

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: P395096

Luminaire Tested: **LAS45S-T4-Switch-2**

Issue Date: 5/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P395096  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2004-740-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LAS45S-T4-Switch-2  
Description: AREA SITE SMALL HOUSING, TYPE IV, WATTAGE SWITCH ON POSTION 2  
Light Source: (168) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

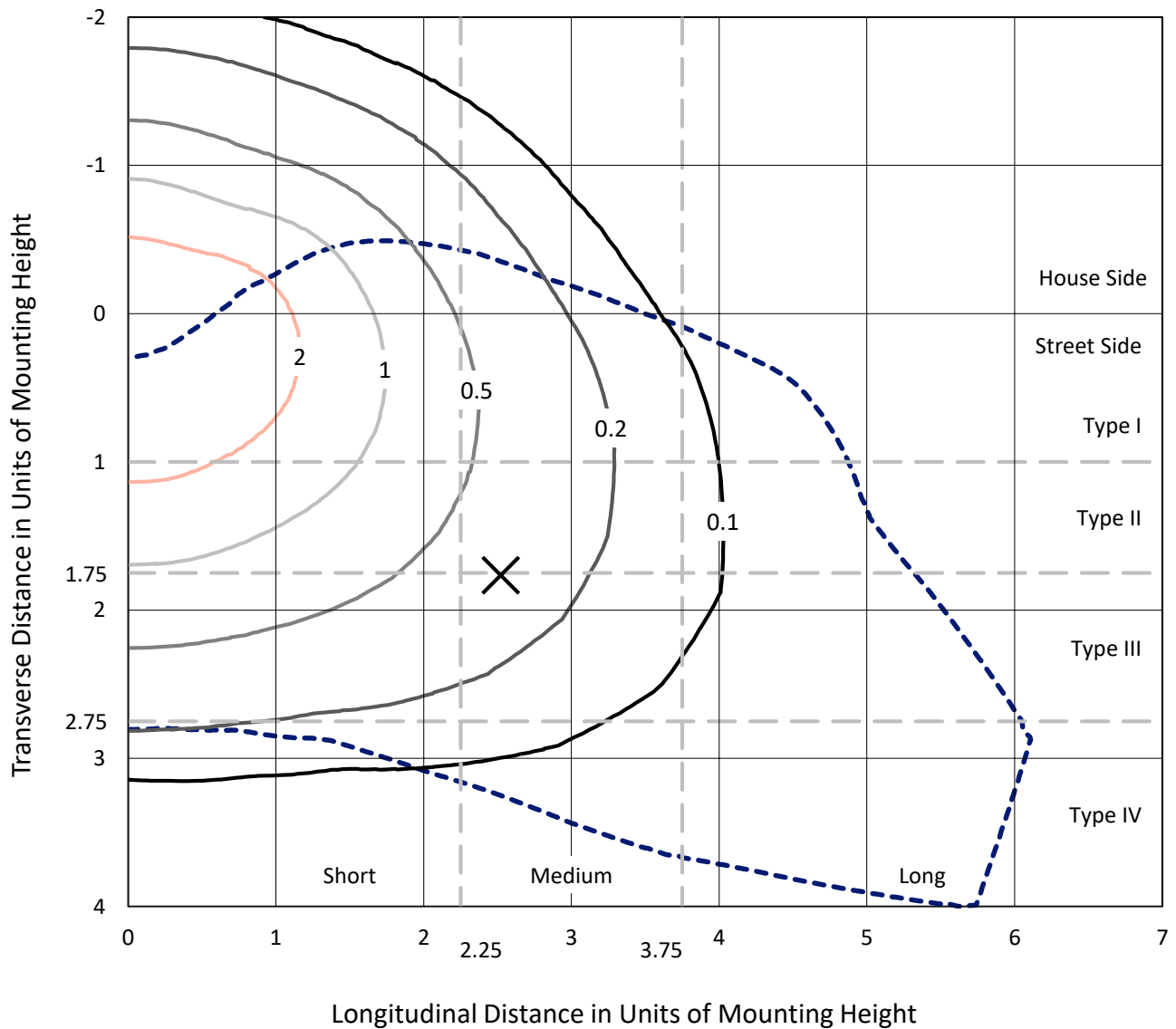
Lumens per Lamp: N/A  
Luminaire Lumens: 16502 lumens  
Efficiency: N/A  
Efficacy: 137.9 lumens/watt  
Luminous Opening: Rectangular (W 0.71' x L: 0.6' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 119.7  
Input Voltage (V): NR  
Input 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

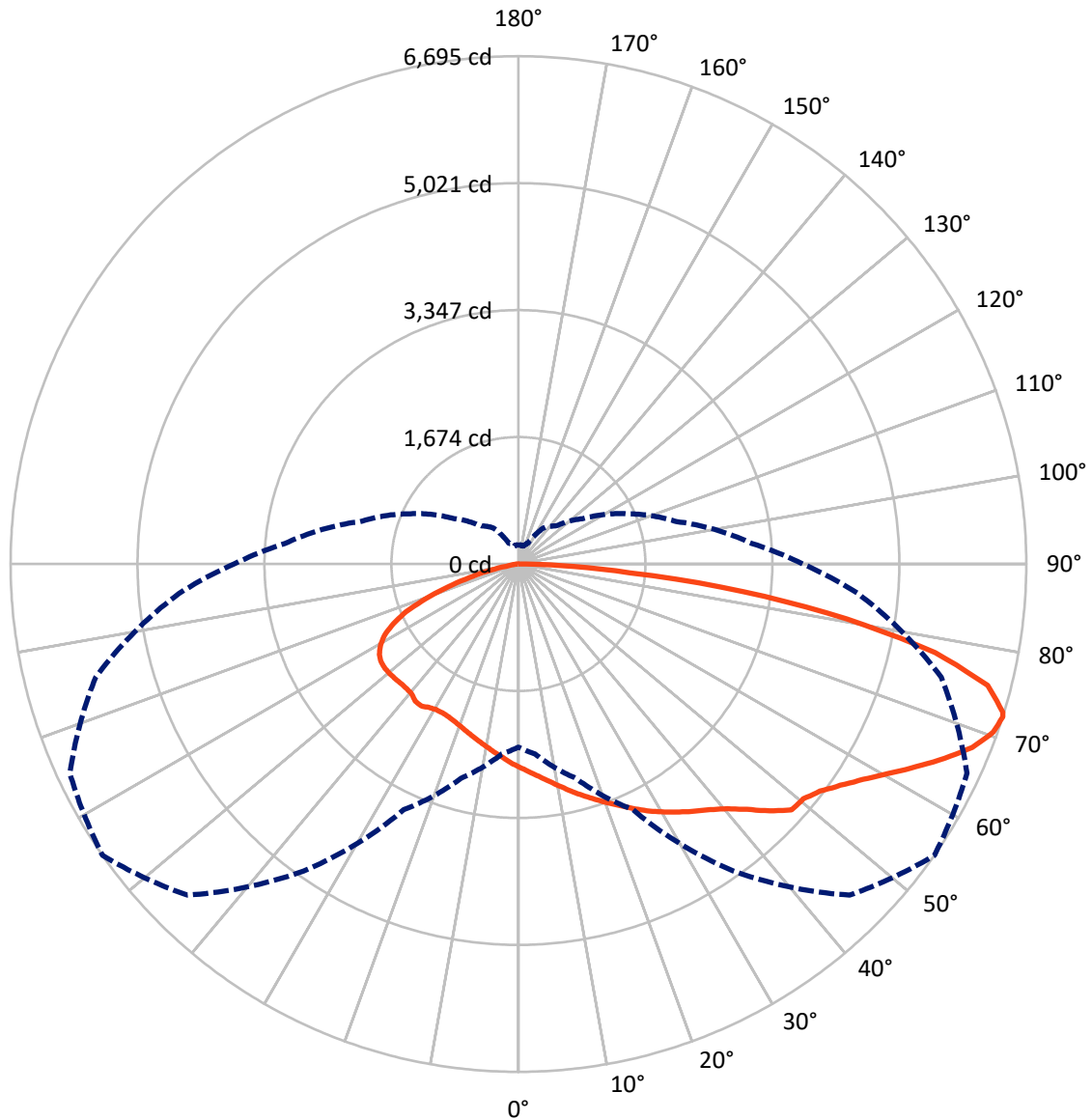
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 72-Deg Vertical

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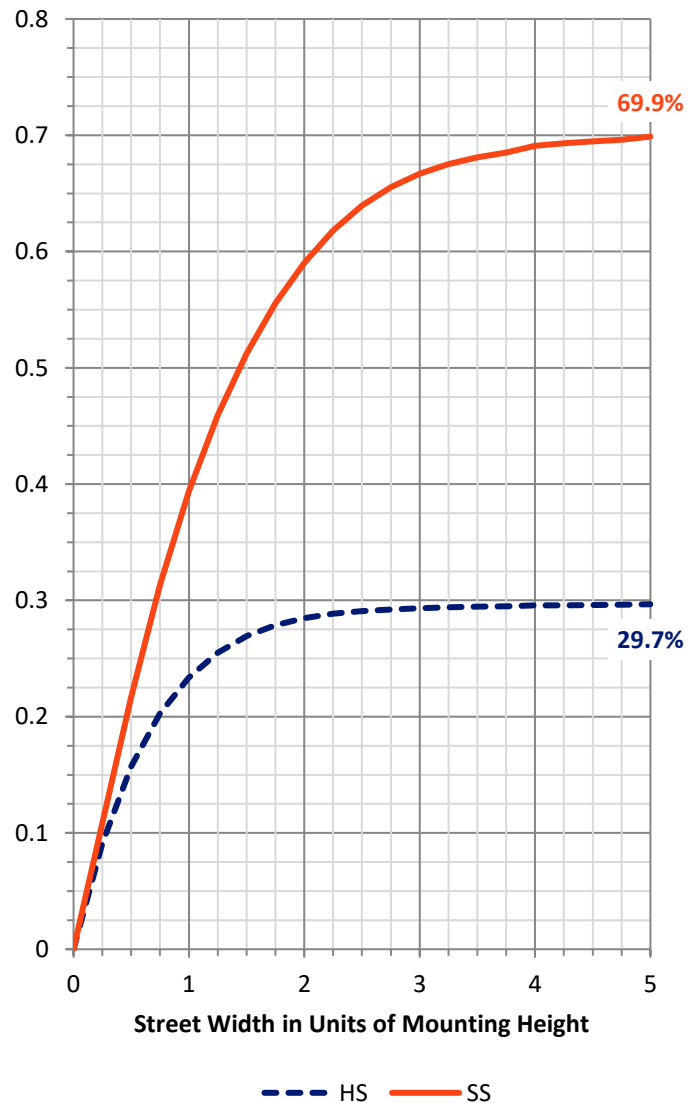
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4926.3	0.0	4926.3
	% Fixture	29.9	0.0	29.9
<b>Street Side</b>	Lumens	11575.7	0.0	11575.7
	% Fixture	70.1	0.0	70.1
<b>Total</b>	Lumens	16502.0	0.0	16502.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.8	1.6
10°-20°	780.4	4.7
20°-30°	1334.3	8.1
30°-40°	1933.9	11.7
40°-50°	2594.4	15.7
50°-60°	3180.0	19.3
60°-70°	3555.3	21.5
70°-80°	2436.4	14.8
80°-90°	430.5	2.6
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°	16502.0	100.0
0°-180°	16502.0	100.0



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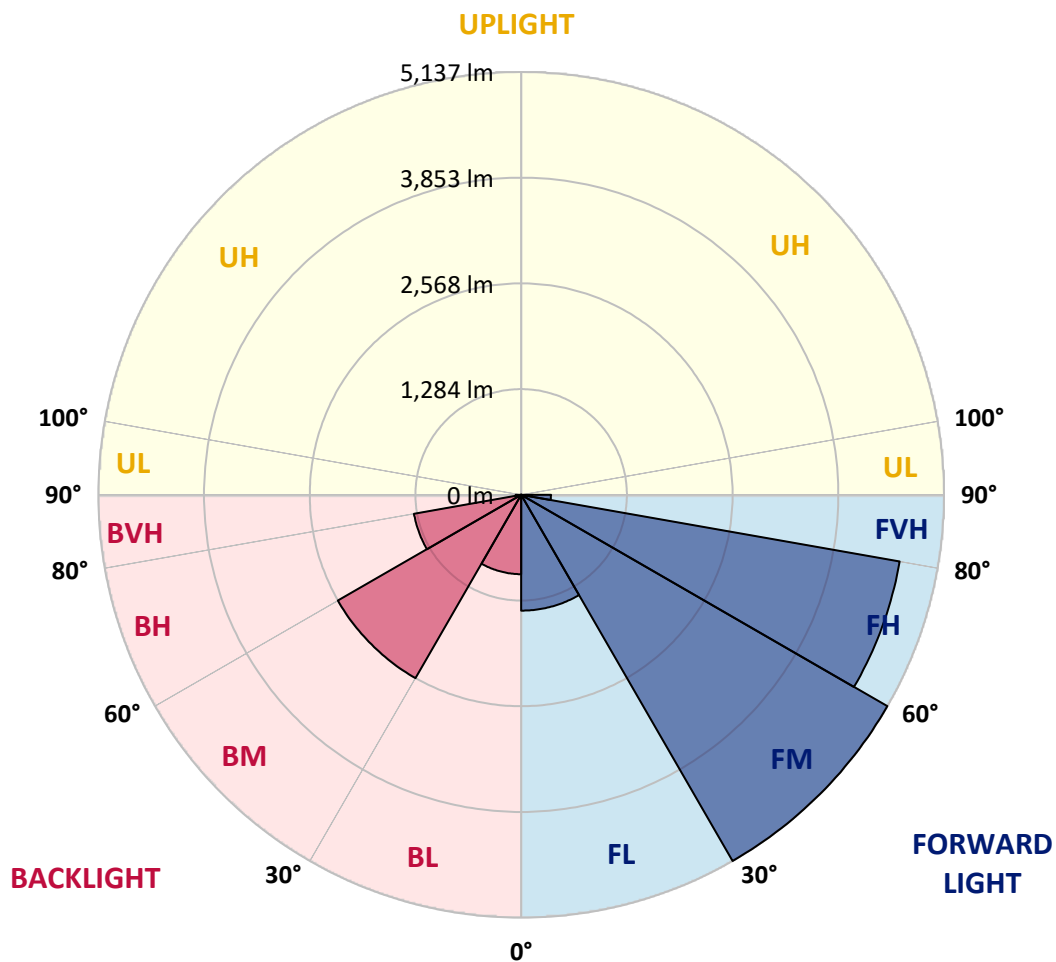
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1407.1	8.5			
FM	(30°-60°)	5136.8	31.1			
FH	(60°-80°)	4669.2	28.3			G2/5000
FVH	(80°-90°)	362.6	2.2			G3/500
BL	(0°-30°)	964.4	5.8	B2/1000		
BM	(30°-60°)	2571.5	15.6	B3/5000		
BH	(60°-80°)	1322.5	8.0	B3/2500		G3/2500
BVH	(80°-90°)	67.9	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-G3**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0
2.5°	2783.5	2772.9	2773.3	2769.5	2758.8	2749.2	2742.4	2724.5	2711.0	2696.0	2685.9
5°	2894.1	2883.5	2875.3	2866.6	2854.0	2835.2	2811.5	2782.0	2750.1	2717.3	2697.5
7.5°	3001.8	2992.2	2982.5	2969.5	2951.6	2923.6	2888.8	2846.3	2798.0	2747.2	2718.7
10°	3103.3	3098.4	3090.2	3072.4	3050.1	3018.7	2977.2	2923.6	2858.4	2790.2	2749.2
12.5°	3198.0	3200.9	3194.1	3179.1	3154.5	3115.8	3069.9	3005.2	2929.4	2836.6	2787.8
15°	3298.4	3289.7	3286.8	3275.3	3256.9	3218.2	3165.6	3090.2	3007.1	2899.4	2836.6
17.5°	3390.7	3380.6	3377.7	3366.1	3340.5	3311.0	3260.8	3181.5	3088.3	2963.7	2897.0
20°	3469.9	3468.0	3461.2	3455.9	3433.2	3400.9	3358.8	3285.4	3182.0	3049.2	2965.1
22.5°	3557.4	3546.7	3549.6	3534.7	3520.2	3501.3	3465.1	3395.5	3282.5	3134.2	3043.4
25°	3628.4	3622.6	3620.7	3613.9	3609.1	3603.3	3575.7	3513.4	3389.3	3234.2	3130.3
27.5°	3682.0	3678.1	3691.2	3690.2	3708.1	3708.6	3689.7	3623.1	3506.6	3332.7	3221.6
30°	3736.1	3735.1	3758.3	3773.3	3792.6	3809.5	3793.6	3737.1	3614.4	3441.9	3325.0
32.5°	3800.8	3797.9	3824.5	3848.7	3877.6	3906.6	3897.5	3846.2	3733.2	3553.5	3428.4
35°	3866.1	3868.0	3897.0	3922.6	3964.6	4002.3	4001.8	3964.6	3857.4	3679.1	3544.8
37.5°	3941.9	3945.8	3965.6	4001.3	4052.0	4090.7	4107.6	4079.6	3984.9	3818.2	3686.8
40°	4125.5	4115.3	4161.7	4177.2	4202.3	4218.7	4239.5	4219.2	4140.9	3973.8	3851.6
42.5°	4311.9	4332.2	4387.8	4388.7	4411.9	4419.7	4420.6	4389.7	4310.0	4153.5	4005.7
45°	4294.1	4315.3	4398.9	4453.5	4567.5	4636.1	4640.9	4597.4	4511.0	4276.7	4067.5
47.5°	4296.0	4320.6	4391.6	4413.9	4558.3	4739.0	4846.7	4829.3	4690.2	4359.3	4149.6
50°	4354.9	4384.4	4452.0	4424.5	4524.5	4701.8	4865.5	4913.4	4748.1	4457.8	4254.4
52.5°	4452.0	4477.1	4551.5	4508.5	4578.6	4764.1	4975.7	5039.4	4891.1	4585.8	4361.7
55°	4556.9	4588.7	4654.9	4637.5	4708.5	4917.2	5150.5	5224.5	5067.9	4711.4	4454.0
57.5°	4682.4	4697.4	4785.3	4796.9	4884.4	5110.0	5356.8	5422.5	5238.0	4814.8	4524.5
60°	4756.4	4771.8	4884.4	4952.5	5107.1	5362.6	5607.1	5658.7	5414.3	4896.0	4568.4
62.5°	4857.8	4871.3	4953.5	5082.0	5350.1	5645.7	5884.3	5902.2	5588.2	4959.3	4567.0
65°	4893.6	4894.0	4982.9	5190.2	5546.7	5940.4	6175.6	6138.0	5748.1	4961.2	4494.1
67.5°	4422.1	4476.2	4638.0	5109.0	5674.7	6196.4	6451.5	6354.9	5847.6	4885.8	4325.9
70°	3558.3	3540.9	3784.9	4486.3	5495.9	6303.7	6640.8	6491.1	5847.1	4711.0	4038.0
72°	2414.4	2514.4	2923.6	3573.3	4939.4	6172.3	6694.9	6524.9	5769.9	4496.0	3747.2
72.5°	2176.3	2252.6	2578.2	3326.5	4798.4	6101.7	6677.6	6518.6	5737.0	4414.3	3655.4
75°	715.4	809.6	1153.1	1913.5	3565.6	5359.7	6388.2	6379.5	5404.6	3960.3	3147.7
77.5°	282.1	286.9	320.3	732.8	2132.3	4234.2	5615.8	5799.3	4460.2	3264.6	2485.4
80°	204.8	200.0	206.8	266.2	845.4	2793.1	4390.7	4552.0	2654.5	2195.6	1738.1
82.5°	141.1	139.1	142.0	169.1	351.2	1533.3	2991.7	2630.3	950.7	981.1	990.8
85°	78.7	80.2	79.2	95.6	186.0	673.9	1474.8	1046.8	147.3	176.8	411.1
87.5°	29.5	30.0	30.9	34.8	64.7	187.4	532.8	170.5	25.1	25.1	65.2
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°	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0	2682.0
2.5°	2679.1	2660.8	2640.0	2626.5	2608.1	2598.9	2586.9	2586.9	2581.6	2577.2
5°	2680.1	2639.0	2598.0	2561.7	2533.2	2505.7	2483.0	2466.6	2464.2	2458.9
7.5°	2688.3	2627.0	2562.7	2506.7	2457.9	2413.9	2377.7	2357.4	2344.4	2335.2
10°	2706.2	2622.1	2534.2	2451.1	2380.1	2323.6	2277.2	2253.1	2238.6	2235.2
12.5°	2734.7	2621.7	2507.2	2402.3	2311.5	2243.9	2195.6	2163.7	2152.6	2144.4
15°	2768.5	2628.4	2486.4	2356.0	2248.7	2169.0	2119.3	2086.4	2070.0	2066.6
17.5°	2814.9	2645.3	2470.0	2312.5	2189.3	2100.9	2048.2	2014.9	1999.9	1997.5
20°	2872.4	2668.5	2459.3	2273.8	2137.6	2043.9	1982.1	1946.8	1934.2	1934.2
22.5°	2938.5	2700.9	2455.0	2240.0	2089.3	1989.3	1925.1	1892.7	1885.0	1882.1
25°	3010.0	2746.3	2462.2	2215.9	2045.3	1941.0	1877.2	1843.4	1829.9	1828.0
27.5°	3093.1	2800.4	2481.1	2202.3	2013.0	1895.1	1832.8	1792.2	1780.1	1774.3
30°	3184.9	2865.6	2514.4	2205.2	1995.6	1861.3	1782.1	1746.3	1728.4	1721.7
32.5°	3287.8	2946.8	2569.0	2228.9	1993.7	1835.2	1741.5	1692.7	1673.4	1671.9
35°	3401.3	3048.7	2651.1	2269.5	1992.7	1802.4	1694.1	1643.4	1631.8	1632.3
37.5°	3548.7	3181.5	2725.5	2261.8	1929.9	1738.1	1640.5	1607.2	1597.0	1595.6
40°	3699.9	3259.8	2704.7	2214.4	1877.7	1685.0	1600.4	1574.3	1569.5	1566.6
42.5°	3786.8	3263.7	2715.8	2205.7	1847.3	1654.5	1570.5	1545.8	1538.1	1535.7
45°	3832.7	3322.1	2766.1	2209.1	1827.5	1630.4	1541.5	1515.4	1501.9	1499.0
47.5°	3923.1	3397.5	2818.3	2218.8	1815.4	1598.0	1510.1	1480.6	1466.6	1467.1
50°	4018.2	3467.5	2859.8	2228.9	1801.4	1569.5	1476.8	1442.5	1432.3	1428.5
52.5°	4102.3	3522.1	2879.1	2231.8	1784.0	1540.0	1436.7	1398.0	1385.5	1382.6
55°	4165.6	3548.2	2869.5	2224.1	1759.4	1501.4	1389.8	1343.4	1328.0	1325.1
57.5°	4203.2	3535.1	2818.3	2185.9	1719.3	1453.6	1328.9	1269.5	1249.2	1246.3
60°	4197.9	3461.2	2711.0	2109.6	1655.0	1376.3	1228.0	1159.9	1133.3	1128.9
62.5°	4136.1	3322.6	2567.1	2000.4	1552.6	1247.3	1097.1	1014.5	972.9	959.9
65°	4004.2	3117.8	2386.4	1821.7	1373.9	1076.3	924.1	826.1	714.5	688.4
67.5°	3779.1	2836.6	2139.1	1610.6	1154.1	901.4	758.9	521.2	407.7	382.1
70°	3421.1	2454.5	1834.2	1302.4	894.7	716.4	514.0	288.9	281.6	282.6
72°	3090.2	2159.3	1567.6	1044.9	713.5	582.1	308.2	244.4	252.6	249.3
72.5°	2992.7	2076.3	1511.1	974.8	669.1	551.2	274.4	236.7	241.5	245.4
75°	2520.7	1621.7	1087.4	668.1	496.1	368.6	203.9	201.4	207.7	209.2
77.5°	1909.6	1156.0	698.0	423.7	330.4	210.1	163.3	163.3	169.6	170.5
80°	1255.5	713.0	290.8	167.6	207.7	138.6	120.8	123.7	130.9	133.8
82.5°	794.2	384.5	87.0	87.9	105.8	90.8	81.6	85.0	91.3	91.8
85°	386.9	78.7	46.9	47.8	48.8	49.3	42.5	45.4	46.9	45.4
87.5°	95.2	19.8	17.9	19.3	15.5	13.0	13.0	11.1	7.7	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)