

Scaled data based on original data using  
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires  
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: 764987\_400MP

Luminaire Tested: **CFB40PXX65**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-31-95  
Report Number: 764987\_400MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CFB40PXX65  
Description: 400W MH 6H X 5V FLOODLIGHT  
Light Source: 400 WATT PULSE-START CLEAR ED-37 UNIVERSAL BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 42000 (1 lamp)  
Luminaire Lumens: 19164.3 lumens  
Efficiency: 45.6%  
Efficacy: 42.4 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B4 - U0 - G3

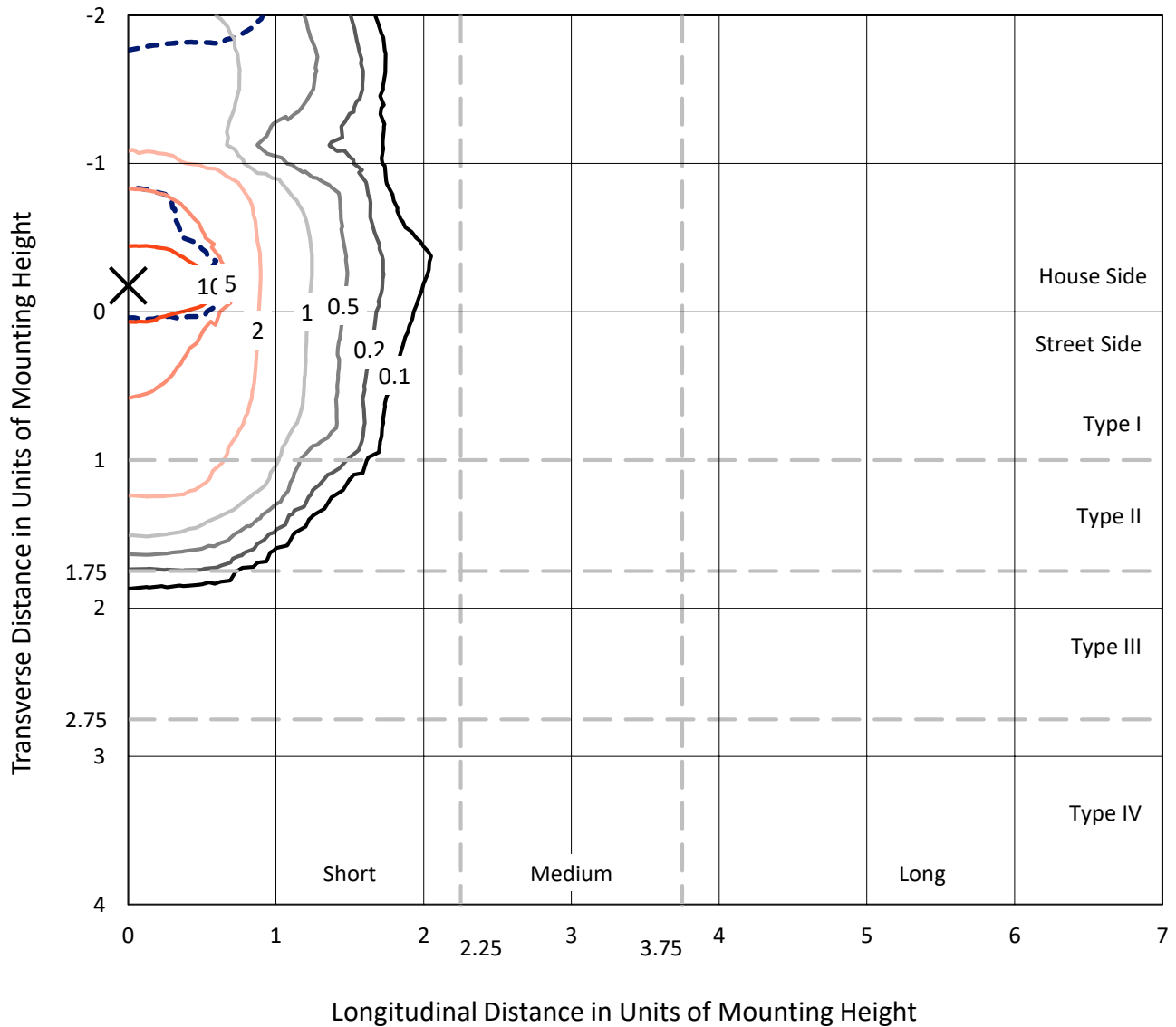
Input Watts (W): 452  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

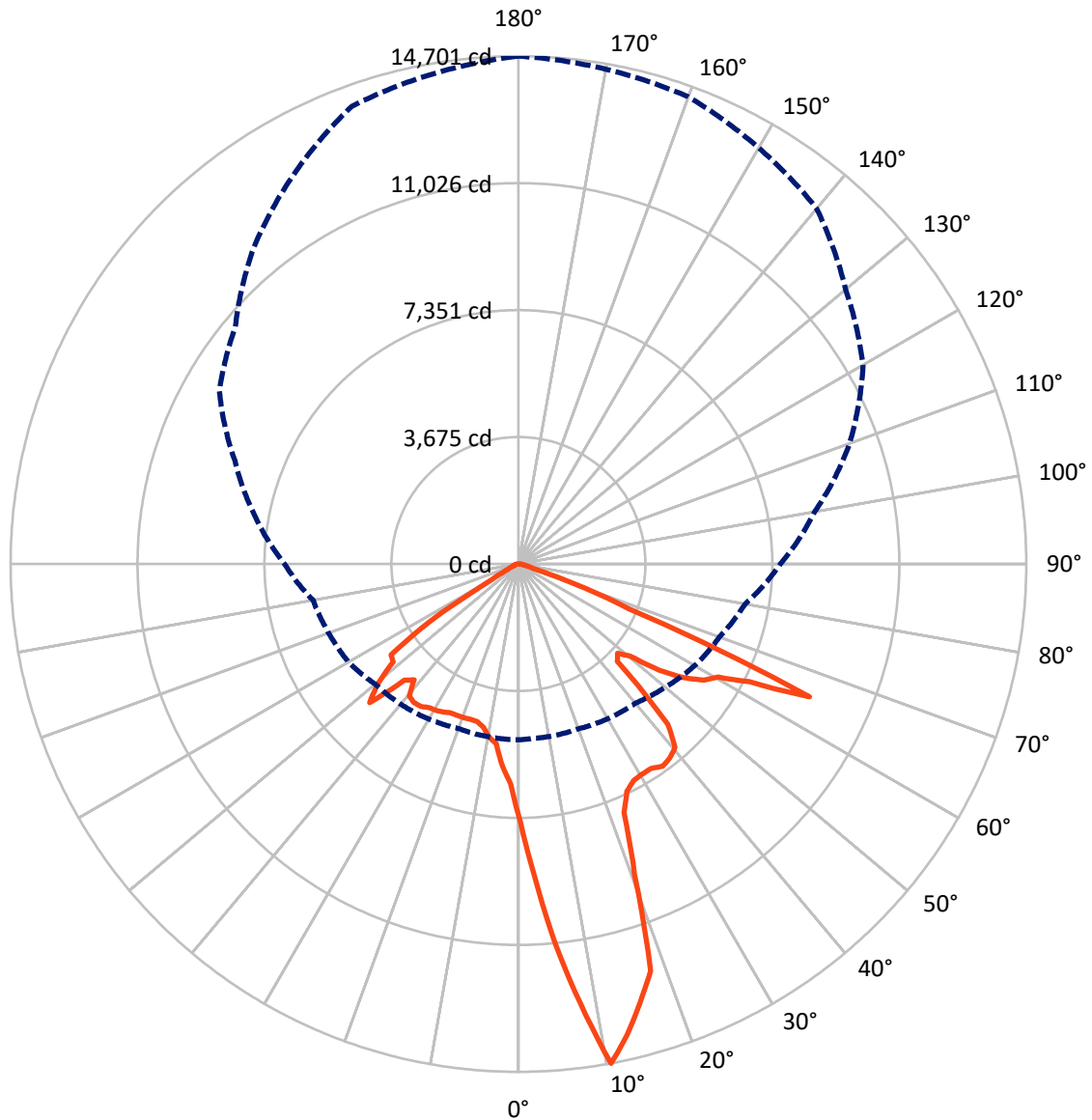
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.7 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 180-Deg Lateral      - - - Horizontal Cone Through 10-Deg Vertical



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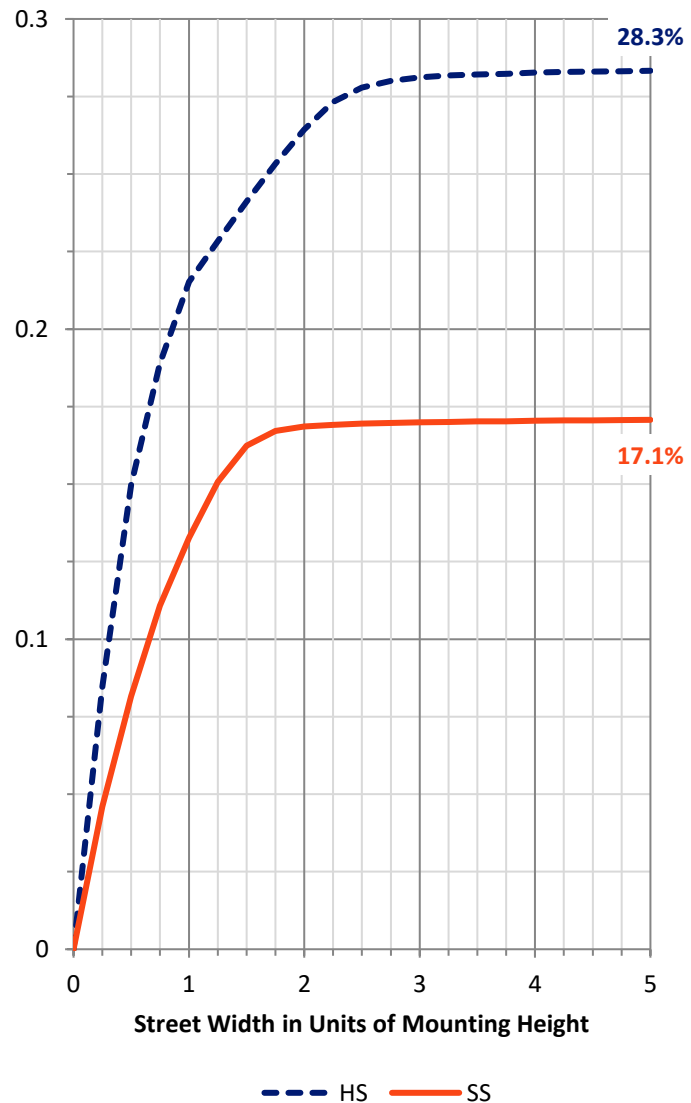
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11985.5	0.0	11985.5
	% Lamp	28.5	0.0	28.5
<b>Street Side</b>	Lumens	7178.8	0.0	7178.8
	% Lamp	17.1	0.0	17.1
<b>Total</b>	Lumens	19164.3	0.0	19164.3
	% Lamp	45.6	0.0	45.6

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	781.4	4.1	1.9
10°-20°	2409.0	12.6	5.7
20°-30°	3352.3	17.5	8.0
30°-40°	3609.1	18.8	8.6
40°-50°	3379.2	17.6	8.0
50°-60°	3041.6	15.9	7.2
60°-70°	2115.9	11.0	5.0
70°-80°	389.9	2.0	0.9
80°-90°	85.9	0.4	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	19164.3	100.0	45.6
0°-180°	19164.3	100.0	45.6

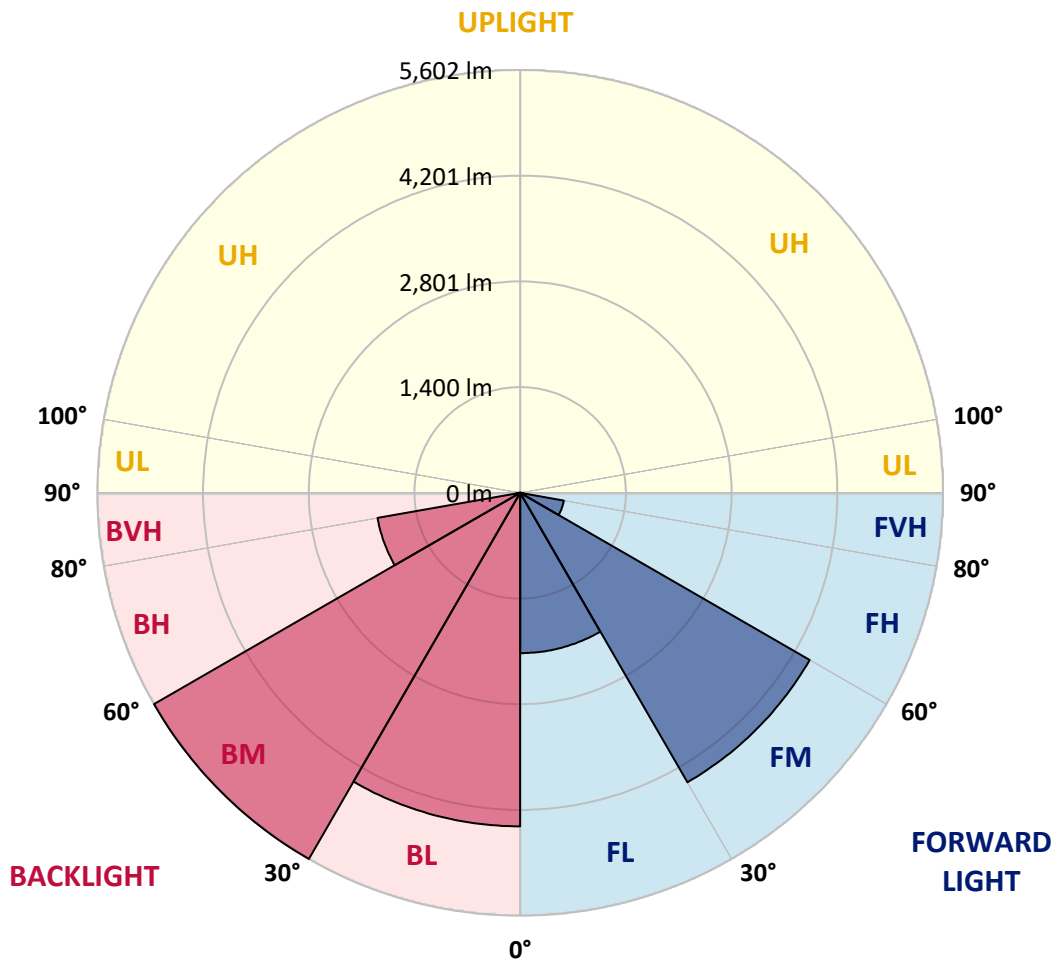


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2124.0	5.1			
FM (30°-60°)	4428.4	10.5			
FH (60°-80°)	587.4	1.4			G0/660
FVH (80°-90°)	39.0	0.1			G1/100
BL (0°-30°)	4418.7	10.5	B4/5000		
BM (30°-60°)	5601.5	13.3	B4/8500		
BH (60°-80°)	1918.4	4.6	B3/2500		G3/2500
BVH (80°-90°)	46.8	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	
Trapped Light	22835.7	54.4			

**BUG Rating: B4-U0-G3**  
 Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	20°	40°	50°	60°	70°	80°	90°	100°	110°
0°	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7
2.5°	6367.5	6710.1	6336.9	6757.2	6673.1	6889.6	7168.5	7378.7	7779.8	8037.1	8048.5
5°	5878.5	5740.9	5861.9	6231.2	6221.0	6325.5	6736.8	7153.2	7742.9	8421.6	8717.1
7.5°	5245.5	5272.3	5414.9	5614.9	5910.3	6246.5	6362.4	6931.7	7711.0	8596.1	9802.1
10°	5087.6	5067.3	5077.4	5262.1	5546.1	5888.7	6189.2	6662.9	7579.9	8706.9	10202.0
12.5°	4845.7	4850.8	4862.2	5124.6	5188.2	5404.7	5903.9	6305.1	7378.7	8827.9	10460.5
15°	4714.5	4714.5	4761.6	4966.6	5072.3	5203.5	5688.7	6115.3	7373.6	9259.6	11134.2
17.5°	4703.0	4692.8	4714.5	4751.4	4862.2	5045.6	5393.3	5947.2	7385.0	9696.4	11360.9
20°	4719.6	4714.5	4714.5	4635.5	4619.0	4867.3	5109.3	5814.8	7537.8	10792.9	11555.7
22.5°	4724.7	4714.5	4692.8	4498.0	4424.1	4450.9	4882.6	5420.0	7700.8	11329.0	11835.9
25°	4734.9	4729.8	4677.6	4408.9	4313.3	4318.4	4593.5	5013.8	7610.4	11582.5	11582.5
27.5°	4803.6	4766.7	4666.1	4377.0	4234.4	4219.1	4298.1	4645.7	7311.2	11998.9	11213.2
30°	4862.2	4825.3	4687.8	4382.1	4187.3	4039.5	3997.5	4655.9	6473.2	10396.8	10270.8
32.5°	4897.9	4872.4	4729.8	4361.7	4140.1	3928.7	3792.5	3787.4	4650.8	7969.6	7252.6
35°	4998.5	4956.5	4766.7	4345.2	4087.9	3812.9	3565.8	3465.2	3728.8	5725.7	5514.3
37.5°	5020.1	4988.3	4825.3	4324.8	4014.1	3713.5	3392.6	3260.2	3255.1	3418.1	4150.3
40°	4961.6	4983.2	4867.3	4303.2	3950.4	3570.9	3218.1	3070.4	3081.9	3165.9	3455.0
42.5°	4508.2	4313.3	4835.5	4287.9	3898.2	3502.1	3123.9	2944.3	2865.4	3033.5	3323.8
45°	4714.5	4561.7	4392.3	4303.2	3844.7	3423.2	3018.2	2823.3	2744.4	2880.7	3223.2
47.5°	5888.7	5873.4	5008.7	4303.2	3797.6	3302.2	2902.3	2618.3	2623.4	2796.6	3117.5
50°	5361.4	5788.1	5920.5	4103.2	3760.6	3176.1	2712.6	2475.7	2428.6	2697.3	2976.2
52.5°	4598.6	4655.9	5530.8	3697.0	3671.5	3050.0	2575.0	2317.8	2254.1	2544.5	2843.7
55°	4529.8	4640.6	4197.5	4093.0	2722.7	2838.6	2349.6	1686.1	1859.3	2148.4	2633.6
57.5°	3092.1	3397.7	3607.8	2976.2	1206.0	2454.0	1279.9	1085.0	1127.0	1595.7	1637.7
60°	885.1	843.1	1765.1	937.3	1043.0	1533.3	742.4	722.1	816.3	1027.7	1021.3
62.5°	490.3	453.4	473.7	431.7	389.7	542.5	453.4	505.6	636.7	853.2	601.1
65°	295.5	315.8	305.6	310.7	342.6	362.9	374.4	463.6	510.7	752.6	537.4
67.5°	210.1	216.5	226.7	221.6	278.9	342.6	342.6	411.3	448.3	569.3	463.6
70°	152.8	152.8	157.9	179.6	242.0	310.7	315.8	332.4	379.5	426.6	357.9
72.5°	126.1	131.2	131.2	142.6	205.0	278.9	278.9	289.1	284.0	295.5	295.5
75°	110.8	110.8	110.8	115.9	147.7	216.5	258.5	226.7	236.9	247.1	247.1
77.5°	94.2	94.2	100.6	100.6	115.9	163.0	231.8	189.8	199.9	205.0	184.7
80°	89.1	89.1	89.1	89.1	100.6	121.0	126.1	147.7	142.6	152.8	142.6
82.5°	84.1	79.0	84.1	79.0	79.0	84.1	100.6	105.7	115.9	115.9	115.9
85°	79.0	79.0	79.0	73.9	73.9	68.8	68.8	73.9	68.8	84.1	79.0
87.5°	68.8	52.2	68.8	63.7	63.7	57.3	52.2	47.1	52.2	52.2	57.3
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):**

	120°	130°	140°	160°	180°	200°	220°	230°	240°	250°	260°
0°	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7
2.5°	8391.1	8727.3	8421.6	9274.9	9069.9	8854.6	8048.5	8243.4	7900.8	7585.0	7464.0
5°	9390.8	10044.1	10729.2	11219.5	11003.0	10529.3	9949.8	9291.4	8591.0	8216.6	7621.9
7.5°	10366.3	11355.8	12214.1	12962.9	12825.4	12172.1	11087.1	10165.1	9464.6	8512.1	7705.9
10°	11518.8	12366.9	13431.6	14389.3	14701.3	14100.2	11930.1	10692.3	9997.0	8732.4	7721.2
12.5°	12035.8	13463.4	14379.1	14405.8	13989.4	14084.9	13099.2	11925.0	10524.2	9043.1	7705.9
15°	12346.6	13737.2	14247.9	13500.4	13173.1	13341.2	13231.7	12378.4	11271.7	9849.2	7863.9
17.5°	12640.8	13631.5	13194.7	13168.0	12383.5	13020.3	12798.7	12662.4	12093.1	10808.2	8184.8
20°	12235.8	12857.2	12330.0	11329.0	9602.2	10613.3	12351.7	12603.8	12366.9	11503.5	8633.1
22.5°	11846.1	11355.8	11804.1	8543.9	7816.7	8911.9	11567.2	11866.5	12583.4	12615.3	9676.0
25°	11229.7	11177.5	9749.9	7537.8	7294.6	7558.2	10665.6	12625.5	12219.2	12931.1	10519.1
27.5°	10603.2	10149.8	8053.6	7353.2	7094.7	6968.6	8706.9	11851.2	12319.8	12815.2	10929.2
30°	9775.4	7548.0	7042.4	7269.1	7057.7	6810.7	6852.7	9944.8	12566.9	12304.5	10976.3
32.5°	8332.5	6494.8	6610.7	7220.7	7052.6	6705.0	6557.2	7742.9	12904.4	11698.4	10771.3
35°	6373.9	5873.4	6246.5	7121.4	7190.2	6536.9	6263.1	6652.8	10950.8	11481.9	9970.2
37.5°	4724.7	5319.4	6068.2	6989.0	7121.4	6426.1	6056.8	6105.2	9032.9	11134.2	8901.8
40°	4113.4	4998.5	5910.3	6842.5	6983.9	6494.8	6036.4	5893.8	7015.7	10128.1	6884.5
42.5°	3723.7	4687.8	5562.6	6515.2	6336.9	6342.0	6073.3	5725.7	5346.1	8638.1	5277.4
45°	3565.8	4340.1	5361.4	5035.4	4014.1	4756.5	6189.2	5514.3	4761.6	6221.0	4093.0
47.5°	3455.0	3950.4	4993.4	3581.1	3861.2	3523.8	6110.2	5215.0	4335.0	3676.6	3202.9
50°	3339.1	3829.4	4002.6	3460.1	4182.2	3460.1	5656.9	5013.8	3834.5	3323.8	2959.6
52.5°	3154.5	3671.5	1706.5	3839.6	5104.2	4234.4	3376.0	4672.5	3612.9	3112.4	2734.2
55°	2875.6	2285.9	1269.7	4724.7	5804.6	4993.4	2818.3	3866.3	3444.8	2791.5	2448.9
57.5°	2596.7	1264.6	1405.9	5609.8	6336.9	5467.1	2838.6	2322.9	3207.9	2623.4	2270.6
60°	1721.8	953.9	2559.7	5989.3	6647.7	6189.2	3297.1	1558.8	3033.5	2460.4	2091.1
62.5°	715.7	1037.9	3244.9	6757.2	7506.0	7094.7	3444.8	1802.0	2554.6	2207.0	1758.7
65°	564.2	1001.0	3460.1	7763.3	9259.6	9069.9	3534.0	2175.1	1237.8	2017.2	1575.3
67.5°	510.7	532.3	2027.4	8263.7	3444.8	6610.7	3597.6	2222.3	1074.8	1669.6	1227.7
70°	399.9	399.9	742.4	3386.2	1691.2	2460.4	3518.7	1943.4	947.5	727.2	648.2
72.5°	320.9	320.9	384.6	1100.3	485.2	937.3	1686.1	974.2	490.3	601.1	552.7
75°	263.6	253.4	258.5	300.5	320.9	416.4	673.7	463.6	389.7	426.6	416.4
77.5°	216.5	205.0	194.8	205.0	236.9	268.7	411.3	357.9	263.6	310.7	320.9
80°	184.7	157.9	126.1	152.8	152.8	173.2	205.0	263.6	194.8	216.5	231.8
82.5°	115.9	105.7	100.6	100.6	110.8	105.7	131.2	142.6	142.6	126.1	137.5
85°	84.1	84.1	84.1	89.1	84.1	84.1	84.1	94.2	79.0	84.1	79.0
87.5°	63.7	52.2	57.3	57.3	57.3	52.2	63.7	52.2	57.3	47.1	47.1
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):**

	270°	280°	290°	300°	310°	320°	340°	360°
0°	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7	7476.7
2.5°	7257.7	6995.3	6752.1	6557.2	6599.3	6330.6	6463.0	6367.5
5°	7084.5	6673.1	6278.4	6073.3	6083.5	5935.8	5920.5	5878.5
7.5°	6926.6	6373.9	6009.6	5873.4	5688.7	5635.2	5288.8	5245.5
10°	6768.6	6036.4	5841.5	5678.5	5409.8	5299.0	5067.3	5087.6
12.5°	6599.3	5846.6	5604.7	5341.1	5193.3	5062.2	4845.7	4845.7
15°	6431.2	5672.2	5472.2	5161.5	5092.7	4766.7	4640.6	4714.5
17.5°	6426.1	5546.1	5293.9	5035.4	4709.4	4650.8	4577.0	4703.0
20°	6468.1	5367.8	5109.3	4941.2	4577.0	4529.8	4571.9	4719.6
22.5°	6520.3	5299.0	4976.8	4582.0	4492.9	4508.2	4582.0	4724.7
25°	6542.0	5230.3	4892.8	4519.6	4456.0	4524.7	4514.6	4734.9
27.5°	6483.4	5045.6	4751.4	4487.8	4466.2	4508.2	4514.6	4803.6
30°	6394.2	4862.2	4461.1	4440.7	4461.1	4440.7	4540.0	4862.2
32.5°	6167.6	4697.9	4340.1	4340.1	4429.2	4403.8	4624.1	4897.9
35°	5841.5	4450.9	4219.1	4266.2	4335.0	4413.9	4630.4	4998.5
37.5°	5446.8	4076.5	4056.1	4192.4	4276.4	4366.8	4650.8	5020.1
40°	4619.0	3886.7	3945.3	4081.6	4245.8	4282.8	4740.0	4961.6
42.5°	4014.1	3634.6	3802.7	3965.7	4087.9	4298.1	4498.0	4508.2
45°	3502.1	3255.1	3612.9	3856.2	4024.3	4271.3	3755.5	4714.5
47.5°	3123.9	3038.6	3355.7	3661.3	3960.6	4160.5	4345.2	5888.7
50°	2781.3	2887.0	3213.0	3481.7	3903.3	3581.1	6019.8	5361.4
52.5°	2591.6	2638.7	2986.4	3392.6	3802.7	3302.2	5777.9	4598.6
55°	2296.1	2417.1	2665.4	3197.8	3207.9	4946.3	5013.8	4529.8
57.5°	2096.2	2207.0	2517.7	3092.1	3218.1	5451.8	3760.6	3092.1
60°	1916.6	1965.0	2396.7	2712.6	4371.9	5493.9	1632.6	885.1
62.5°	1617.3	1765.1	2143.3	1770.2	4740.0	4766.7	779.4	490.3
65°	1427.6	1590.6	1928.1	1285.0	3444.8	2243.9	384.6	295.5
67.5°	1132.1	1058.3	1290.1	673.7	1248.0	621.5	289.1	210.1
70°	584.5	643.1	626.6	436.8	448.3	362.9	194.8	152.8
72.5°	500.5	520.9	436.8	337.5	310.7	205.0	168.1	126.1
75°	379.5	379.5	289.1	226.7	184.7	152.8	147.7	110.8
77.5°	300.5	295.5	216.5	168.1	142.6	126.1	121.0	94.2
80°	189.8	184.7	157.9	131.2	115.9	100.6	105.7	89.1
82.5°	137.5	126.1	100.6	89.1	89.1	89.1	89.1	84.1
85°	79.0	79.0	73.9	73.9	79.0	79.0	84.1	79.0
87.5°	47.1	47.1	52.2	52.2	57.3	63.7	68.8	68.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)