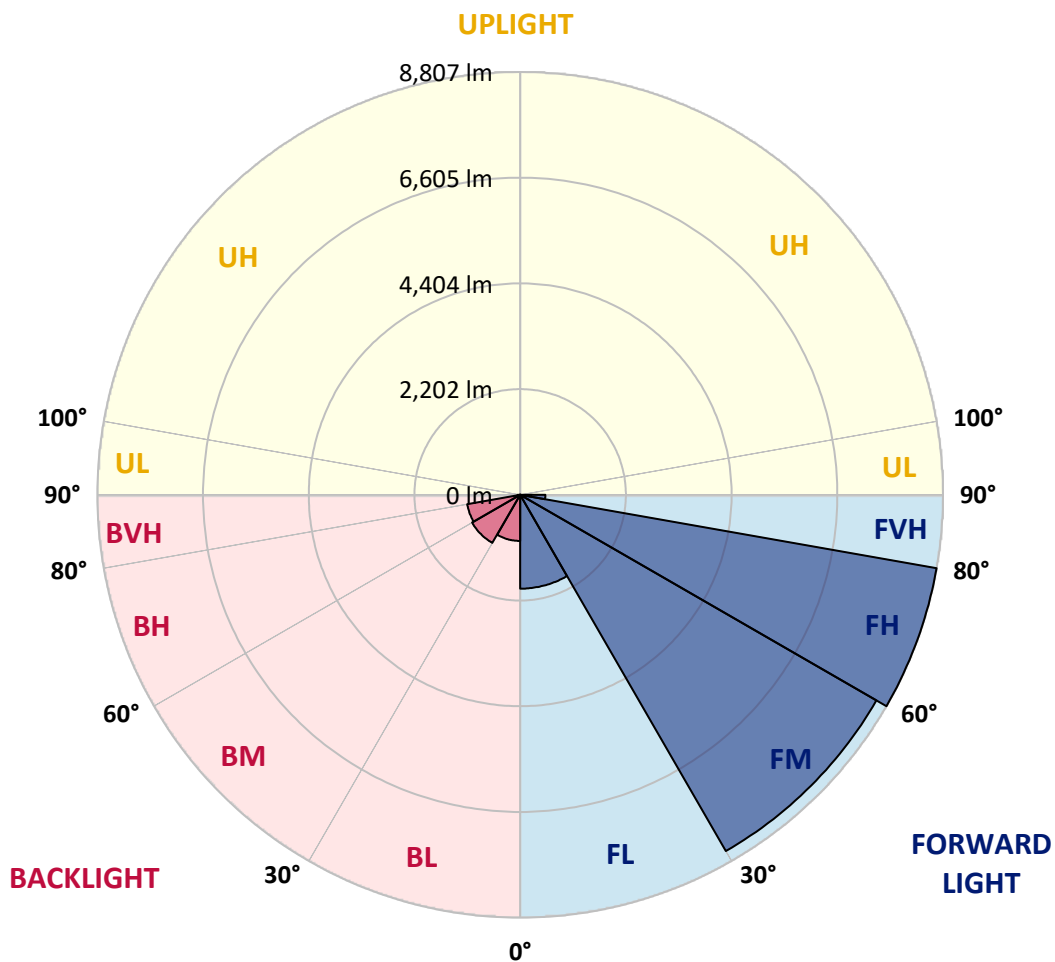
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1954.5	8.4			
FM	(30°-60°)	8567.7	37.0			
FH	(60°-80°)	8807.1	38.0			G4/12000
FVH	(80°-90°)	524.8	2.3			G4/750
BL	(0°-30°)	960.7	4.2	B2/1000		
BM	(30°-60°)	1156.9	5.0	B2/2500		
BH	(60°-80°)	1119.6	4.8	B3/2500		G3/2500
BVH	(80°-90°)	55.9	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





REPORT NUMBER: P299834

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3
2.5°	6019.0	6032.4	6026.8	6023.5	6033.6	6017.9	5985.5	5975.4	5959.8	5922.9	5860.2
5°	5793.2	5833.4	5831.2	5861.4	5911.7	5925.1	5910.6	5912.8	5883.7	5837.9	5733.9
7.5°	5402.9	5419.7	5428.6	5494.6	5586.3	5660.1	5722.7	5742.8	5729.4	5690.3	5556.1
10°	5000.4	5013.8	5035.0	5112.2	5228.5	5330.2	5448.8	5517.0	5546.0	5539.3	5389.5
12.5°	4654.9	4668.3	4696.2	4783.5	4922.1	5047.3	5219.5	5304.5	5373.8	5415.2	5254.2
15°	4345.1	4374.2	4401.1	4501.7	4657.1	4821.5	5016.0	5123.4	5230.7	5323.5	5134.6
17.5°	4103.6	4132.7	4148.3	4240.0	4405.5	4606.8	4834.9	4961.2	5095.4	5247.5	5016.0
20°	3963.9	3977.3	3970.6	4022.0	4170.7	4384.3	4654.9	4801.3	4963.5	5175.9	4897.5
22.5°	3924.7	3925.8	3901.2	3895.6	3991.8	4171.8	4462.5	4640.3	4839.4	5129.0	4795.8
25°	4019.8	4016.4	3949.3	3894.5	3904.6	4009.7	4276.9	4483.8	4735.4	5118.9	4717.5
27.5°	4231.1	4241.2	4141.6	4038.8	3937.0	3933.7	4136.0	4354.1	4650.4	5164.7	4683.9
30°	4527.4	4544.2	4437.9	4307.1	4115.9	3958.3	4081.3	4276.9	4597.8	5259.8	4678.4
32.5°	4851.7	4869.6	4789.0	4651.5	4401.1	4110.3	4119.3	4283.6	4595.6	5392.9	4716.4
35°	5197.2	5217.3	5175.9	5059.6	4781.2	4391.0	4264.6	4392.1	4668.3	5596.4	4818.1
37.5°	5582.9	5614.2	5625.4	5514.7	5217.3	4761.1	4502.8	4597.8	4832.7	5879.2	5004.9
40°	6138.7	6182.3	6178.9	6020.1	5717.1	5260.9	4870.7	4895.3	5088.7	6257.2	5303.4
42.5°	7203.1	7212.1	6933.7	6588.2	6267.2	5786.4	5304.5	5284.4	5442.1	6735.8	5742.8
45°	8557.2	8520.3	7900.9	7233.3	6842.0	6390.2	5869.2	5770.8	5890.4	7319.4	6293.0
47.5°	9681.0	9596.0	8813.3	7891.9	7450.3	7046.6	6532.3	6360.1	6426.0	7981.4	7004.1
50°	10071.2	10007.5	9358.9	8439.8	8026.1	7847.2	7348.5	7104.7	7122.6	8770.8	7837.1
52.5°	9987.3	9978.4	9545.7	8801.0	8565.1	8688.0	8504.7	8174.8	8000.4	9647.4	8736.1
55°	9789.4	9808.4	9651.9	9221.4	9181.2	9499.8	10015.3	9771.5	9229.2	10531.9	9665.3
57.5°	9101.8	9151.0	9495.4	9750.3	10173.0	10647.1	11231.8	11162.5	10552.0	11487.9	10770.1
60°	7332.8	7446.9	8370.5	9647.4	11193.8	12676.5	12938.1	12777.1	11916.2	12674.3	12229.2
62.5°	5137.9	5256.4	6354.5	8352.6	11026.1	14968.7	15988.5	15294.1	13875.2	14421.9	14117.8
65°	2750.7	2807.7	3646.3	5795.4	9308.6	15441.7	20446.5	19389.9	16976.9	16576.6	15733.5
67.5°	1517.3	1548.6	1869.6	2926.2	5962.0	13597.9	23286.7	24085.0	20853.6	18011.2	15439.5
69°	1372.0	1401.0	1611.3	2216.2	3989.6	11243.0	23009.4	25322.8	22553.1	17869.2	14352.6
70°	1341.8	1368.6	1557.6	2042.9	3229.2	9267.3	22080.2	25006.4	22957.9	17360.4	13404.4
72.5°	1207.6	1236.7	1420.1	1834.9	2759.6	4620.2	17490.2	21143.2	20843.5	15052.6	10167.4
75°	1126.0	1152.8	1463.7	1796.9	2642.2	2924.0	11530.4	15582.6	15322.1	10529.6	5482.3
77.5°	481.9	479.7	678.7	1520.7	2681.3	2831.2	6195.7	9734.6	8881.5	4500.6	1574.4
80°	322.0	316.4	322.0	447.3	2458.8	2846.8	3246.0	4941.1	3732.4	1147.2	776.0
82.5°	277.3	272.8	282.9	272.8	864.3	3249.4	2759.6	2627.7	1774.5	651.9	384.6
85°	186.7	178.9	243.8	244.9	408.1	2887.1	3108.5	2219.5	1435.7	386.9	190.1
87.5°	89.5	87.2	142.0	173.3	239.3	1172.9	3487.5	2274.3	1448.0	197.9	90.6
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°	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3	5898.3
2.5°	5841.2	5795.4	5750.7	5697.0	5641.1	5578.5	5547.2	5515.8	5508.0	5499.1	5467.8
5°	5680.2	5615.4	5503.5	5380.6	5250.8	5124.5	5028.3	4968.0	4922.1	4898.6	4857.3
7.5°	5472.2	5377.2	5181.5	4969.1	4751.0	4552.0	4379.8	4271.3	4168.5	4120.4	4065.6
10°	5274.3	5132.3	4828.2	4515.1	4202.0	3901.2	3618.3	3418.2	3240.4	3140.9	3070.4
12.5°	5104.4	4909.8	4488.3	4064.5	3635.1	3206.9	2783.1	2449.9	2171.5	2025.0	1950.1
15°	4938.9	4704.1	4165.1	3627.3	3076.0	2493.5	1936.6	1558.7	1328.4	1236.7	1205.4
17.5°	4789.0	4488.3	3840.9	3186.7	2499.1	1794.6	1301.5	1093.6	1005.2	975.0	965.0
20°	4626.9	4270.2	3504.3	2726.1	1897.5	1254.6	1016.4	924.7	888.9	880.0	875.5
22.5°	4470.4	4055.5	3182.3	2233.0	1363.0	968.3	873.3	835.3	829.7	837.5	837.5
25°	4337.3	3863.2	2834.5	1717.5	1000.7	815.1	781.6	772.6	793.9	823.0	828.6
27.5°	4237.8	3705.6	2464.4	1268.0	797.2	708.9	707.8	722.3	774.9	830.8	842.0
30°	4169.6	3555.7	2068.6	914.6	668.7	623.9	641.8	673.1	750.3	829.7	850.9
32.5°	4134.9	3445.0	1656.0	707.8	572.5	547.9	578.1	616.1	692.1	765.9	793.9
35°	4161.8	3363.4	1266.9	590.4	505.4	486.4	517.7	554.6	599.3	630.6	651.9
37.5°	4262.4	3331.0	956.0	528.9	459.6	441.7	466.3	487.5	505.4	514.4	524.4
40°	4479.3	3365.6	765.9	497.6	433.8	411.5	421.5	429.4	440.6	449.5	454.0
42.5°	4799.1	3469.6	686.5	485.3	420.4	388.0	385.8	389.1	403.7	420.4	423.8
45°	5246.4	3653.0	681.0	493.1	413.7	369.0	358.9	363.4	385.8	411.5	416.0
47.5°	5817.8	3932.5	725.7	516.6	419.3	358.9	342.2	347.7	375.7	410.4	416.0
50°	6509.9	4322.8	800.6	551.2	443.9	361.2	336.6	339.9	369.0	407.0	412.6
52.5°	7327.3	4876.3	882.2	584.8	469.6	375.7	341.0	333.2	360.0	393.6	400.3
55°	8236.3	5586.3	966.1	615.0	483.0	393.6	350.0	324.3	343.3	371.2	376.8
57.5°	9352.2	6579.2	1111.4	644.1	492.0	405.9	358.9	315.3	322.0	342.2	346.6
60°	10862.9	7983.6	1367.5	692.1	512.1	410.4	357.8	307.5	300.8	312.0	314.2
62.5°	12673.1	9508.8	1581.1	752.5	545.7	413.7	351.1	301.9	282.9	282.9	285.1
65°	13747.7	9916.9	1462.5	802.8	573.6	410.4	343.3	296.3	269.5	257.2	258.3
67.5°	12836.4	8721.6	1253.4	812.9	572.5	394.7	331.0	286.2	256.1	237.0	235.9
69°	11694.8	7525.2	1159.5	786.1	545.7	374.6	315.3	275.1	246.0	225.9	224.7
70°	10774.5	6795.0	1098.0	757.0	516.6	360.0	303.0	265.0	238.2	219.2	216.9
72.5°	7833.8	4452.5	938.1	650.8	426.0	301.9	261.6	232.6	212.4	201.3	199.0
75°	3914.7	2123.4	761.5	527.8	326.5	241.5	214.7	194.6	184.5	182.3	181.1
77.5°	1285.9	972.8	544.5	393.6	242.6	189.0	173.3	158.8	156.5	163.3	161.0
80°	706.7	565.8	345.5	260.5	165.5	138.7	136.4	128.6	131.9	143.1	140.9
82.5°	360.0	294.1	213.6	156.5	111.8	99.5	108.5	104.0	108.5	118.5	117.4
85°	177.8	161.0	135.3	95.0	73.8	63.7	77.2	80.5	82.7	90.6	90.6
87.5°	102.9	95.0	71.6	44.7	36.9	33.5	44.7	43.6	51.4	55.9	54.8
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)