

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: LUMARK

Report Number: P232893

Luminaire Tested: **NFFLD-L-C150-D-UNV-66**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232893  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-236-2)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-L-C150-D-UNV-66  
Description: LED FLOOD LIGHT LUMINAIRE  
Light Source: (4) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 43578.4 lumens  
Efficiency: N/A  
Efficacy: 137.9 lumens/watt  
Luminous Opening: (L: 0 ' x W: 1 ' x H: 1.04 '  
IES Classification: Type I - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

Input Watts (W): 316  
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

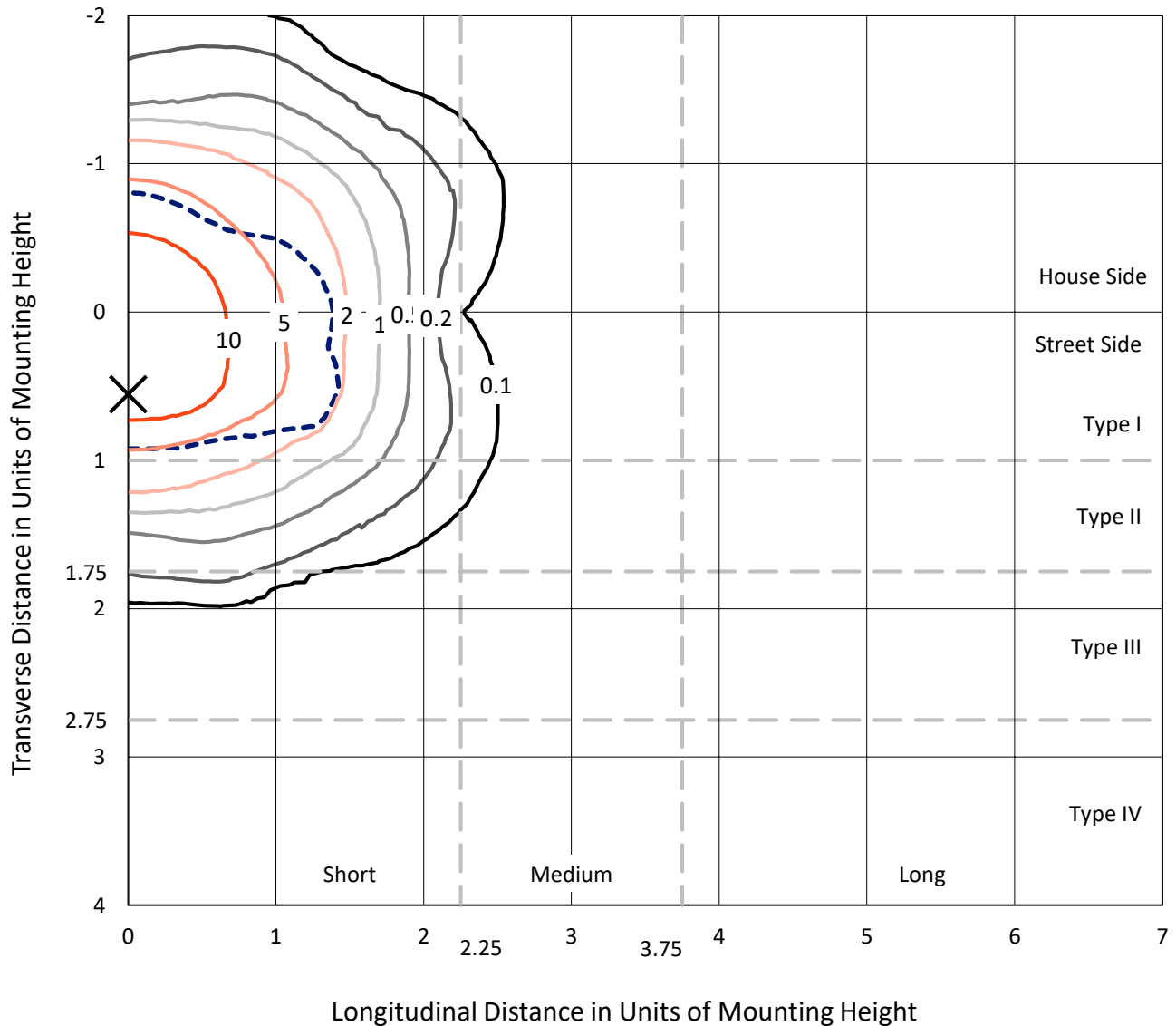


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

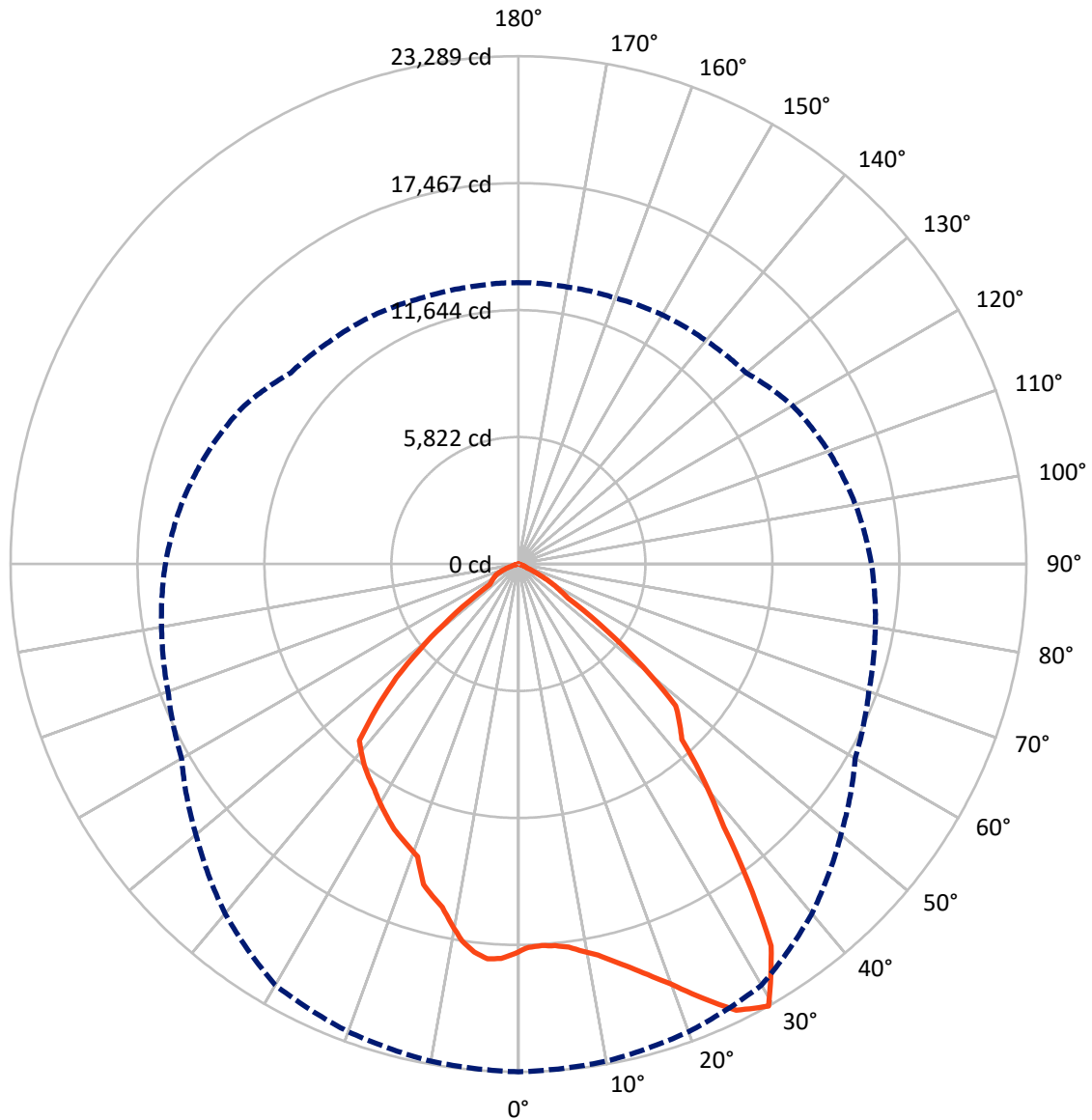


Based on 30 foot mounting height. Maximum calculated value = 19.7 fc  
 Type I - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 29-Deg Vertical

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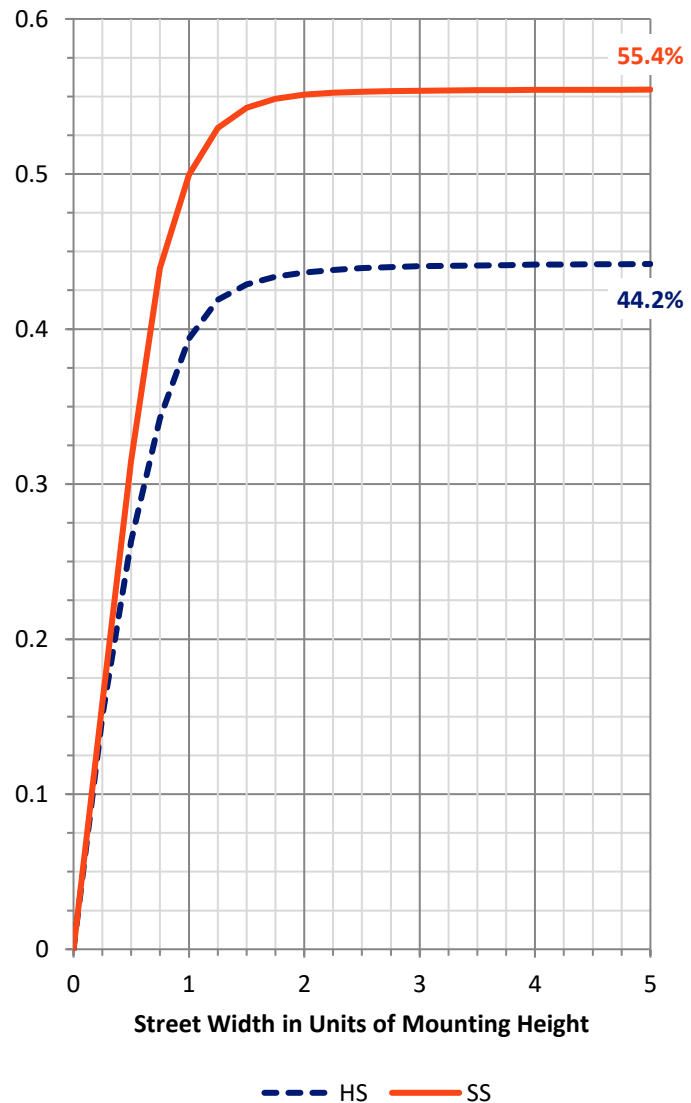
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	19427.9	0.0	19427.9
	% Fixture	44.6	0.0	44.6
<b>Street Side</b>	Lumens	24150.5	0.0	24150.5
	% Fixture	55.4	0.0	55.4
<b>Total</b>	Lumens	43578.4	0.0	43578.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1695.8	3.9
10°-20°	4938.2	11.3
20°-30°	7929.1	18.2
30°-40°	9771.4	22.4
40°-50°	9573.0	22.0
50°-60°	6709.2	15.4
60°-70°	2869.4	6.6
70°-80°	641.2	1.5
80°-90°	79.3	0.2
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°	43578.4	100.0
0°-180°	43578.4	100.0



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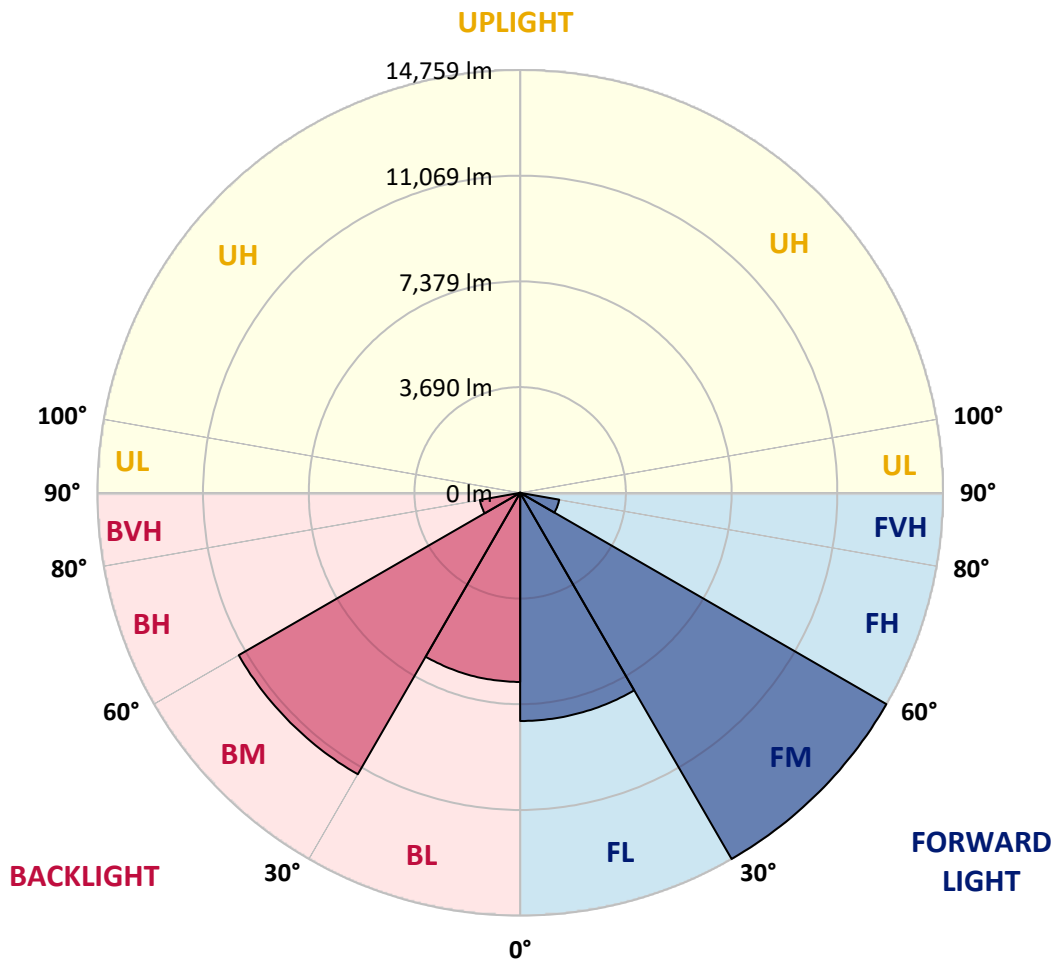
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7963.0	18.3			
FM (30°-60°)	14758.5	33.9			
FH (60°-80°)	1380.5	3.2			G1/1800
FVH (80°-90°)	29.4	0.1			G1/100
BL (0°-30°)	6601.4	15.1	B5		
BM (30°-60°)	11341.7	26.0	B5		
BH (60°-80°)	1426.9	3.3	B3/2500		G3/2500
BVH (80°-90°)	42.2	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9
1°	17584.9	17582.1	17583.2	17588.5	17597.8	17611.0	17627.6	17647.2	17668.9	17691.9	17718.2
3°	17531.9	17521.6	17514.4	17524.2	17537.0	17552.7	17570.8	17590.6	17659.1	17730.9	17799.6
5°	17580.9	17557.5	17554.0	17551.0	17544.2	17535.5	17556.2	17594.1	17646.1	17764.9	17869.3
7°	17722.9	17716.9	17687.1	17646.4	17595.0	17559.1	17548.7	17578.7	17641.3	17764.9	17899.4
9°	18006.9	17960.1	17897.9	17807.4	17687.1	17596.9	17537.4	17549.6	17635.5	17780.9	17895.7
11°	18306.9	18263.9	18173.2	18022.4	17835.7	17652.8	17543.5	17542.9	17640.1	17795.9	17876.5
13°	18731.9	18657.5	18511.7	18279.5	18016.9	17760.7	17567.0	17539.7	17663.1	17795.9	17788.4
15°	19198.9	19132.4	18926.0	18611.3	18236.0	17882.0	17621.0	17534.7	17661.7	17742.9	17655.4
17°	19745.9	19652.7	19390.3	18990.9	18486.4	18012.6	17671.4	17542.7	17670.3	17695.9	17524.5
19.5°	20500.9	20381.0	20038.6	19510.4	18855.0	18212.9	17739.8	17502.5	17594.0	17547.9	17215.2
22.5°	21619.9	21429.3	20968.3	20247.5	19445.5	18554.4	17771.4	17423.9	17531.4	17687.9	16937.1
25.5°	22766.9	22560.0	22021.2	21168.9	20147.5	18971.7	17864.2	17279.1	17082.2	16864.9	16350.1
29°	23288.9	23150.6	22821.5	22296.4	20928.2	19304.8	17832.3	17096.2	16616.7	16189.9	15696.2
33°	21004.9	21116.2	21652.1	22539.7	21556.1	19626.2	17856.9	16988.2	16105.0	15404.9	14898.7
37.5°	15296.9	15664.4	17150.7	19386.5	20564.8	19888.2	18032.4	16954.5	15567.9	14723.9	14119.3
42.5°	10989.9	11308.7	12247.0	13656.4	16192.2	18515.9	18289.2	16938.7	14980.6	14305.9	13603.6
47.5°	9708.9	9629.1	9795.8	9950.0	11287.7	14625.5	17767.4	16601.1	14102.7	13585.9	13203.9
55°	2762.0	3341.9	4519.3	5612.0	7254.5	8410.6	12857.1	12942.0	10954.3	11308.9	10804.3
65°	462.0	485.4	991.1	976.6	1457.8	2467.7	3254.6	3443.4	2563.3	1501.0	2632.7
75°	61.0	78.5	115.6	103.0	109.9	88.2	231.4	198.9	290.0	357.0	413.5
85°	0.0	45.6	46.9	50.6	50.3	50.9	61.3	70.7	72.4	87.0	90.9
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):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9
1°	17744.2	17769.4	17793.0	17814.3	17832.7	17847.6	17858.5	17864.9	17858.5	17847.6	17832.7
3°	17865.2	17921.4	17972.5	18017.2	18054.2	18082.1	18099.2	18103.9	18099.2	18082.1	18054.2
5°	17958.4	18043.4	18099.5	18101.7	18106.8	18116.2	18131.8	18164.9	18131.8	18116.2	18106.8
7°	17998.3	18050.1	18058.0	18024.9	17951.9	17911.1	17900.2	17908.9	17900.2	17911.1	17951.9
9°	17986.4	17953.1	17849.6	17750.9	17616.6	17523.9	17478.8	17474.9	17478.8	17523.9	17616.6
11°	17866.3	17752.0	17553.8	17308.4	17113.5	16934.7	16830.9	16801.9	16830.9	16934.7	17113.5
13°	17674.3	17417.5	17105.5	16808.2	16523.4	16318.6	16163.3	16112.9	16163.3	16318.6	16523.4
15°	17418.4	17014.8	16649.9	16331.8	16027.5	15873.5	15760.5	15734.9	15760.5	15873.5	16027.5
17°	17129.7	16669.5	16282.1	15942.1	15717.0	15488.2	15356.9	15317.9	15356.9	15488.2	15717.0
19.5°	16742.7	16317.3	15902.5	15588.0	15248.5	14640.4	14301.1	14189.9	14301.1	14640.4	15248.5
22.5°	16335.8	15894.4	15472.3	14929.2	14145.1	13920.5	13821.9	13796.9	13821.9	13920.5	14145.1
25.5°	15869.8	15360.8	14859.4	14015.0	13711.6	13538.5	13450.4	13443.9	13450.4	13538.5	13711.6
29°	15132.3	14520.4	13638.3	13374.9	13194.3	12980.7	12899.4	12903.9	12899.4	12980.7	13194.3
33°	14255.6	13486.3	12759.9	12634.0	12408.5	12297.1	12258.1	12278.9	12258.1	12297.1	12408.5
37.5°	13383.0	12532.0	12008.2	11724.1	11613.9	11642.3	11661.6	11687.9	11661.6	11642.3	11613.9
42.5°	12629.5	11824.9	11150.2	10845.4	10854.2	10819.6	10819.7	10904.9	10819.7	10819.6	10854.2
47.5°	12107.4	11285.1	10242.8	9937.4	9588.7	8539.4	7859.2	7649.0	7859.2	8539.4	9588.7
55°	10248.2	10092.3	8459.1	6621.1	4671.8	3089.6	2121.1	1598.0	2121.1	3089.6	4671.8
65°	3617.1	3061.4	1810.6	1341.4	1461.9	1256.7	1127.7	1111.0	1127.7	1256.7	1461.9
75°	410.9	336.0	321.8	251.9	318.9	256.6	178.9	158.0	178.9	256.6	318.9
85°	76.1	78.0	69.2	59.1	57.3	46.7	42.3	8.0	42.3	46.7	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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9	17705.9
1°	17814.3	17793.0	17769.4	17744.2	17718.2	17691.9	17668.9	17647.2	17627.6	17611.0	17597.8
3°	18017.2	17972.5	17921.4	17865.2	17799.6	17730.9	17659.1	17590.6	17570.8	17552.7	17537.0
5°	18101.7	18099.5	18043.4	17958.4	17869.3	17764.9	17646.1	17594.1	17556.2	17535.5	17544.2
7°	18024.9	18058.0	18050.1	17998.3	17899.4	17764.9	17641.3	17578.7	17548.7	17559.1	17595.0
9°	17750.9	17849.6	17953.1	17986.4	17895.7	17780.9	17635.5	17549.6	17537.4	17596.9	17687.1
11°	17308.4	17553.8	17752.0	17866.3	17876.5	17795.9	17640.1	17542.9	17543.5	17652.8	17835.7
13°	16808.2	17105.5	17417.5	17674.3	17788.4	17795.9	17663.1	17539.7	17567.0	17760.7	18016.9
15°	16331.8	16649.9	17014.8	17418.4	17655.4	17742.9	17661.7	17534.7	17621.0	17882.0	18236.0
17°	15942.1	16282.1	16669.5	17129.7	17524.5	17695.9	17670.3	17542.7	17671.4	18012.6	18486.4
19.5°	15588.0	15902.5	16317.3	16742.7	17215.2	17547.9	17594.0	17502.5	17739.8	18212.9	18855.0
22.5°	14929.2	15472.3	15894.4	16335.8	16937.1	17687.9	17531.4	17423.9	17771.4	18554.4	19445.5
25.5°	14015.0	14859.4	15360.8	15869.8	16350.1	16864.9	17082.2	17279.1	17864.2	18971.7	20147.5
29°	13374.9	13638.3	14520.4	15132.3	15696.2	16189.9	16616.7	17096.2	17832.3	19304.8	20928.2
33°	12634.0	12759.9	13486.3	14255.6	14898.7	15404.9	16105.0	16988.2	17856.9	19626.2	21556.1
37.5°	11724.1	12008.2	12532.0	13383.0	14119.3	14723.9	15567.9	16954.5	18032.4	19888.2	20564.8
42.5°	10845.4	11150.2	11824.9	12629.5	13603.6	14305.9	14980.6	16938.7	18289.2	18515.9	16192.2
47.5°	9937.4	10242.8	11285.1	12107.4	13203.9	13585.9	14102.7	16601.1	17767.4	14625.5	11287.7
55°	6621.1	8459.1	10092.3	10248.2	10804.3	11308.9	10954.3	12942.0	12857.1	8410.6	7254.5
65°	1341.4	1810.6	3061.4	3617.1	2632.7	1501.0	2563.3	3443.4	3254.6	2467.7	1457.8
75°	251.9	321.8	336.0	410.9	413.5	357.0	290.0	198.9	231.4	88.2	109.9
85°	59.1	69.2	78.0	76.1	90.9	87.0	72.4	70.7	61.3	50.9	50.3
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):**

	330°	340°	350°	360°
0°	17705.9	17705.9	17705.9	17705.9
1°	17588.5	17583.2	17582.1	17584.9
3°	17524.2	17514.4	17521.6	17531.9
5°	17551.0	17554.0	17557.5	17580.9
7°	17646.4	17687.1	17716.9	17722.9
9°	17807.4	17897.9	17960.1	18006.9
11°	18022.4	18173.2	18263.9	18306.9
13°	18279.5	18511.7	18657.5	18731.9
15°	18611.3	18926.0	19132.4	19198.9
17°	18990.9	19390.3	19652.7	19745.9
19.5°	19510.4	20038.6	20381.0	20500.9
22.5°	20247.5	20968.3	21429.3	21619.9
25.5°	21168.9	22021.2	22560.0	22766.9
29°	22296.4	22821.5	23150.6	23288.9
33°	22539.7	21652.1	21116.2	21004.9
37.5°	19386.5	17150.7	15664.4	15296.9
42.5°	13656.4	12247.0	11308.7	10989.9
47.5°	9950.0	9795.8	9629.1	9708.9
55°	5612.0	4519.3	3341.9	2762.0
65°	976.6	991.1	485.4	462.0
75°	103.0	115.6	78.5	61.0
85°	50.6	46.9	45.6	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)