

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: STREETWORKS

Report Number: P510232

Luminaire Tested: **VERD-M-CA4-230-740-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510232  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-230-740-U-T4-HSS  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 4000K, 1050mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29145 lumens  
Efficiency: N/A  
Efficacy: 124.9 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

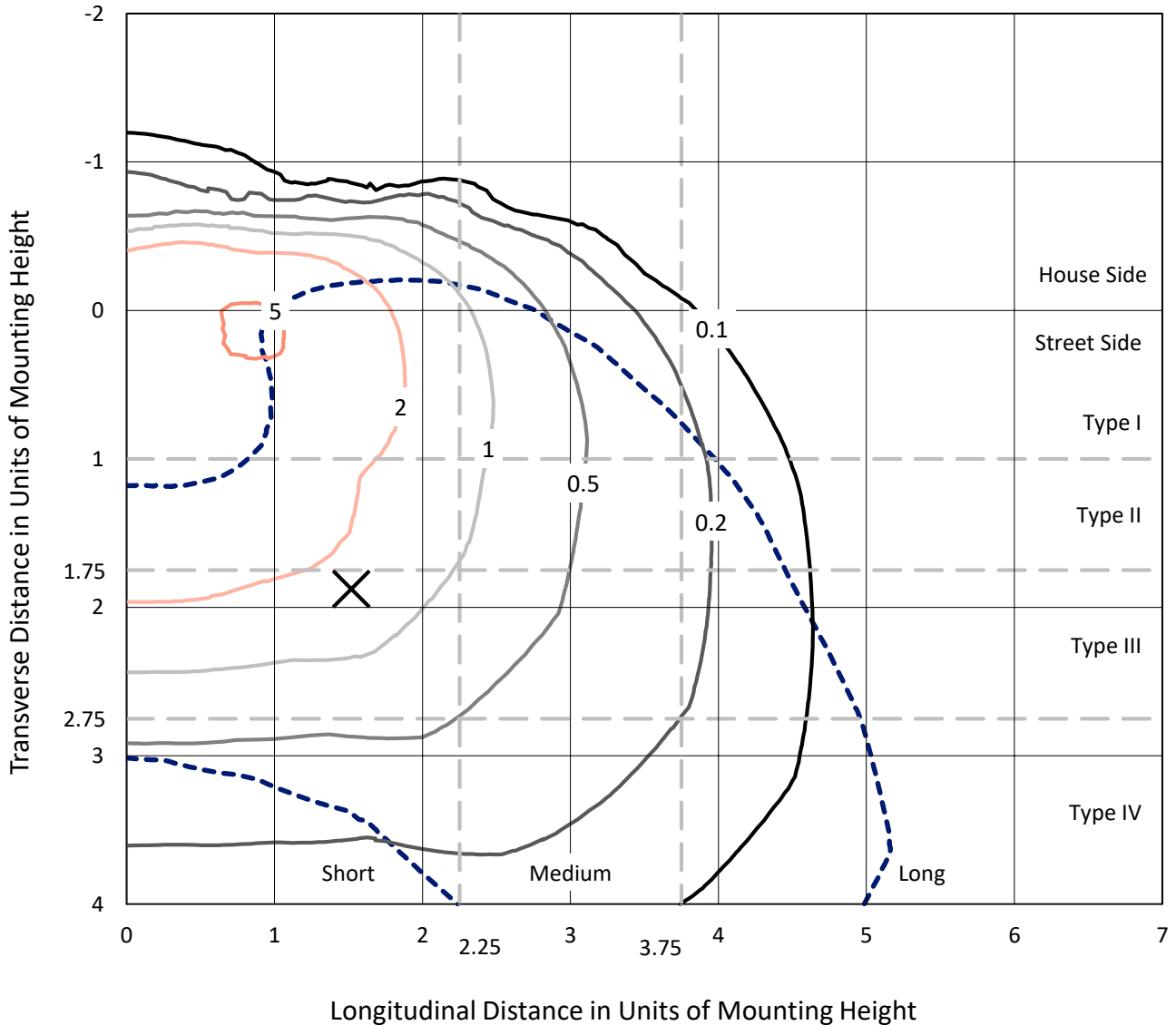
Input Watts (W): 233.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

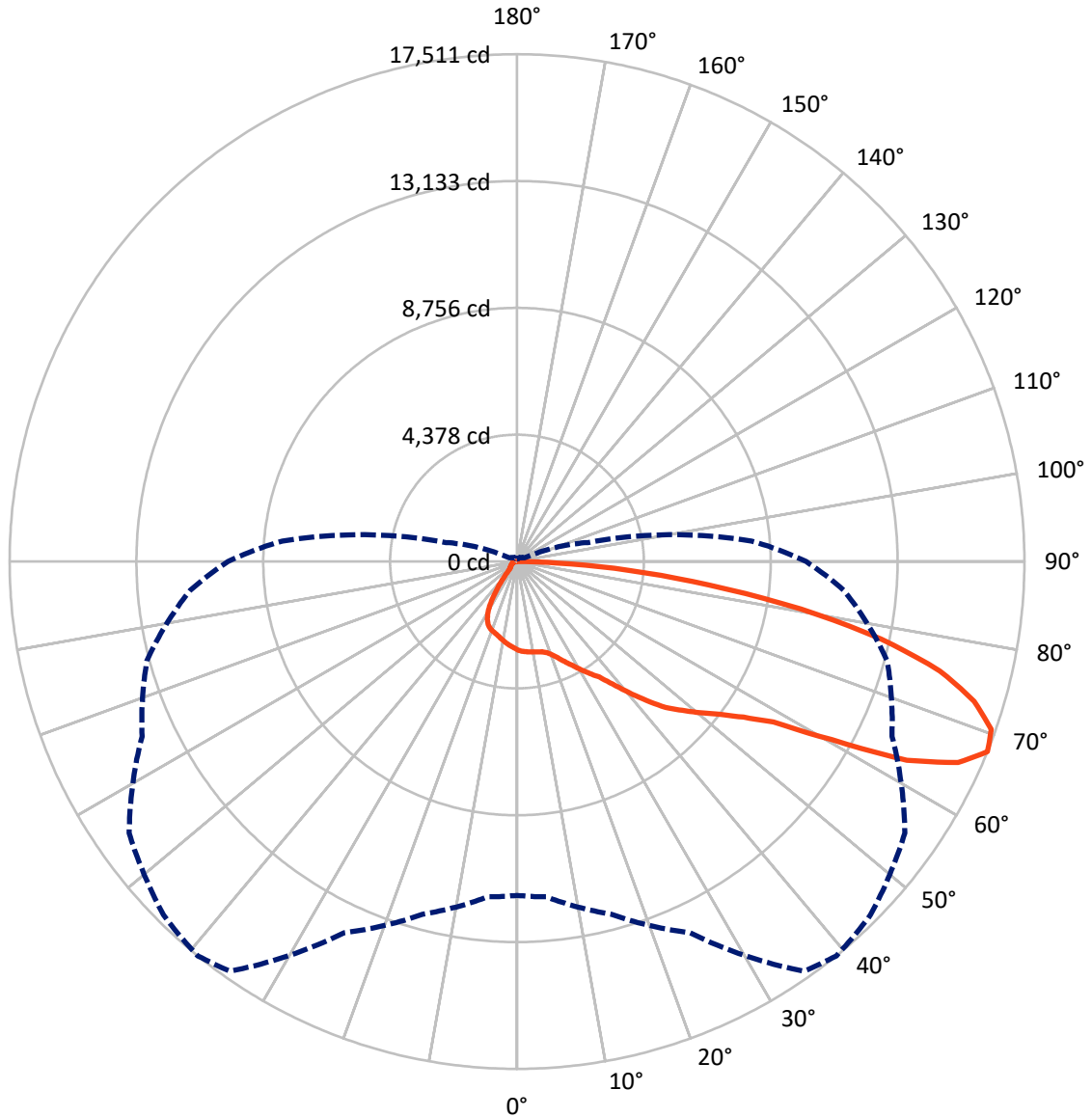
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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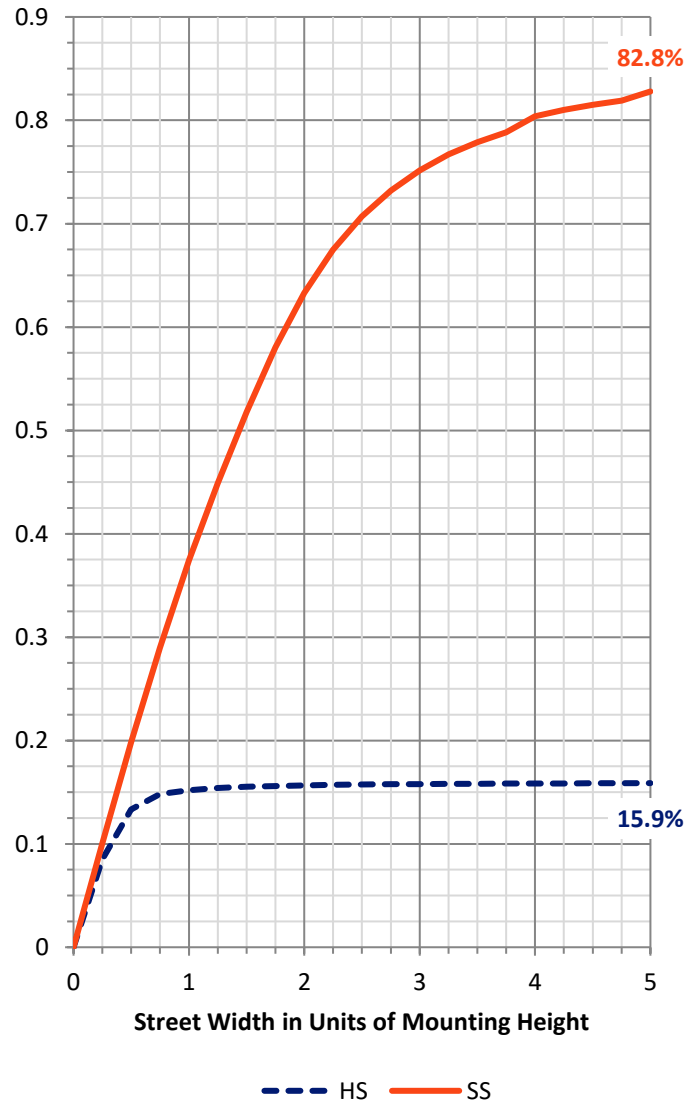
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4680.0	0.0	4680.0
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	24465.0	0.0	24465.0
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	29145.0	0.0	29145.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.1	1.0
10°-20°	857.5	2.9
20°-30°	1519.2	5.2
30°-40°	2433.3	8.3
40°-50°	3903.5	13.4
50°-60°	5705.8	19.6
60°-70°	7603.2	26.1
70°-80°	5705.6	19.6
80°-90°	1128.9	3.9
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°	29145.0	100.0
0°-180°	29145.0	100.0



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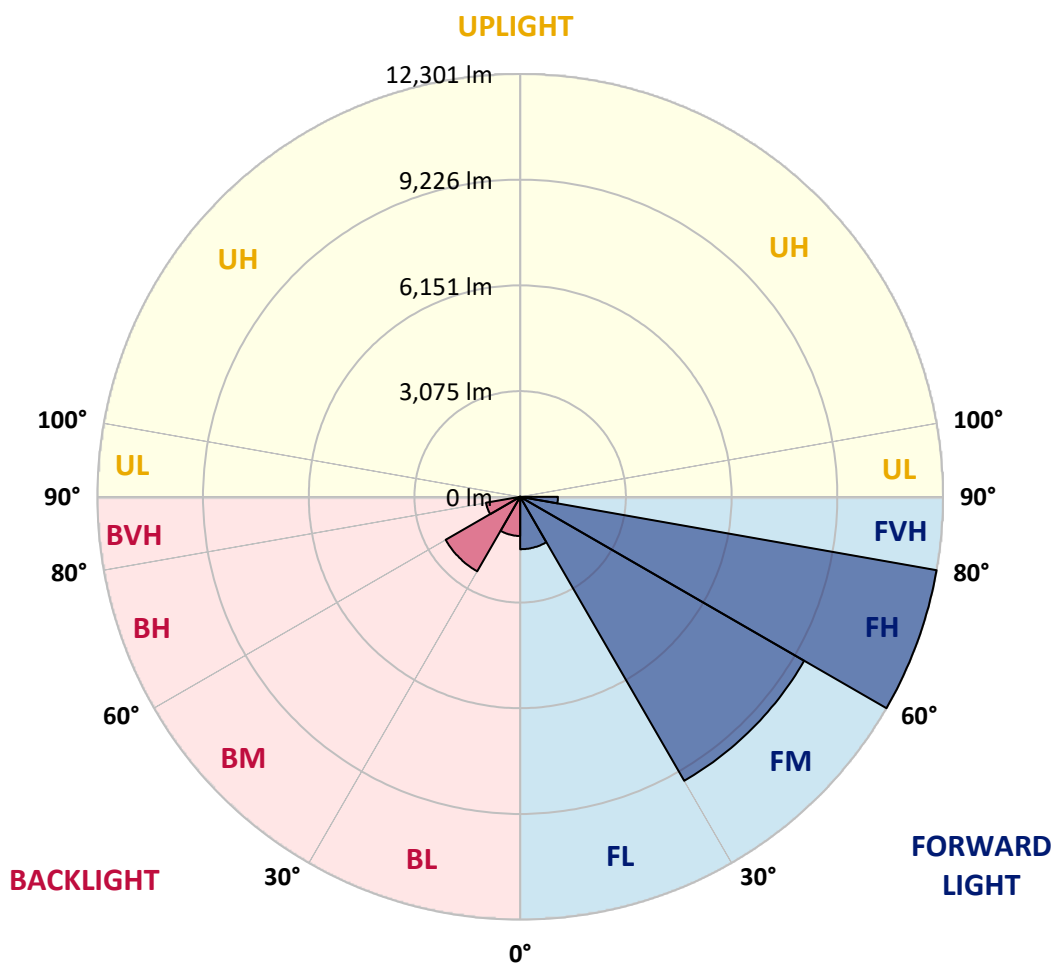
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1525.2	5.2			
FM	(30°-60°)	9539.4	32.7			
FH	(60°-80°)	12301.1	42.2			G5
FVH	(80°-90°)	1099.3	3.8			G5
BL	(0°-30°)	1139.6	3.9	B3/2500		
BM	(30°-60°)	2503.1	8.6	B3/5000		
BH	(60°-80°)	1007.7	3.5	B3/2500		G3/2500
BVH	(80°-90°)	29.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8
2.5°	3054.7	3095.7	3095.7	3084.0	3091.3	3097.2	3053.3	3065.0	3060.6	3059.1	3067.9
5°	3078.2	3123.5	3120.6	3106.0	3111.8	3123.5	3082.5	3100.1	3094.3	3079.6	3082.5
7.5°	3078.2	3116.2	3125.0	3108.9	3136.7	3151.4	3107.4	3123.5	3130.9	3120.6	3110.4
10°	3066.4	3100.1	3111.8	3108.9	3145.5	3168.9	3126.5	3171.9	3177.7	3177.7	3161.6
12.5°	3062.0	3100.1	3116.2	3129.4	3171.9	3196.8	3171.9	3215.8	3245.1	3243.6	3233.4
15°	3065.0	3107.4	3132.3	3154.3	3199.7	3230.4	3220.2	3287.6	3322.7	3333.0	3333.0
17.5°	3138.2	3189.4	3201.2	3224.6	3255.3	3302.2	3289.0	3375.4	3431.1	3448.6	3473.5
20°	3343.2	3382.7	3397.4	3385.7	3398.9	3428.1	3401.8	3485.3	3568.7	3615.6	3656.6
22.5°	3605.3	3634.6	3621.4	3609.7	3602.4	3609.7	3577.5	3633.2	3726.9	3794.2	3864.5
25°	3804.5	3868.9	3858.7	3826.5	3816.2	3825.0	3784.0	3852.8	3939.2	4009.5	4114.9
27.5°	4046.1	4085.7	4057.8	4046.1	4053.4	4052.0	4027.1	4093.0	4172.1	4259.9	4415.1
30°	4308.2	4341.9	4314.1	4302.4	4315.6	4324.3	4296.5	4412.2	4495.7	4590.9	4791.5
32.5°	4738.8	4819.3	4743.2	4590.9	4593.8	4607.0	4609.9	4765.1	4917.4	4992.1	5257.2
35°	5352.4	5416.8	5315.7	5131.2	4901.3	4892.5	4916.0	5147.3	5453.4	5793.1	6103.6
37.5°	5924.9	6018.7	5927.9	5712.6	5432.9	5365.5	5244.0	5519.3	6001.1	6731.8	7118.4
40°	6611.7	6682.0	6501.9	6314.5	6034.8	5939.6	5744.8	5920.5	6581.0	7711.5	7978.0
42.5°	7163.8	7206.3	7056.9	6860.7	6617.6	6545.8	6345.2	6361.3	7200.4	8569.6	8741.0
45°	7674.9	7720.3	7597.3	7430.3	7276.6	7190.2	7043.7	7122.8	7926.8	9474.6	9370.6
47.5°	8062.9	8108.3	8010.2	7891.6	7732.0	7673.4	7676.3	7960.4	8815.6	10198.0	9935.9
50°	8698.5	8680.9	8424.6	8295.8	8171.3	8202.1	8234.3	8638.4	9711.8	10818.9	10458.7
52.5°	9807.0	9720.6	9192.0	8855.2	8701.4	8754.1	8806.9	9344.3	10729.6	11385.6	10859.9
55°	11060.6	10972.7	10523.1	9802.6	9395.5	9480.5	9435.1	10042.8	11584.8	11930.4	11190.9
57.5°	11991.9	12136.9	11965.5	11573.1	10553.9	10442.6	10341.5	10748.6	12276.0	12475.2	11508.7
60°	12801.7	13003.8	13309.9	13203.0	12769.5	12479.5	11552.6	11573.1	12940.8	12853.0	11634.6
62.5°	13592.5	13711.1	14235.4	14351.0	14888.5	15096.4	14154.8	12639.2	13583.7	13115.1	11719.5
65°	12801.7	12954.0	13866.3	14708.4	16445.1	16723.4	16392.4	14569.2	14056.7	13270.3	11621.4
67.5°	11523.3	11615.6	12601.1	14132.8	17259.3	17511.2	17253.5	16341.1	14277.8	13223.5	11316.8
70°	9852.4	9997.4	10965.4	13018.4	17230.0	17364.8	17140.7	16554.9	14194.4	12954.0	10548.0
72.5°	8147.9	8229.9	9049.9	11098.6	16388.0	16500.8	16382.2	16226.9	13913.2	12202.8	9070.4
75°	6124.1	6141.7	6982.2	8764.4	14490.2	15078.8	15223.8	15661.7	12836.9	10460.2	6708.4
77.5°	4106.2	4280.4	5087.3	6698.1	11895.3	12836.9	13523.7	13842.9	10725.2	7806.7	3567.3
80°	2203.9	2247.8	3117.7	4753.4	9039.7	9940.3	10591.9	10597.8	7500.6	3867.5	796.6
82.5°	1020.7	978.2	1569.8	3007.9	6261.7	6663.0	7099.4	5946.9	3003.5	660.4	203.6
85°	452.5	477.4	710.2	1465.9	3475.0	3877.7	3822.1	2633.0	527.2	178.7	124.5
87.5°	168.4	177.2	275.3	591.6	1240.3	1353.1	1216.9	506.7	68.8	63.0	38.1
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8	3051.8
2.5°	3057.7	3057.7	3054.7	3015.2	3006.4	2987.4	2971.3	2983.0	2969.8	2978.6	2969.8
5°	3070.8	3063.5	3045.9	2999.1	2977.1	2934.6	2902.4	2909.7	2892.2	2892.2	2890.7
7.5°	3101.6	3086.9	3056.2	2981.5	2940.5	2879.0	2829.2	2813.1	2795.5	2775.0	2772.1
10°	3151.4	3130.9	3089.9	2987.4	2908.3	2826.3	2739.9	2706.2	2662.3	2630.0	2624.2
12.5°	3220.2	3189.4	3133.8	3009.3	2905.4	2775.0	2659.3	2593.4	2540.7	2493.9	2483.6
15°	3319.8	3289.0	3223.1	3053.3	2906.8	2726.7	2574.4	2464.6	2373.8	2329.8	2331.3
17.5°	3464.8	3442.8	3341.7	3145.5	2934.6	2701.8	2504.1	2329.8	2189.3	2116.0	2105.8
20°	3650.7	3636.1	3513.1	3267.1	2999.1	2706.2	2428.0	2186.3	1979.9	1820.2	1785.1
22.5°	3867.5	3845.5	3694.7	3372.5	3048.9	2694.5	2344.5	2028.2	1717.7	1509.8	1468.8
25°	4109.1	4097.4	3861.6	3464.8	3054.7	2644.7	2224.4	1823.2	1433.6	1211.1	1175.9
27.5°	4418.1	4349.2	4012.4	3514.5	3041.5	2546.6	2053.1	1542.0	1139.3	985.5	947.5
30°	4756.3	4617.2	4158.9	3552.6	2977.1	2389.9	1808.5	1216.9	847.9	711.7	692.7
32.5°	5131.2	4923.3	4296.5	3549.7	2862.9	2148.3	1490.8	845.0	572.6	516.9	497.9
35°	5809.2	5456.3	4462.0	3501.4	2671.1	1861.2	1052.9	550.6	424.7	391.0	386.6
37.5°	6750.8	6151.9	4684.6	3409.1	2423.6	1527.4	686.8	376.3	363.2	364.6	363.2
40°	7522.6	6928.0	4993.6	3270.0	2111.7	1091.0	411.5	335.3	342.7	347.1	348.5
42.5°	8278.2	7560.7	5375.8	3095.7	1785.1	708.8	333.9	320.7	314.8	322.2	325.1
45°	8885.9	8112.7	5736.0	2892.2	1402.9	418.8	323.6	297.3	287.0	289.9	294.3
47.5°	9372.1	8552.0	5952.8	2654.9	1025.1	316.3	314.8	276.8	262.1	259.2	257.7
50°	9830.5	8928.4	6091.9	2367.9	653.1	304.6	291.4	253.3	235.8	232.8	232.8
52.5°	10142.4	9174.4	6138.7	2028.2	389.5	297.3	275.3	234.3	210.9	215.3	218.2
55°	10447.0	9423.4	6042.1	1585.9	298.7	278.2	257.7	210.9	191.8	209.4	215.3
57.5°	10591.9	9460.0	5823.9	1102.7	289.9	251.9	232.8	188.9	174.3	184.5	184.5
60°	10709.1	9435.1	5519.3	698.5	282.6	234.3	212.3	171.3	153.8	147.9	143.5
62.5°	10631.5	9335.5	4907.2	455.4	262.1	213.8	193.3	158.2	133.3	117.2	115.7
65°	10466.0	8984.0	3917.2	358.8	243.1	203.6	175.7	142.0	117.2	98.1	96.6
67.5°	9978.4	8128.8	2534.9	297.3	232.8	196.2	162.5	131.8	104.0	84.9	83.5
70°	8809.8	6566.3	777.6	266.5	241.6	188.9	159.6	120.1	92.3	74.7	71.8
72.5°	6966.1	4387.3	288.5	221.1	207.9	181.6	155.2	108.4	79.1	63.0	60.0
75°	4486.9	1433.6	244.6	171.3	177.2	172.8	143.5	99.6	67.4	51.3	49.8
77.5°	1271.1	300.2	222.6	125.9	156.7	166.9	125.9	83.5	60.0	43.9	42.5
80°	266.5	213.8	203.6	89.3	117.2	108.4	84.9	64.4	57.1	38.1	38.1
82.5°	174.3	169.9	174.3	61.5	77.6	79.1	67.4	55.6	49.8	35.1	35.1
85°	123.0	155.2	83.5	43.9	36.6	33.7	39.5	48.3	43.9	29.3	29.3
87.5°	42.5	24.9	17.6	17.6	16.1	16.1	19.0	22.0	23.4	23.4	22.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)