

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: P201048

Luminaire Tested: **NFFLD-S-C15-D-UNV-33**

Test Date: 05/20/16

**Test Information**

Test Method: LM-79-08  
Report Number: P201048  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-16-1017-4)  
Test Lab: INNOVATION CENTER(G2)  
Test Date: 05/20/16  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-S-C15-D-UNV-33  
Description: LOW WATTAGE LED FLOODLIGHT  
Light Source: (2) CITIZEN 5700 70  
CLU028-1204C4-57AL7K3  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER  
OT50/UNV0680C/2DIMLT2

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5436.3 lumens  
Efficiency: N/A  
Efficacy: 94.1 lumens/watt  
Luminous Opening: (L: 0 ' x W: 0.46 ' x H: 0 '  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1  
  
Input Watts (W): 57.8  
Input Voltage (V): 120.1  
Input Current (Ain): 0.483  
Voltage Rise (V): NR  
Power Factor: 0.9989  
Total Harmonic Distortion (THDi): 4.56%  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 24 HR  
Ambient Temperature (°C): 24.3  
Test Distance: 25 FT

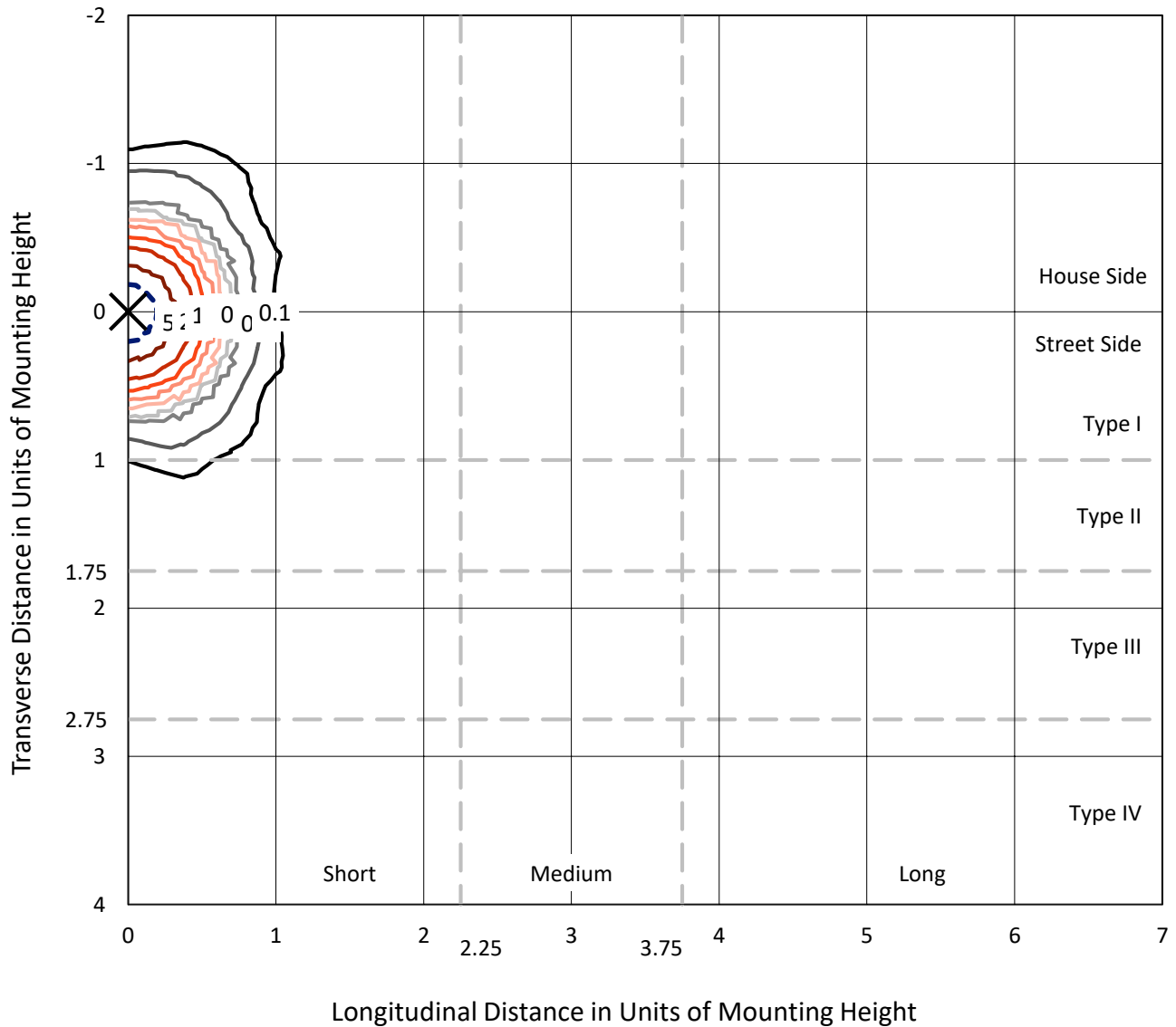


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### Iso-Footcandle Lines of Horizontal Illumination

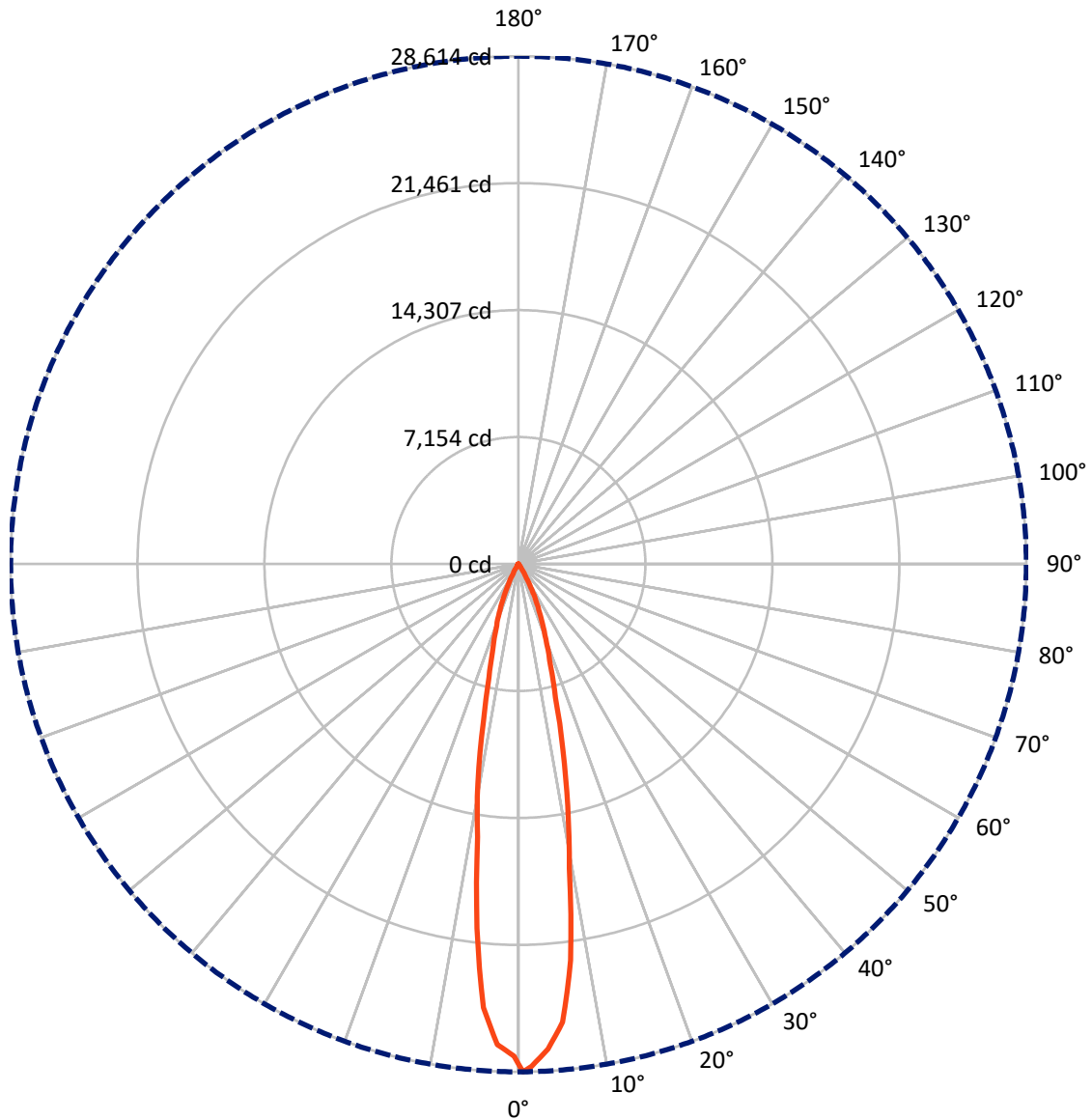
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 286.1 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



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

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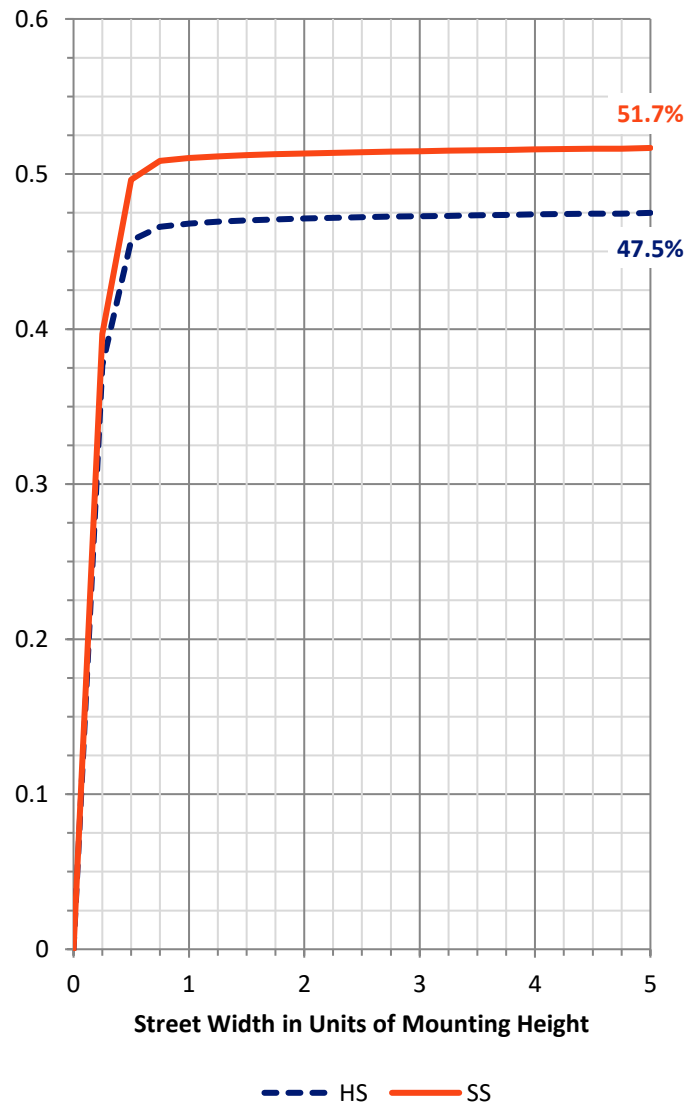
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2628.8	0.0	2628.8
	% Fixture	48.4	0.0	48.4
<b>Street Side</b>	Lumens	2807.5	0.0	2807.5
	% Fixture	51.6	0.0	51.6
<b>Total</b>	Lumens	5436.3	0.0	5436.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2035.6	37.4
10°-20°	2153.5	39.6
20°-30°	986.0	18.1
30°-40°	194.3	3.6
40°-50°	33.1	0.6
50°-60°	19.8	0.4
60°-70°	18.0	0.3
70°-80°	33.9	0.6
80°-90°	24.0	0.4
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°	5436.3	100.0
0°-180°	5436.3	100.0



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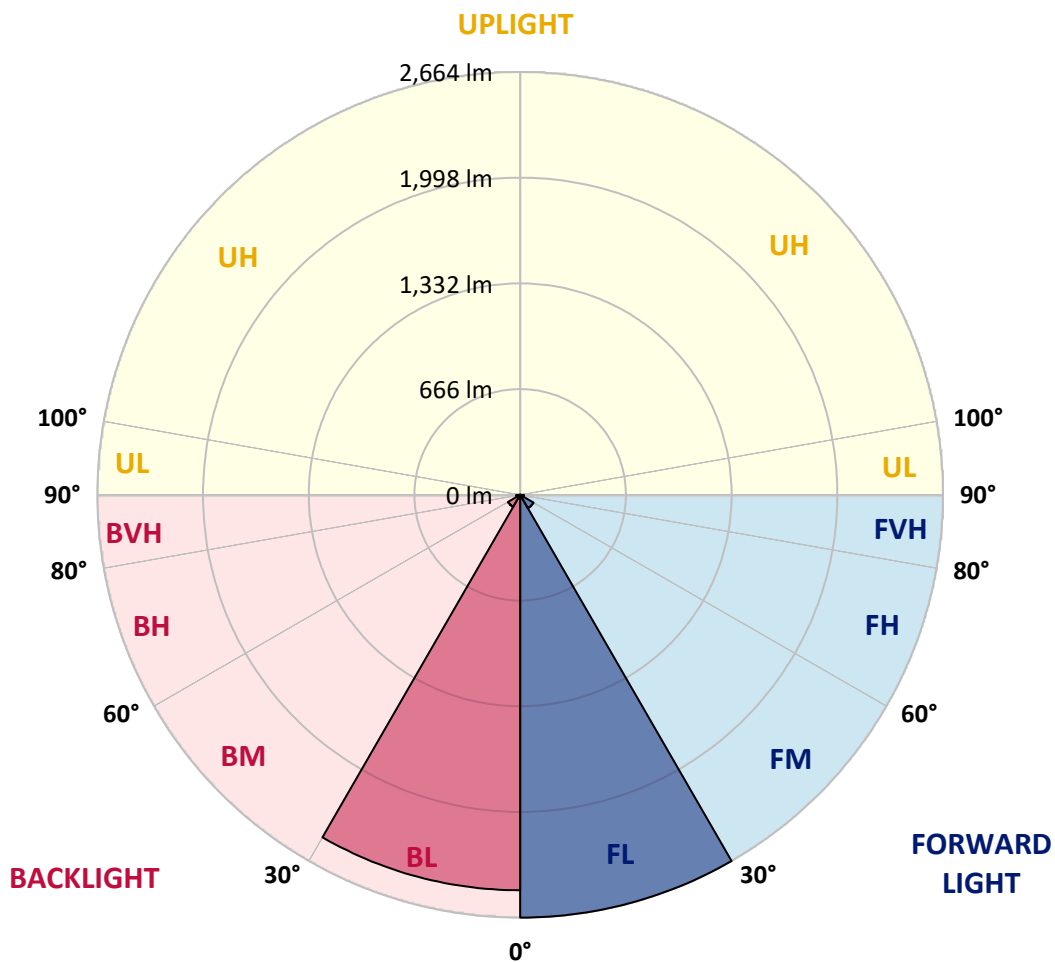
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2664.1	49.0			
FM	(30°-60°)	97.5	1.8			
FH	(60°-80°)	22.6	0.4			G0/660
FVH	(80°-90°)	22.9	0.4			G1/100
BL	(0°-30°)	2491.6	45.8	B3/2500		
BM	(30°-60°)	88.8	1.6	B0/220		
BH	(60°-80°)	24.2	0.4	B0/110		G0/660
BVH	(80°-90°)	23.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4
1°	28314.4	28198.1	28095.0	28008.9	27942.6	27898.4	27877.6	27880.8	27907.3	27955.9	27915.9
3°	27372.6	27334.6	27294.0	27169.3	27090.9	27064.4	27090.7	27165.8	27177.5	27200.7	27150.9
5°	25936.4	25773.8	25557.7	25492.2	25481.1	25408.6	25310.4	25288.6	25421.0	25424.5	25289.2
7°	22526.7	22223.0	22015.2	21930.8	21925.5	21825.9	21590.2	21477.9	21526.9	21524.3	21279.0
9°	17400.4	17189.8	17357.4	17359.5	17182.9	17042.9	17035.4	16856.0	16539.6	16461.5	16333.9
11°	13928.1	13758.8	13684.9	13649.9	13617.2	13555.0	13457.9	13410.2	13419.9	13421.0	13202.9
13°	10735.3	10570.2	10560.1	10447.7	10414.5	10392.8	10342.0	10285.2	10101.2	9985.9	9834.7
15°	7819.9	7744.4	7879.4	7672.2	7753.7	7720.8	7537.6	7553.5	7316.9	7167.3	7118.0
17°	6004.6	5941.6	5958.9	5881.3	5888.6	5810.2	5780.1	5728.3	5641.0	5531.8	5507.1
19.5°	4497.1	4420.4	4416.1	4363.7	4368.1	4374.4	4332.2	4318.3	4230.1	4238.2	4137.8
22.5°	3191.9	3158.5	3141.1	3138.4	3135.7	3131.2	3080.4	3060.4	3027.1	2978.9	2949.7
25.5°	2127.9	2089.1	2088.3	2074.1	2094.7	2079.4	2026.9	2021.5	1993.3	1956.0	1925.3
29°	1018.0	1001.0	1023.6	987.8	996.3	981.9	986.4	979.7	907.3	864.6	866.6
33°	203.2	234.3	286.6	252.6	266.7	254.8	279.6	284.4	229.5	166.1	212.4
37.5°	47.9	66.5	79.1	74.7	69.7	63.7	68.8	68.7	73.4	51.8	66.6
42.5°	39.1	47.2	61.0	56.2	59.6	52.4	49.8	47.7	49.2	37.1	34.4
47.5°	19.5	27.6	44.5	39.7	43.9	38.1	21.9	35.1	24.5	17.6	19.6
55°	11.7	21.8	25.7	15.8	18.9	19.3	4.2	8.2	8.1	3.9	4.2
65°	19.5	27.1	20.0	16.9	12.7	10.5	11.7	15.2	12.8	5.9	17.3
75°	7.8	26.4	14.7	16.5	18.3	24.8	27.8	28.8	36.1	27.4	35.1
85°	0.0	13.0	40.7	60.2	75.0	75.3	78.2	85.9	88.9	88.9	83.0
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°	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4
1°	27887.7	27863.6	27838.4	27809.3	27777.4	27746.9	27724.9	27720.4	27724.9	27746.9	27777.4
3°	27118.8	26992.1	26923.2	26916.8	26973.1	27087.6	27086.9	27107.8	27086.9	27087.6	26973.1
5°	25024.8	24941.6	24935.7	24845.2	24756.0	24825.8	25081.3	25078.6	25081.3	24825.8	24756.0
7°	21005.4	20901.3	20887.1	20773.5	20540.3	20454.0	20634.8	20655.7	20634.8	20454.0	20540.3
9°	16462.3	16320.6	16118.5	16034.4	16040.2	15988.5	15689.0	15549.0	15689.0	15988.5	16040.2
11°	12983.6	12906.9	12825.1	12695.9	12606.6	12493.0	12514.0	12559.3	12514.0	12493.0	12606.6
13°	9734.5	9623.5	9540.3	9445.8	9328.9	9245.5	9197.5	9082.2	9197.5	9245.5	9328.9
15°	7103.6	6938.0	6942.4	6903.4	6714.5	6806.8	6723.3	6586.0	6723.3	6806.8	6714.5
17°	5438.6	5383.3	5328.8	5291.9	5266.3	5257.1	5195.2	5185.9	5195.2	5257.1	5266.3
19.5°	4103.0	4025.1	4006.8	3963.7	3945.3	3946.5	3873.4	3868.9	3873.4	3946.5	3945.3
22.5°	2911.4	2888.0	2888.1	2832.4	2812.8	2794.7	2775.2	2764.9	2775.2	2794.7	2812.8
25.5°	1907.2	1869.0	1852.4	1827.7	1786.9	1792.1	1761.6	1737.1	1761.6	1792.1	1786.9
29°	899.1	853.9	827.5	820.3	786.9	814.2	775.6	739.6	775.6	814.2	786.9
33°	251.0	235.2	213.6	212.0	175.5	223.0	174.5	134.8	174.5	223.0	175.5
37.5°	62.6	72.6	61.6	70.1	74.9	80.6	72.0	63.5	72.0	80.6	74.9
42.5°	45.2	52.1	47.9	57.8	58.0	63.7	58.9	59.6	58.9	63.7	58.0
47.5°	33.1	27.9	34.8	45.9	49.5	44.9	38.9	31.3	38.9	44.9	49.5
55°	18.7	10.3	15.3	33.7	28.1	31.6	16.2	0.0	16.2	31.6	28.1
65°	17.7	11.8	25.3	15.2	16.0	27.2	16.6	0.0	16.6	27.2	16.0
75°	33.8	31.2	34.7	22.0	15.4	13.9	24.3	0.0	24.3	13.9	15.4
85°	89.4	79.5	81.5	82.5	65.0	46.6	13.0	0.0	13.0	46.6	65.0
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°	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4	28614.4
1°	27809.3	27838.4	27863.6	27887.7	27915.9	27955.9	27907.3	27880.8	27877.6	27898.4	27942.6
3°	26916.8	26923.2	26992.1	27118.8	27150.9	27200.7	27177.5	27165.8	27090.7	27064.4	27090.9
5°	24845.2	24935.7	24941.6	25024.8	25289.2	25424.5	25421.0	25288.6	25310.4	25408.6	25481.1
7°	20773.5	20887.1	20901.3	21005.4	21279.0	21524.3	21526.9	21477.9	21590.2	21825.9	21925.5
9°	16034.4	16118.5	16320.6	16462.3	16333.9	16461.5	16539.6	16856.0	17035.4	17042.9	17182.9
11°	12695.9	12825.1	12906.9	12983.6	13202.9	13421.0	13419.9	13410.2	13457.9	13555.0	13617.2
13°	9445.8	9540.3	9623.5	9734.5	9834.7	9985.9	10101.2	10285.2	10342.0	10392.8	10414.5
15°	6903.4	6942.4	6938.0	7103.6	7118.0	7167.3	7316.9	7553.5	7537.6	7720.8	7753.7
17°	5291.9	5328.8	5383.3	5438.6	5507.1	5531.8	5641.0	5728.3	5780.1	5810.2	5888.6
19.5°	3963.7	4006.8	4025.1	4103.0	4137.8	4238.2	4230.1	4318.3	4332.2	4374.4	4368.1
22.5°	2832.4	2888.1	2888.0	2911.4	2949.7	2978.9	3027.1	3060.4	3080.4	3131.2	3135.7
25.5°	1827.7	1852.4	1869.0	1907.2	1925.3	1956.0	1993.3	2021.5	2026.9	2079.4	2094.7
29°	820.3	827.5	853.9	899.1	866.6	864.6	907.3	979.7	986.4	981.9	996.3
33°	212.0	213.6	235.2	251.0	212.4	166.1	229.5	284.4	279.6	254.8	266.7
37.5°	70.1	61.6	72.6	62.6	66.6	51.8	73.4	68.7	68.8	63.7	69.7
42.5°	57.8	47.9	52.1	45.2	34.4	37.1	49.2	47.7	49.8	52.4	59.6
47.5°	45.9	34.8	27.9	33.1	19.6	17.6	24.5	35.1	21.9	38.1	43.9
55°	33.7	15.3	10.3	18.7	4.2	3.9	8.1	8.2	4.2	19.3	18.9
65°	15.2	25.3	11.8	17.7	17.3	5.9	12.8	15.2	11.7	10.5	12.7
75°	22.0	34.7	31.2	33.8	35.1	27.4	36.1	28.8	27.8	24.8	18.3
85°	82.5	81.5	79.5	89.4	83.0	88.9	88.9	85.9	78.2	75.3	75.0
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°	28614.4	28614.4	28614.4	28614.4
1°	28008.9	28095.0	28198.1	28314.4
3°	27169.3	27294.0	27334.6	27372.6
5°	25492.2	25557.7	25773.8	25936.4
7°	21930.8	22015.2	22223.0	22526.7
9°	17359.5	17357.4	17189.8	17400.4
11°	13649.9	13684.9	13758.8	13928.1
13°	10447.7	10560.1	10570.2	10735.3
15°	7672.2	7879.4	7744.4	7819.9
17°	5881.3	5958.9	5941.6	6004.6
19.5°	4363.7	4416.1	4420.4	4497.1
22.5°	3138.4	3141.1	3158.5	3191.9
25.5°	2074.1	2088.3	2089.1	2127.9
29°	987.8	1023.6	1001.0	1018.0
33°	252.6	286.6	234.3	203.2
37.5°	74.7	79.1	66.5	47.9
42.5°	56.2	61.0	47.2	39.1
47.5°	39.7	44.5	27.6	19.5
55°	15.8	25.7	21.8	11.7
65°	16.9	20.0	27.1	19.5
75°	16.5	14.7	26.4	7.8
85°	60.2	40.7	13.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)