

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: P299123

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299123
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T3-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29654.2 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 279
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



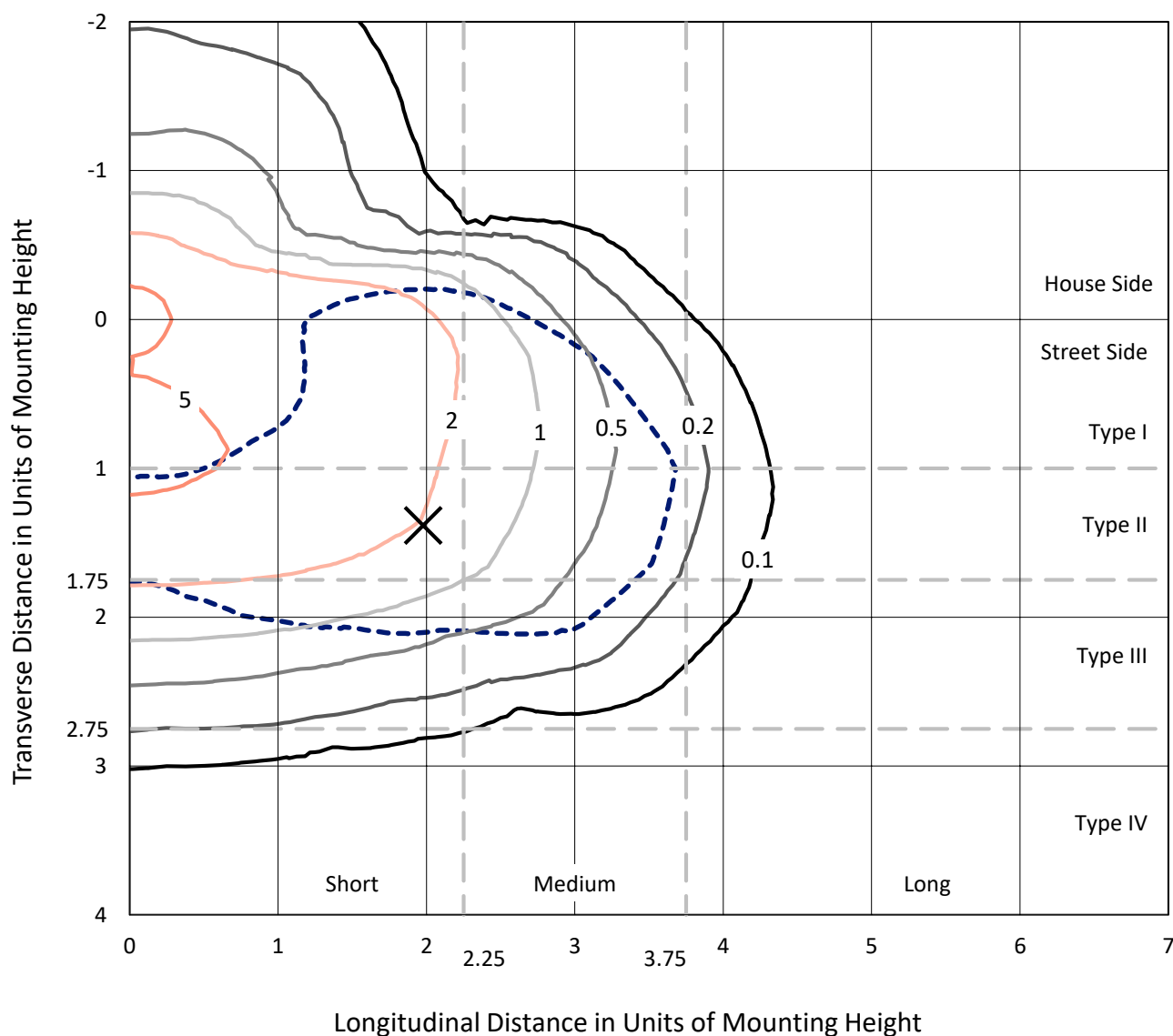
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

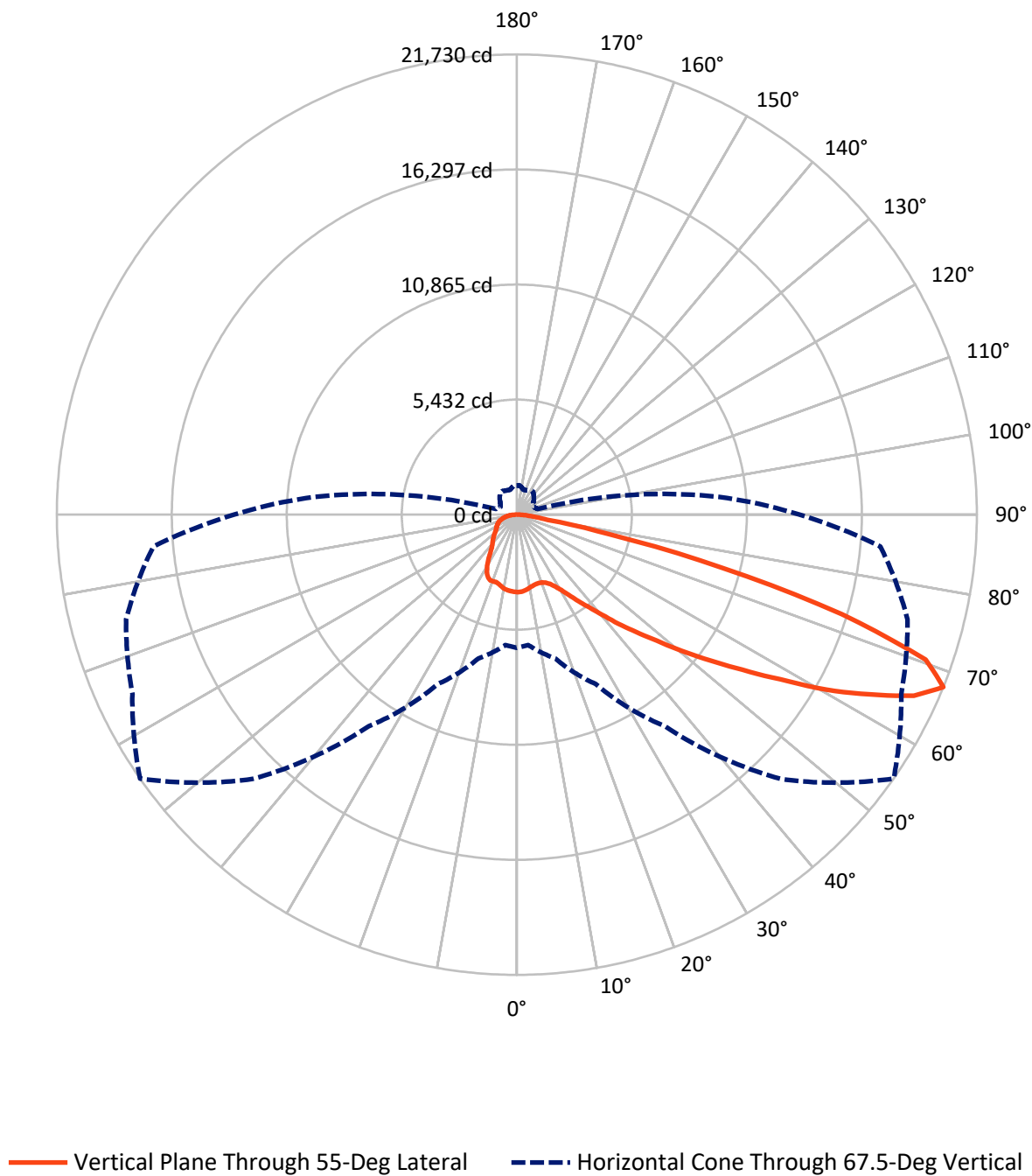


Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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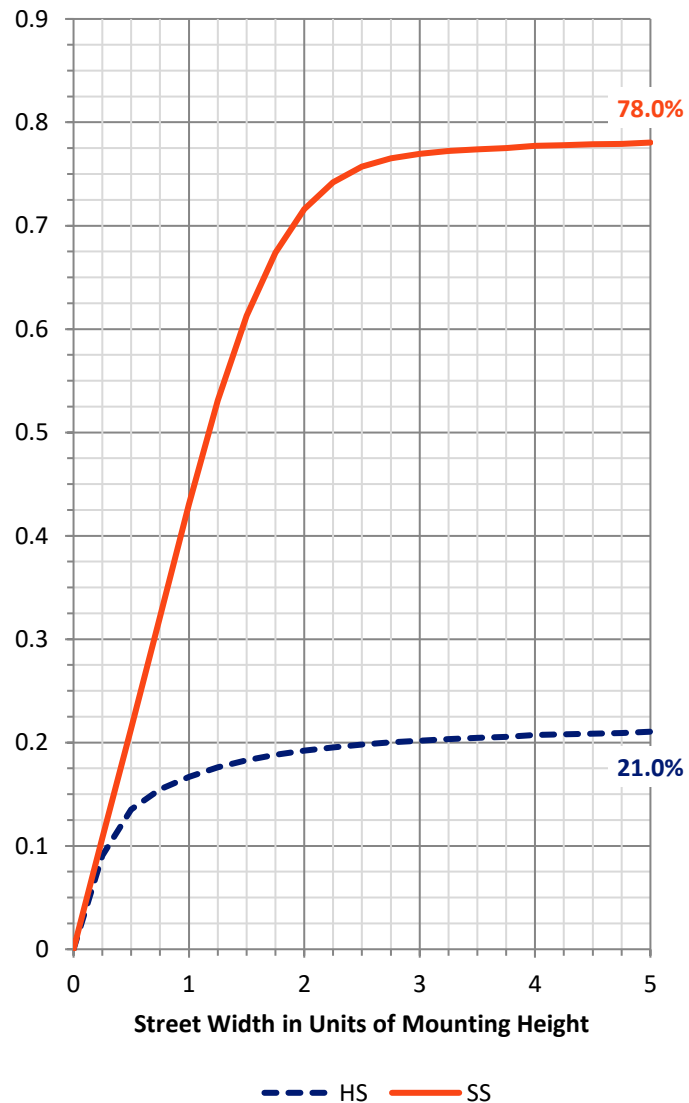
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6405.9	0.0	6405.9
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	23248.3	0.0	23248.3
	% Fixture	78.4	0.0	78.4
Total	Lumens	29654.2	0.0	29654.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.3	1.2
10°-20°	966.6	3.3
20°-30°	1619.3	5.5
30°-40°	2662.8	9.0
40°-50°	4482.2	15.1
50°-60°	7054.7	23.8
60°-70°	8419.1	28.4
70°-80°	3615.3	12.2
80°-90°	492.9	1.7
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°	29654.2	100.0
0°-180°	29654.2	100.0

Coefficient of Utilization



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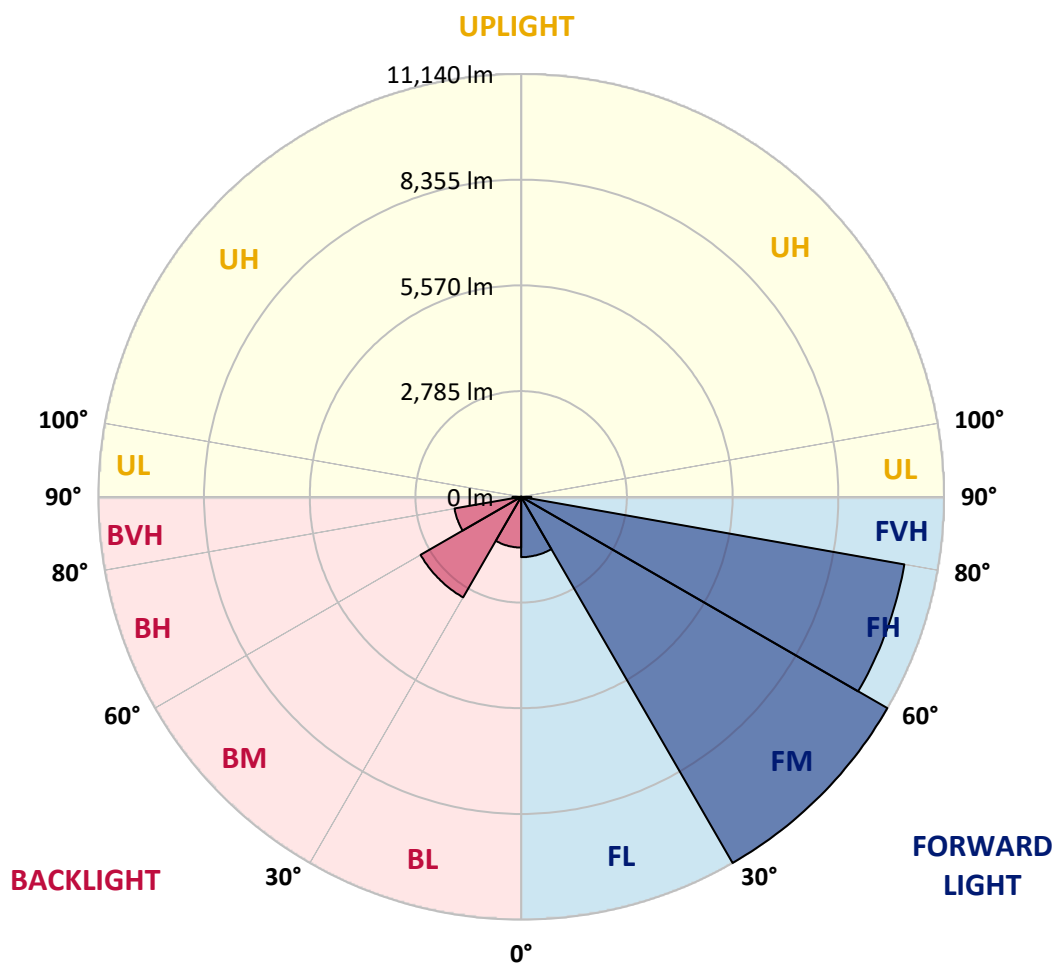
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1589.5	5.4			
FM	(30°-60°)	11140.3	37.6			
FH	(60°-80°)	10251.6	34.6			G4/12000
FVH	(80°-90°)	266.8	0.9			G3/500
BL	(0°-30°)	1337.7	4.5	B3/2500		
BM	(30°-60°)	3059.4	10.3	B3/5000		
BH	(60°-80°)	1782.8	6.0	B3/2500		G3/2500
BVH	(80°-90°)	226.1	0.8			G3/500
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7
2.5°	3625.2	3626.6	3629.5	3640.9	3651.0	3648.1	3649.5	3643.8	3642.4	3633.8	3642.4
5°	3579.3	3583.6	3585.1	3603.7	3615.2	3618.0	3613.7	3606.6	3598.0	3589.4	3593.7
7.5°	3474.8	3486.2	3487.7	3513.5	3532.1	3556.4	3557.9	3559.3	3555.0	3549.3	3557.9
10°	3408.9	3411.8	3410.3	3429.0	3443.3	3470.5	3486.2	3513.5	3524.9	3527.8	3533.5
12.5°	3404.6	3401.7	3397.4	3397.4	3393.1	3404.6	3433.2	3471.9	3499.1	3507.7	3514.9
15°	3450.4	3449.0	3434.7	3413.2	3386.0	3377.4	3401.7	3444.7	3480.5	3499.1	3506.3
17.5°	3553.6	3545.0	3522.1	3473.4	3414.6	3391.7	3394.6	3430.4	3471.9	3496.3	3503.4
20°	3742.6	3742.6	3693.9	3602.3	3497.7	3443.3	3417.5	3439.0	3479.1	3512.0	3522.1
22.5°	4069.2	4072.1	3990.4	3840.0	3663.9	3547.8	3483.4	3479.1	3526.3	3563.6	3575.0
25°	4531.8	4520.4	4405.8	4190.9	3923.1	3731.2	3619.4	3593.7	3633.8	3675.3	3689.6
27.5°	5070.4	5028.8	4892.8	4633.5	4286.9	4006.2	3834.3	3792.8	3831.4	3878.7	3893.0
30°	5603.2	5560.2	5398.4	5114.8	4729.5	4374.3	4127.9	4060.6	4115.0	4182.3	4190.9
32.5°	6136.0	6136.0	5955.5	5624.7	5205.0	4814.0	4518.9	4438.7	4529.0	4610.6	4629.2
35°	6773.4	6776.3	6601.5	6203.3	5752.2	5338.2	5013.1	4954.4	5090.4	5147.7	5192.1
37.5°	7556.9	7572.6	7347.8	6866.5	6372.4	5936.9	5550.2	5470.0	5606.1	5762.2	5905.4
40°	8403.4	8423.4	8175.6	7582.7	7088.5	6633.0	6214.8	6070.1	6296.4	6594.4	6779.1
42.5°	9211.2	9314.3	9075.1	8465.0	7933.6	7462.3	7038.4	6827.8	7111.4	7561.2	7721.6
45°	10378.5	10453.0	10036.2	9483.3	8983.5	8456.4	7894.9	7672.9	8069.6	8636.8	8669.8
47.5°	11156.3	11100.4	10888.4	10544.7	10228.1	9735.4	8890.4	8646.9	9174.0	9841.4	9656.6
50°	11570.2	11587.4	11558.7	11578.8	11590.3	11280.9	10110.7	9777.0	10405.7	11212.1	10786.7
52.5°	11956.9	11842.3	11936.9	12406.7	12973.9	12859.3	11438.4	11090.4	11726.3	12733.2	11981.3
55°	11948.3	11773.6	12081.5	12910.8	14141.2	14273.0	12929.5	12528.4	13122.8	14364.6	13247.4
57.5°	11525.8	11534.4	12008.5	13094.2	14954.8	15602.2	14659.7	14058.1	14603.8	16017.5	14403.3
60°	10944.3	11023.1	11706.3	13064.1	15606.5	16692.2	16782.4	15706.7	16054.8	17520.0	15360.1
62.5°	10006.1	10089.2	11031.7	12751.9	15507.6	17742.0	18701.7	17577.3	17571.6	18431.0	15640.8
65°	8526.5	8502.2	9491.9	11584.5	14678.3	18518.3	20608.1	19194.4	18714.6	18445.3	15076.5
67.5°	6287.8	6179.0	7028.3	8823.0	12200.4	17648.9	21729.6	20036.6	19104.2	17232.1	13352.0
70°	3262.8	3153.9	3841.5	5152.0	8023.8	13774.5	20487.8	19601.2	18243.3	14444.9	10460.2
72.5°	1395.1	1376.5	1655.8	2260.2	3881.6	7945.0	16064.8	16965.7	15653.7	10762.4	7191.6
75°	938.2	932.4	1037.0	1231.8	1746.0	3224.1	10053.4	12042.9	11452.8	6673.1	4044.8
77.5°	736.2	729.0	790.6	885.2	1131.5	1271.9	4461.6	6465.5	5984.2	2904.7	1770.3
80°	575.8	570.1	608.7	660.3	813.6	802.1	1468.1	2572.4	1990.9	1112.9	860.8
82.5°	454.0	454.0	485.6	487.0	577.2	547.1	766.3	1133.0	994.0	648.8	527.1
85°	415.4	415.4	448.3	363.8	376.7	345.2	475.5	671.8	630.2	266.4	229.2
87.5°	209.1	203.4	376.7	322.3	204.8	183.3	232.0	325.1	349.5	147.5	114.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7	3656.7
2.5°	3639.5	3638.1	3640.9	3642.4	3653.8	3669.6	3676.7	3686.8	3692.5	3689.6
5°	3596.5	3599.4	3610.9	3619.4	3639.5	3665.3	3679.6	3691.1	3701.1	3696.8
7.5°	3560.7	3567.9	3585.1	3592.2	3603.7	3610.9	3609.4	3613.7	3622.3	3612.3
10°	3540.7	3549.3	3562.2	3552.1	3524.9	3486.2	3450.4	3431.8	3437.5	3430.4
12.5°	3520.6	3532.1	3522.1	3474.8	3398.9	3348.7	3321.5	3324.4	3337.3	3340.1
15°	3509.2	3513.5	3470.5	3381.7	3304.3	3297.2	3311.5	3308.6	3310.1	3310.1
17.5°	3509.2	3497.7	3417.5	3328.7	3295.7	3282.9	3238.5	3182.6	3158.2	3149.7
20°	3527.8	3497.7	3400.3	3341.6	3270.0	3159.7	3042.2	2939.1	2893.3	2880.4
22.5°	3583.6	3532.1	3449.0	3347.3	3143.9	2959.2	2773.0	2649.8	2566.7	2552.4
25°	3696.8	3639.5	3545.0	3271.4	2943.4	2679.9	2467.9	2330.4	2247.3	2235.8
27.5°	3894.5	3857.2	3596.5	3103.8	2677.0	2394.8	2198.6	2092.6	2031.0	2026.7
30°	4192.4	4173.8	3570.8	2856.0	2349.0	2118.4	2023.9	1962.3	1916.4	1915.0
32.5°	4667.9	4517.5	3486.2	2553.8	2049.6	1922.2	1883.5	1846.2	1810.4	1810.4
35°	5279.5	4795.4	3325.8	2230.1	1867.7	1813.3	1764.6	1705.9	1658.6	1655.8
37.5°	5998.5	4967.3	3037.9	1969.4	1781.8	1740.3	1668.6	1581.3	1498.2	1483.9
40°	6724.7	5018.8	2632.6	1809.0	1727.4	1667.2	1579.8	1476.7	1396.5	1392.2
42.5°	7390.7	4920.0	2202.9	1698.7	1672.9	1592.7	1501.1	1409.4	1346.4	1344.9
45°	7949.3	4663.6	1842.0	1594.2	1615.6	1525.4	1443.8	1369.3	1320.6	1310.6
47.5°	8475.0	4301.2	1588.4	1483.9	1558.4	1488.2	1419.4	1349.2	1302.0	1294.8
50°	9085.1	3910.2	1410.8	1376.5	1508.2	1475.3	1439.5	1366.4	1287.6	1279.1
52.5°	9824.2	3572.2	1271.9	1281.9	1469.6	1492.5	1491.0	1415.1	1277.6	1266.2
55°	10649.2	3196.9	1167.3	1204.6	1453.8	1524.0	1503.9	1461.0	1286.2	1269.0
57.5°	11461.4	2758.6	1094.3	1145.8	1430.9	1521.1	1442.3	1380.7	1306.3	1281.9
60°	12070.1	2170.0	1038.4	1094.3	1380.7	1473.8	1375.0	1293.4	1302.0	1283.4
62.5°	12110.2	1677.2	971.1	1049.9	1304.8	1426.6	1330.6	1254.7	1320.6	1303.4
65°	11398.3	1267.6	906.7	996.9	1223.2	1396.5	1287.6	1233.2	1359.3	1340.6
67.5°	9596.5	1019.8	852.2	942.5	1141.6	1333.5	1249.0	1213.2	1393.6	1360.7
70°	6928.1	869.4	799.2	876.6	1068.5	1261.9	1214.6	1177.4	1300.5	1249.0
72.5°	4265.4	753.4	739.1	789.2	1012.6	1187.4	1163.0	1110.0	1171.6	1130.1
75°	2129.8	653.1	671.8	703.3	933.9	1102.9	1077.1	1024.1	1032.7	1024.1
77.5°	1019.8	558.6	593.0	617.3	832.2	1006.9	979.7	925.3	915.2	916.7
80°	646.0	466.9	499.9	517.1	743.4	895.2	868.0	813.6	928.1	860.8
82.5°	403.9	379.6	388.2	419.7	647.4	779.2	743.4	694.7	836.5	661.7
85°	223.4	265.0	276.4	303.6	498.4	651.7	615.9	554.3	497.0	488.4
87.5°	133.2	157.6	161.9	181.9	335.2	471.2	416.8	395.3	328.0	326.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)