

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: P509990

Luminaire Tested: **VERD-M-CA3-180-740-U-T3-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P509990  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA3-180-740-U-T3-HSS  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 4000K, 1120mA LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23830 lumens  
Efficiency: N/A  
Efficacy: 130.1 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G4

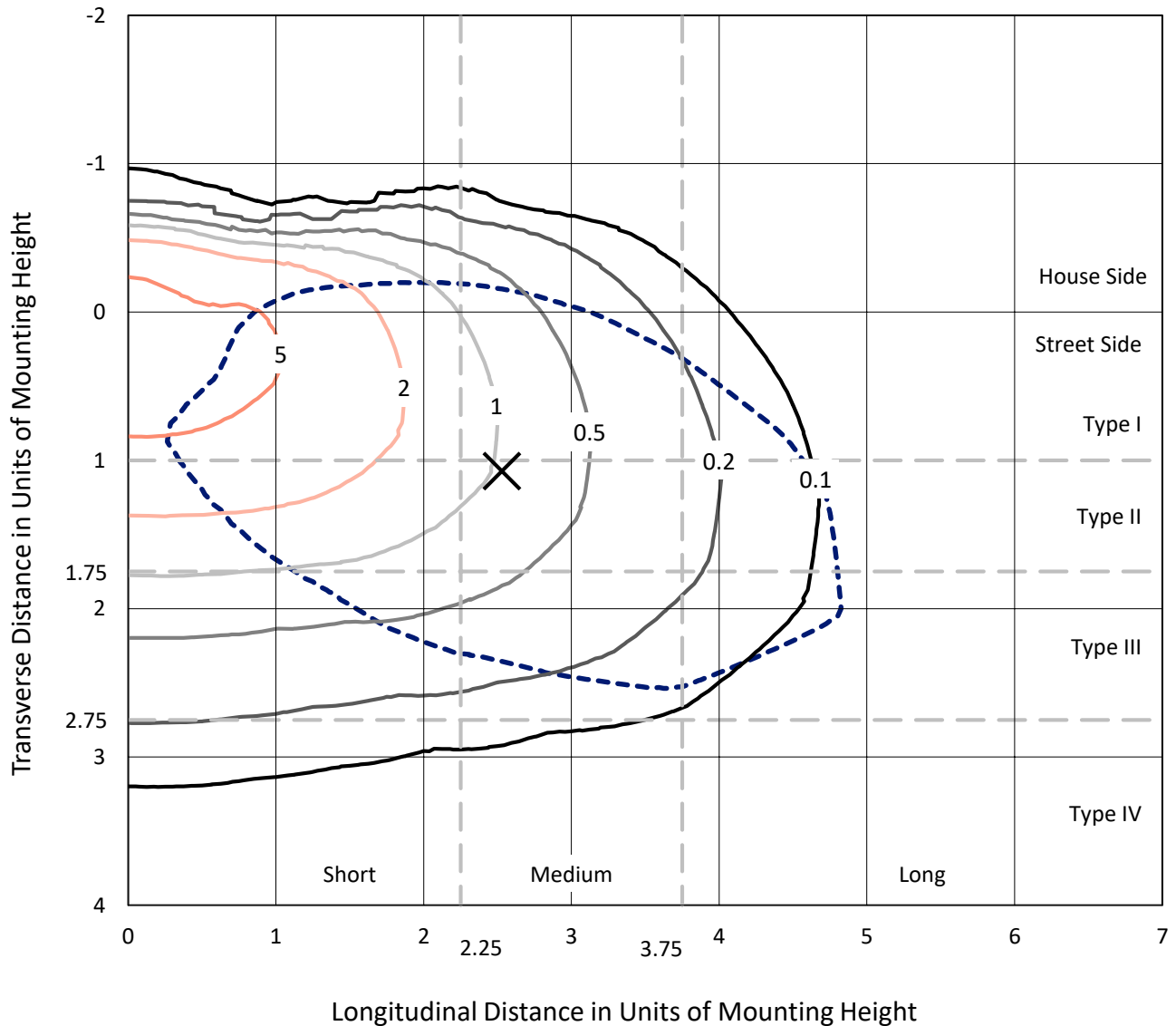
Input Watts (W): 183.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P509990  
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### Iso-Footcandle Lines of Horizontal Illumination

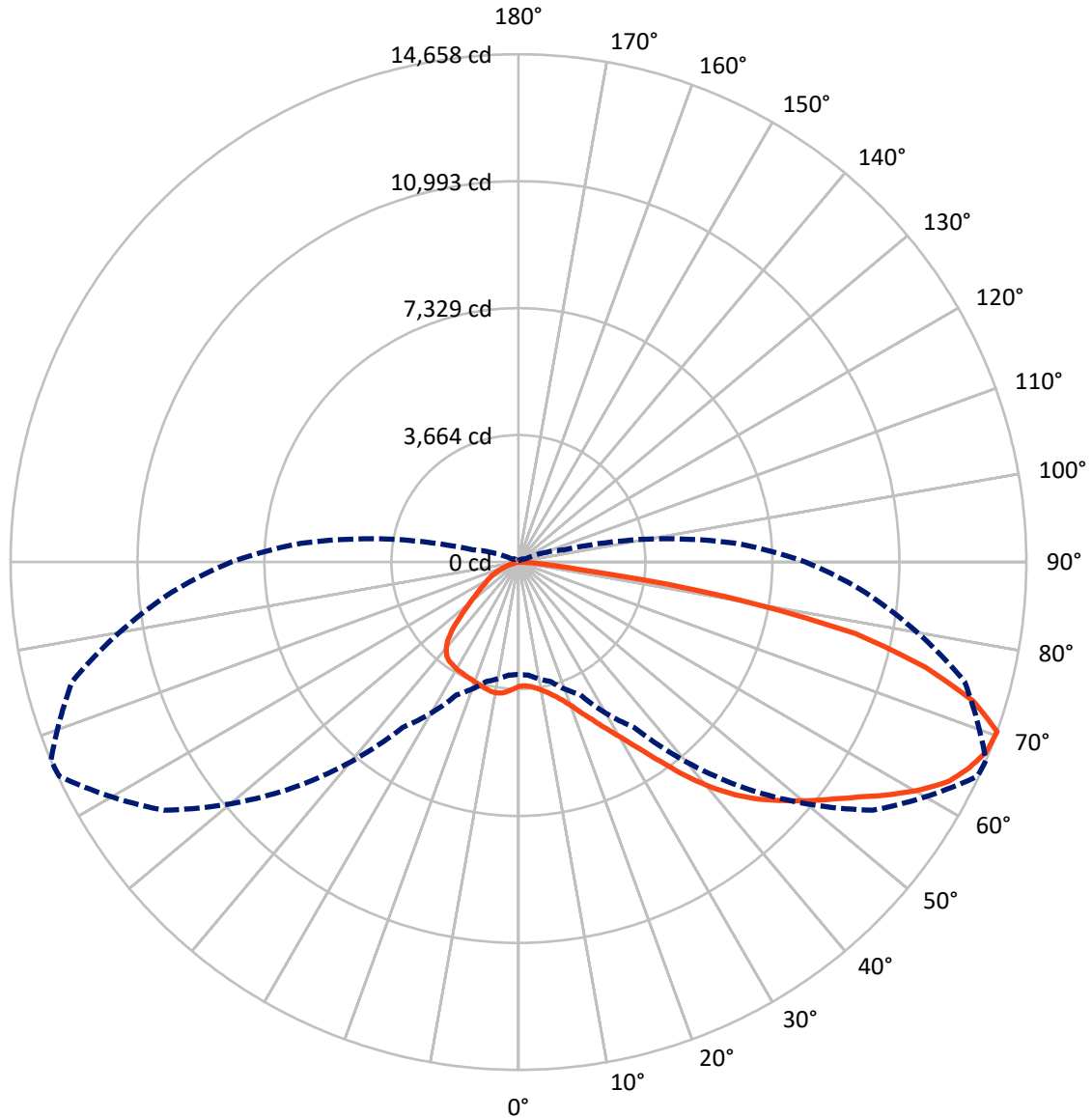
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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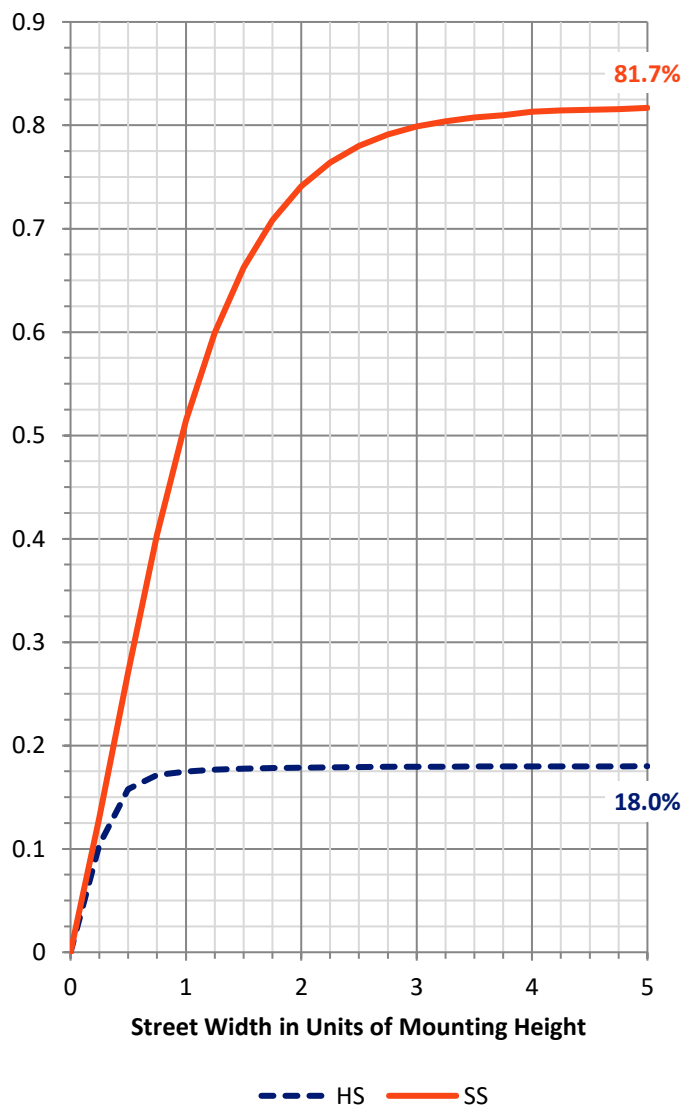
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4342.0	0.0	4342.0
	% Fixture	18.2	0.0	18.2
<b>Street Side</b>	Lumens	19488.0	0.0	19488.0
	% Fixture	81.8	0.0	81.8
<b>Total</b>	Lumens	23830.0	0.0	23830.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	357.1	1.5
10°-20°	1114.2	4.7
20°-30°	1933.1	8.1
30°-40°	2871.1	12.0
40°-50°	3939.0	16.5
50°-60°	4837.4	20.3
60°-70°	5186.1	21.8
70°-80°	3292.3	13.8
80°-90°	299.6	1.3
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°	23830.0	100.0
0°-180°	23830.0	100.0



REPORT NUMBER: P509990

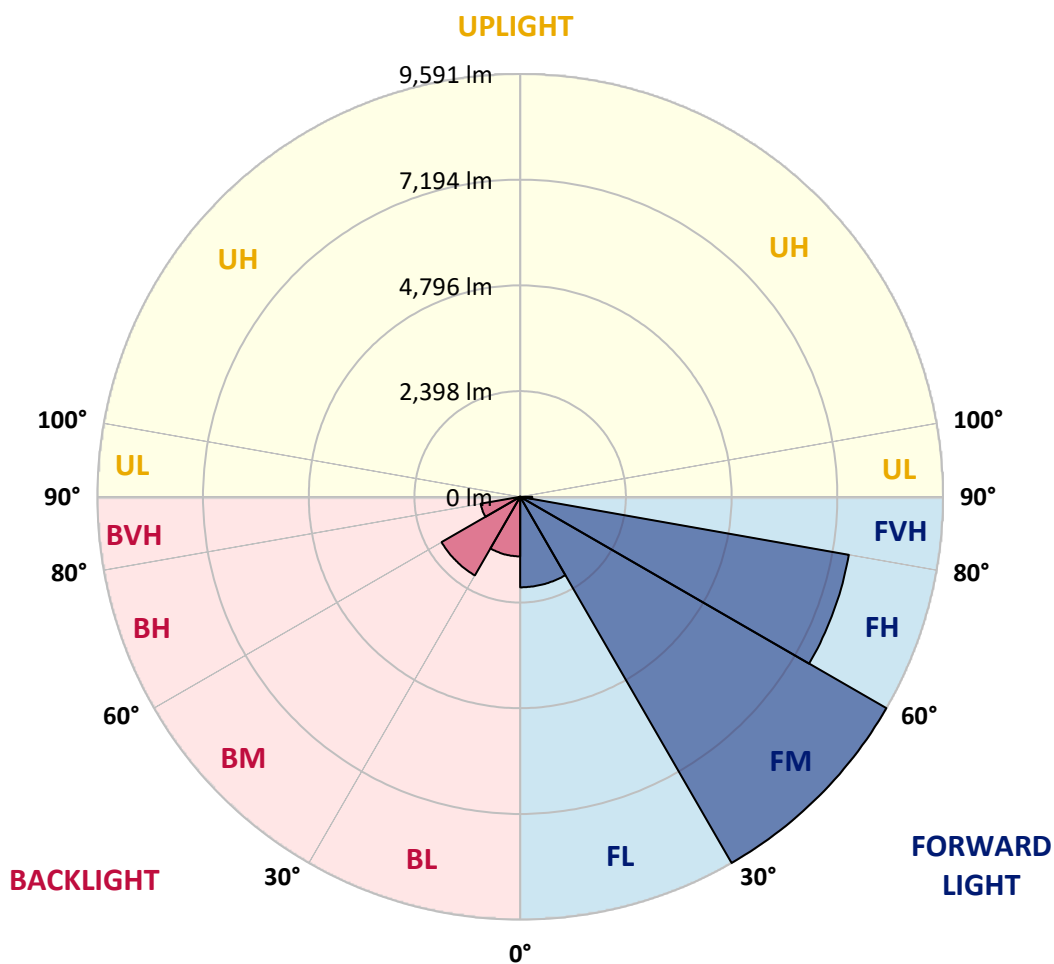
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2053.2	8.6			
FM	(30°-60°)	9591.3	40.2			
FH	(60°-80°)	7570.2	31.8			G4/12000
FVH	(80°-90°)	273.3	1.1			G3/500
BL	(0°-30°)	1351.3	5.7	B3/2500		
BM	(30°-60°)	2056.2	8.6	B2/2500		
BH	(60°-80°)	908.2	3.8	B2/1000		G2/1000
BVH	(80°-90°)	26.3	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-G4**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6
2.5°	3552.3	3585.7	3566.1	3563.8	3586.9	3565.0	3580.0	3576.5	3574.2	3577.7	3601.9
5°	3645.7	3684.9	3658.4	3650.3	3663.0	3623.8	3620.3	3612.2	3609.9	3611.1	3645.7
7.5°	3776.0	3822.1	3811.7	3790.9	3784.0	3719.5	3707.9	3679.1	3669.9	3672.2	3706.8
10°	3981.2	4027.3	4006.6	3960.4	3931.6	3857.8	3816.3	3779.4	3761.0	3763.3	3800.2
12.5°	4244.1	4287.9	4253.3	4169.1	4153.0	4034.2	3969.7	3891.3	3878.6	3860.1	3899.3
15°	4492.0	4530.0	4513.9	4435.5	4391.6	4251.0	4132.2	4035.4	4023.8	4006.6	4005.4
17.5°	4766.4	4804.4	4774.4	4716.8	4659.1	4492.0	4364.0	4239.5	4209.5	4194.5	4140.3
20°	5059.2	5119.2	5113.4	5066.1	4996.9	4800.9	4619.9	4479.3	4447.0	4419.3	4305.2
22.5°	5361.3	5439.7	5422.4	5397.0	5368.2	5148.0	4937.0	4774.4	4750.2	4691.4	4511.6
25°	5695.6	5749.8	5737.2	5749.8	5730.2	5535.4	5304.8	5106.5	5074.2	5018.9	4743.3
27.5°	6019.6	6076.1	6098.0	6071.5	6084.2	5944.7	5671.4	5493.9	5462.7	5361.3	5022.3
30°	6312.5	6382.8	6413.9	6425.5	6468.1	6324.0	6122.2	5906.6	5896.3	5792.5	5390.1
32.5°	6546.5	6624.9	6701.0	6750.6	6818.6	6755.2	6554.6	6424.3	6425.5	6332.1	5942.4
35°	6716.0	6806.0	6916.6	7048.1	7191.0	7164.5	7045.8	7048.1	7066.5	7097.7	6646.8
37.5°	6904.0	6976.6	7106.9	7290.2	7508.1	7563.4	7547.3	7730.6	7820.6	7875.9	7266.0
40°	7015.8	7089.6	7252.1	7498.9	7815.9	7948.5	8097.3	8418.9	8536.6	8478.9	7795.2
42.5°	6892.4	6958.1	7240.6	7667.2	8068.4	8369.4	8635.7	9106.1	9191.4	9003.5	8241.4
45°	6732.2	6817.5	7114.9	7713.3	8292.1	8782.1	9196.0	9704.5	9767.9	9501.6	8635.7
47.5°	6600.7	6675.7	7022.7	7663.8	8498.5	9205.3	9688.4	10269.5	10285.6	9957.0	9043.9
50°	6432.4	6523.5	6885.5	7602.7	8623.0	9580.0	10139.2	10796.4	10832.1	10428.6	9389.7
52.5°	6256.0	6344.8	6719.5	7502.3	8713.0	9891.3	10607.3	11356.7	11360.2	10927.8	9758.7
55°	5995.4	6090.0	6505.0	7357.1	8740.6	10097.7	11077.7	11928.6	11964.3	11434.0	10093.1
57.5°	5719.9	5800.6	6246.8	7131.1	8638.0	10292.5	11560.8	12563.9	12661.9	12004.7	10380.1
60°	5354.4	5435.1	5906.6	6834.8	8420.1	10511.6	12114.2	13329.4	13339.8	12467.0	10588.8
62.5°	4961.2	5031.5	5465.1	6370.1	8082.3	10595.7	12589.2	13941.7	13940.5	12878.6	10692.6
65°	4494.3	4523.1	4964.7	5799.4	7557.7	10472.4	12799.1	14345.2	14306.0	13174.9	10658.0
67.5°	3940.8	3972.0	4306.3	5090.3	6796.7	9990.4	12705.7	14540.0	14579.2	13439.0	10508.1
70°	3239.8	3276.7	3568.4	4230.2	5827.1	9221.4	12486.6	14624.2	14657.6	13332.9	10045.8
72.5°	2391.2	2440.8	2619.5	3148.7	4422.8	7747.9	11472.0	13703.0	13721.4	12447.4	9083.1
75°	1485.0	1576.1	1744.4	2092.6	2869.7	5433.9	9806.0	12250.3	12135.0	11103.1	7516.2
77.5°	593.8	608.8	692.9	980.0	1399.7	2829.4	7108.0	9737.9	9958.2	8883.6	5376.3
80°	345.9	343.6	363.2	456.6	600.7	967.3	2764.8	5462.7	6088.8	4879.3	2418.9
82.5°	279.0	268.6	268.6	292.9	288.2	407.0	906.2	1595.7	1750.2	1553.0	688.3
85°	146.4	143.0	116.4	144.1	144.1	202.9	348.2	452.0	477.3	416.2	258.3
87.5°	36.9	36.9	36.9	45.0	35.7	42.7	58.8	71.5	73.8	60.0	38.0
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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CATALOG NUMBER: VERD-M-CA3-180-740-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6	3584.6
2.5°	3611.1	3621.5	3661.8	3656.1	3663.0	3663.0	3674.5	3687.2	3725.2	3703.3	3694.1
5°	3652.6	3673.3	3724.1	3742.5	3770.2	3773.7	3796.7	3804.8	3846.3	3823.2	3823.2
7.5°	3732.1	3756.4	3803.6	3810.5	3823.2	3801.3	3807.1	3781.7	3809.4	3781.7	3782.9
10°	3822.1	3838.2	3870.5	3824.4	3804.8	3752.9	3741.4	3679.1	3701.0	3665.3	3656.1
12.5°	3908.6	3902.8	3878.6	3796.7	3742.5	3657.2	3621.5	3537.3	3532.7	3485.4	3476.2
15°	3990.4	3950.1	3871.7	3744.8	3652.6	3533.8	3448.5	3356.3	3324.0	3269.8	3265.2
17.5°	4090.7	4021.5	3882.0	3695.3	3544.2	3371.3	3250.2	3146.4	3079.6	3030.0	3028.8
20°	4212.9	4106.9	3886.6	3638.8	3432.4	3211.0	3041.5	2910.1	2814.4	2752.1	2751.0
22.5°	4366.3	4222.2	3929.3	3574.2	3289.4	3017.3	2806.3	2579.2	2447.7	2320.9	2297.9
25°	4546.1	4338.6	3966.2	3540.8	3148.7	2815.5	2501.9	2169.9	1965.8	1864.3	1826.3
27.5°	4798.6	4532.3	4020.4	3477.3	3016.2	2566.5	2109.9	1747.9	1502.3	1415.8	1415.8
30°	5090.3	4776.7	4121.8	3439.3	2831.7	2217.2	1679.9	1291.3	1063.0	932.7	929.3
32.5°	5535.4	5068.4	4214.1	3357.4	2608.0	1836.7	1215.2	832.4	649.1	568.4	563.8
35°	6175.3	5624.2	4362.8	3275.6	2284.0	1367.4	771.3	477.3	370.1	324.0	321.7
37.5°	6791.0	6153.4	4683.3	3113.0	1824.0	859.0	427.7	275.6	226.0	220.2	217.9
40°	7224.5	6609.9	4909.3	2865.1	1295.9	455.4	247.9	199.5	196.0	193.7	192.5
42.5°	7697.2	6948.9	5069.6	2549.2	769.0	264.0	201.8	179.9	174.1	171.8	171.8
45°	8081.1	7275.2	5099.6	2097.2	387.4	217.9	184.5	163.7	156.8	161.4	162.6
47.5°	8435.1	7583.1	4998.1	1577.3	261.7	202.9	172.9	152.2	147.6	159.1	159.1
50°	8737.2	7843.6	4765.2	1177.2	245.6	191.4	161.4	140.7	139.5	149.9	151.0
52.5°	9038.1	8053.5	4398.6	888.9	232.9	178.7	149.9	130.3	126.8	133.7	134.9
55°	9276.8	8128.4	4126.5	661.8	223.7	167.2	139.5	119.9	111.8	110.7	113.0
57.5°	9408.2	8062.7	3860.1	486.6	213.3	156.8	129.1	106.1	93.4	93.4	93.4
60°	9410.5	7983.1	3575.3	385.1	201.8	145.3	117.6	91.1	78.4	76.1	76.1
62.5°	9385.1	7841.3	3161.4	334.4	189.1	136.0	102.6	77.2	68.0	64.6	64.6
65°	9273.3	7573.8	2659.9	285.9	174.1	129.1	87.6	69.2	61.1	56.5	56.5
67.5°	8925.1	7072.3	2047.7	249.0	160.3	114.1	79.6	62.3	54.2	49.6	48.4
70°	8286.4	6261.8	1351.3	212.1	146.4	101.5	72.6	56.5	48.4	43.8	42.7
72.5°	7215.3	5096.1	679.1	179.9	125.7	93.4	65.7	49.6	41.5	36.9	36.9
75°	5654.1	3537.3	370.1	143.0	99.2	81.9	57.6	41.5	35.7	32.3	32.3
77.5°	3467.0	1753.7	252.5	110.7	74.9	66.9	46.1	34.6	31.1	30.0	30.0
80°	1264.8	574.2	169.5	78.4	56.5	51.9	36.9	30.0	28.8	28.8	28.8
82.5°	456.6	291.7	114.1	53.0	35.7	39.2	30.0	25.4	24.2	25.4	26.5
85°	187.9	128.0	41.5	30.0	19.6	20.8	18.4	17.3	18.4	19.6	19.6
87.5°	28.8	25.4	15.0	15.0	11.5	10.4	8.1	9.2	11.5	13.8	13.8
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)